

```
$ npm understand --with-improves█
```

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Senior engineer @ Frontend Architecture



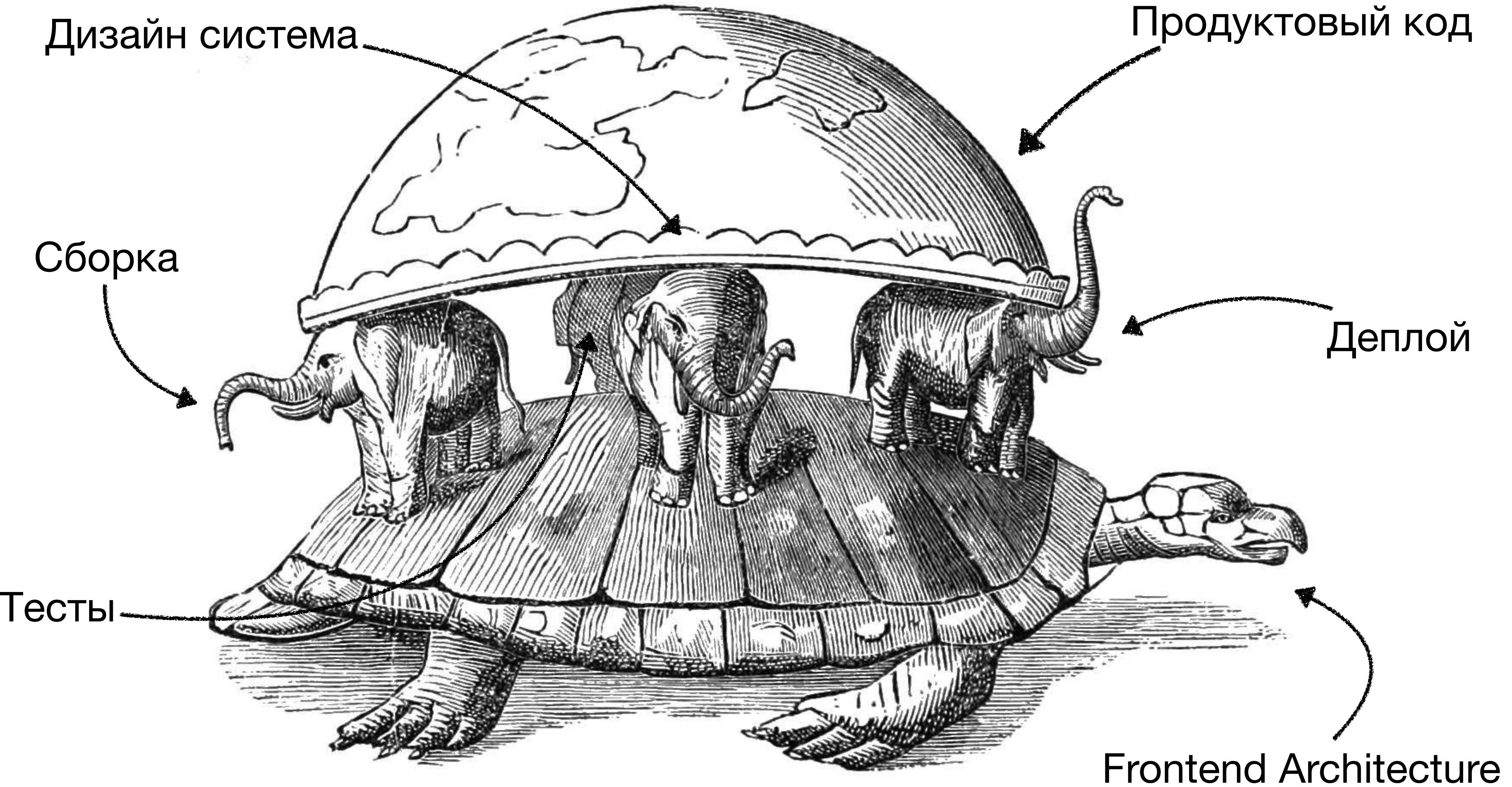
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Frontend Architecture team

- Дизайн платформа
- Архитектура фронтенда
- Инфраструктура
- Инструменты
- Поддержка разработчиков



ДИСКЛЕЙМЕР

Многие вещи, которые я буду рассказывать и показывать могут показаться очевидными для опытных разработчиков. Однако, чтобы увидеть всю картину проблематики и найти способы решения этих проблем стоит немного углубиться в теорию и основы. Этот доклад создан для того, чтобы подсветить проблемы культуры разработки пакетов NPM и вдохновить слушателя на обсуждение этих вопросов

План

Теория

Dependency
management

CommonJS

Javascript

NPM

Проблемы
NPM

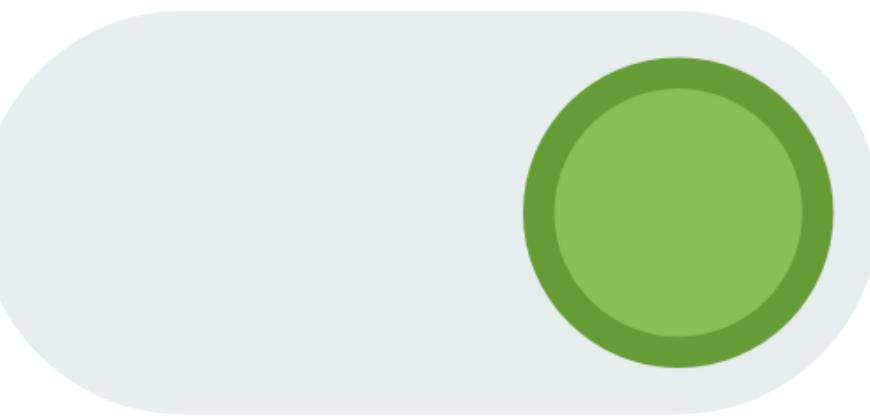
Dependency
hell

Own packages

Опыт Avito

Практика

nerd mode on



Теория

Dependency Management

Dependency Management

Dependency
management

Reusability

Dependency
Manager

DM Basics

DM Problems

Coding

```
console.log(Math.PI * Math.pow(1, 2)); // Circle with 1 radius
console.log(Math.PI * Math.pow(2, 2)); // Circle with 2 radius
console.log(Math.PI * Math.pow(3, 2)); // Circle with 3 radius
```

Coding

```
function circleSquare(radius) {  
    return Math.PI * Math.pow(radius, 2);  
}  
  
console.log(circleSquare(1)); // Circle with 1 radius  
console.log(circleSquare(2)); // Circle with 2 radius  
console.log(circleSquare(3)); // Circle with 3 radius
```

Coding

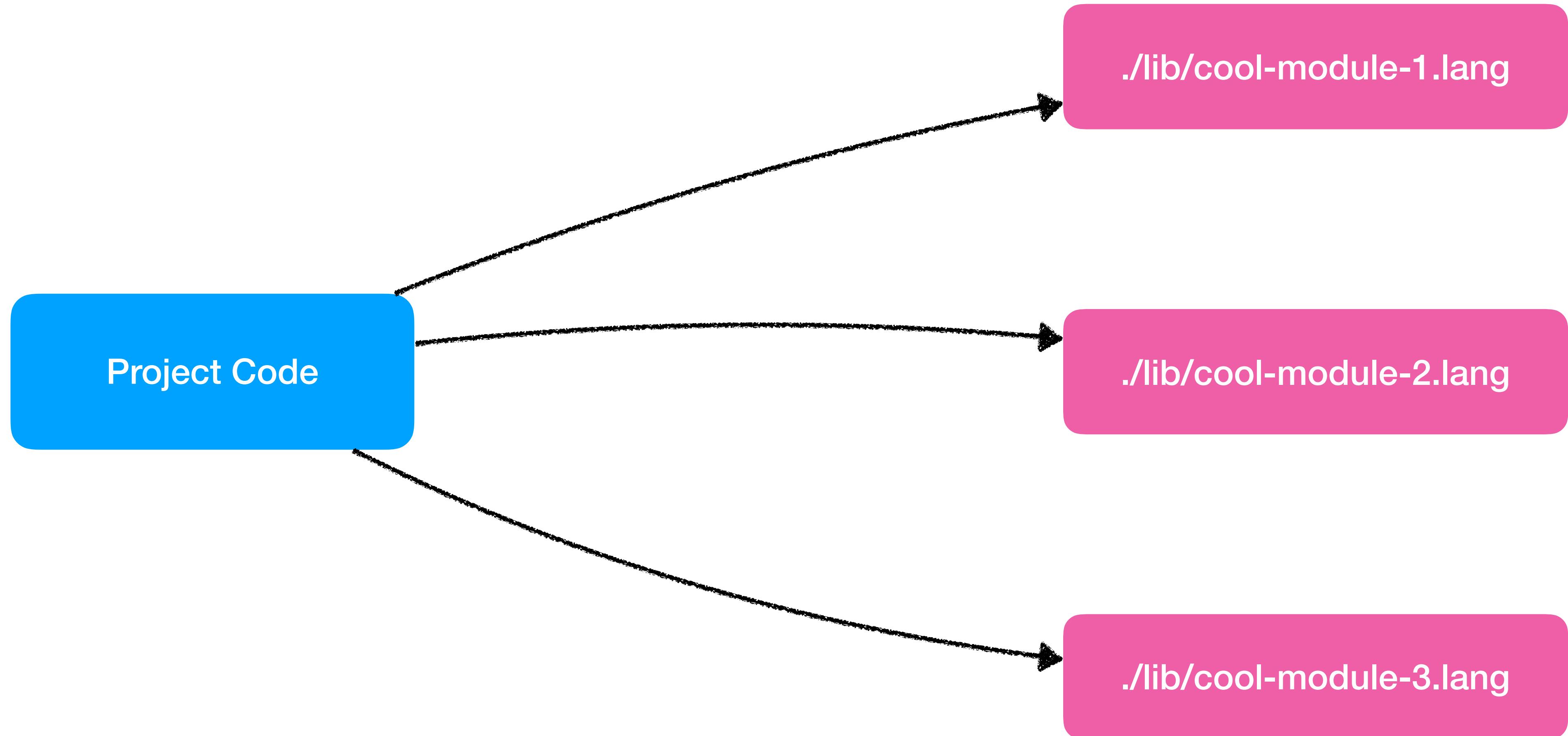
```
const circleSquare = require('circle-square');

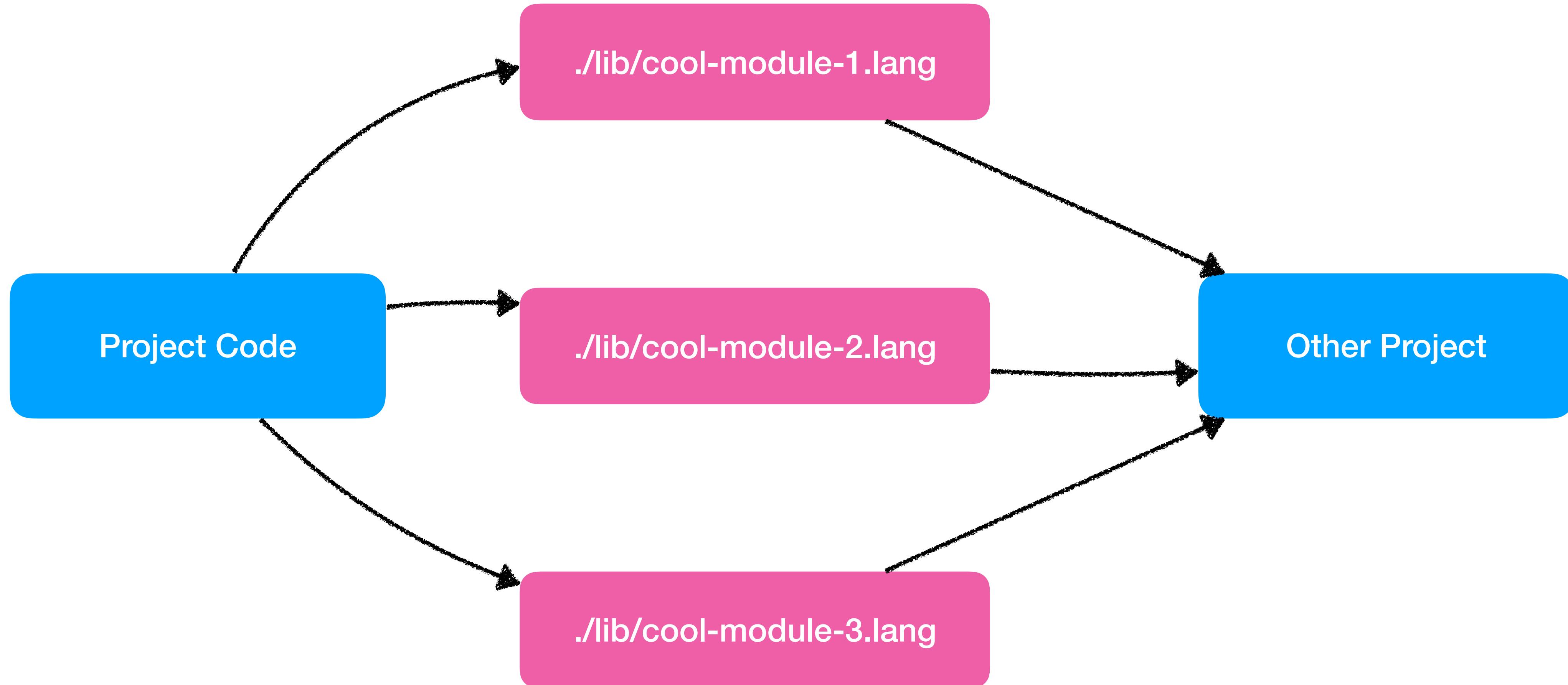
console.log(circleSquare(1)); // Circle with 1 radius
console.log(circleSquare(2)); // Circle with 2 radius
console.log(circleSquare(3)); // Circle with 3 radius
```

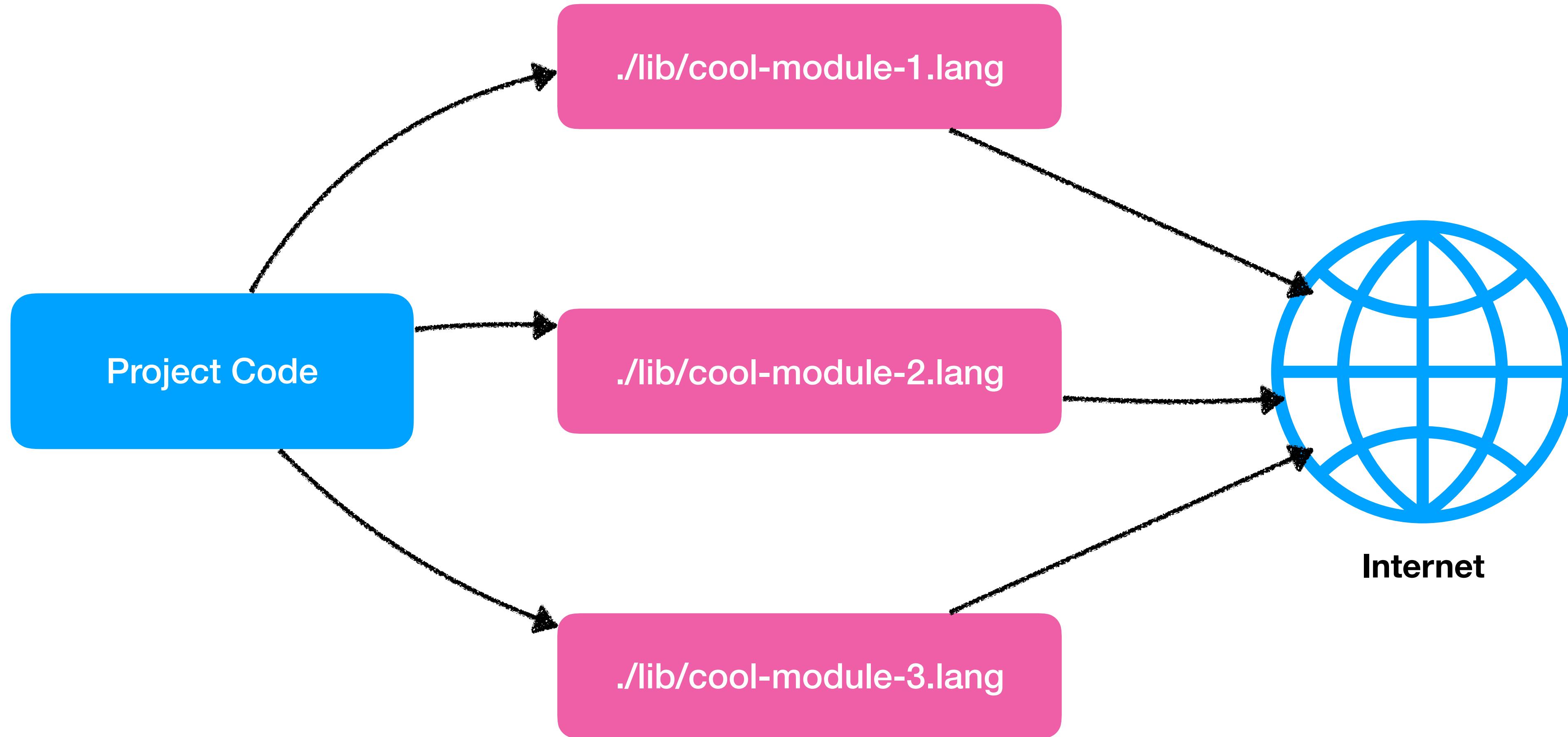
Reusability

index.php

```
<html>
  <head>
    <script>
      $(document).ready(function () {
        // some cool javascript
      });
    </script>
  </head>
  <body>
    <?
      echo "YAY! This is cool homebrew PHP framework!";
    ?>
  </body>
</html>
```



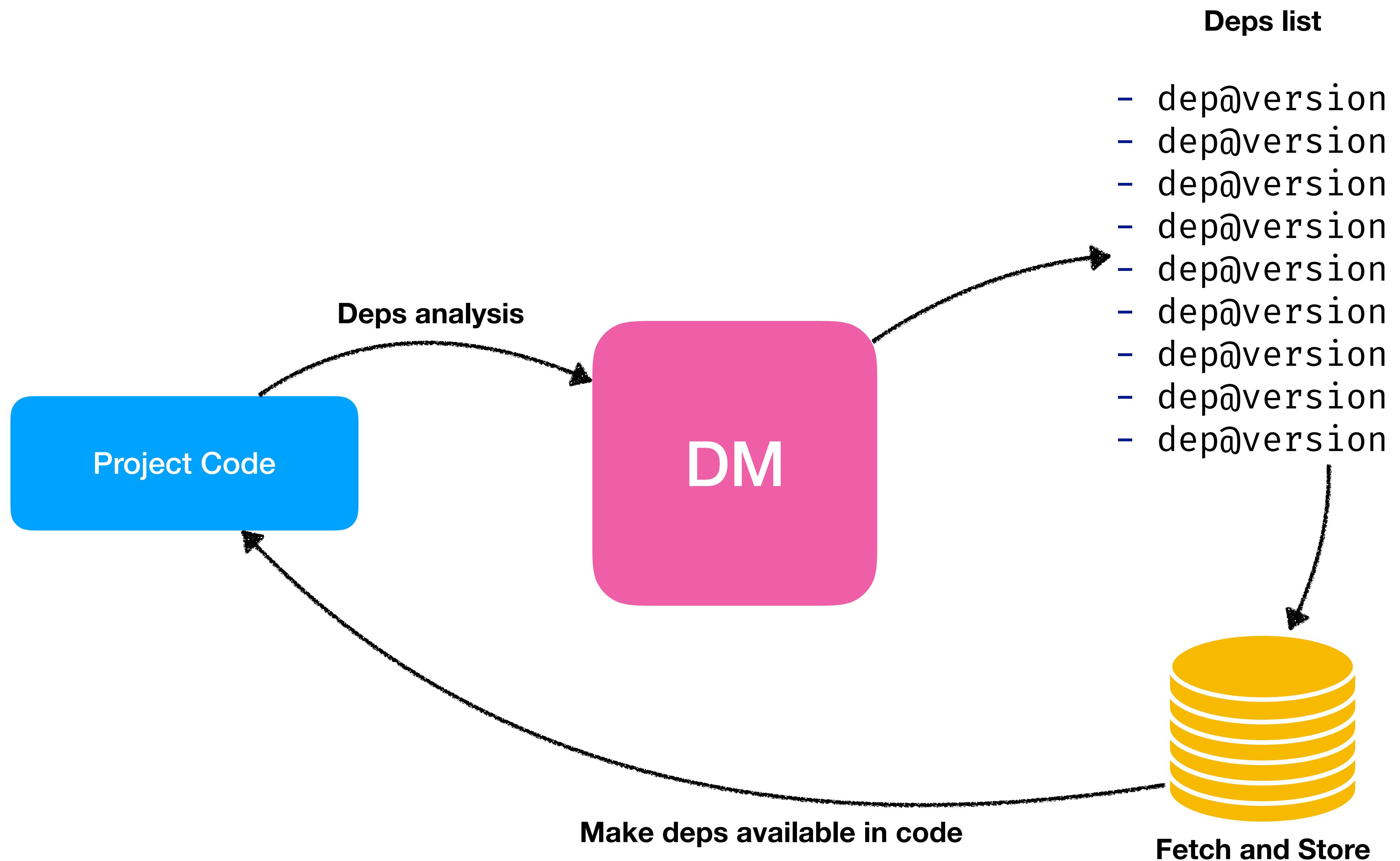




Dependency/Package Manager

Dependency Manager

- Сбор требований зависимостей
- Получение зависимостей
- Доступность зависимостей из кода



Reusability

Reusability

- Команда разработчиков
- Различные OS
- Окружения разработки, тестирования, продакшна
- CI/CD

Determinism

$\text{DM} \equiv f(\text{requirements}) \rightarrow \text{deps}$

Dependency Management

Basics

DM Basics

- Анализ требований кода
- Построение списка зависимостей
- Доставка зависимостей
- Обеспечение повторяемости списка зависимостей

Анализ требований кода

Анализ требований кода

- Статический анализ кода
- Манифест

Manifest

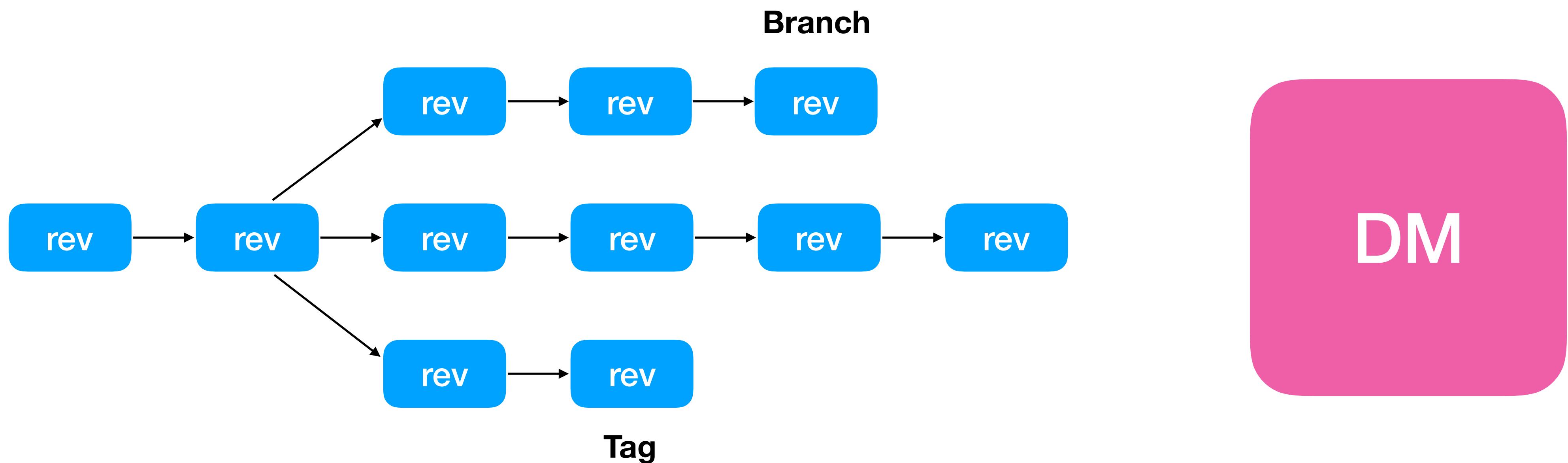
codeNeeds:

- dep1
- dep2
- dep3

Dependency

- Git (revision, branch, tag)
- Version (SemVer)

Git





Determinism

No update process

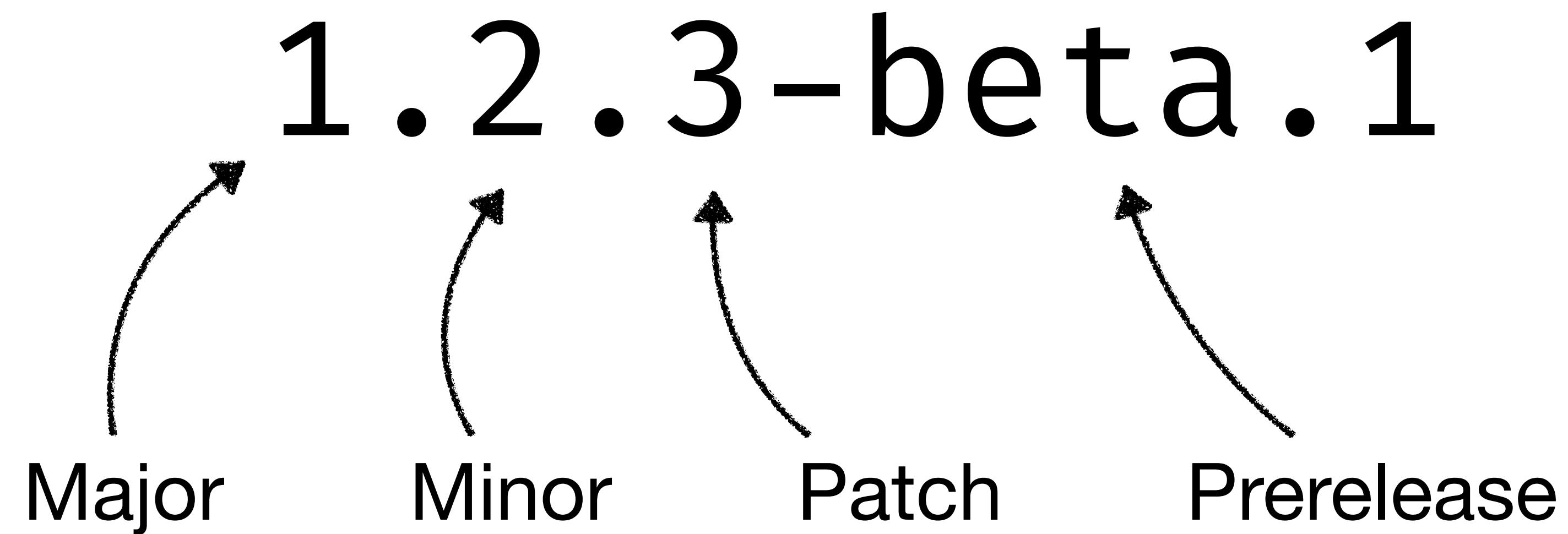
Versioning

- Версия должна быть зафиксирована
- Необходим инструмент для версионирования (DM?)
- Отдельное хранилище для пакетов с кодом

Dependency

- Git (revision, branch, tag)
- Version (SemVer)

SemVer

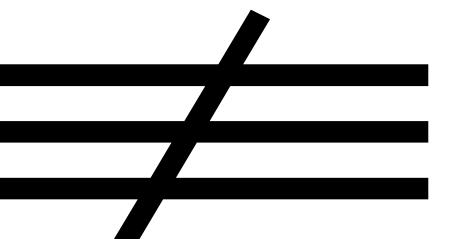


SemVer

- Major – обратно несовместимые изменения
- Minor – новая функциональность без обратно несовместимых изменений
- Patch – багфиксы
- Prerelease – нестабильная версия, не прошедшая QC

SemVer ranges

- `1.2.3` – точная версия
- `~1.2.3` – изменения уровня патча $[1.2.3, 1.3.0)$
- `^1.2.3` – изменения уровня минора $[1.2.3, 2.0.0)$
- `>1.0.0` – весь диапазон версий не включая $(1.0.0, \text{latest}]$
- `$\geq 1.0.0$` – весь диапазон версий включая $[1.0.0, \text{latest})$
- `1.0.0 - 2.1.0` – диапазон включая указанные $[1.0.0, 2.1.0]$

SemVer 



Software complexity grow

```
function sum(a, b) {  
    return a + b;  
}
```

SemVer API problem

- Модуль экспортирует одну функцию ($\text{Int} \rightarrow \text{Int} \rightarrow \text{Int}$) 1.0.0
- Исправлен баг функции, сигнатура не изменилась 1.0.1
- Добавилась новая функция ($\text{String} \rightarrow \text{String} \rightarrow \text{String}$) 1.1.0
- Изменилась сигнатура одной из функций 2.0.0

SemVer

- Версионированием занимается владелец кода
- Новые версии могут содержать новые ошибки
- Исправления ошибок могут содержаться в мажорных релизах

SemVer

- Версионированием занимается владелец кода
- Новые версии могут содержать новые ошибки
- Исправления ошибок могут содержаться в мажорных релизах
- **Отдельное хранилище для пакетов с кодом**

SemVer

Industrial Standard





Elm-package

Enforced Semantic Versioning

```
$ elm diff Microsoft/elm-json-tree-view 1.0.0 2.0.0
This is a MAJOR change.
```

----- JsonTree - MAJOR -----

Changed:

- `parseString : String -> Result String Node`
- + `parseString : String -> Result Error Node`

- `parseValue : Value -> Result String Node`
- + `parseValue : Value -> Result Error Node`

Comparing exdis/elm-sample-package 1.0.0 to local changes ...
This is a MAJOR change.

----- Changes to module Sample - MAJOR -----

Changed:

- foo : Int → Int → Int
- + foo : Int → Int → Int → Int

DM Basics

- Анализ требований кода
- Построение списка зависимостей
- Доставка зависимостей
- Обеспечение повторяемости списка зависимостей

Построение списка зависимостей

Построение списка зависимостей

- Построение направленного простого графа зависимостей
- Нахождение версий, которые удовлетворяют требованиям
- Нахождение общих версий и дедупликация зависимостей
- Сериализация графа в список зависимостей

Requirements Analysis

package: MyCoolPackage

codeNeeds:

- depA@^1.0.0
- depB@^2.0.0

Requirements Analysis

package: MyCoolPackage

codeNeeds:

- depA@[^]1.0.0
- depB@[^]2.0.0

package: depA

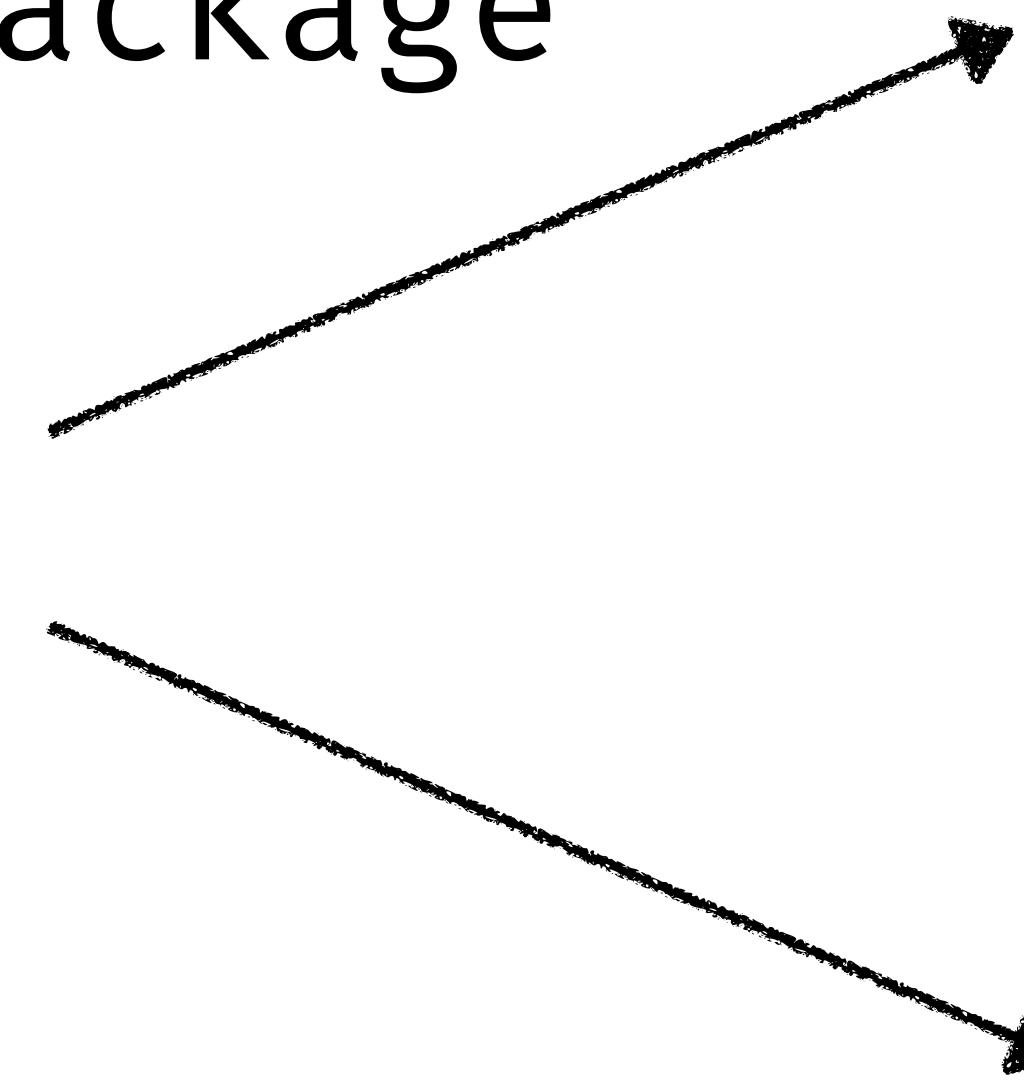
codeNeeds:

- depC@[^]1.0.0

package: depB

codeNeeds:

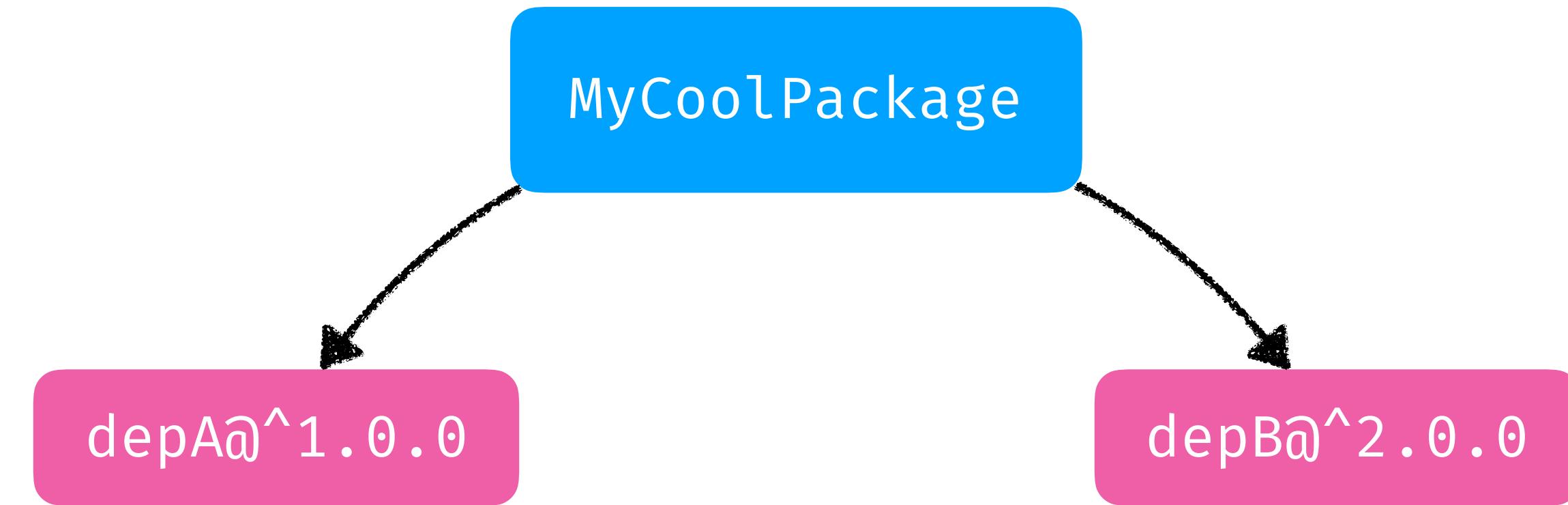
- depC@[^]1.1.0



Транзитивность



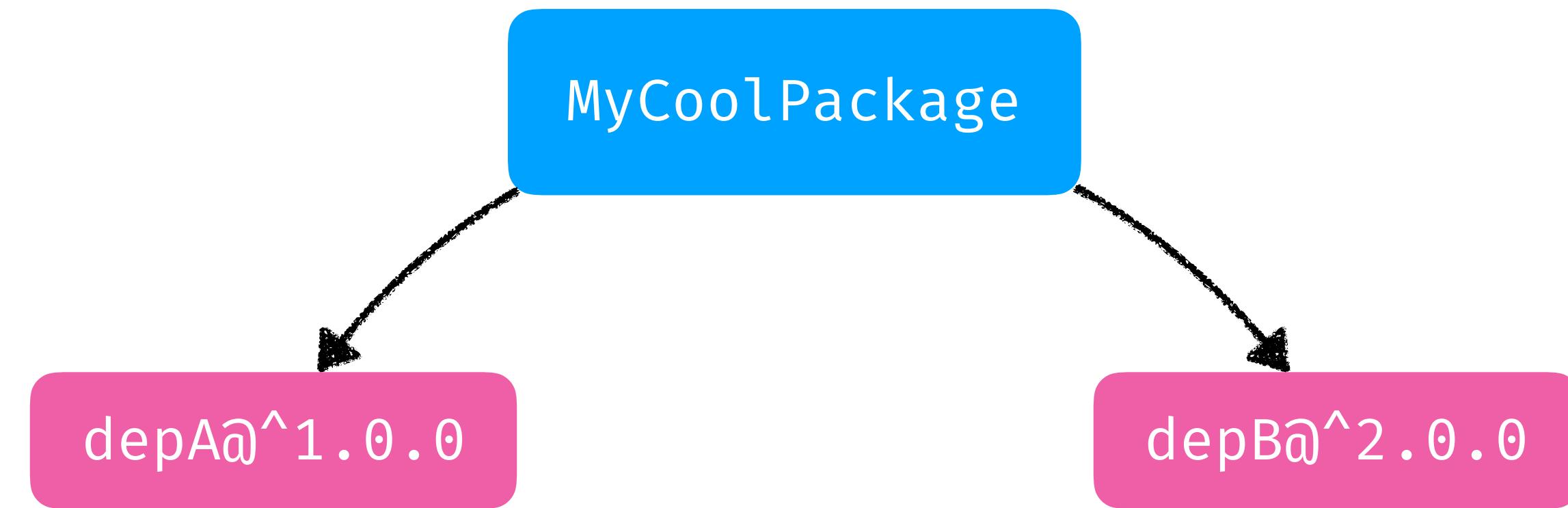
Deps Graph



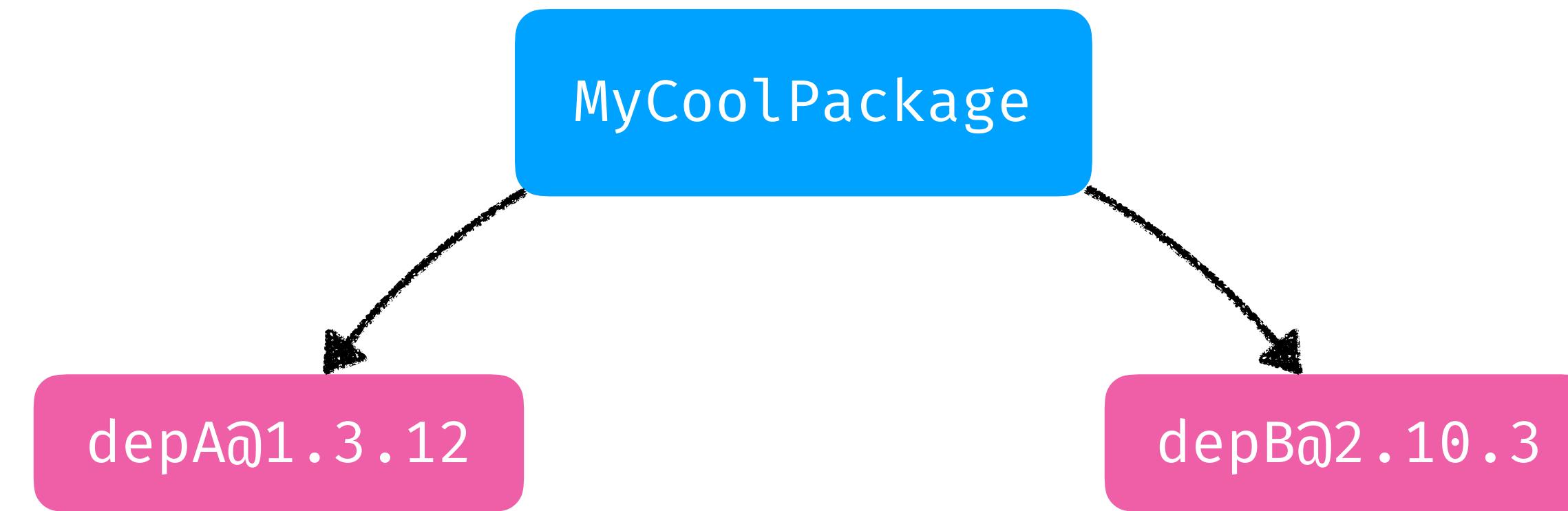
Resolving versions

- depA@^1.0.0 → 1.3.12
- depB@^2.0.0 → 2.10.3

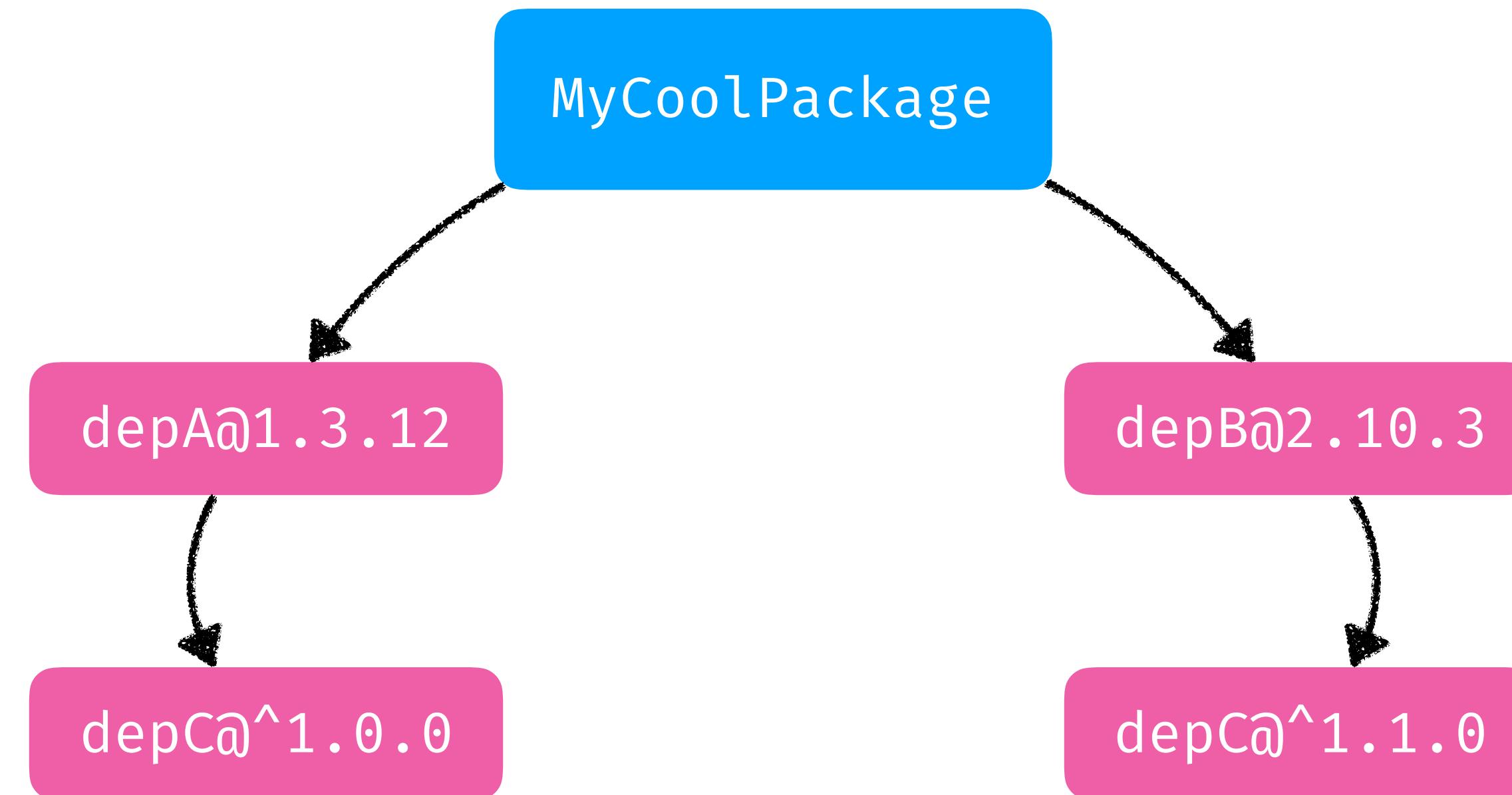
Deps Graph



Deps Graph

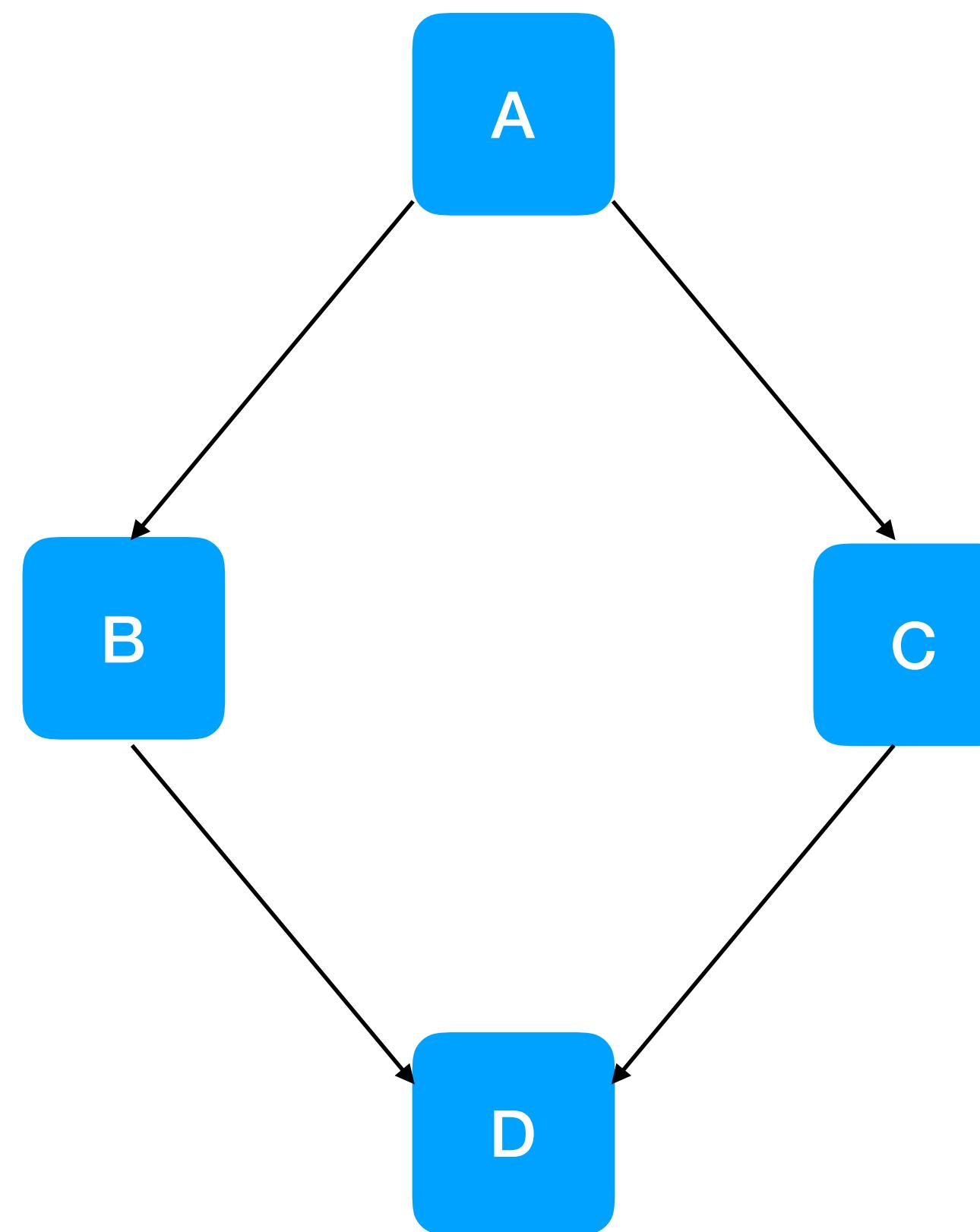


Deps Graph

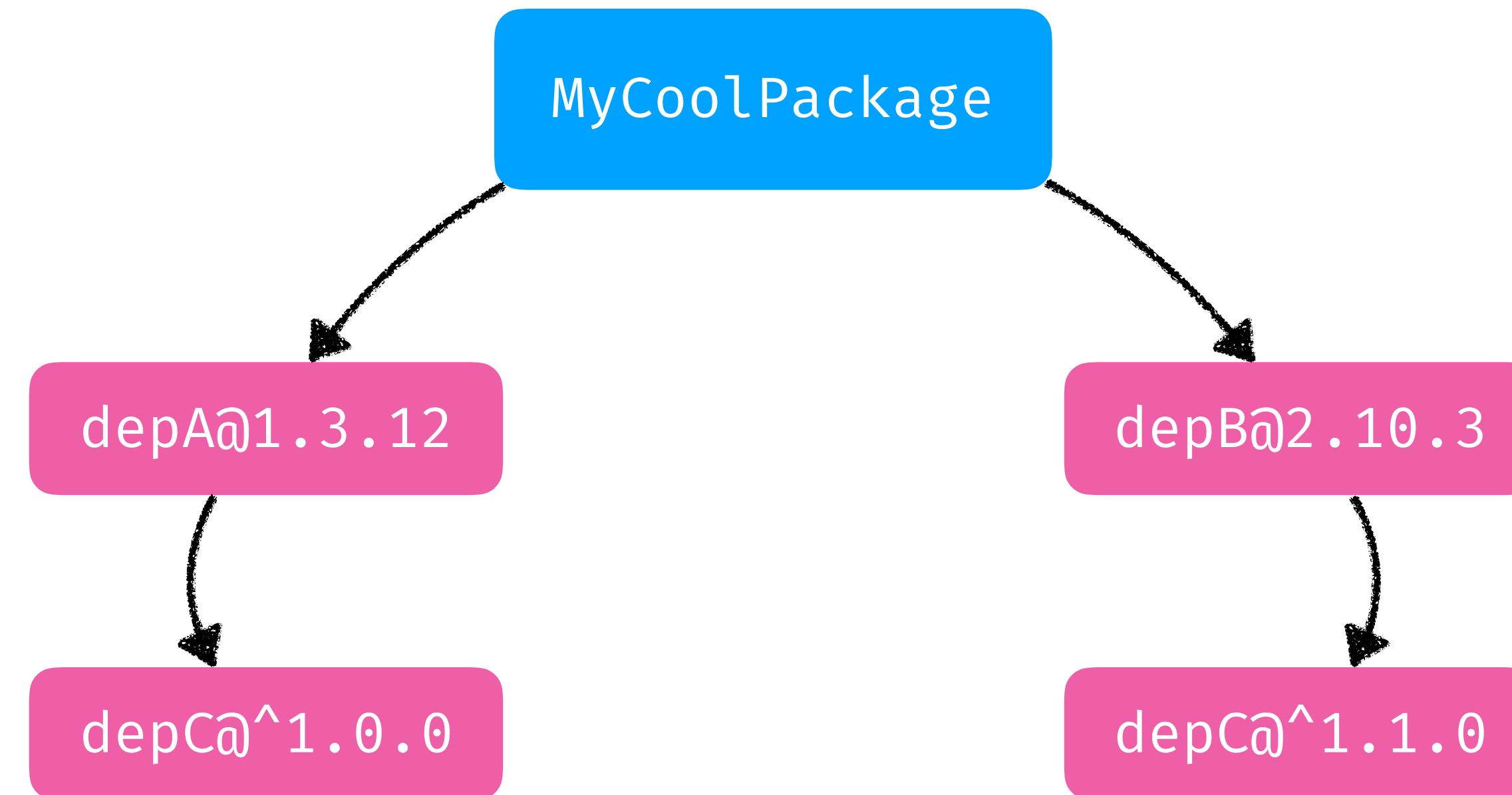


Diamond Dependency Problem

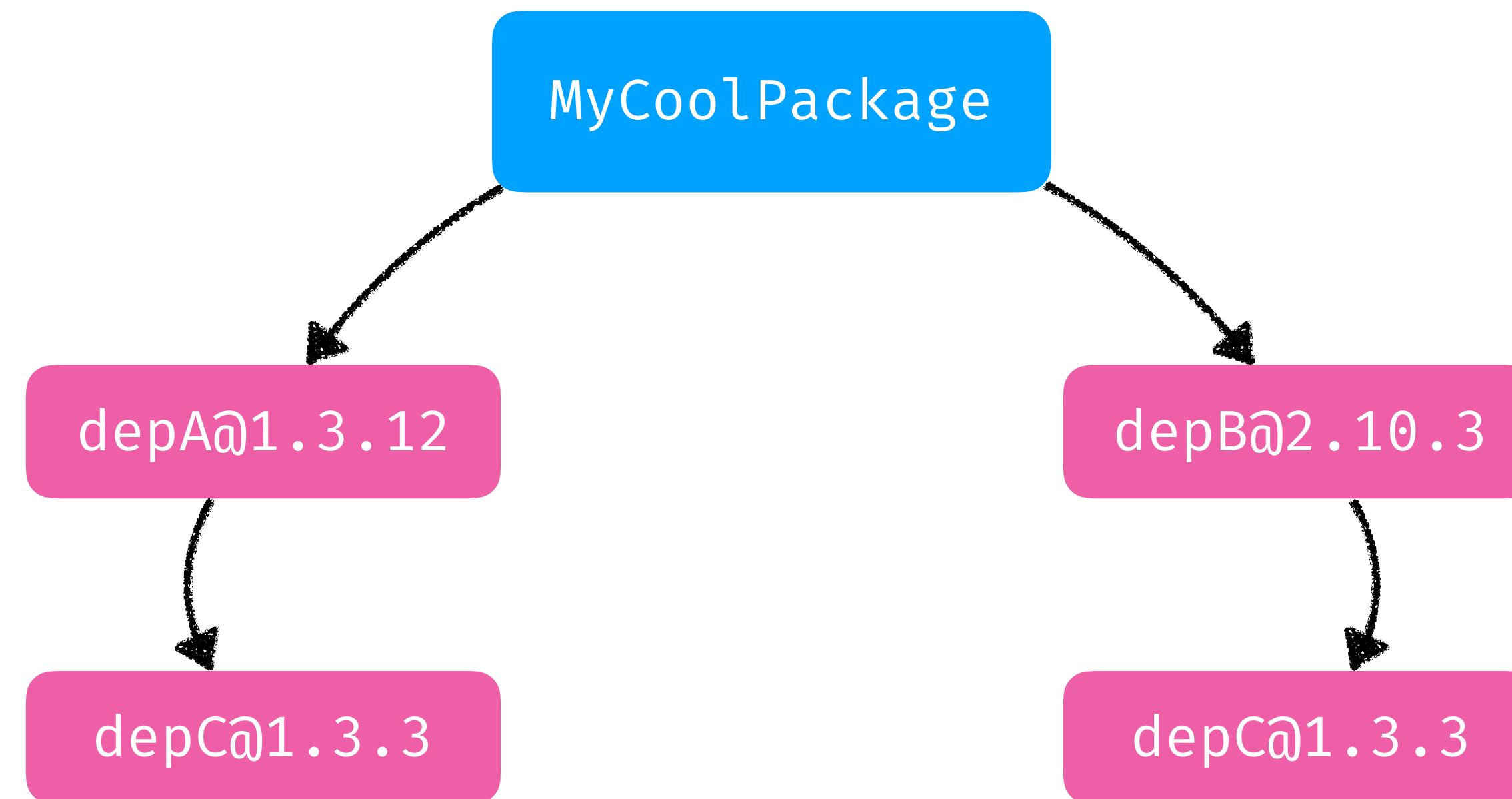
Diamond Dependency Problem



Deps Graph



Deps Graph



Graph Serialization

- depA@1.3.12
- depB@2.10.3
- depC@1.3.3

Version conflict

- depA@1.3.12 → depC@^1.0.0
- depB@2.10.3 → depC@^2.0.0

?

Version conflict

- Позволить пользователю разрешить конфликт самостоятельно
- Дублировать зависимости

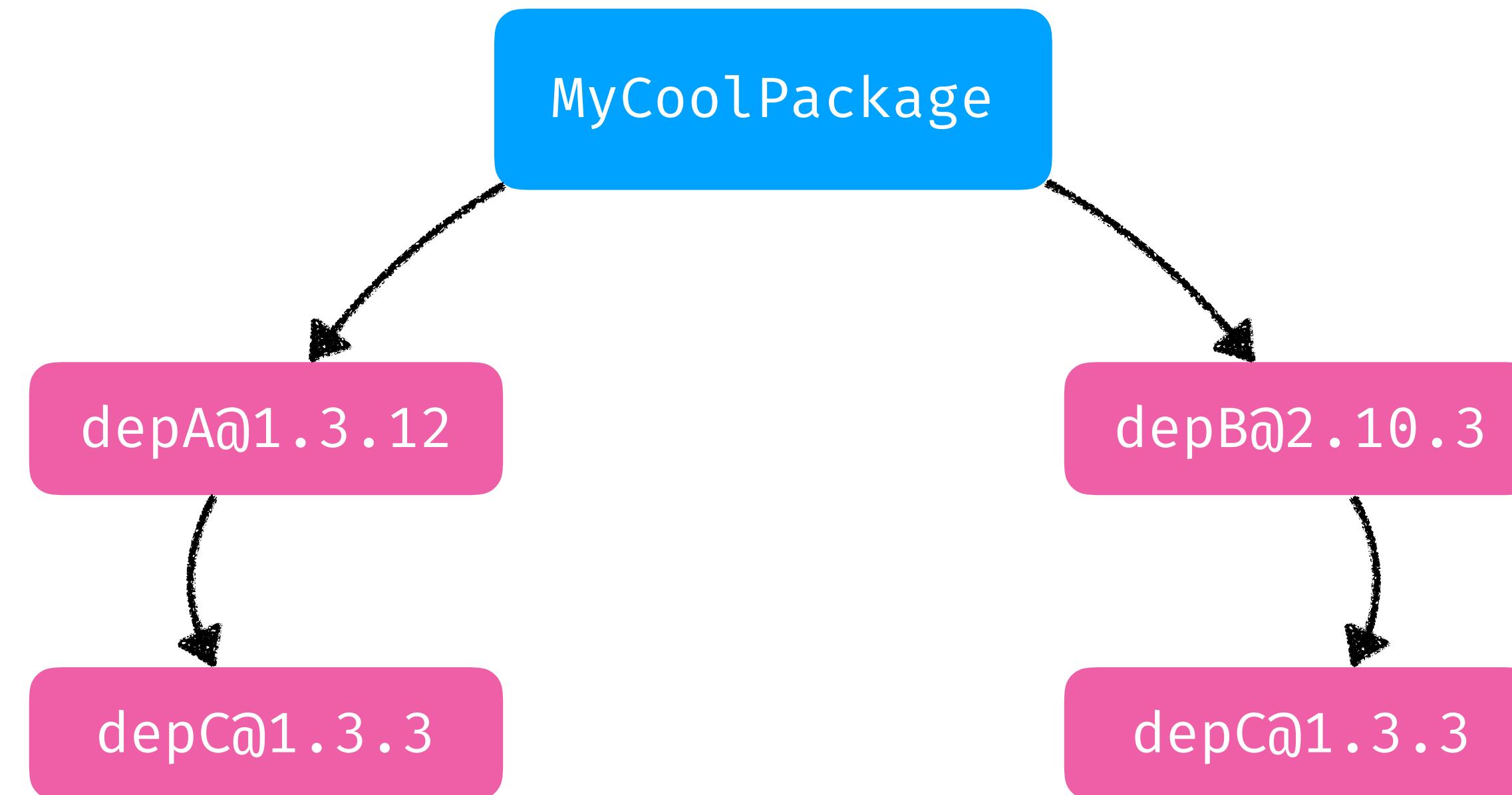
Version conflict

- Elm – ручное разрешение конфликтов
- NPM (JavaScript) – дублирование зависимостей

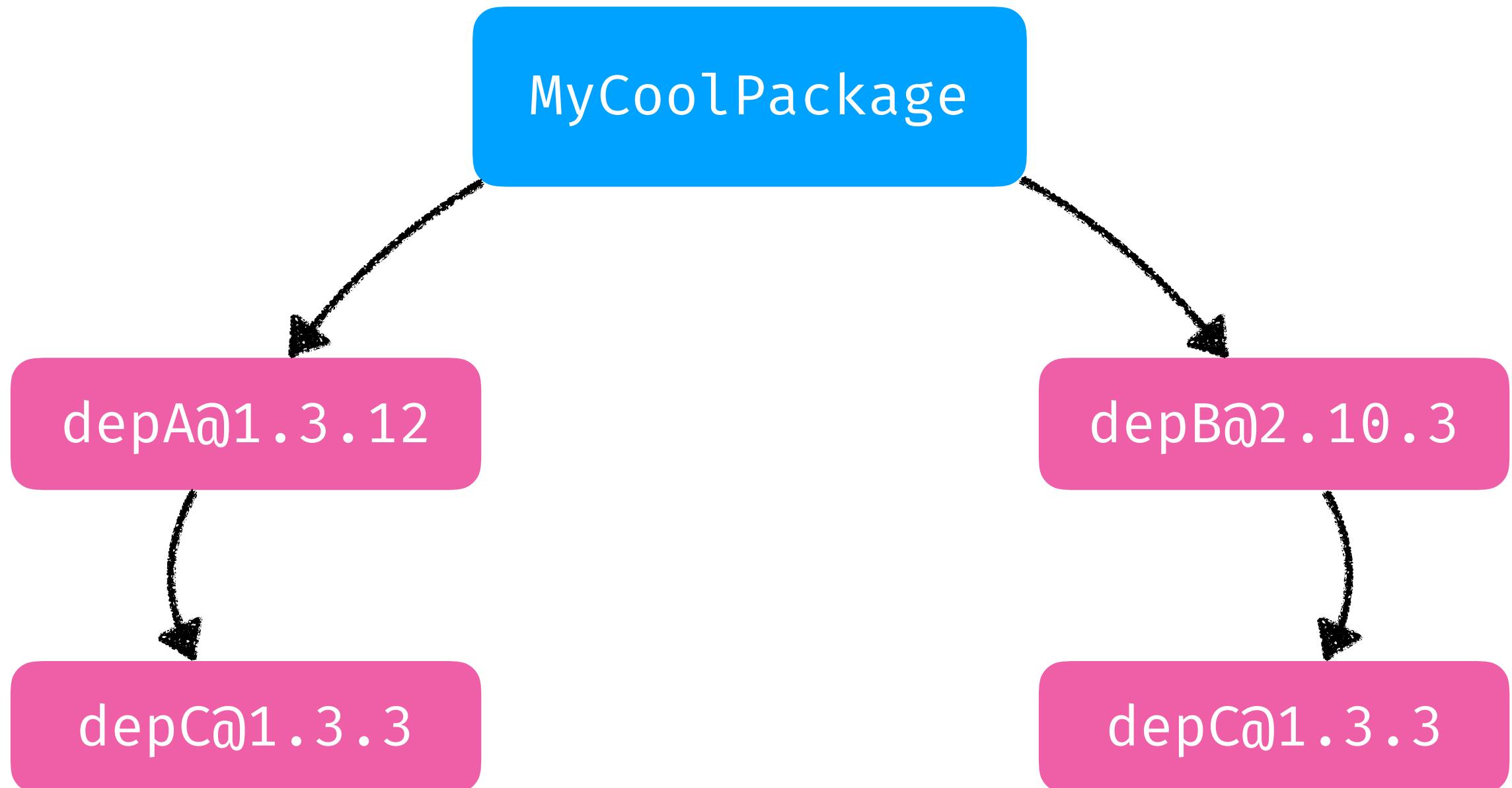
Dependency resolving

- Построение направленного простого графа зависимостей
- Нахождение версий, которые удовлетворяют требованиям
- Нахождение общих версий и дедупликация зависимостей
- Сериализация графа в список зависимостей *

Deps Graph



Deps Graph

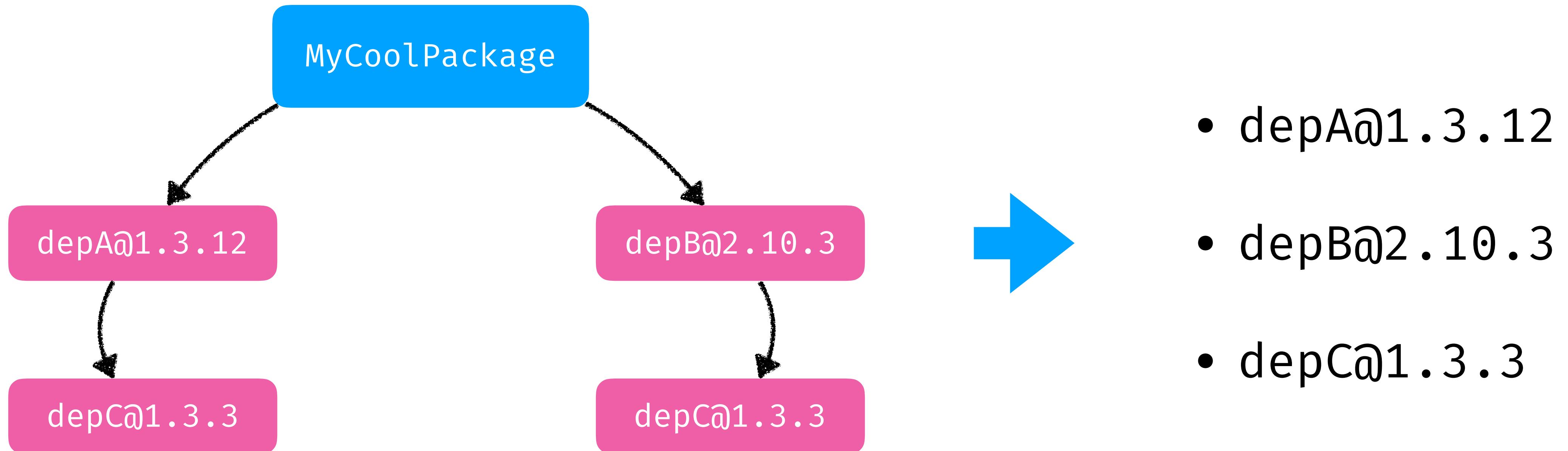


- depA@1.3.12
- depB@2.10.3
- depC@1.3.3

DM Basics

- Анализ требований кода
- Построение списка зависимостей
- Доставка зависимостей
- Обеспечение повторяемости списка зависимостей

Обеспечение повторяемости



Обеспечение повторяемости

Сегодня

- depA@1.3.12
- depB@2.10.3
- depC@1.3.3

Завтра

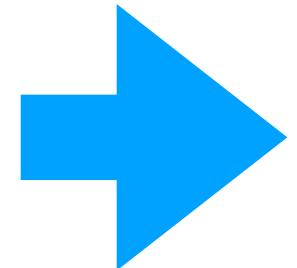
- depA@???
- depB@???
- depC@???

Потом

- dep???
- dep???
- dep???

Обеспечение повторяемости

- depA@1.3.12
- depB@2.10.3
- depC@1.3.3



Обеспечение повторяемости

Serialized deps list → LOCKFILE

Lock-files

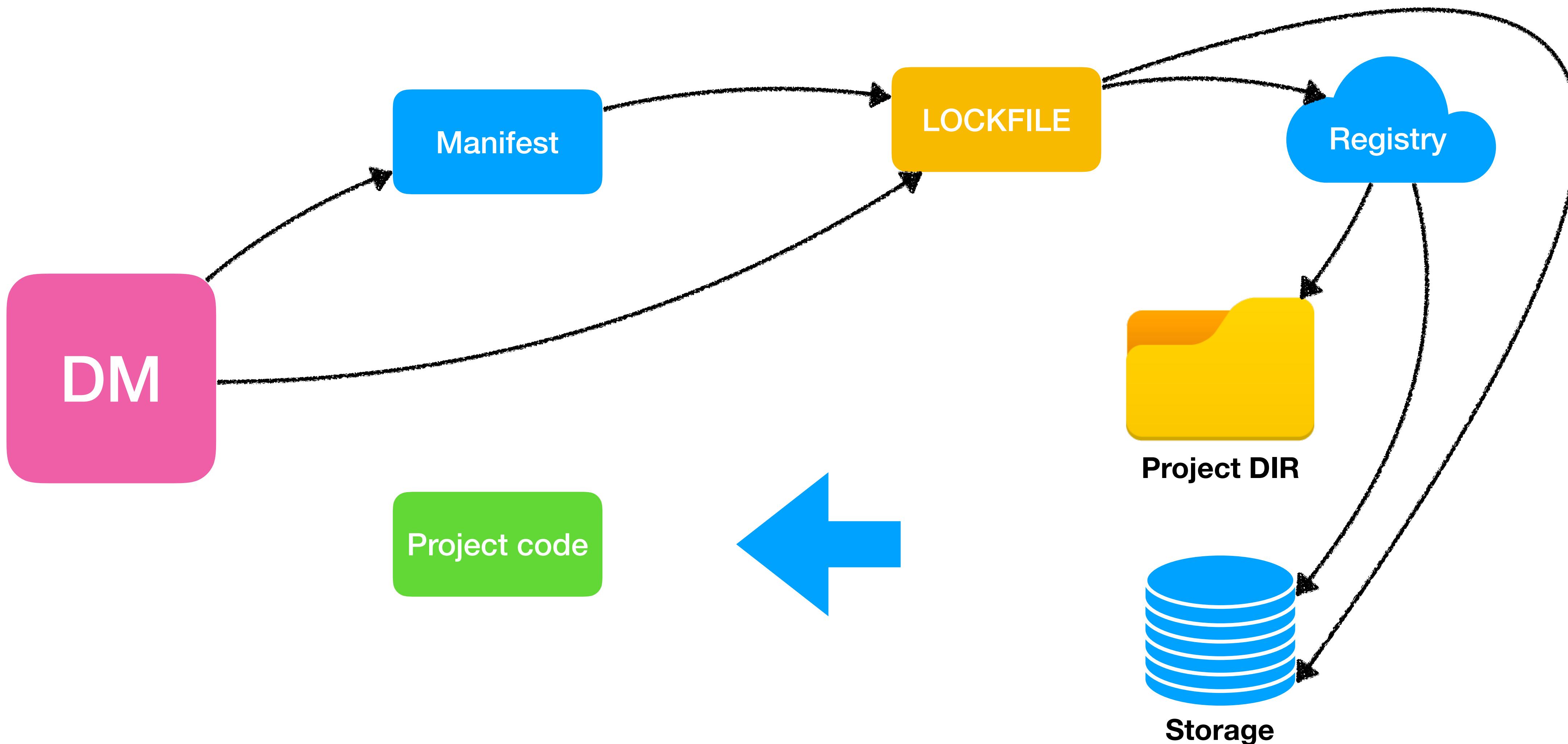
- Версии зависимостей зафиксированы → повторяемость результата
- Не требуется каждый раз расчитывать граф зависимостей при повторной установке

DM Basics

- Анализ требований кода
- Построение списка зависимостей
- Доставка зависимостей
- Обеспечение повторяемости списка зависимостей

Доставка зависимостей

Fetch and store



Fetch and store

- Хранилище зависимостей (специализированное, VCS, комбинации)
- Чтение списка (из Lock-файла) зависимостей
- Получение по сети или из кеша
- Сохранение (локально в проект или централизовано в кеш)
- Перелинковка зависимостей в проект (если необходимо)

DM Basics

- Анализ требований кода
- Построение списка зависимостей
- Доставка зависимостей
- Обеспечение повторяемости списка зависимостей

JavaScript

JavaScript

JavaScript

JS Module
systems

ES Modules

CommonJS

JavaScript package managers

- NPM
- Bower
- Component
- jspm

JavaScript specifics

- Нет модульной системы (до ES2015)
- Слабая типизация

JavaScript modules

```
(function() {
    // Map over jQuery in case of overwrite
    if ( window.jQuery )
        var _jQuery = window.jQuery;

    var jQuery = window.jQuery = function( selector, context ) {
        // The jQuery object is actually just the init constructor 'enhanced'
        return new jQuery.prototype.init( selector, context );
    };

    // Map over the $ in case of overwrite
    if ( window.$ )
        var _$ = window.$;

    // Map the jQuery namespace to the '$' one
    window.$ = jQuery;

    ...
})());
```

JavaScript modules

```
<html>
```

```
...
```

```
<script src="script1.js"></script>
<script src="script2.js"></script>
<script src="script3.js"></script>
<script src="script4.js"></script>
```

```
</html>
```

JavaScript Module Pattern

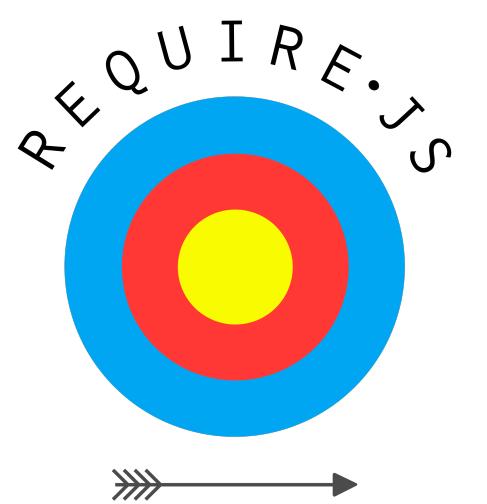
```
var Module = function() {
    var _private = "I'am private";

    var getPrivate = function () {
        return _private;
    }

    var setPrivate = function (private) {
        _private = private;
    }

    return {
        getPrivate: getPrivate,
        setPrivate: setPrivate
    }
};
```

AMD



```
define(['jquery', 'lodash'], function ($, _) {  
    ...  
});
```

UMD

```
(function (global, factory) {
  if (typeof define === 'function' & define.amd) {
    define(['jquery', 'lodash'], factory);
  } else if (typeof exports === 'object') {
    module.exports = factory(require('jquery'), require('lodash'));
  } else {
    global.returnExports = factory(global.jQuery, global._);
  }
})(this, function ($, _) {
  ...
}));
```

ES Modules

```
import foo from 'foo';

const bar = function(quux) {
    return foo(quux);
}

export default bar;
```

ES Modules

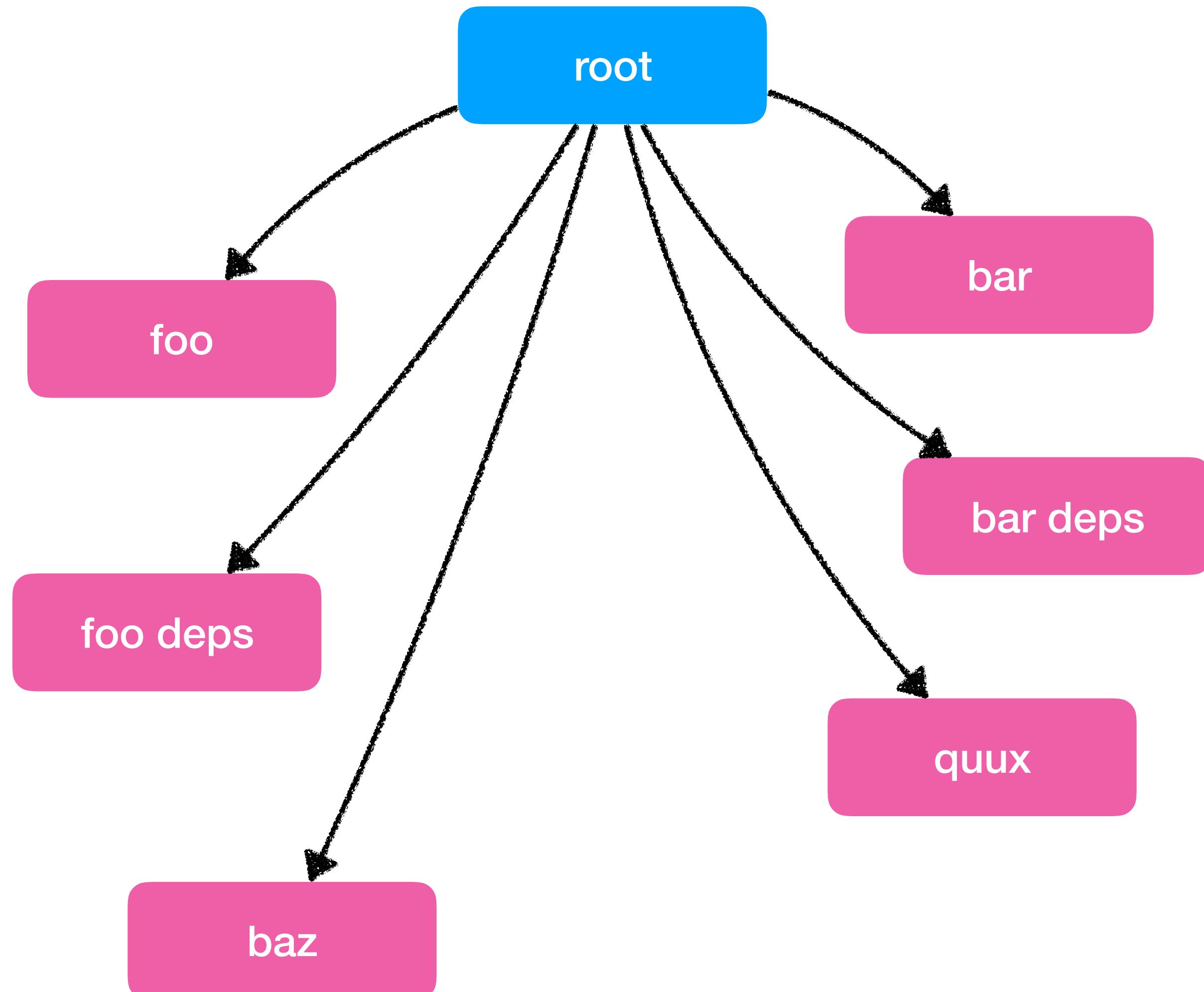
```
import foo from 'foo';
import bar from 'bar';
import baz from 'baz';
import quux from 'quux';
```

```
// ... some code ...
```

ES Modules

```
import foo from 'foo';
import bar from 'bar';
import baz from 'baz';
import quux from 'quux';
```

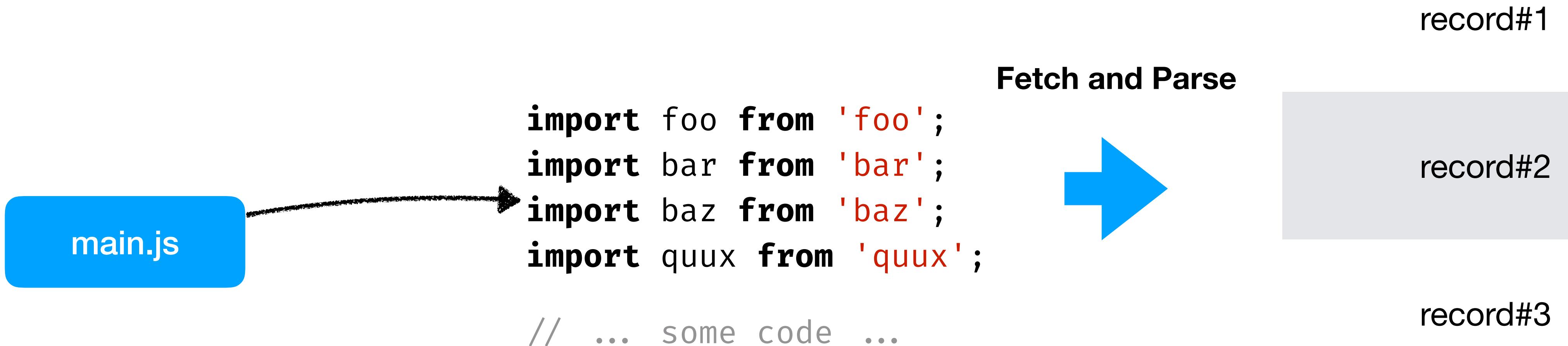
// ... some code ...



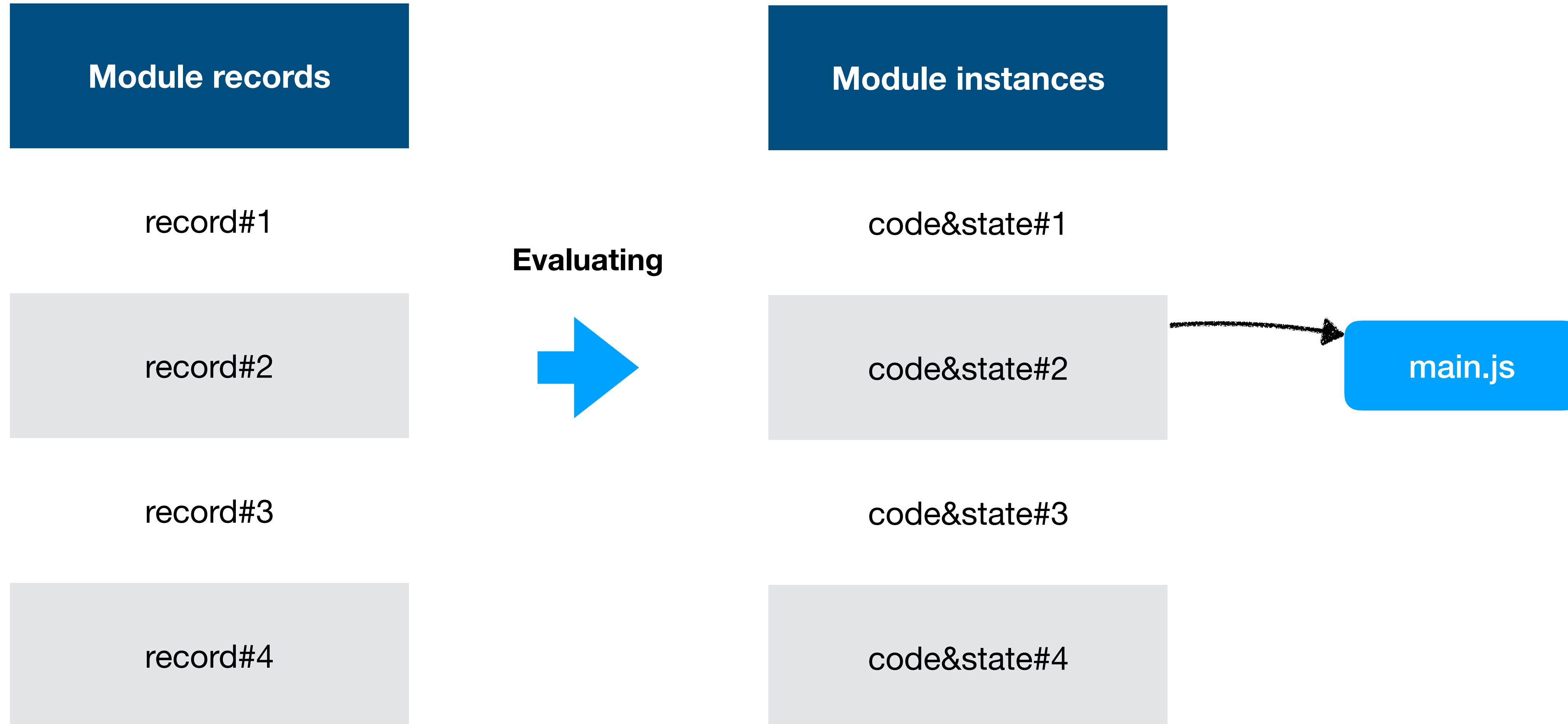
ES Modules

- Construction
- Instantiation
- Evaluation

ES Modules



ES Modules



```
// esm.mjs
```

```
global.foo = 'Hey! I\am global foo';
```

```
export default {};
```

```
// esm-test.mjs
```

```
console.log(foo);
```

```
import fooModule from './esm';
```

A screenshot of a terminal window titled "1. ~/d/npm-talk (fish)". The command entered is "node --experimental-modules esm-test.mjs". The output shows an ExperimentalWarning: "The ESM module loader is experimental." followed by the message "Hey! I'am global foo". The terminal window has a dark background with light-colored text. The prompt "I ➔" appears twice, once before the command and once after the output. The date and time "184ms < Wed Jun 12 14:21:14 2019" are displayed at the bottom right.

```
I ➔ ~d/npm-talk ➔ node --experimental-modules esm-test.mjs
(node:43337) ExperimentalWarning: The ESM module loader is experimental.
Hey! I'am global foo
I ➔ ~d/npm-talk ➔
```

```
// cjs.js
```

```
global.foo = 'Hey! I\'am global foo';
```

```
module.exports = {};
```

```
// cjs-test.js
```

```
console.log(foo);
```

```
const fooModule = require('./cjs');
```

```
1. ~ /d/npm-talk (fish)
I ➤ ~/d/npm-talk ➤ node cjs-test.js
/Users/dekolesnikov/dev/npm-talk/cjs-test.js:3
console.log(foo);
^

ReferenceError: foo is not defined
  at Object.<anonymous> (/Users/dekolesnikov/dev/npm-talk/cjs-test.js:3:13)
  at Module._compile (internal/modules/cjs/loader.js:689:30)
  at Object.Module._extensions..js (internal/modules/cjs/loader.js:700:10)
  at Module.load (internal/modules/cjs/loader.js:599:32)
  at tryModuleLoad (internal/modules/cjs/loader.js:538:12)
  at Function.Module._load (internal/modules/cjs/loader.js:530:3)
  at Function.Module.runMain (internal/modules/cjs/loader.js:742:12)
  at startup (internal/bootstrap/node.js:283:19)
  at bootstrapNodeJSCore (internal/bootstrap/node.js:743:3)
!
I ➤ ~/d/npm-talk ➤
Wed Jun 12 14:22:00 2019
Wed Jun 12 14:22:03 2019
```

```
const someCalculatedValue = 'foo' + 'bar';  
  
import foobar from `./${someCalculatedValue}`;
```

```
const someCalculatedValue = 'foo' + 'bar';  
import foobar from `./${someCalculatedValue}`;
```

```
const someCalculatedValue = 'foo' + 'bar';  
  
const foobar = require(`./${someCalculatedValue}`);
```



CommonJS Specs

- Modules/1.0 (Superseded by Modules/1.1)
- Modules/1.1
- Modules/1.1.1
- Packages/1.0
- Promises/B
- Promises/C

CommonJS

```
const foo = require('foo');
const bar = require('bar');
const baz = require('baz');
const quux = require('quux');
```

CommonJS

```
const foo = require('foo');
const bar = require('bar');
const baz = require('baz');
const quux = require('quux');
```



Module function wrapper

```
(function (exports, require, module, __filename, __dirname) {  
  function add(a, b) {  
    return a + b;  
  }  
  
  module.exports = add;  
});
```

Module caching

```
const foo = require('./cjs');
const bar = require('./cjs');

console.log(foo === bar);
```

Module caching

```
const foo = require('./cjs');
const bar = require('./cjs');
const baz = require('./CJS');

console.log(foo === baz);
```

Cycle deps

```
// a.js
console.log('a starting');
exports.done = false;
const b = require('./b.js');
console.log('in a, b.done = %j', b.done);
exports.done = true;
console.log('a done');
```

Cycle deps

```
// b.js
console.log('b starting');
exports.done = false;
const a = require('./a.js');
console.log('in b, a.done = %j', a.done);
exports.done = true;
console.log('b done');
```

Cycle deps

```
// main.js

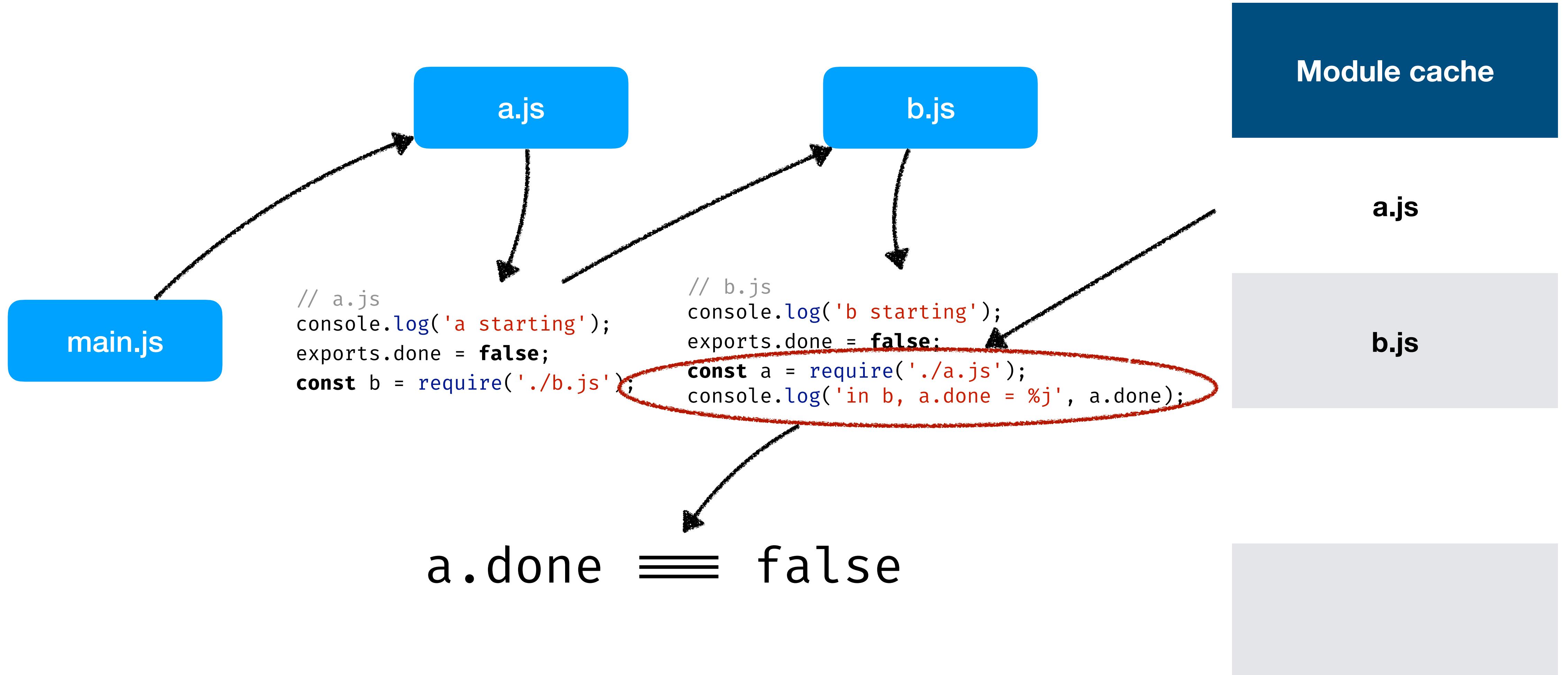
console.log('main starting');
const a = require('./a.js');
const b = require('./b.js');
console.log('in main, a.done = %j, b.done = %j', a.done, b.done);
```

```
2. ~/d/npm-talk (fish)          Thu May 2 15:22:45 2019
I ➤ ~/d/npm-talk ➤ node main.js
main starting
a starting
b starting
in b, a.done = false
b done
in a, b.done = true
a done
in main, a.done = true, b.done = true
I ➤ ~/d/npm-talk ➤ █
```

177ms < Thu May 2 15:22:47 2019

```
2. ~/d/npm-talk (fish)          Thu May 2 15:22:45 2019
I ➤ ~/d/npm-talk ➤ node main.js
main starting
a starting
b starting
in b, a.done = false
b done
in a, b.done = true
a done
in main, a.done = true, b.done = true
I ➤ ~/d/npm-talk ➤ █ 177ms < Thu May 2 15:22:47 2019
```

Cycle deps



Require resolving order

```
const module = require('some-module');
```

- /Users/dekolesnikov/dev/npm-talk/node_modules/some-module
- /Users/dekolesnikov/dev/node_modules/some-module
- /Users/dekolesnikov/node_modules/some-module
- /Users/node_modules/some-module
- /node_modules/some-module



NPM

NPM

NPM History

Package

Dependencies

Version
conflicts

Dependencies
duplication

NPM
determinism

NPM

- Client app (npm-cli)
- Server package storage
- Powered by CommonJS
- package.json

Package

- 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 with (c)
- e) a <name>@<tag> that points to (d)
- f) a <name> that has a latest tag satisfying (e)
- g) a git url that, when cloned, results in (a).

package.json

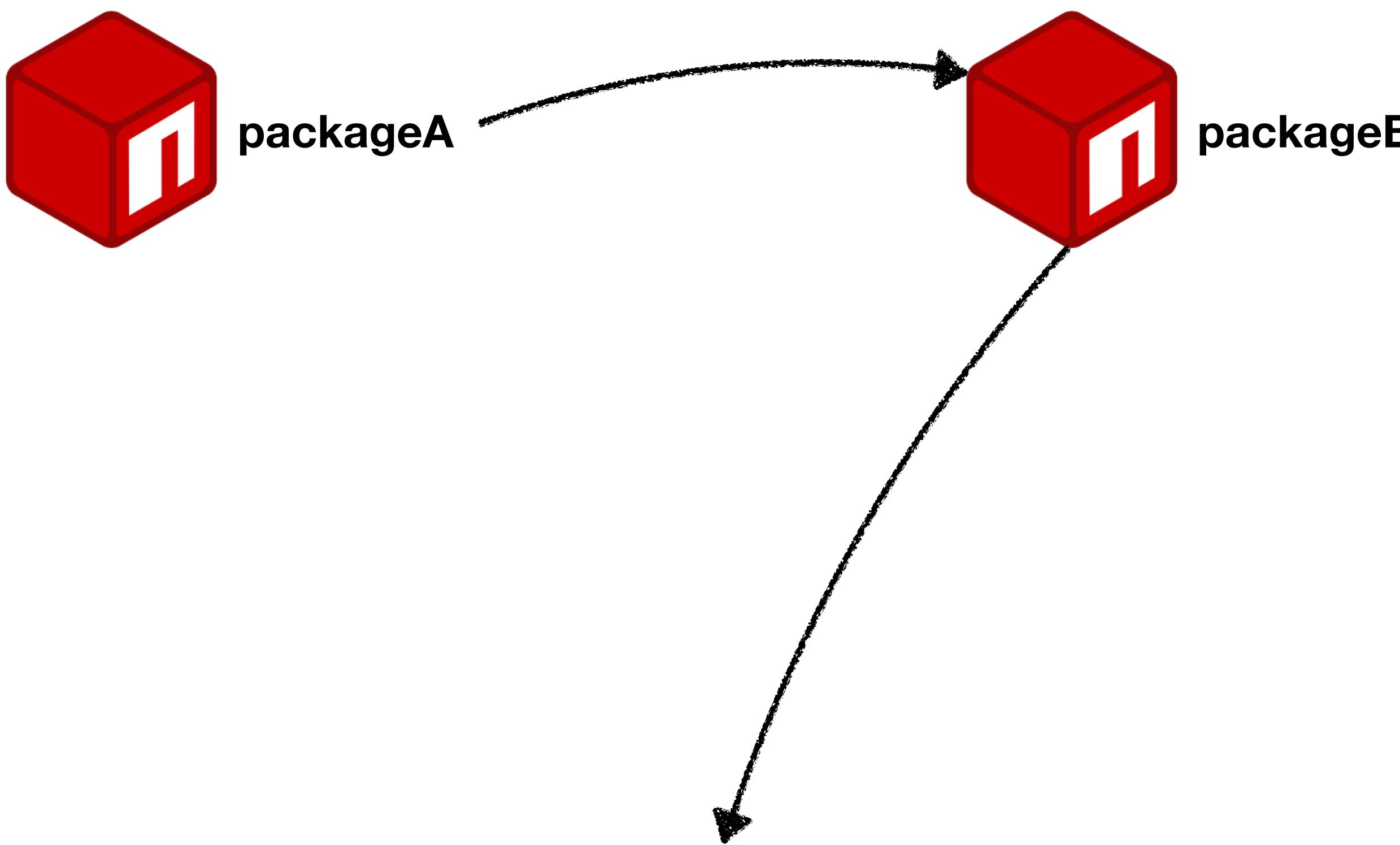
```
{  
  "name": "npm-talk",  
  "version": "1.0.0",  
  "description": "My cool package",  
  "main": "main.js",  
  "scripts": {  
    "test": "echo \\\"Error: no test specified\\\" && exit 1"  
  },  
  "keywords": [],  
  "author": "Denis Kolesnikov <dekolesnikov@avito.ru>",  
  "license": "ISC",  
  "dependencies": {},  
  "devDependencies": {}  
}
```

Dependency types

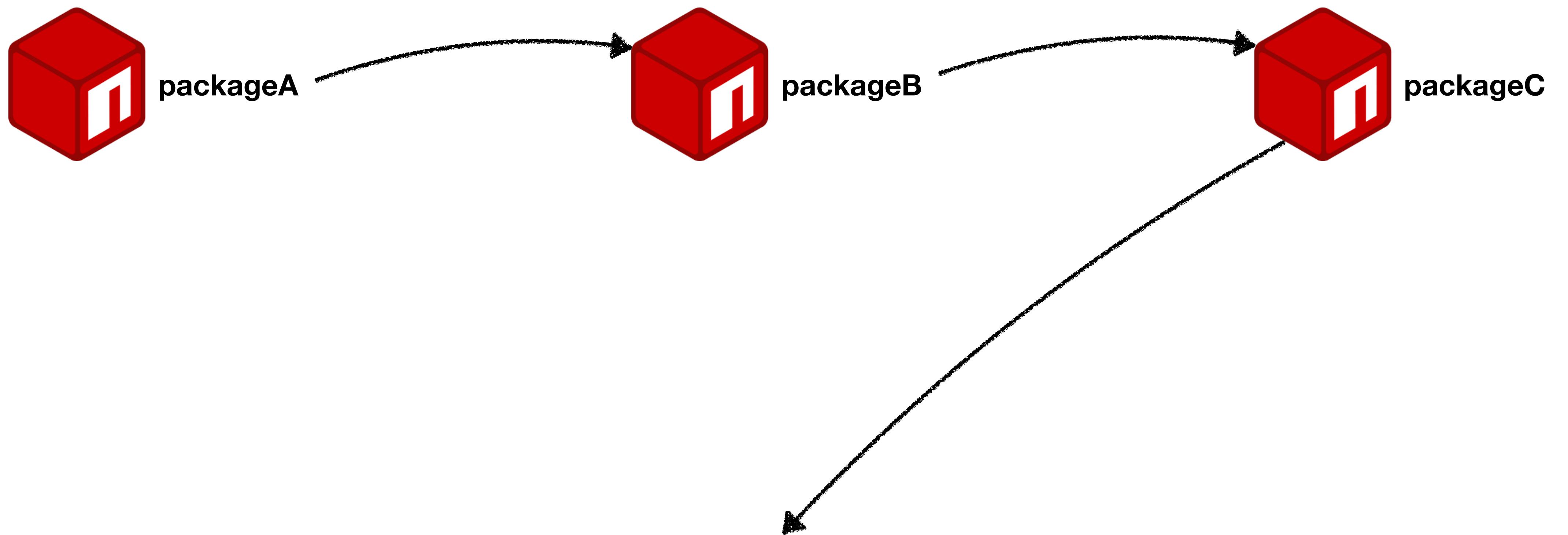
- dependencies
- devDependencies
- peerDependencies
- optionalDependencies
- bundledDependencies

node_modules/

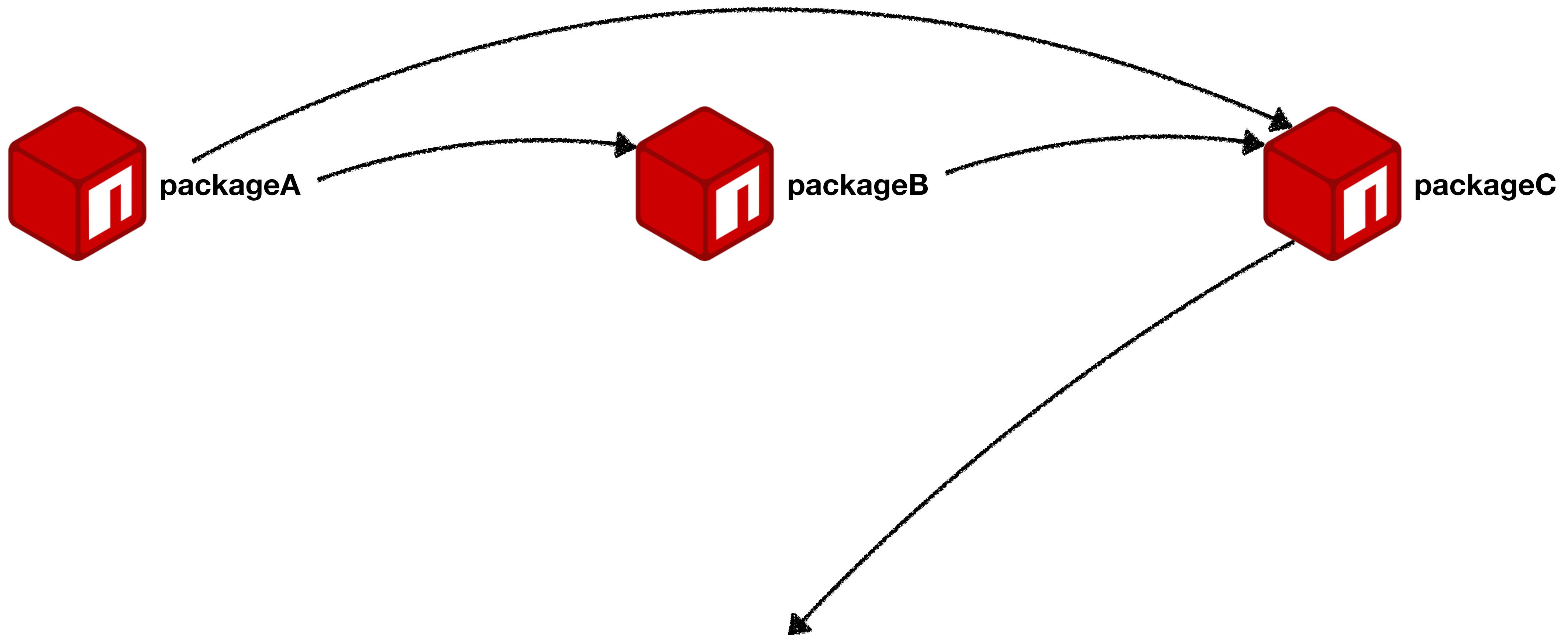




/packageA/node_modules/PackageB



/packageA/node_modules/PackageB/node_modules/PackageC



/packageA/node_modules/PackageC

Require resolving order

Require resolving order

```
const module = require('packageC');
```

- /packageA/node_modules/packageB/node_modules/packageC

Require resolving order

```
const module = require('packageC');
```

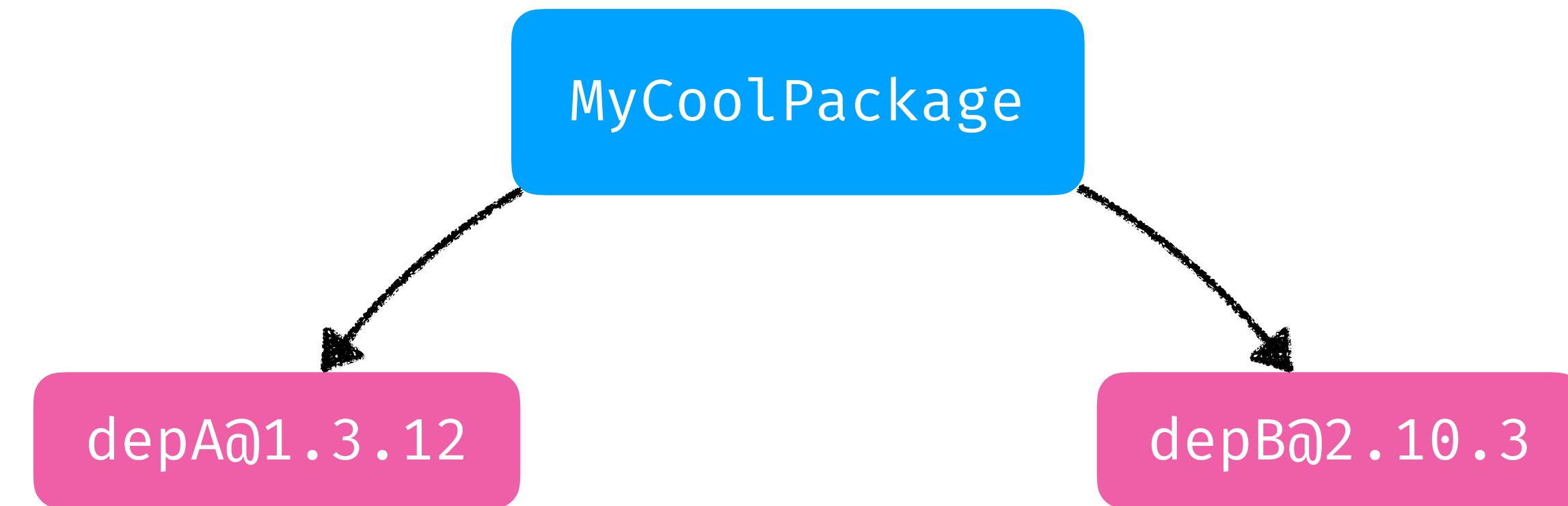
- /packageA/node_modules/packageB/node_modules/packageC
- /packageA/node_modules/packageC

Version conflict

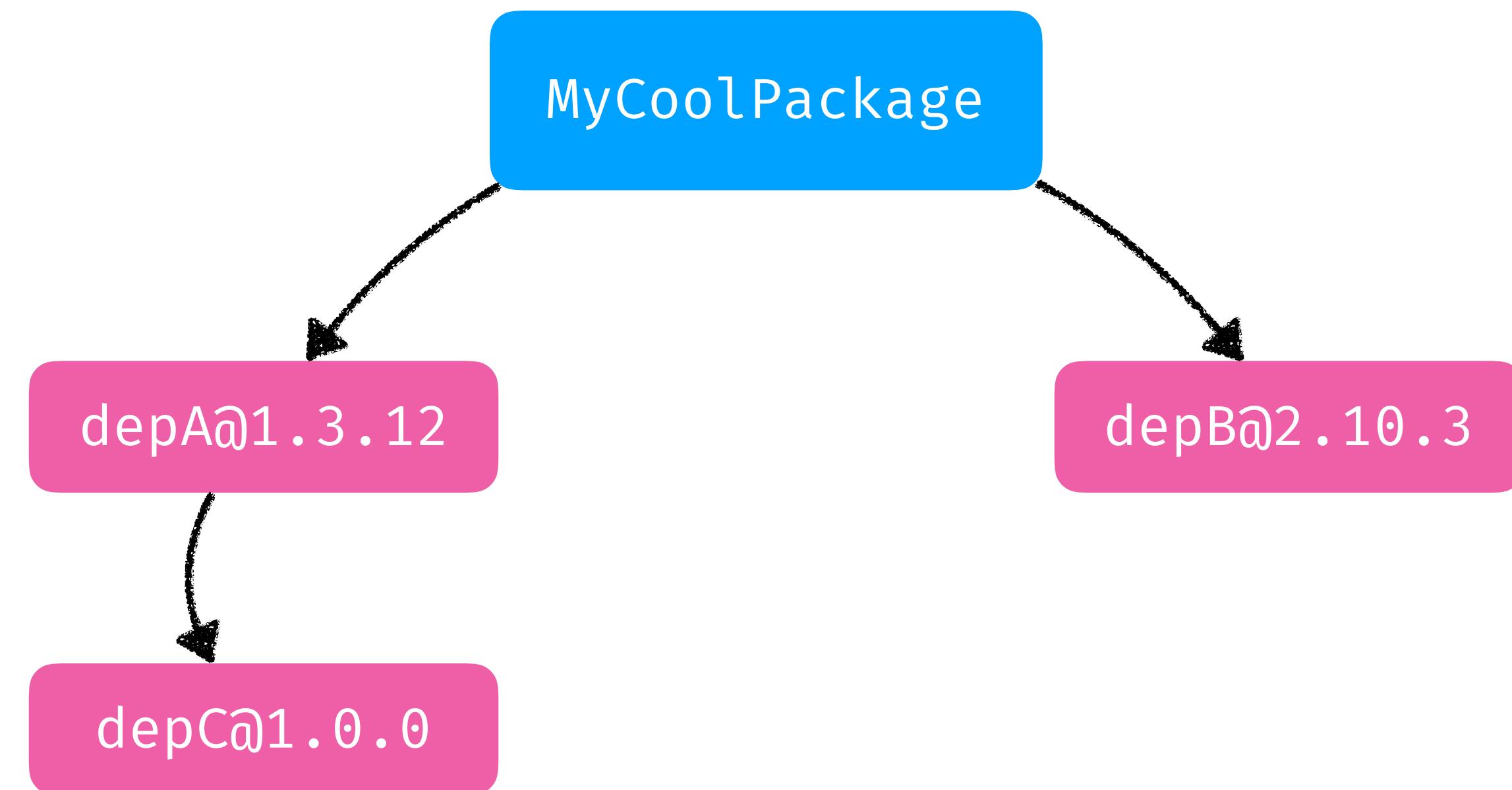
- depA@1.3.12 → depC@^1.0.0
- depB@2.10.3 → depC@^2.0.0

?

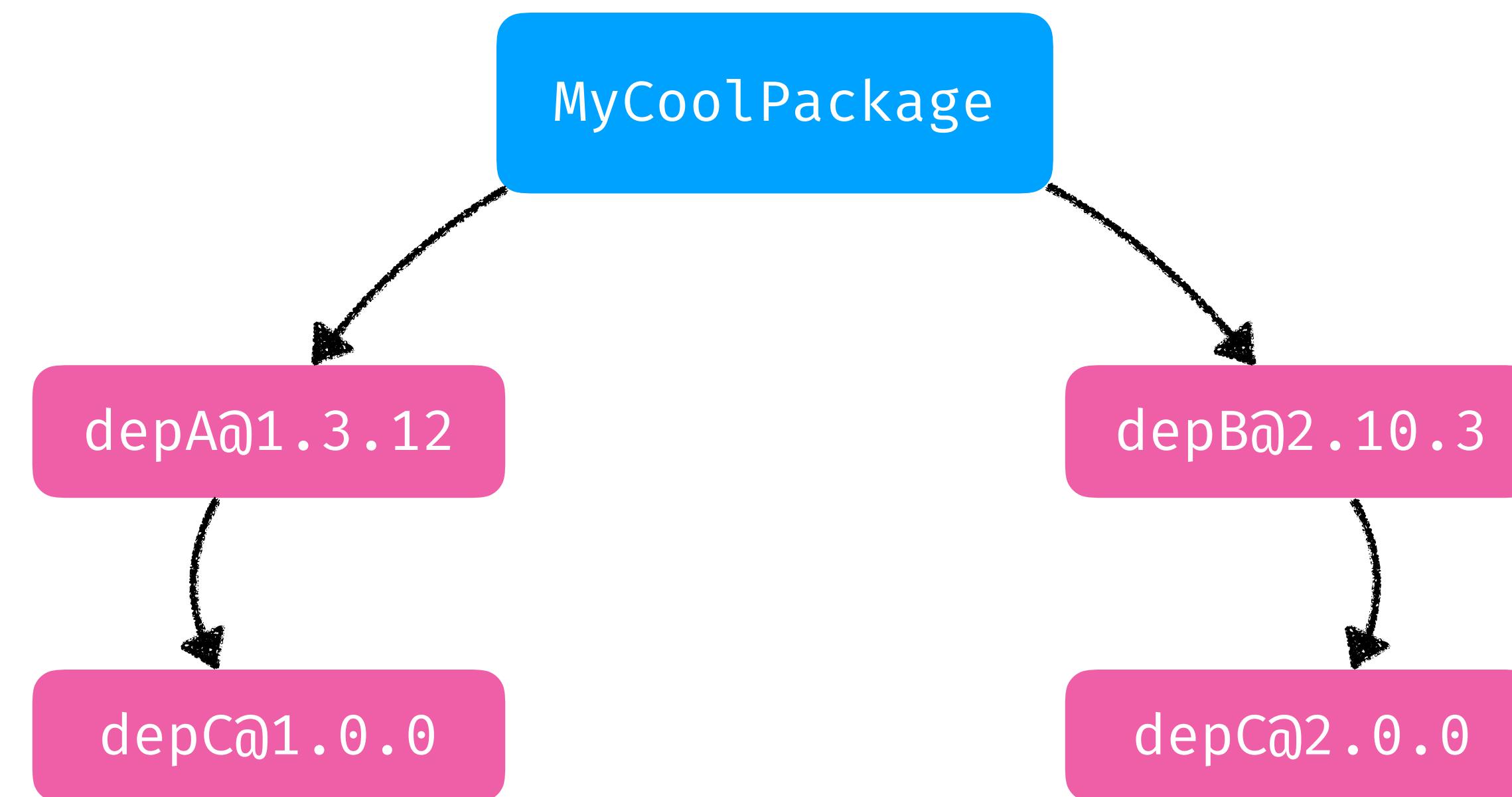
Deps Graph npm $0.0.1 \leq v < 3.0.0$



Deps Graph $\text{npm } 0.0.1 \leq v < 3.0.0$

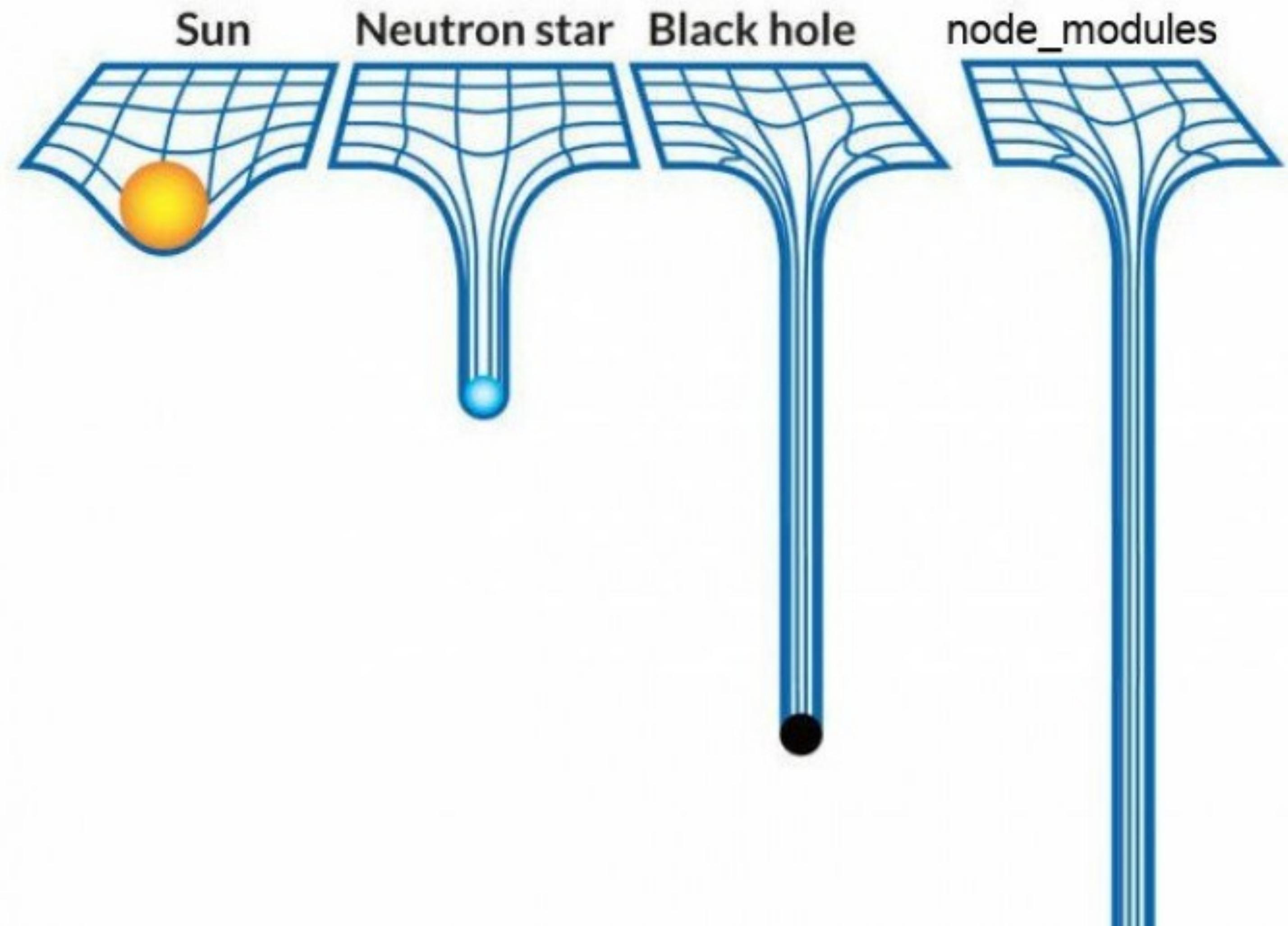


Deps Graph $\text{npm } 0.0.1 \leq v < 3.0.0$

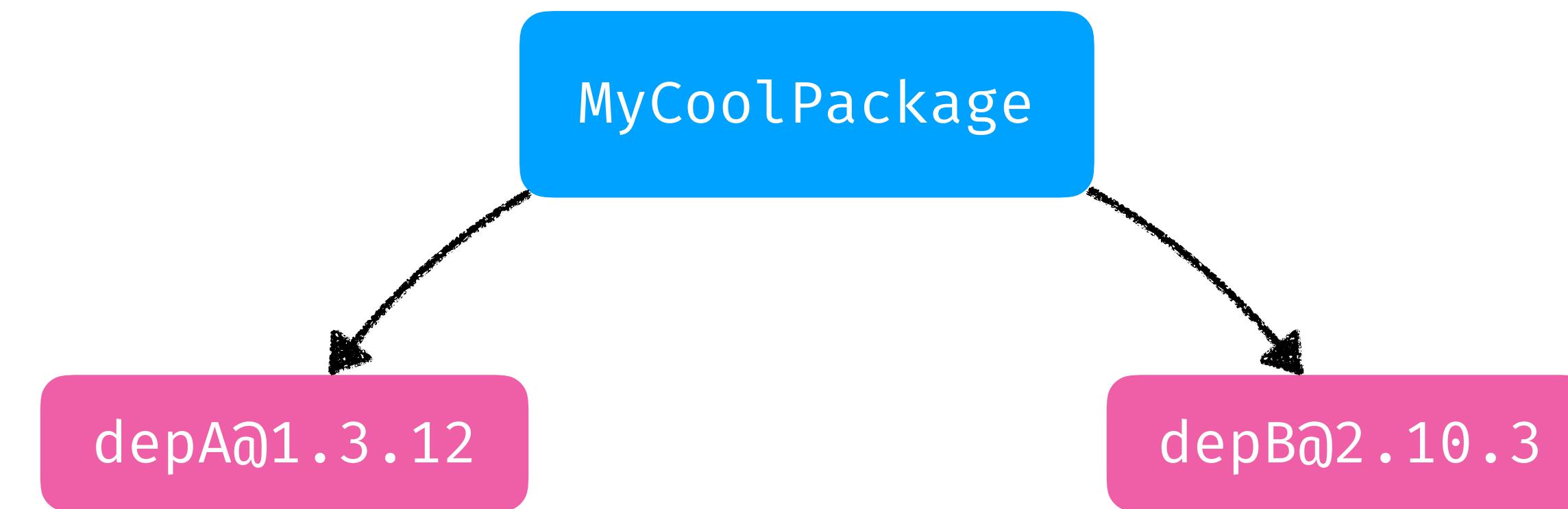


NPM v2 modules dir

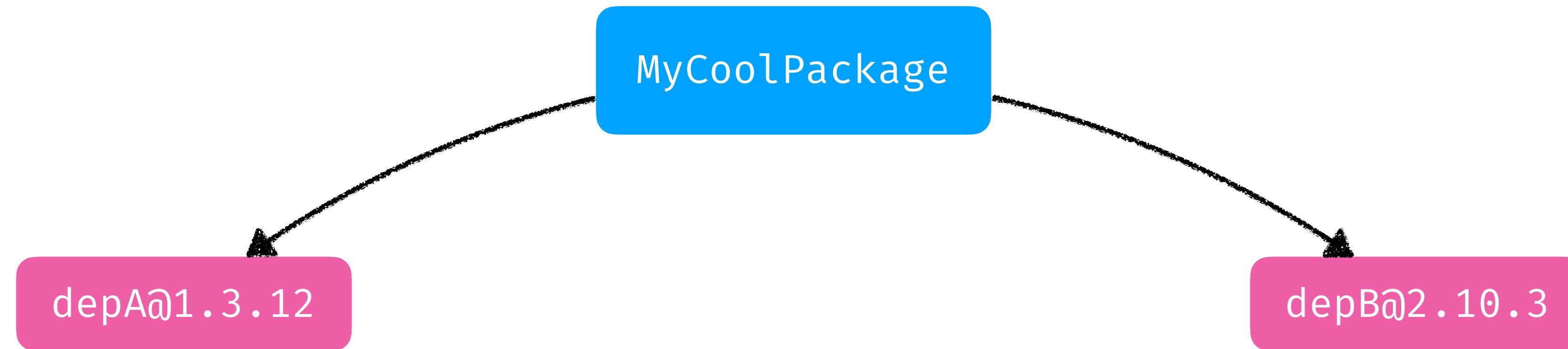
```
•
└ node_modules
    └─ depA
        └ node_modules
            └ depC
    └ depB
        └ node_modules
            └ depC
```



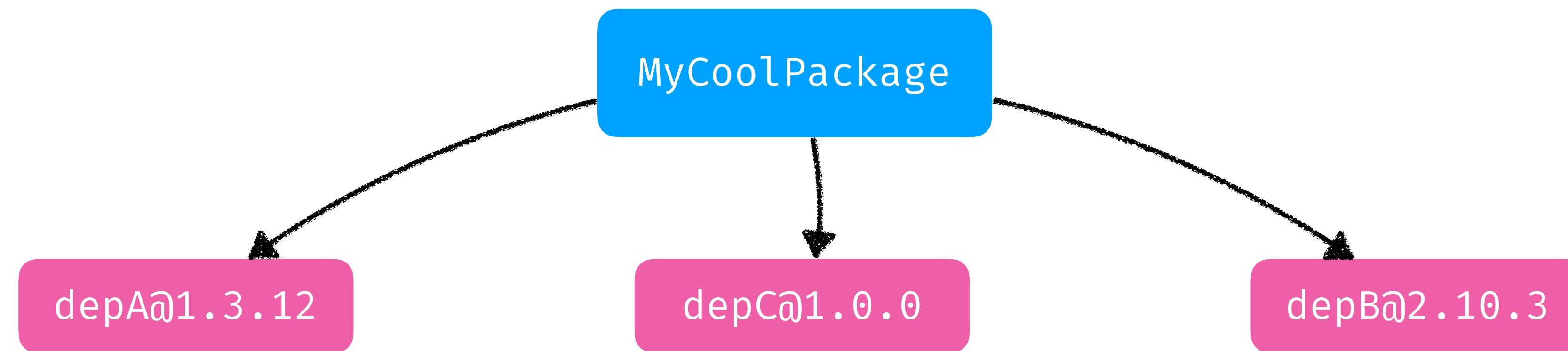
Deps Graph npm v \geq 3.0.0



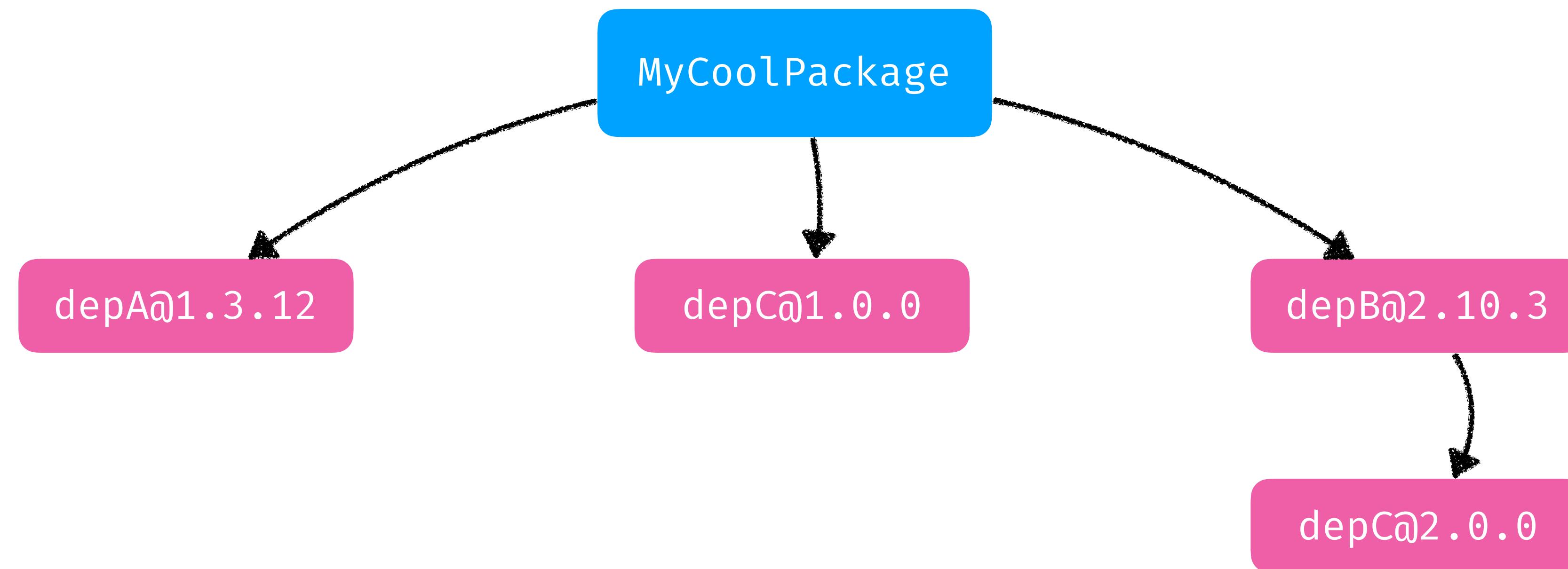
Deps Graph npm v \geq 3.0.0



Deps Graph npm v \geq 3.0.0



Deps Graph npm v \geq 3.0.0



NPM after v3 modules dir

```
•
  └── node_modules
      ├── depA
      ├── depB
      │   └── node_modules
      │       └── depC
      └── depC
```

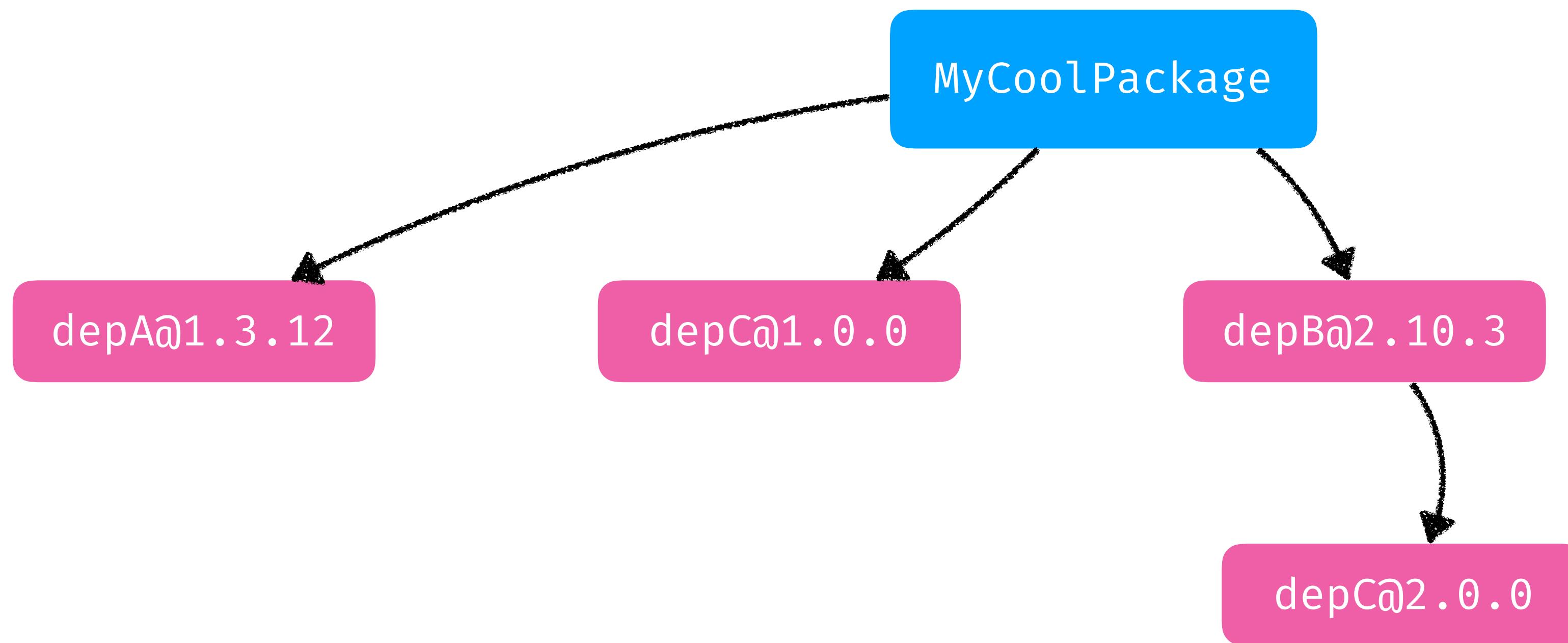
Version conflict

- depA@1.3.12 → depC@^1.0.0
- depB@2.10.3 → depC@^2.0.0

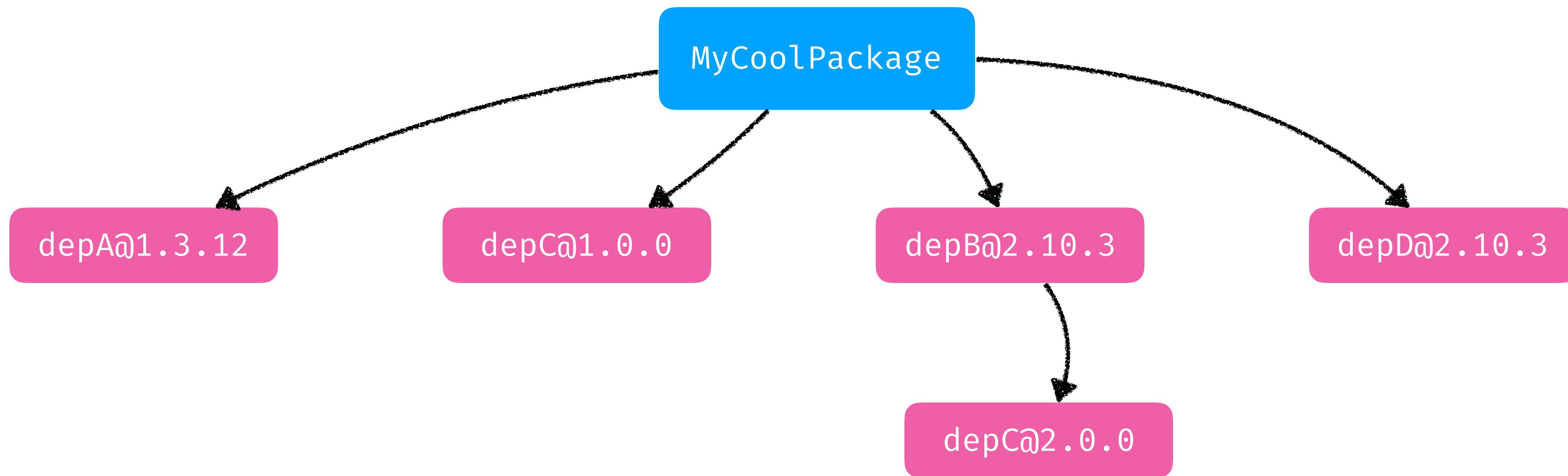
Version conflict

- depA@1.3.12 → depC@^1.0.0
- depB@2.10.3 → depC@^2.0.0
- depD@1.0.10 → depC@^2.0.0

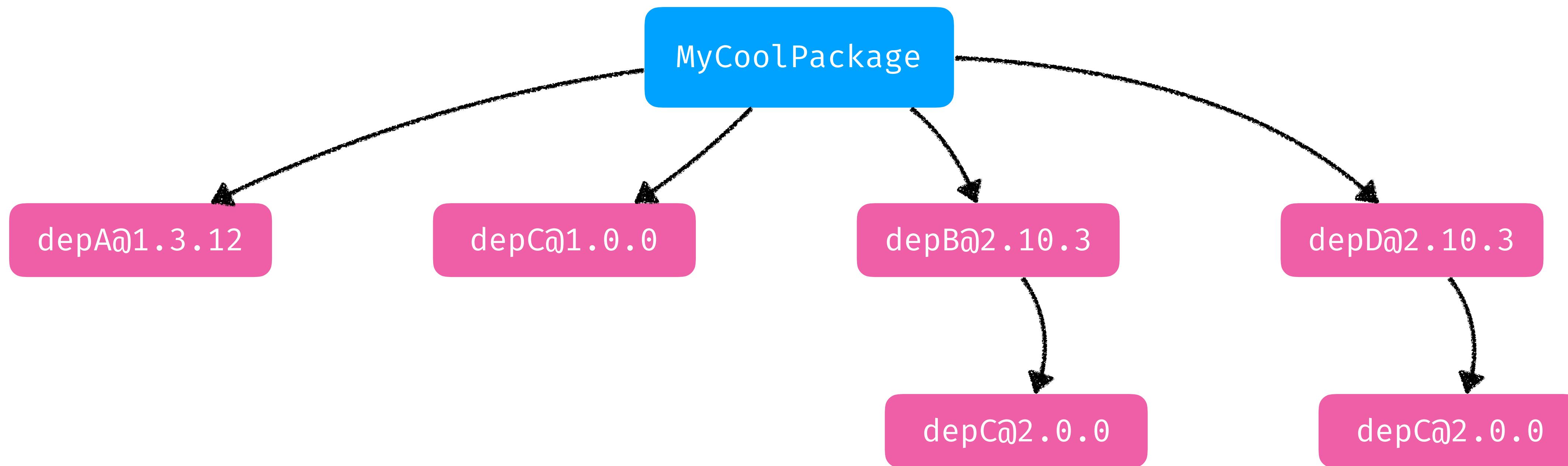
Deps Graph npm v \geq 3.0.0



Deps Graph npm v \geq 3.0.0



Deps Graph npm v \geq 3.0.0



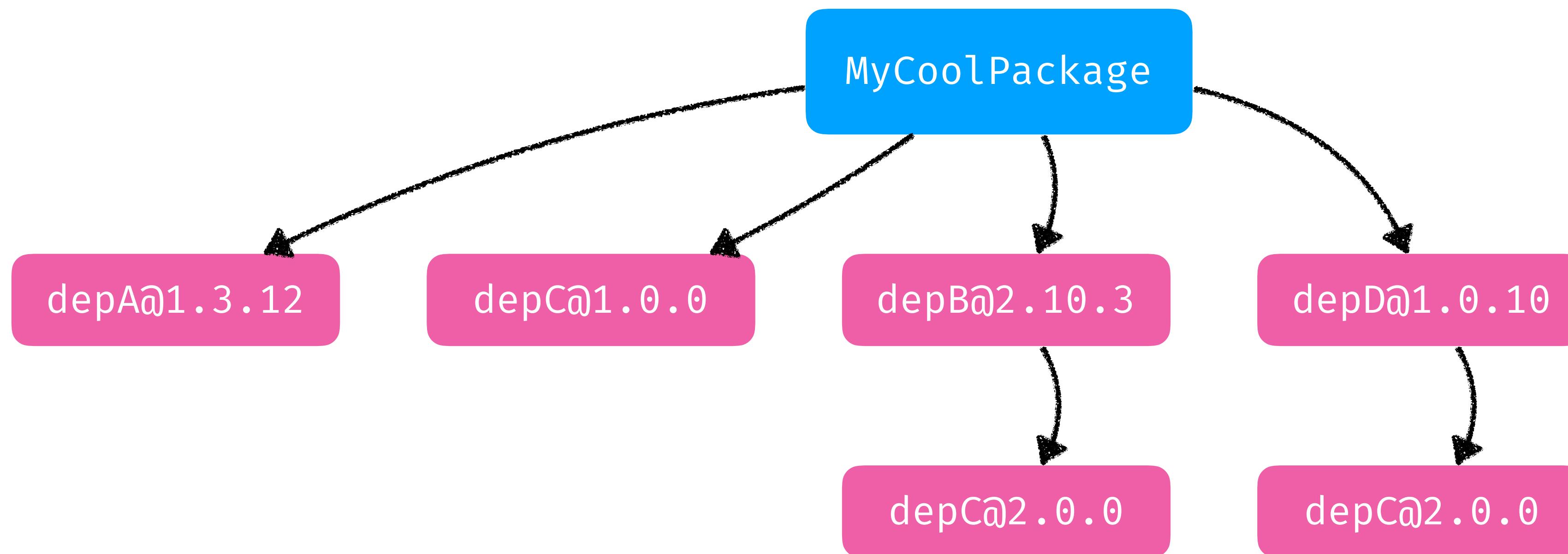
Version conflict

- depA@1.3.12 → depC@^1.0.0
- depB@2.10.3 → depC@^2.0.0
- depD@1.0.10 → depC@^2.0.0

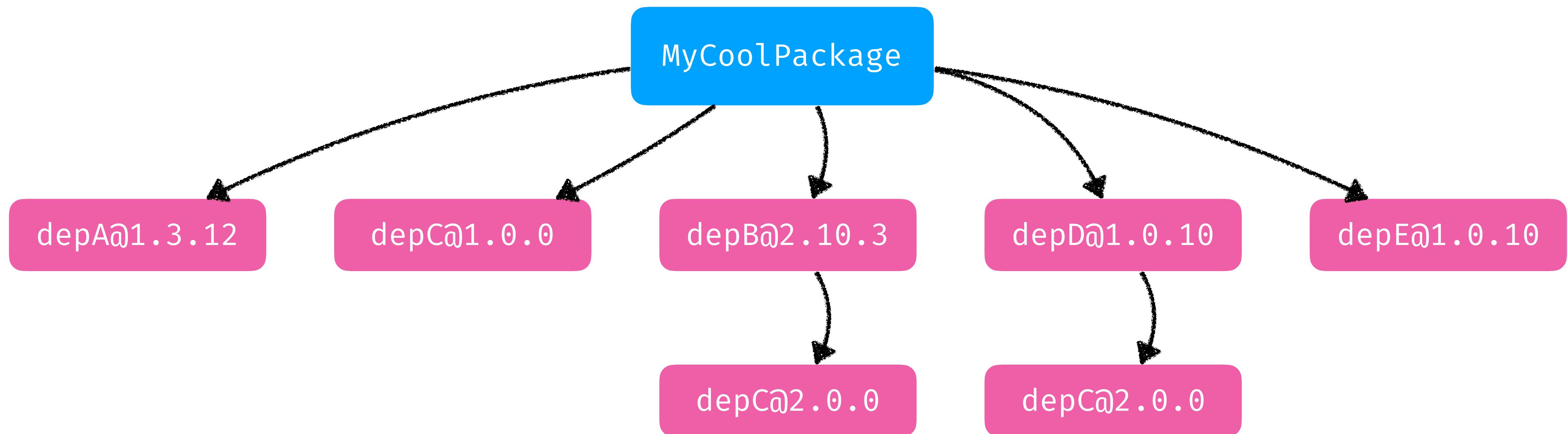
Version conflict

- depA@1.3.12 → depC@^1.0.0
- depB@2.10.3 → depC@^2.0.0
- depD@1.0.10 → depC@^2.0.0
- depE@1.0.10 → depC@^1.0.0

Deps Graph npm v \geq 3.0.0



Deps Graph npm v \geq 3.0.0



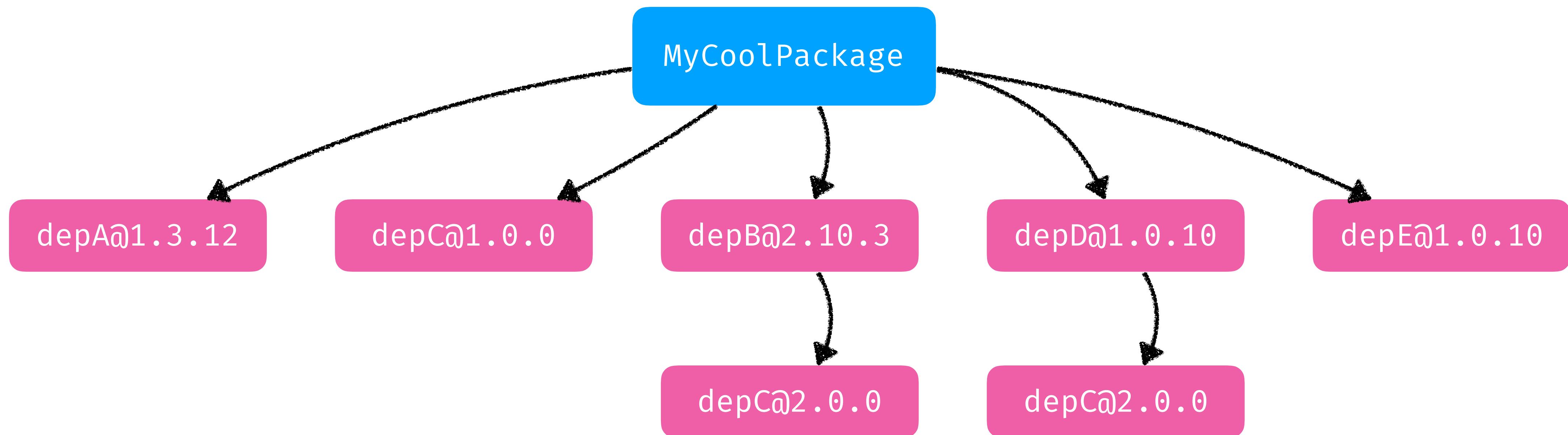
Version conflict

- depA@2.0.10 → depC@^2.0.0
- depB@2.10.3 → depC@^2.0.0
- depD@1.0.10 → depC@^2.0.0
- depE@1.0.10 → depC@^1.0.0

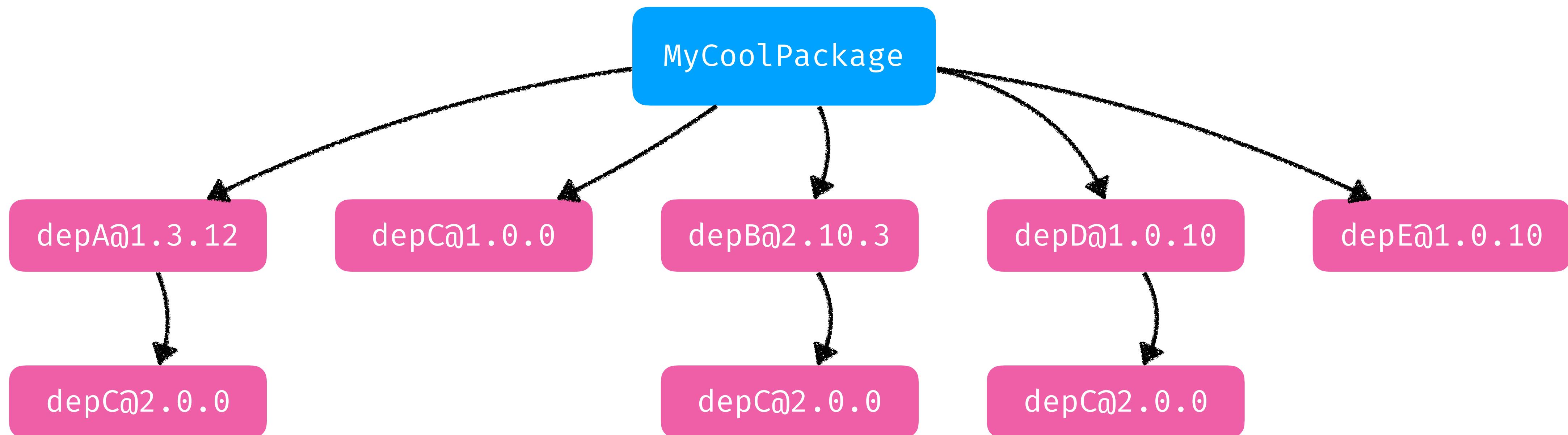
Version conflict

- depA@2.0.10 → depC@^2.0.0
- depB@2.10.3 → depC@^2.0.0
- depD@1.0.10 → depC@^2.0.0
- depE@1.0.10 → depC@^1.0.0

Deps Graph npm v \geq 3.0.0



Deps Graph npm v \geq 3.0.0



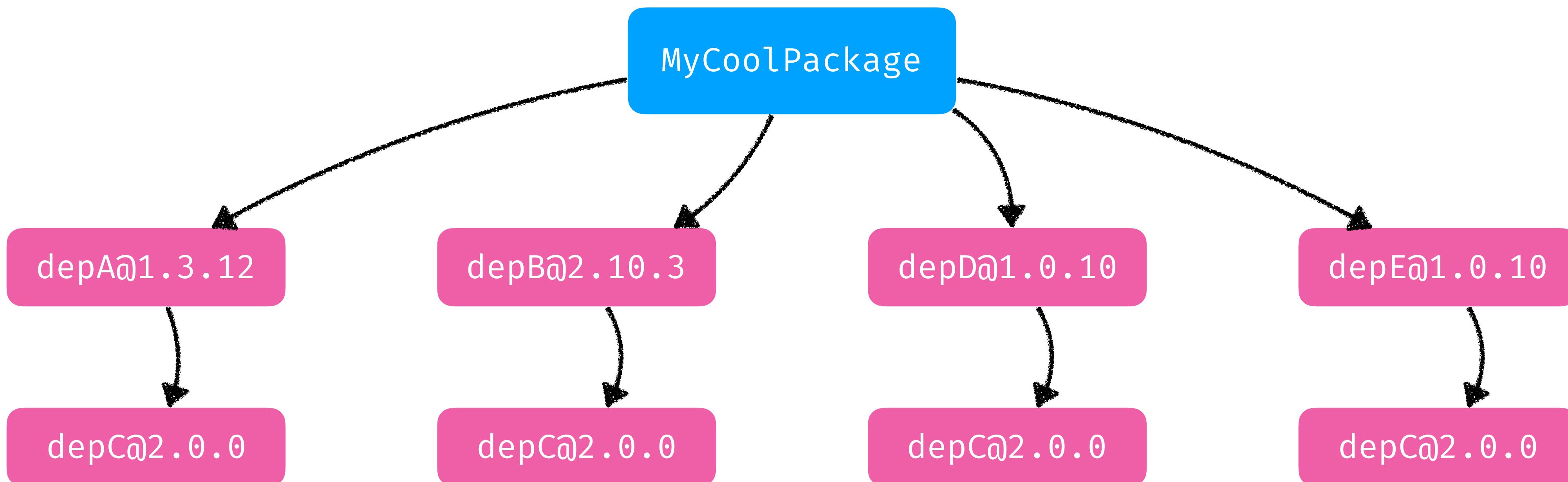
Version conflict

- depA@2.0.10 → depC@^2.0.0
- depB@2.10.3 → depC@^2.0.0
- depD@1.0.10 → depC@^2.0.0
- depE@2.0.10 → depC@^2.0.0

Version conflict

- depA@2.0.10 → depC@^2.0.0
- depB@2.10.3 → depC@^2.0.0
- depD@1.0.10 → depC@^2.0.0
- depE@2.0.10 → depC@^2.0.0

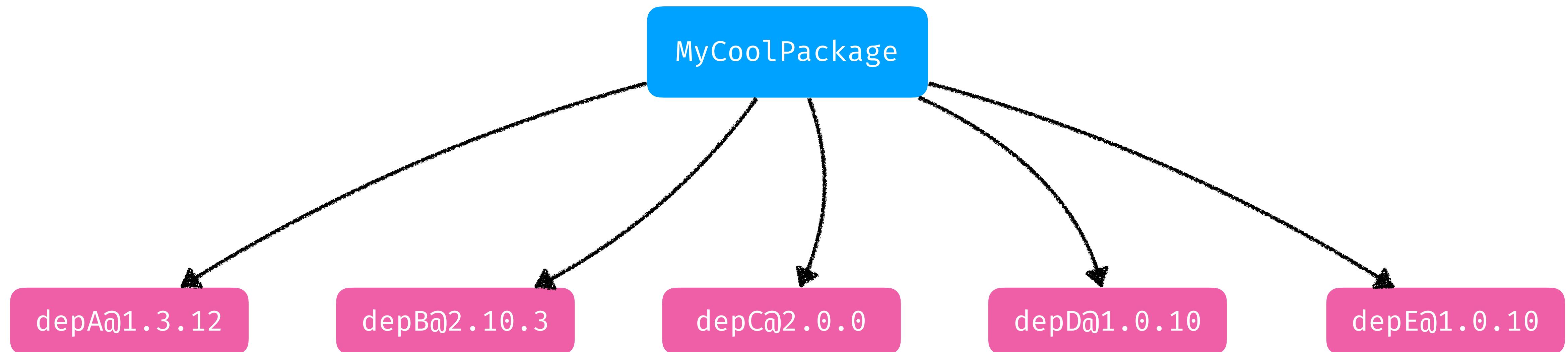
Deps Graph npm v \geq 3.0.0



**Порядок установки модулей влияет
на дерево зависимостей**

`npm dedupe`

Deps Graph npm v \geq 3.0.0





npm dedupe

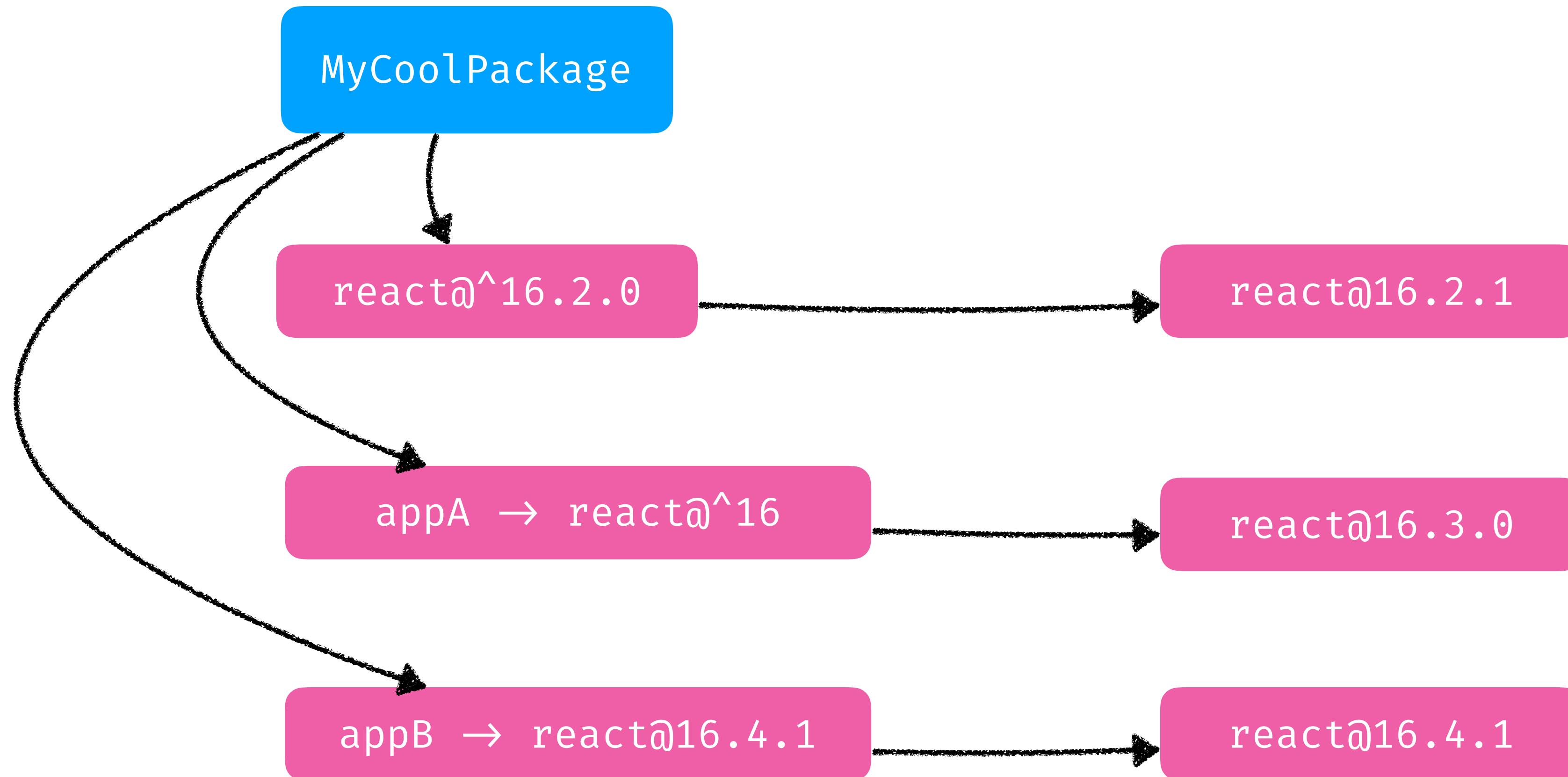


**Чем плохо дублирование
зависимостей?**

node.js app?

node.js app? 🤝





```
•  
└── index.js  
└── node_modules  
    ├── appA  
    │   └── node_modules  
    │       └── react  
    └── appB  
        └── node_modules  
            └── react  
└── react
```

Bundled deps

```
• index.js  
└ node_modules  
    └ appA  
        └ node_modules  
            └ react  
    └ appB  
        └ node_modules  
            └ react  
└ react
```



index.js

react

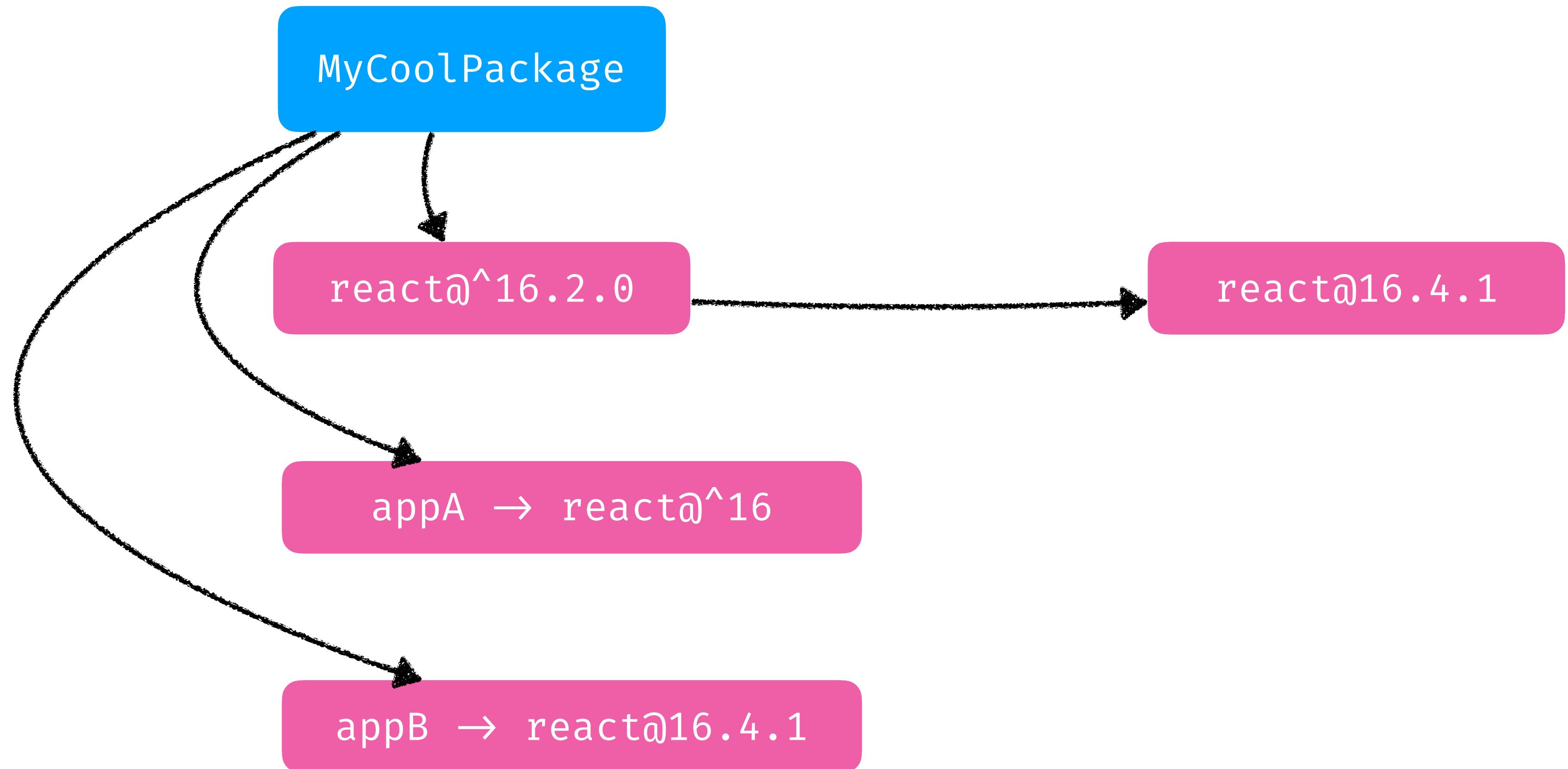
appA

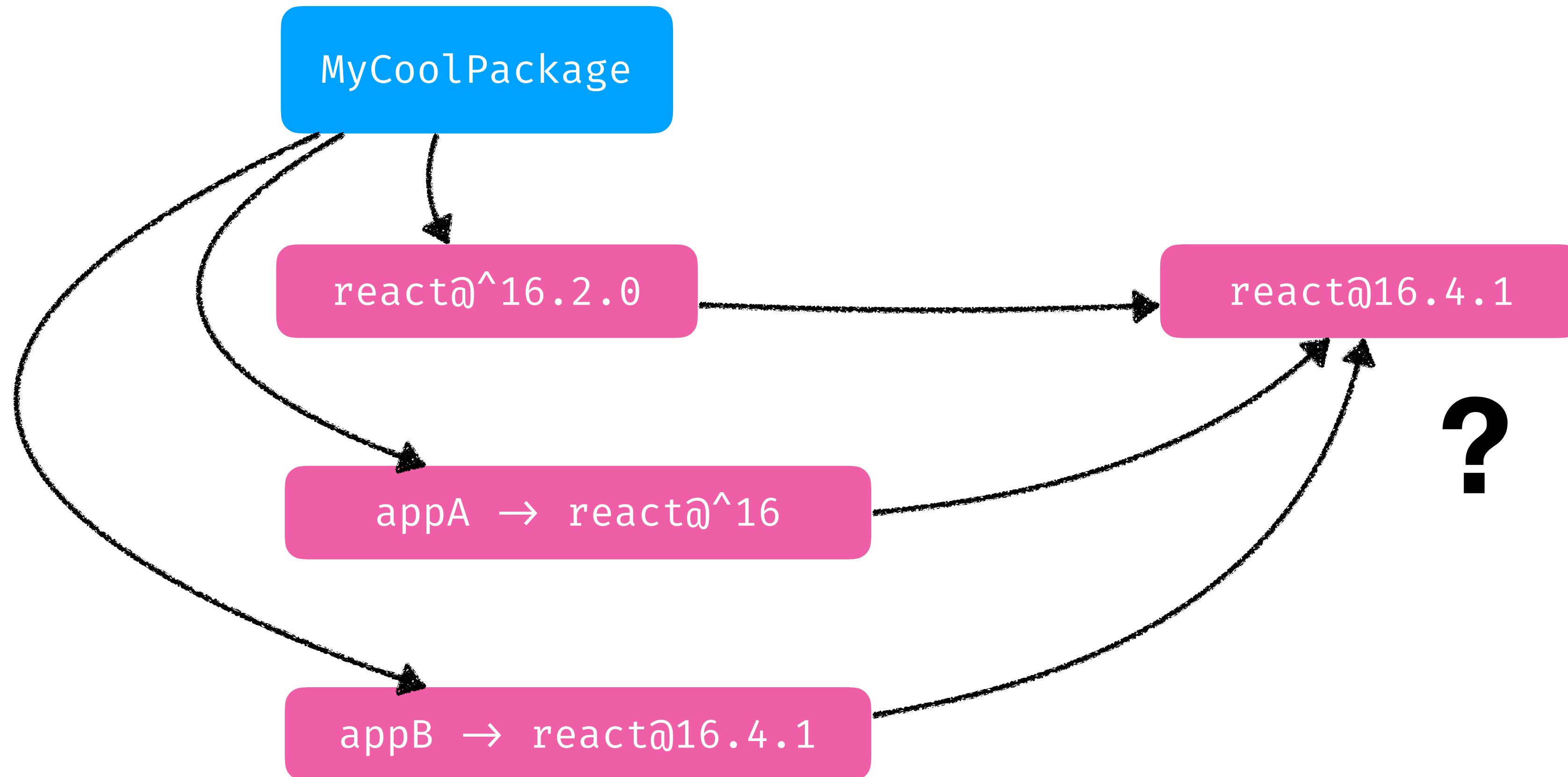
react

appB

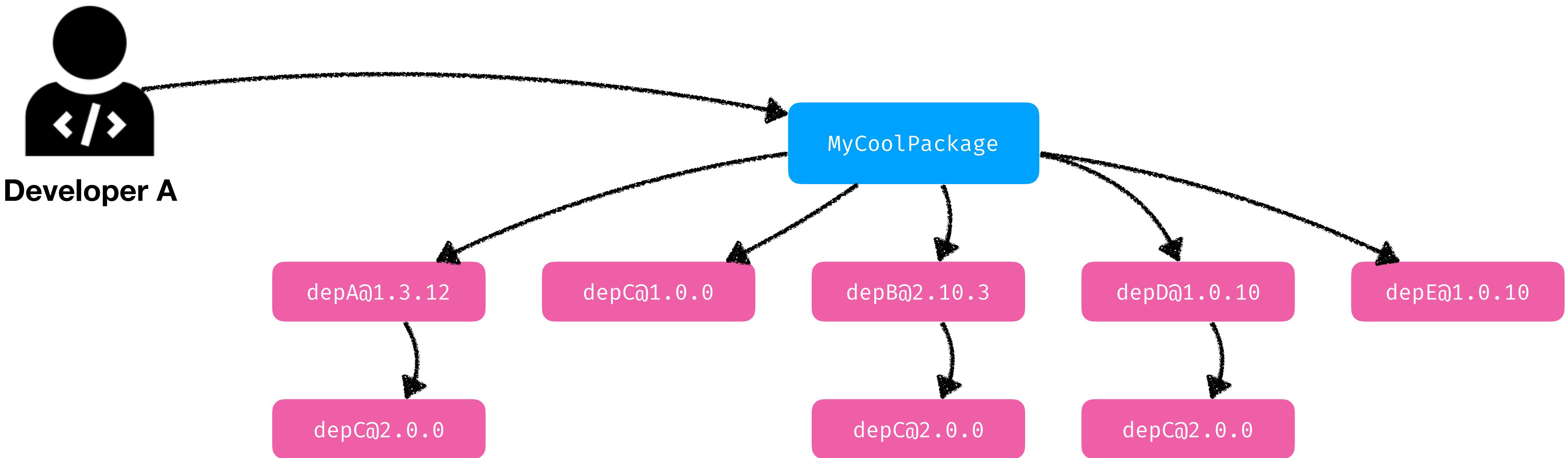
react

нрм dedupe решит проблему?



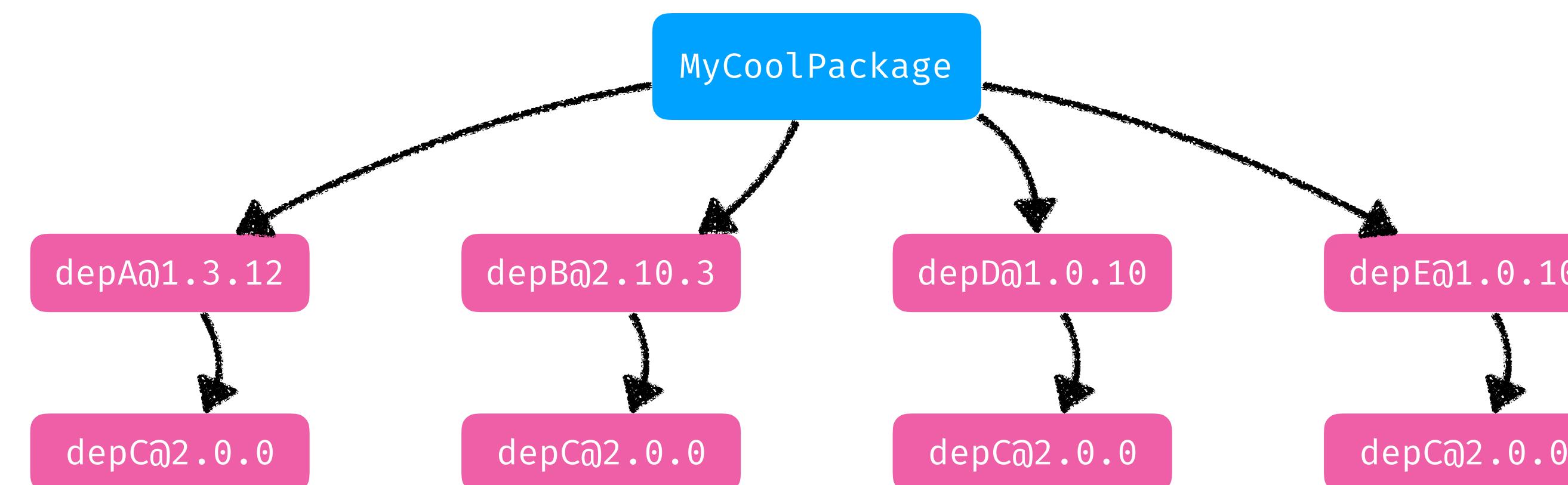
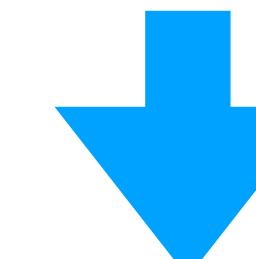
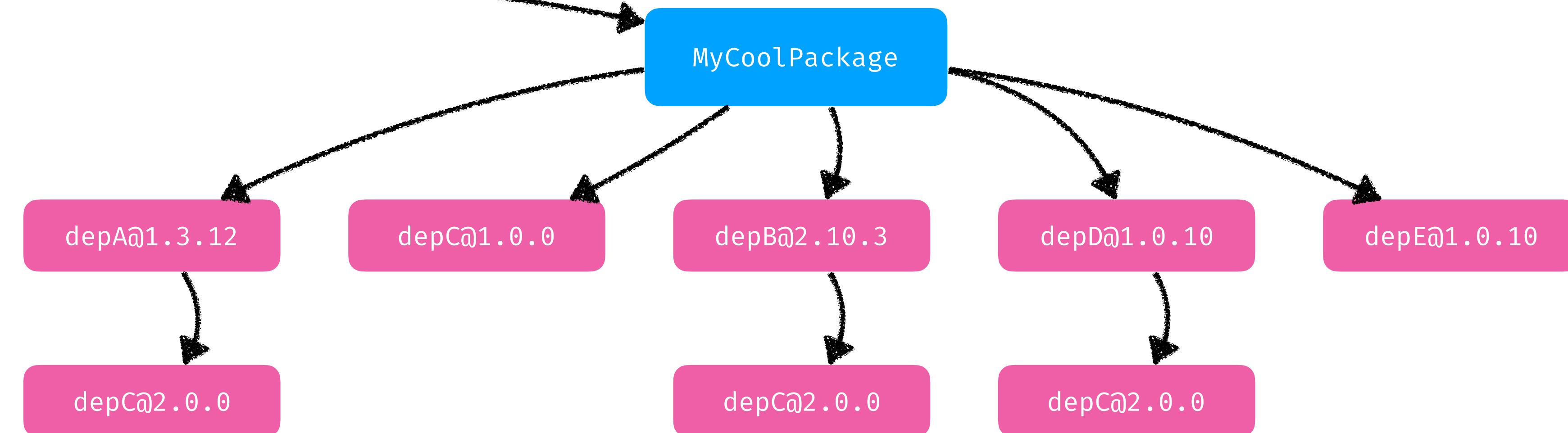


NPM Determenism





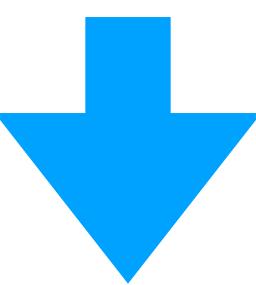
Developer A





Developer B

npm install



MyCoolPackage

depA@1.3.12

depB@2.10.3

depC@2.0.0

depD@1.0.10

depE@1.0.10

v3 ≤ npm < v5

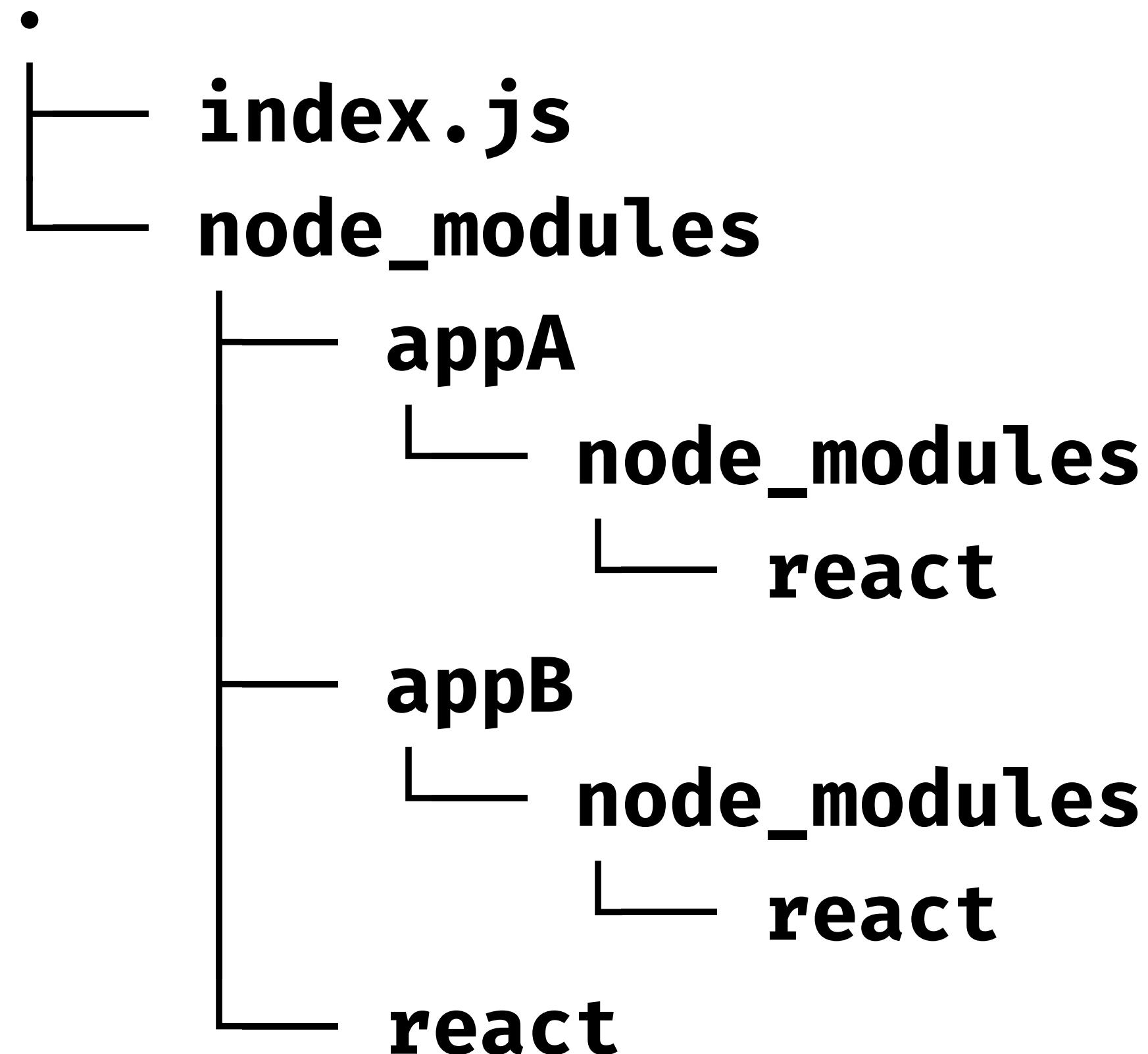


yarn

Yarn Lock-file

```
has-flag@^1.0.0:  
  version "1.0.0"  
  resolved "https://registry.yarnpkg.com/has-flag/-/has-  
flag-1.0.0.tgz#9d9e793165ce017a00f00418c43f942a7b1d11fa"  
  
supports-color@^3.2.3:  
  version "3.2.3"  
  resolved "https://registry.yarnpkg.com/supports-color/-/supports-  
color-3.2.3.tgz#65ac0504b3954171d8a64946b2ae3cbb8a5f54f6"  
  
dependencies:  
  has-flag "^1.0.0"
```

Логическое дерево зависимостей



Физическое дерево зависимостей

The position of packages in node_modules is computed internally in Yarn, which causes Yarn to be non-deterministic between people using different versions.

<https://yarnpkg.com/blog/2017/05/31/determinism/>

NPM 5 has stronger guarantees across versions and has a stronger deterministic lockfile.

<https://yarnpkg.com/blog/2017/05/31/determinism/>

NPM v5 package-lock.json

Serialized deps list → LOCKFILE

`npm-shrinkwrap.json`

package-lock.json

- package-lock.json не публикуется вместе с пакетом
- package-lock.json, которые не в рутовом пакете игнорируются
- package-lock.json имеет “дополненный формат” npm-shrinkwrap.json
- npm-shrinkwrap.json обратно совместимы с предыдущими версиями npm

package-lock.json

- Точно описывает физическое дерево зависимостей
- Позволяет следить за изменениями дерева *
- Оптимизирует процесс установки

Проблемы NPM

Проблемы NPM

Проблемы
NPM

Dependency
hell

Dependency
duplication

Impact Analysis

Own packages

Dependency hell

added 2287 packages from 1625 contributors in 29.943s

Dependency duplication

```
{  
  "name": "npm-talk",  
  "version": "1.0.0",  
  "dependencies": {  
    ... ~50 deps ...  
  },  
  "devDependencies": {  
    ... ~30 deps ...  
  }  
}
```

```
{  
  "name": "npm-talk",  
  "version": "1.0.0",  
  "dependencies": {  
    ... ~50 deps ...  
  },  
  "devDependencies": {  
    ... ~30 deps ...  
  }  
}
```

added 2287 packages from 1625 contributors in 29.943s

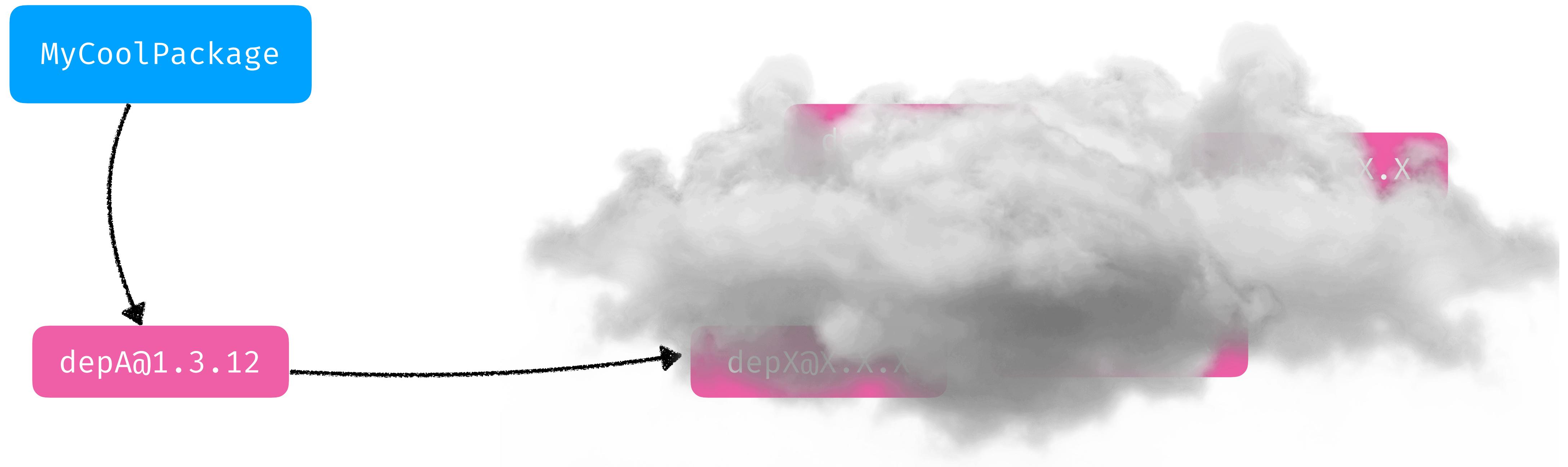
Impact Analysis

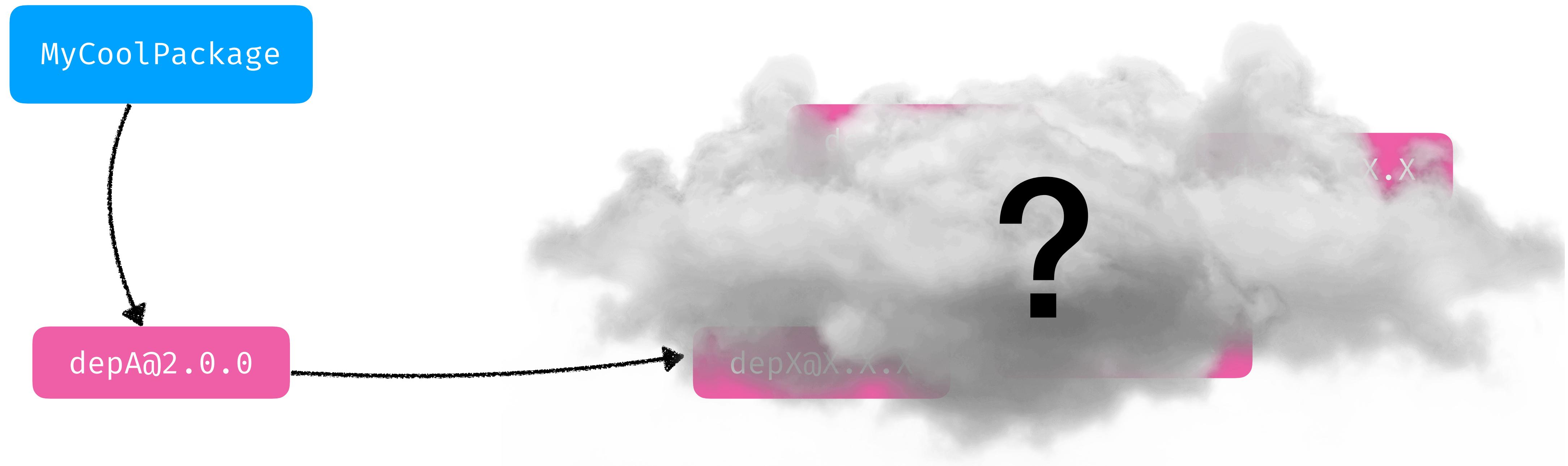
MyCoolPackage

depA@1.3.12

depX@*x.x.x*

x.X





Developing own packages

Own packages development

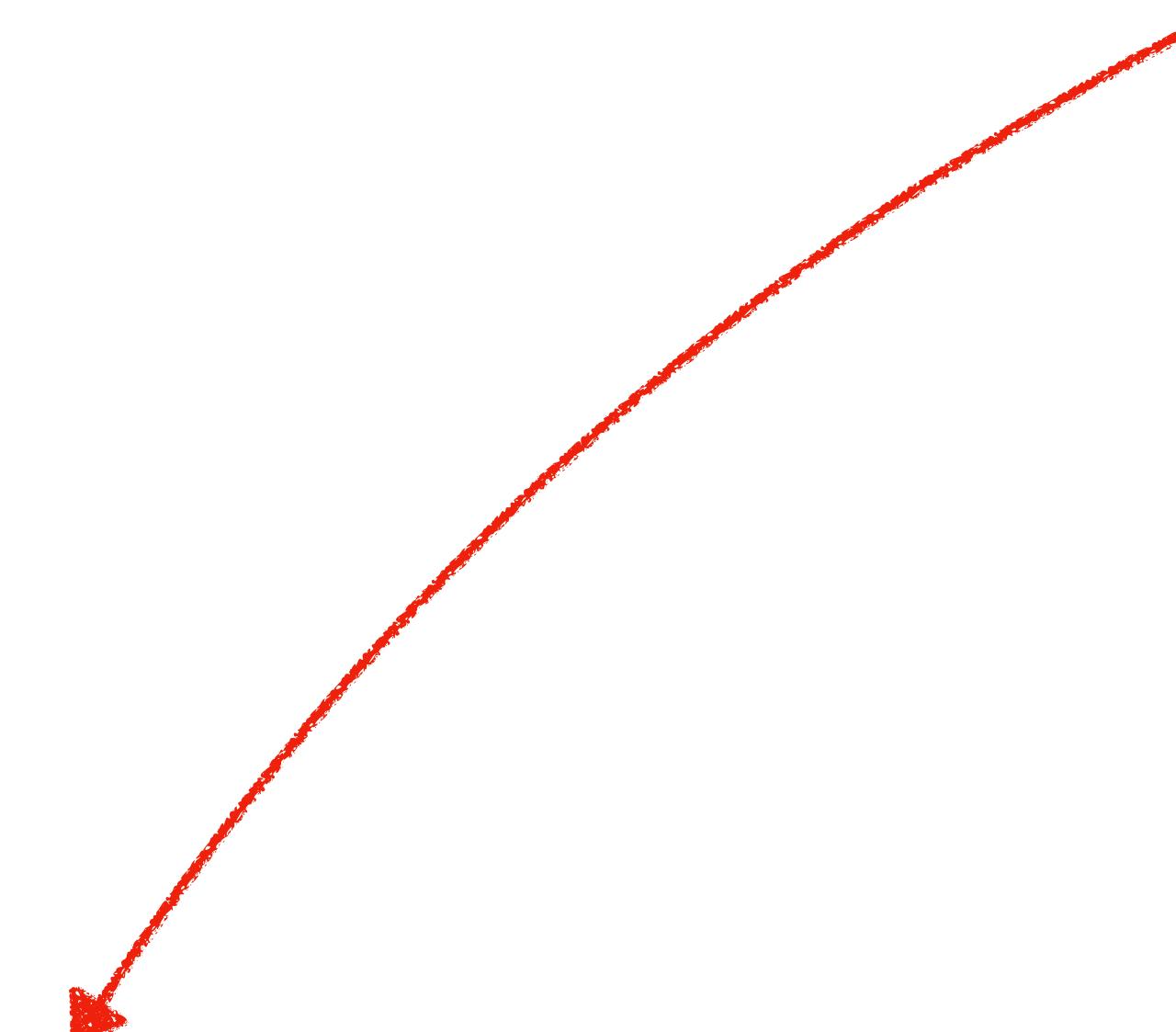
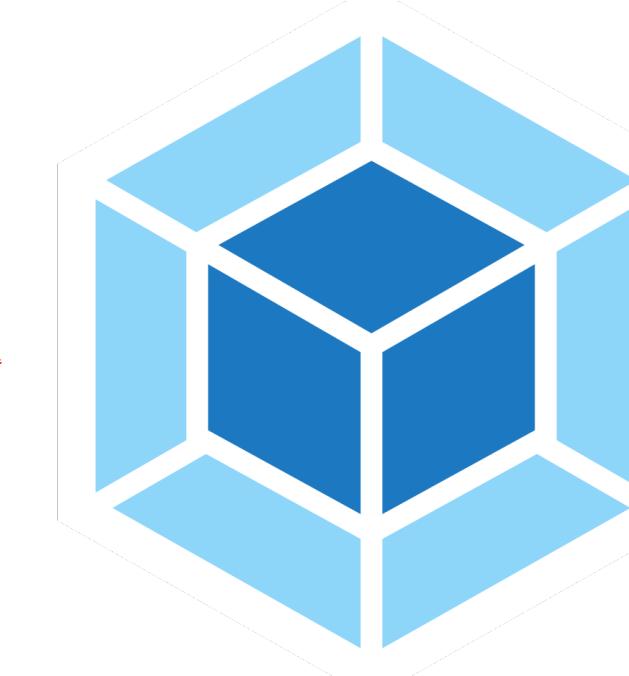
- Приватный реестр пакетов
- Симлинки
- Контроль наполнения и качества кода в пакете
- Контроль зависимостей пакета
- Контроль версионирования
- Контроль публикации и разграничение прав
- Владение кодом

NPM registry

- NPM private registry
- Self-hosted registry

Npm link

```
• index.js  
└ node_modules  
    └ appA  
        └ node_modules  
            └ react  
    └ appB  
        └ node_modules  
            └ someDep → /somewhere/in/filesystem/node_modules  
    └ react
```



/somewhere/in/filesystem/node_modules

Package contents and QA



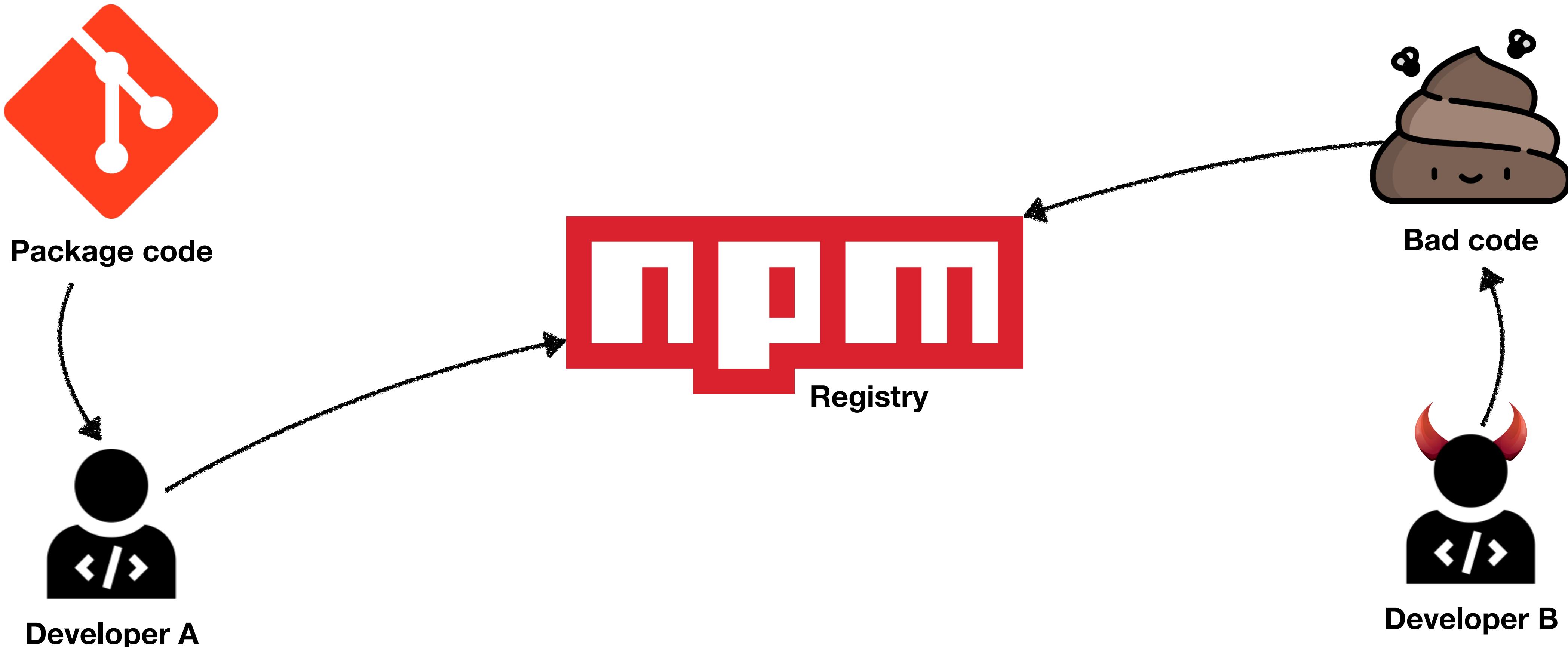
Dependencies control

Version control

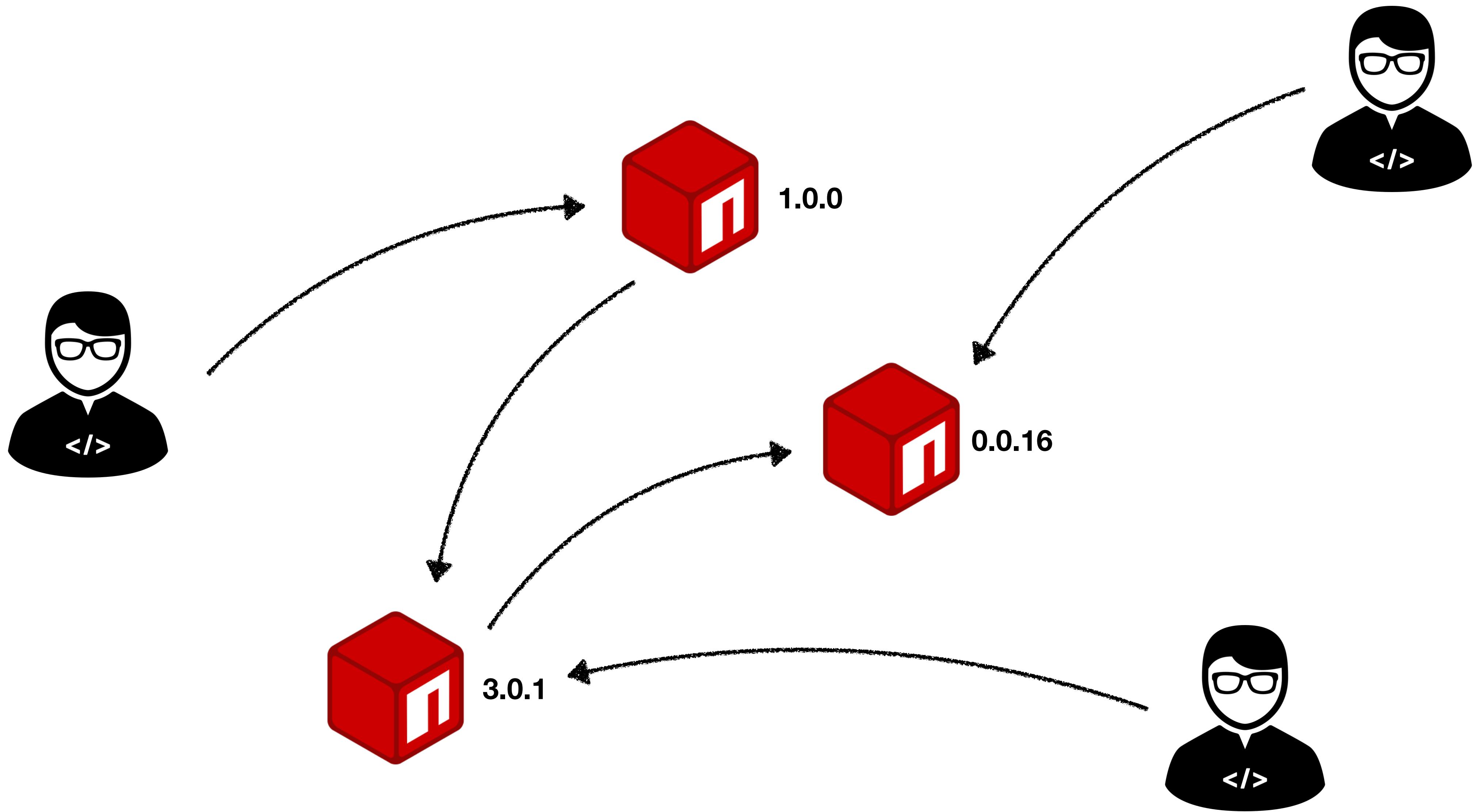
SemVer

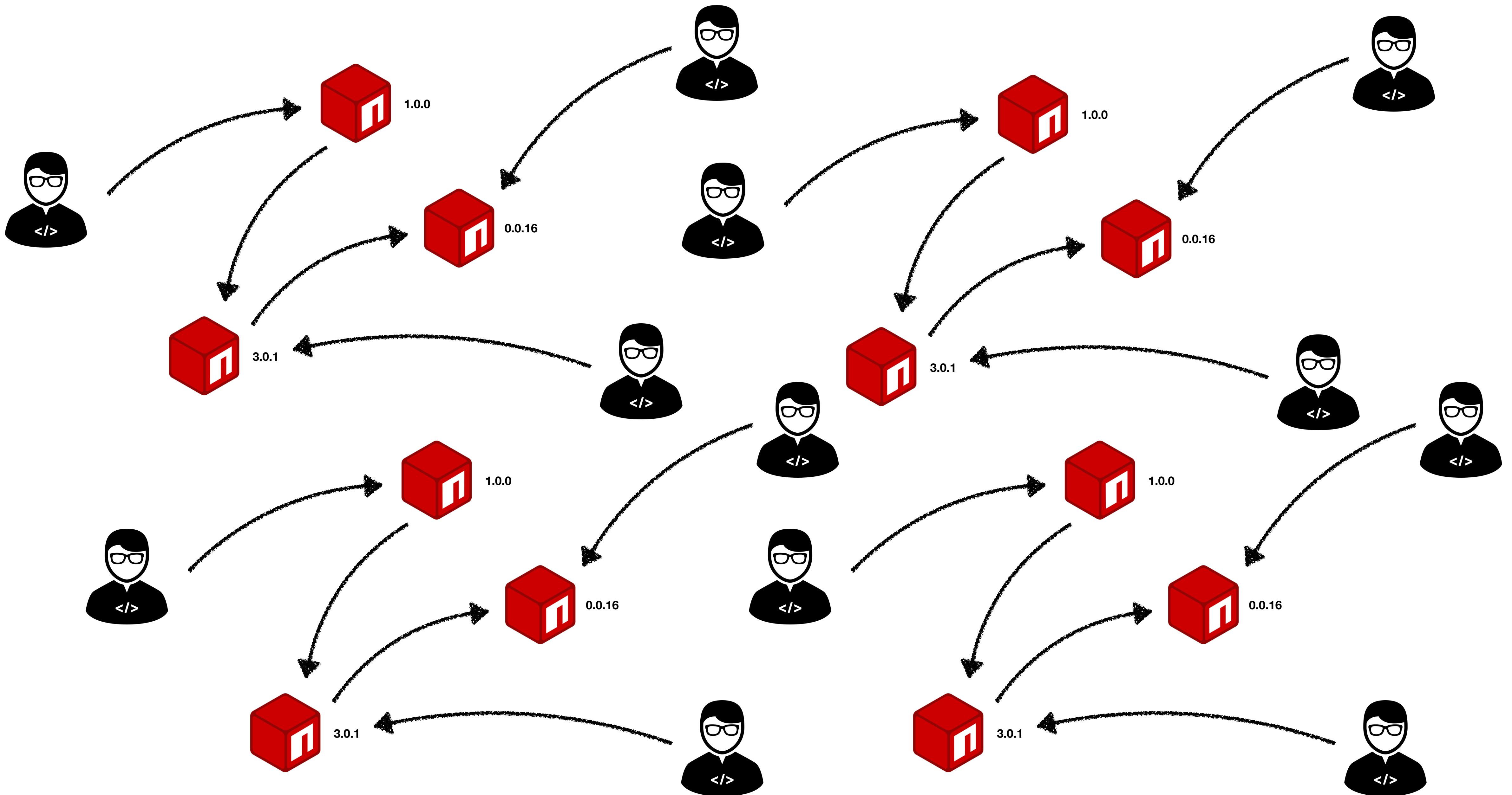
`major.minor.patch`

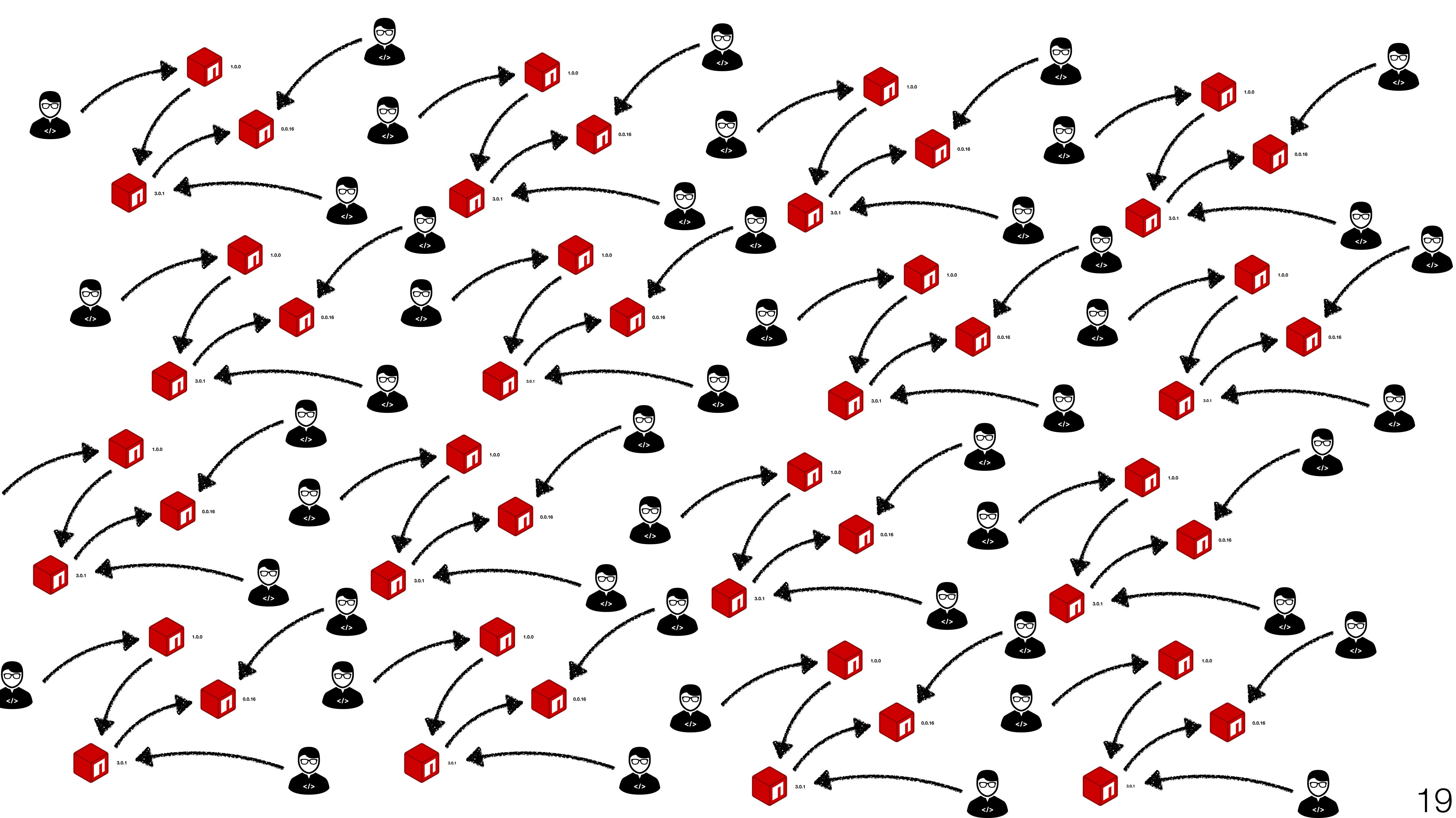
Publish rights restrictions

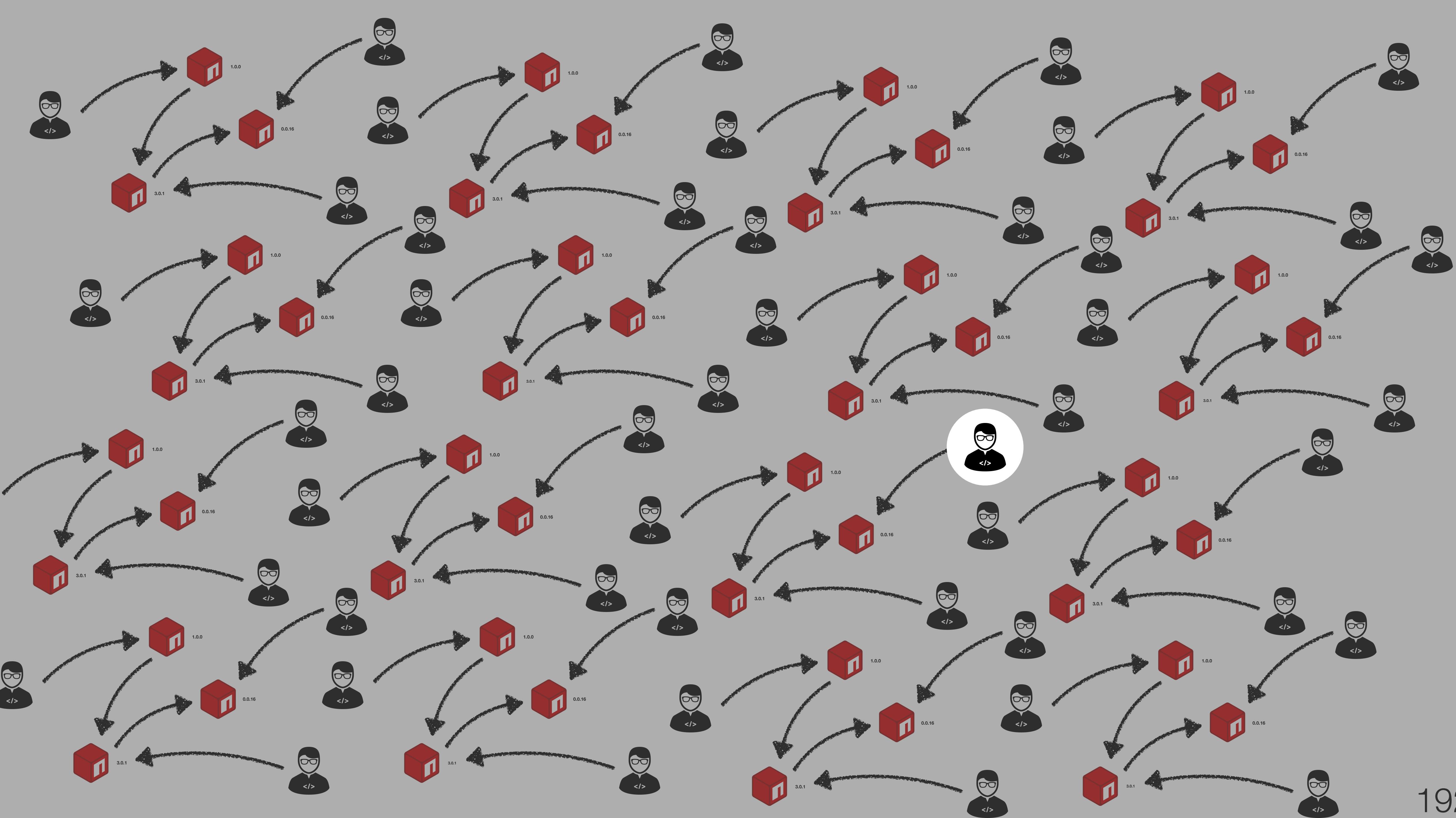


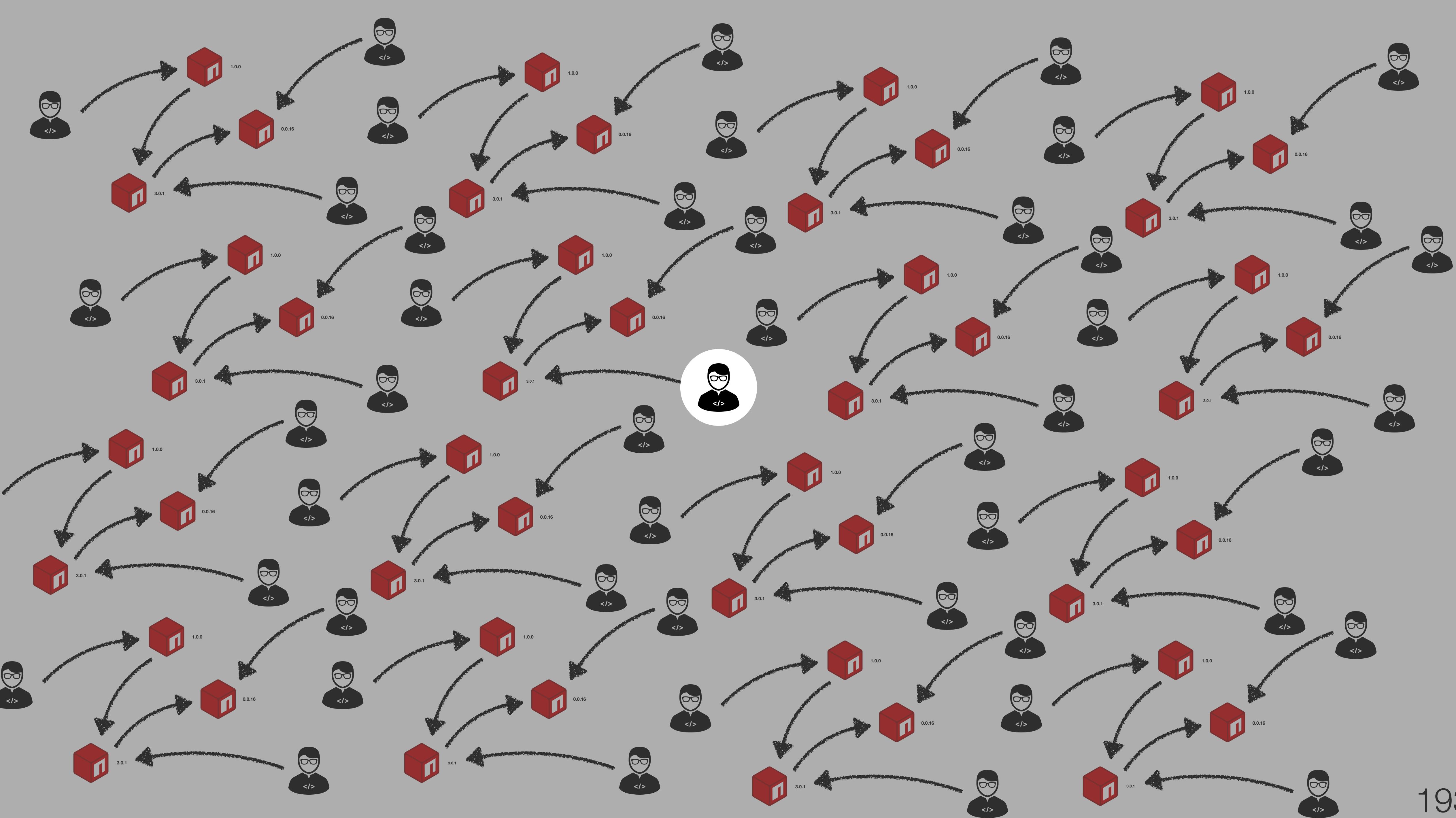
Code Ownership

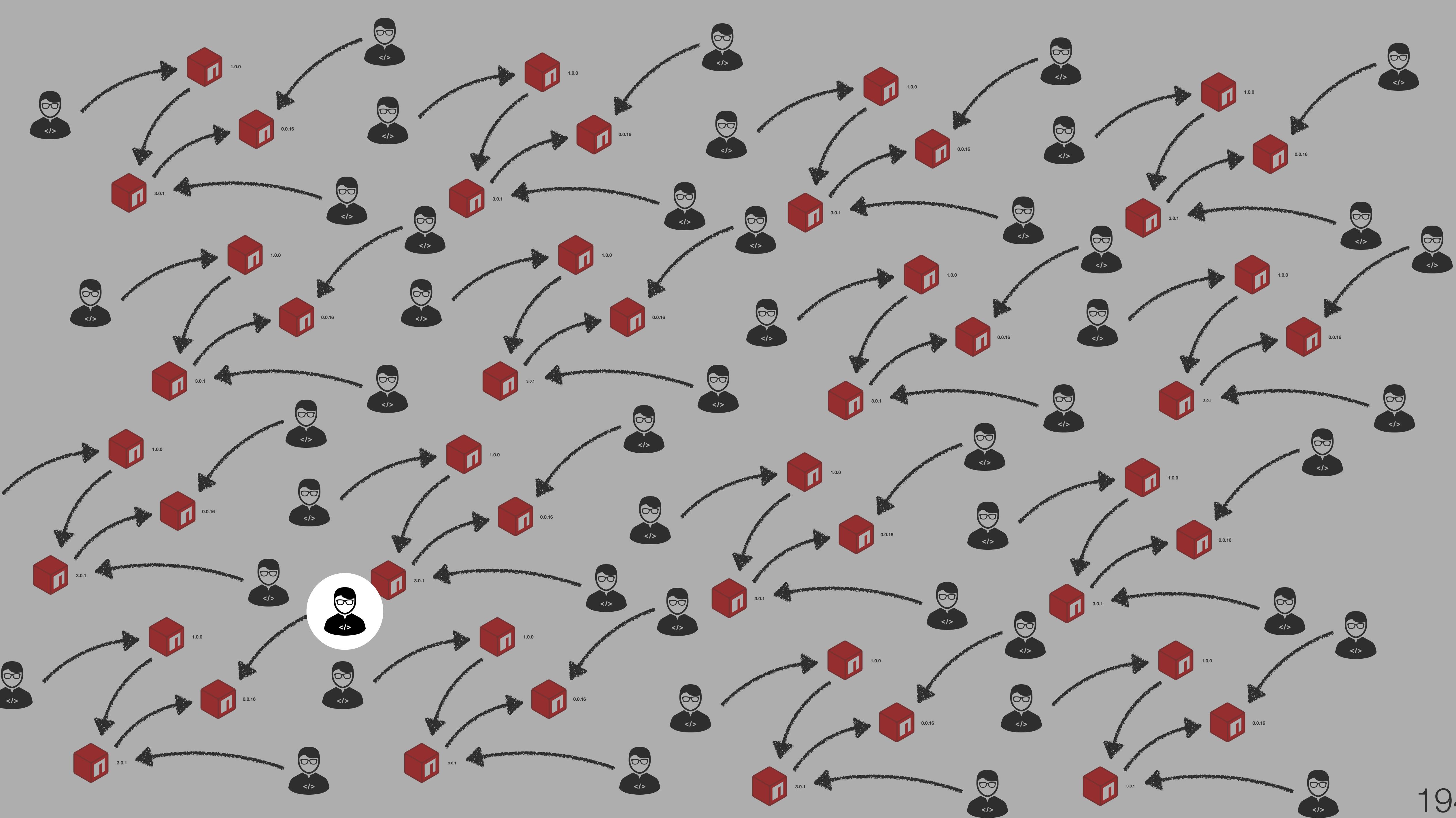










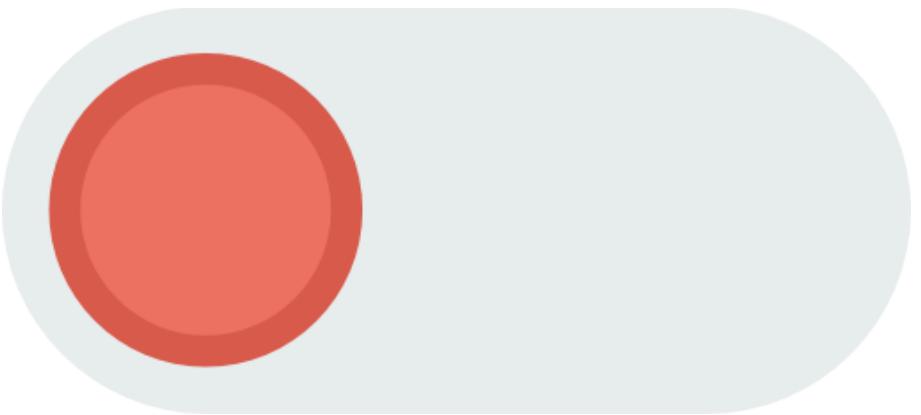


Problems recap

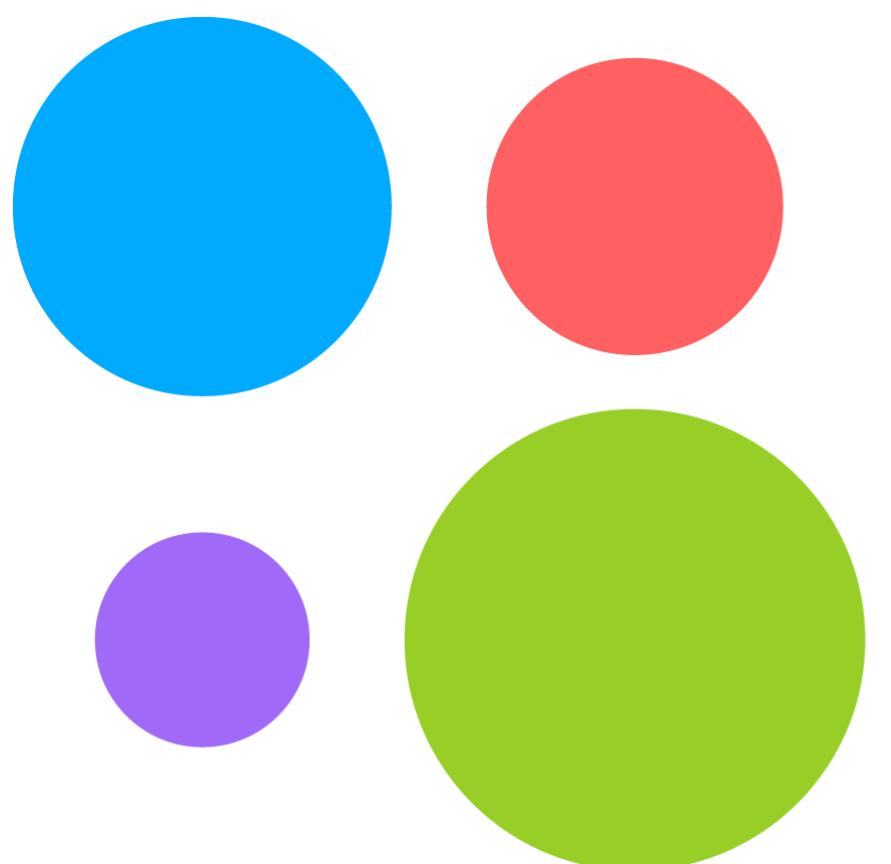
Problems

- Dependency hell and duplication
- Impact analysis
- Update/Migration issues
- Own packages control

nerd mode off



Avito experience



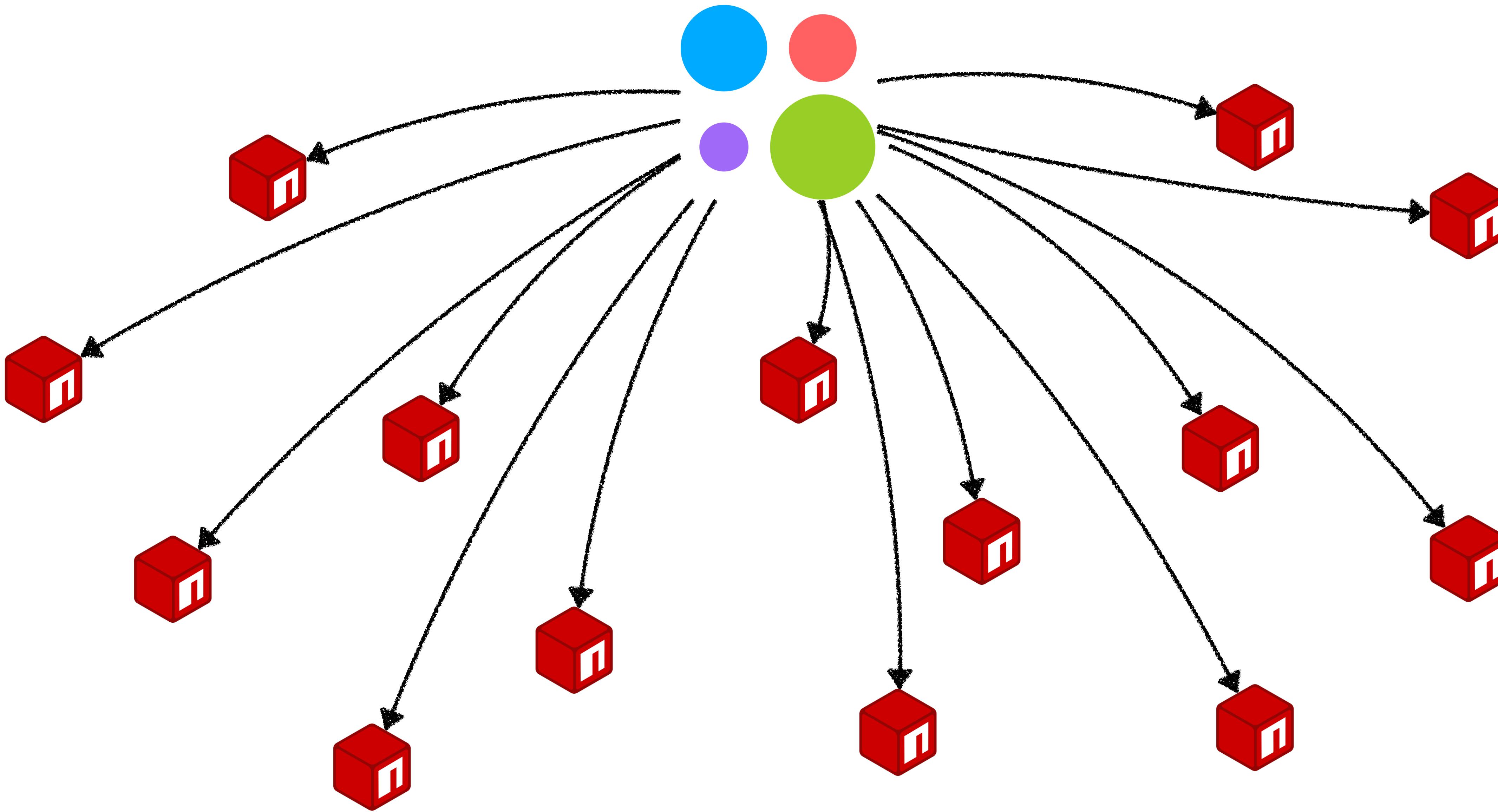
Avito



- Самый большой сайт объявлений в России
- Более 20ти команд разработки



- Самый большой сайт объявлений в России
- Более 20ти команд разработки
- Монолит на PHP _(ツ)_/



Problems

- Dependency hell and duplication
- Impact analysis
- Update/Migration issues
- Own packages control

Problems

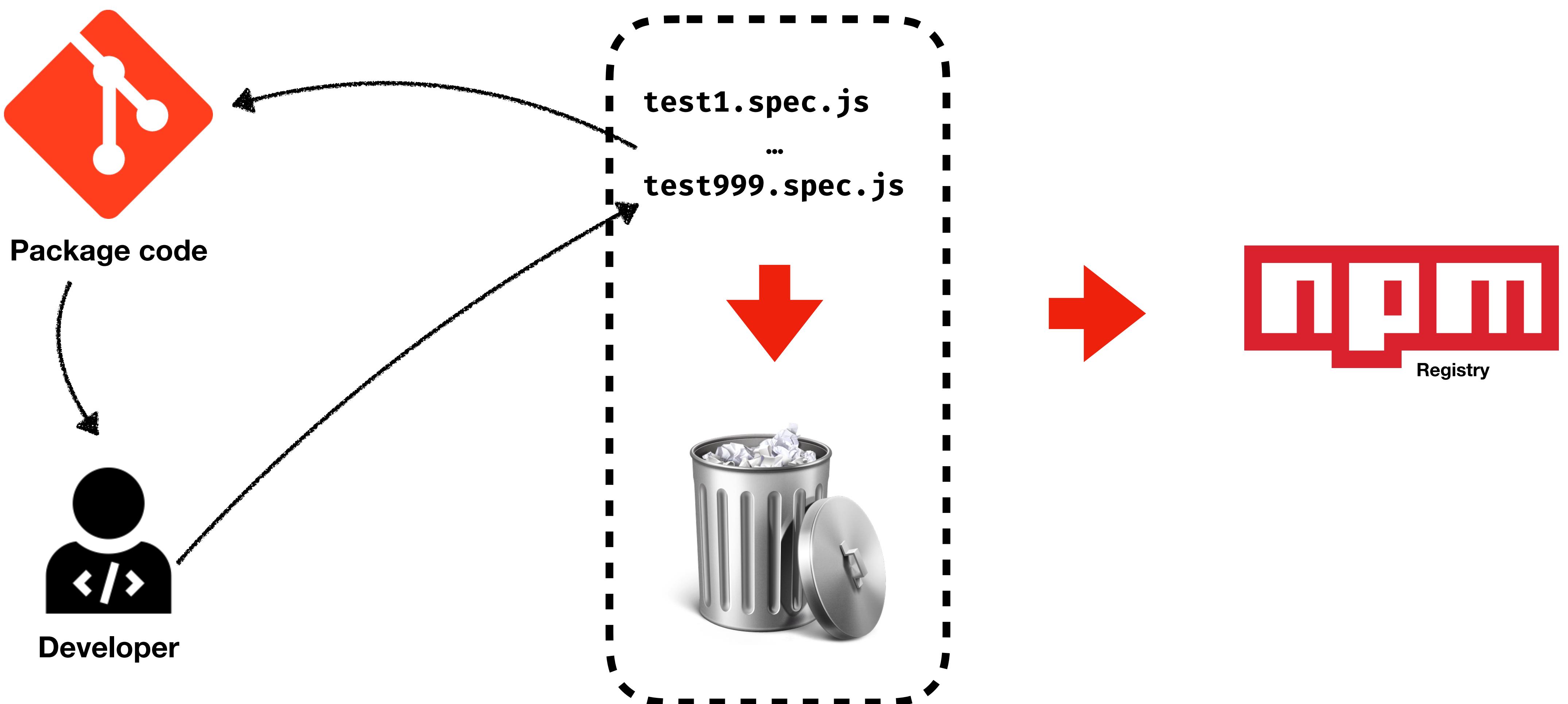
- Dependency hell and duplication
- Impact analysis
- Update/Migration issues
- Own packages control
- Number of teams and team independence

Problems

- Dependency hell and duplication
- Impact analysis
- Update/Migration issues
- Own packages control
- Number of teams and team independence
- Monolith high connectivity

Problems examples

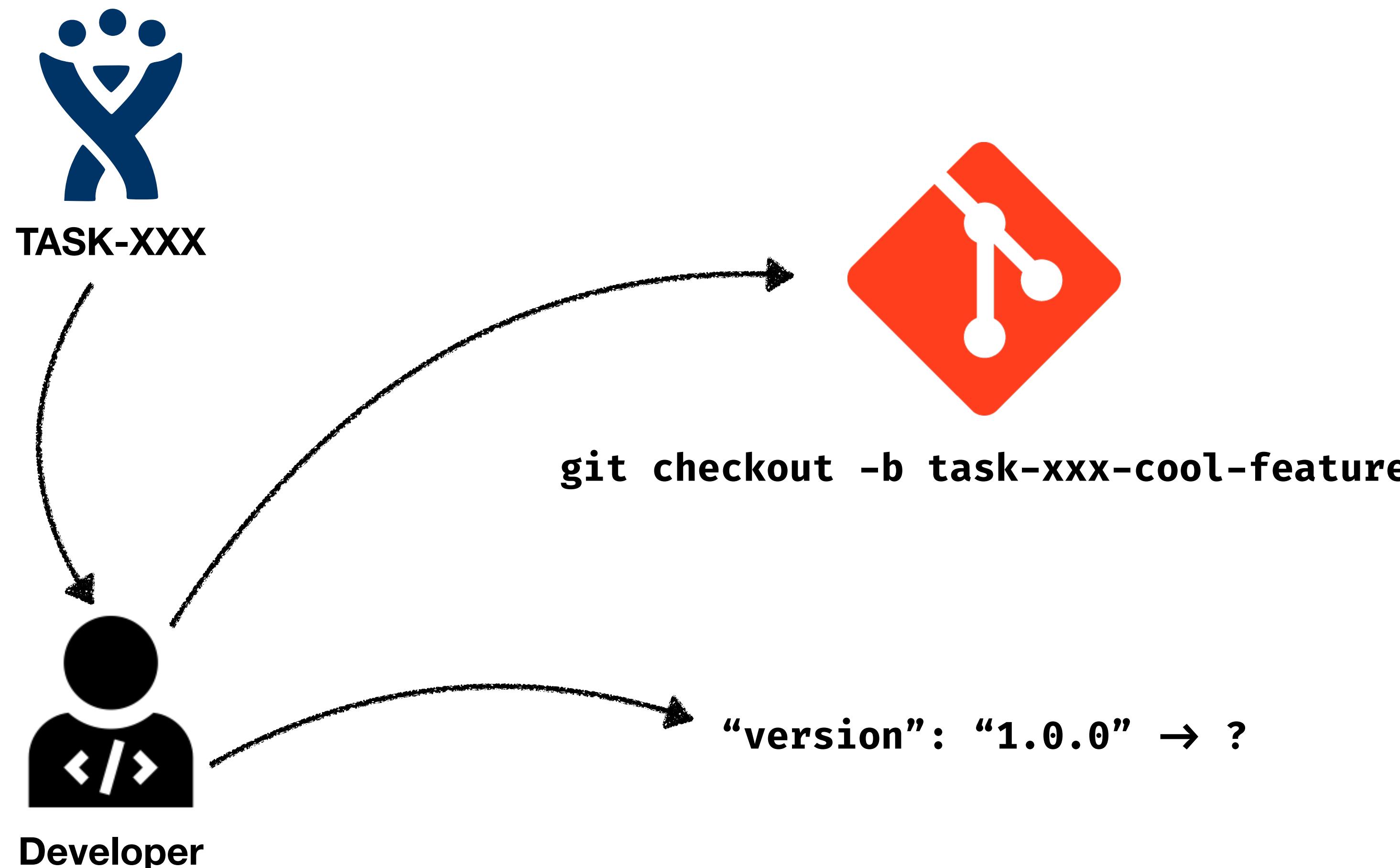
Package size



Package size

- package.json#files
- .npmignore

Versioning



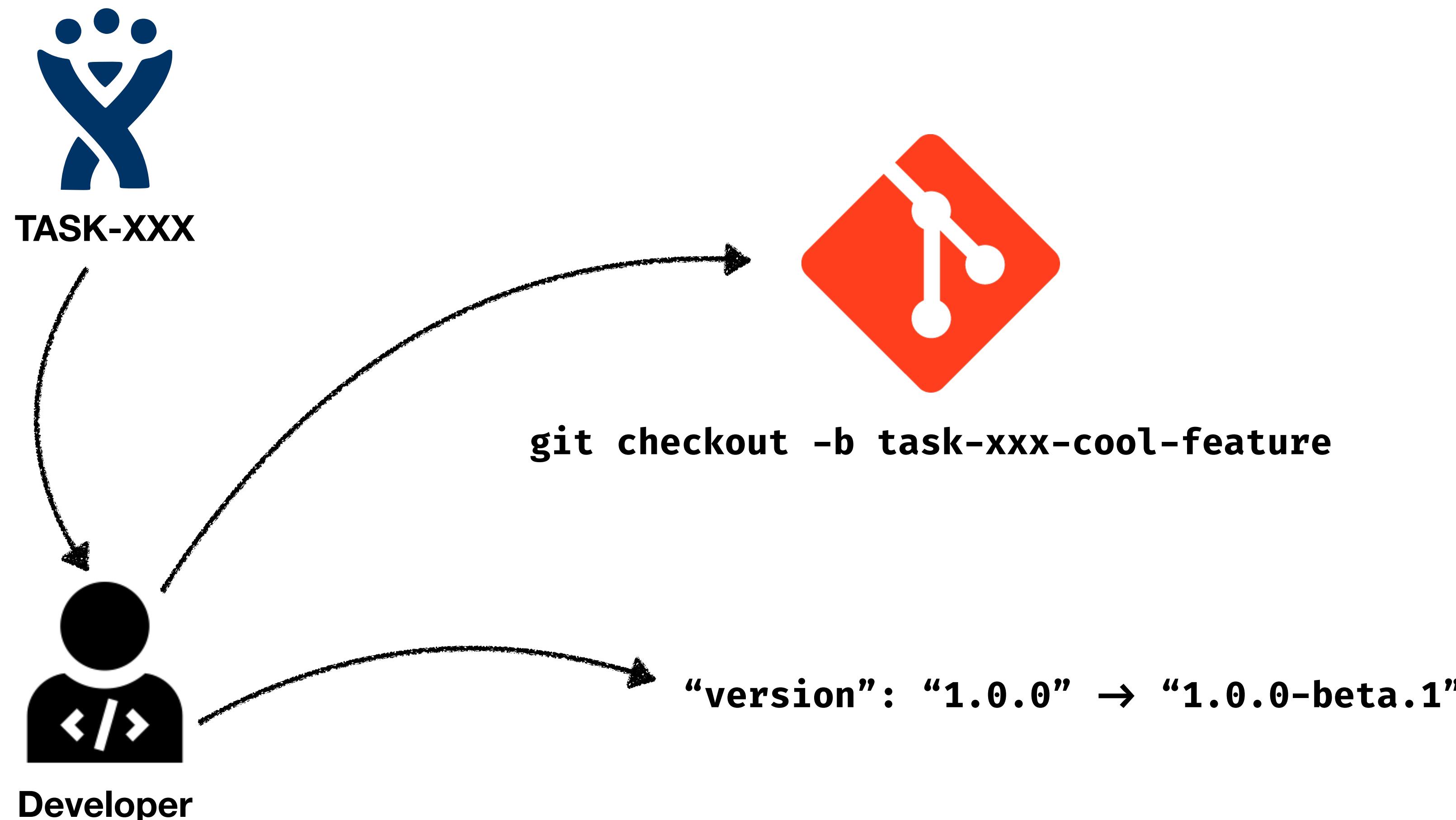
Git*-flow

NPM-flow?

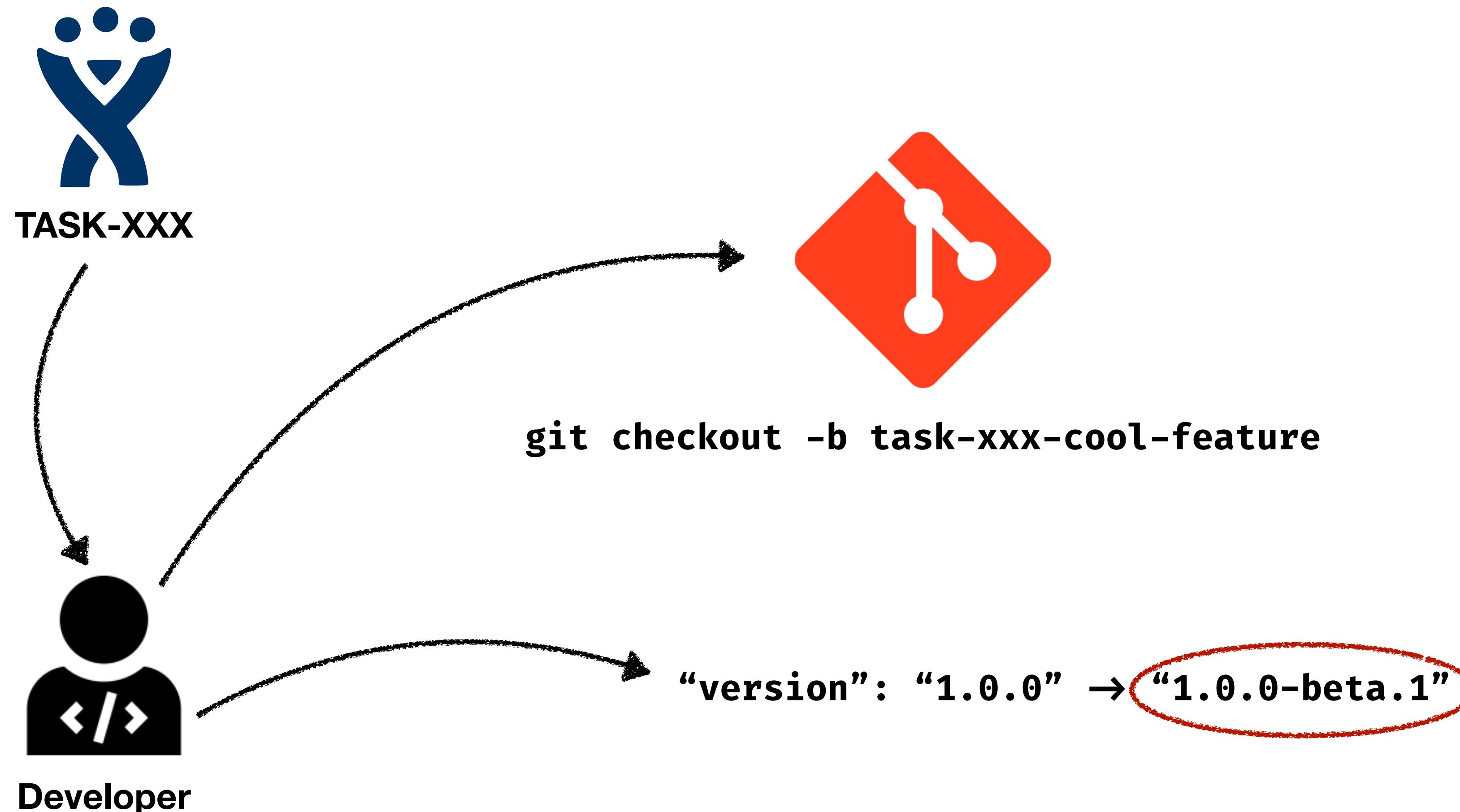
Versioning

npm publish

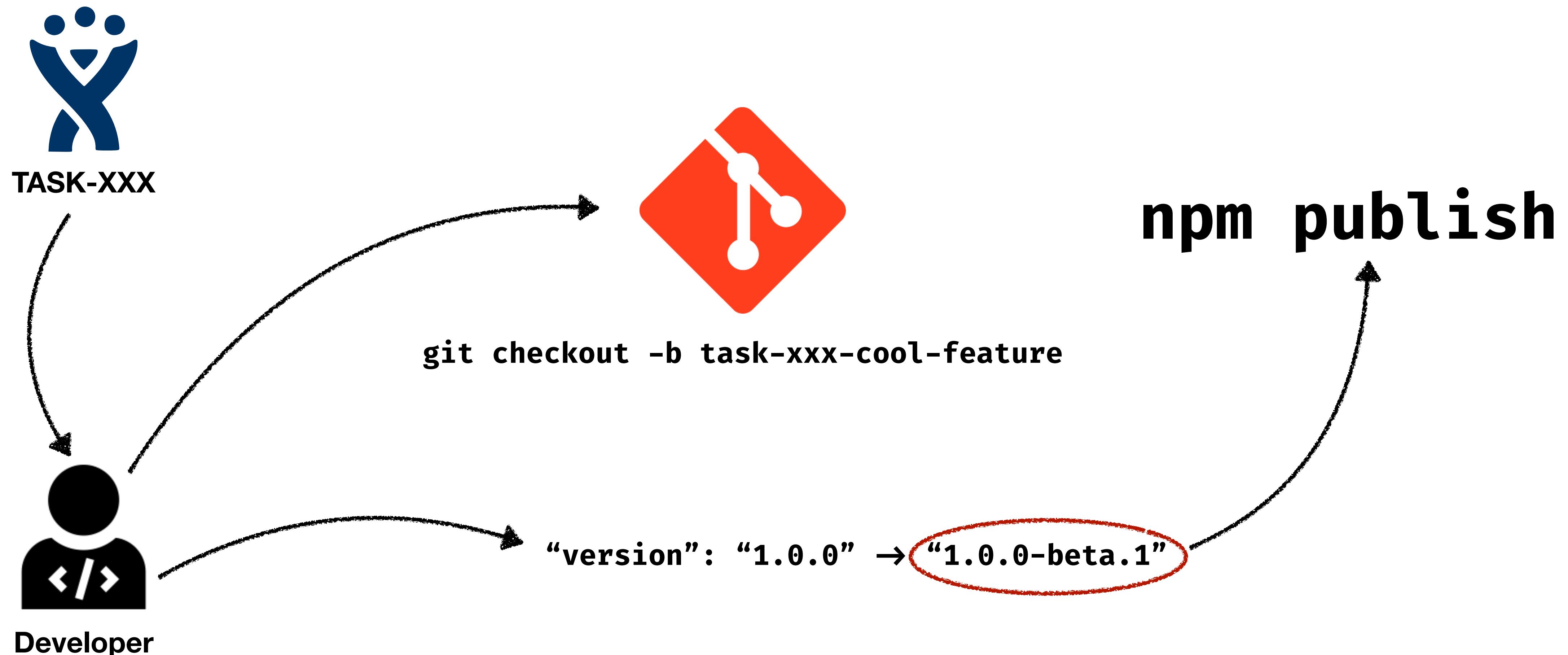
Versioning



Versioning

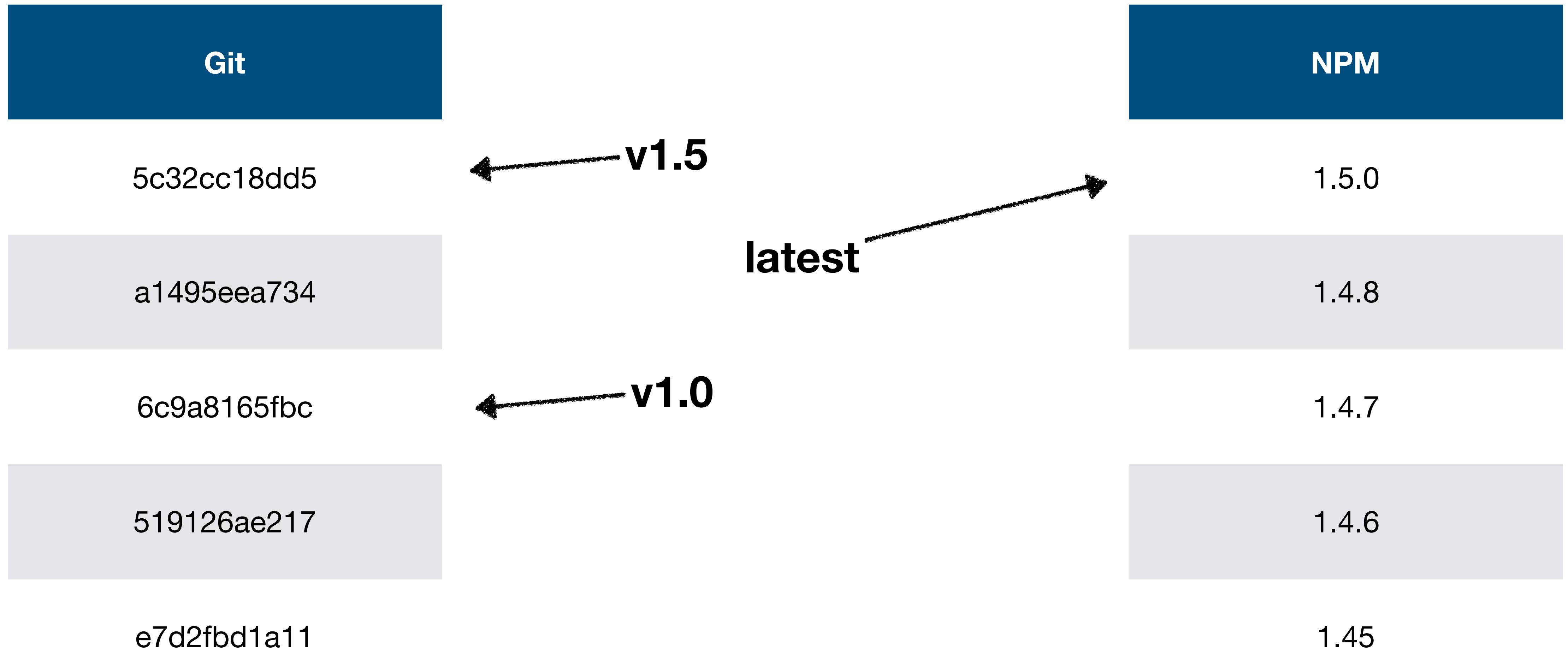


Versioning



⚠ latest tag by default! ⚠

NPM tag

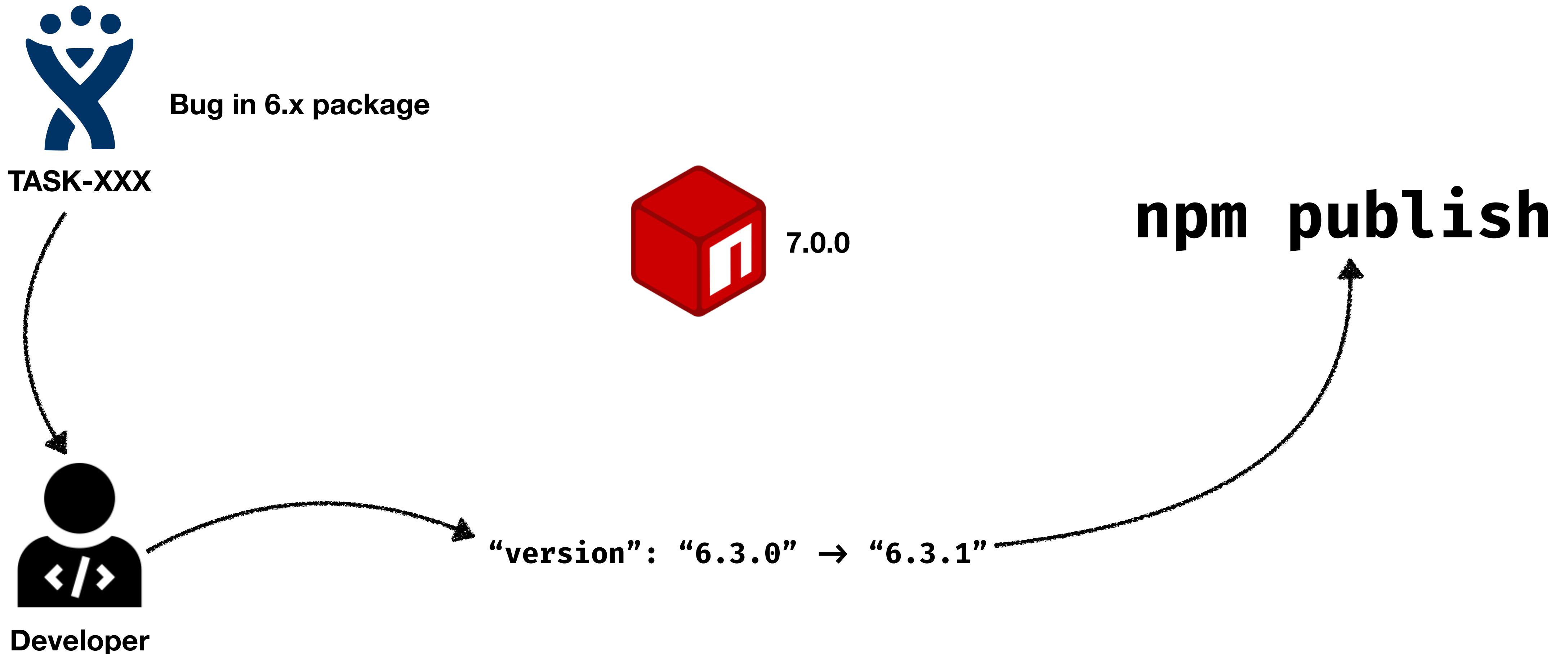




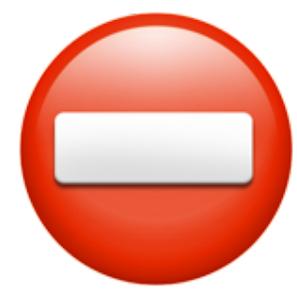
Developer B

npm i your-cool-package → 1.0.0-beta.1

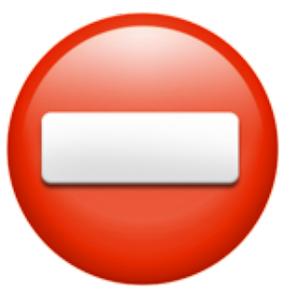
Versioning



npm unpublish



npm unpublish



```
2. ~/d/npm-talk (fish)
I ➔ ~/d/npm-talk ➔ npm i some-package-that-no-exists Sun Jun 2 15:31:26 2019
npm ERR! code E404
npm ERR! 404 Not Found - GET https://registry.npmjs.org/some-package-that-no-exists - Not found
npm ERR! 404
npm ERR! 404   'some-package-that-no-exists@latest' is not in the npm registry.
npm ERR! 404 Your package name is not valid, because
npm ERR! 404   1. name can only contain URL-friendly characters
npm ERR! 404
npm ERR! 404 Note that you can also install from a
npm ERR! 404 tarball, folder, http url, or git url.

npm ERR! A complete log of this run can be found in:
npm ERR!   /Users/dekolesnikov/.npm/_logs/2019-06-02T12_31_30_946Z-debug.log
! ➔ I ➔ ~/d/npm-talk ➔ 2857ms < Sun Jun 2 15:31:31 2019
```

```
{  
  ...  
  "dependencies": {  
    "camelcase": {  
      "version": "4.1.0",  
      "resolved": "https://registry.npmjs.org/camelcase/-/camelcase-4.1.0.tgz",  
      "integrity": "sha1-1UVjW+HjPFQmScaRc+Xeas+uNN0=",  
      "dev": true  
    }  
  }  
  ...  
}
```

```
{  
...  
"dependencies": {  
  "camelcase": {  
    "version": "4.1.0",  
    "resolved": "https://registry.npmjs.org/camelcase/-/camelcase-4.1.0.tgz",  
    "integrity": "sha1-1UVjW+HjPFQmScaRc+Xeas+uNN0=",  
    "dev": true  
  }  
}  
...  
}
```

Правила работы с NPM

Правила работы с NPM

- Документ-инструкция
- Организация пакета
- Версионирование
- Управление зависимостями
- Публикация

Организация пакета

- Файловая структура
- Настройка package.json
- Настройка скриптов
- Особенности работы с git

Файловая структура

```
•
├── dist          // папка для предобраных файлов (результата сборки)
├── src           // папка с исходным кодом
├── test          // папка для тестов
├── .gitignore    // исключение файлов, которые не должны попасть в Git
├── .gitattributes // настройки для Git
├── .npmignore    // исключение файлов, которые не должны попасть в пакет
├── .npmrc         // настройки npm на уровне пакета
├── CHANGELOG.md  // список изменений по версиям
├── README.md     // описание пакета
├── package-lock.json // зафиксированный набор зависимостей и их версий
├── package.json   // техническое описание пакета
└── phakt.config.js // настройки для дизайн-платформы
```

package.json

Поле	Описание
Обязательные поля	
name	Имя пакета. Все внутренние пакеты должны именоваться в пространстве имен @avito , например @avito/my-cool-package
version	Версия пакета (см. Версионирование)
main	Главный (индексный) файл пакета
repository	Ссылка на репозиторий пакета
scripts	Заготовленные команды для запуска тестов, сборки и т.д. (см. Настройка скриптов).
dependencies	Зависимости пакета, если есть (см. Управление зависимостями)
peerDependencies	
devDependencies	
Рекомендуемые поля	
engines	Если целевой платформой пакета является node.js, то в этом поле необходимо указать минимальную версию, на которую рассчитан пакет.
files	Файлы, которые будут добавлены в пакет. Пример: "files": ["src", "phakt.config.js"]. Файлы добавленные в "files" не могут быть исключены с помощью .prtmignore

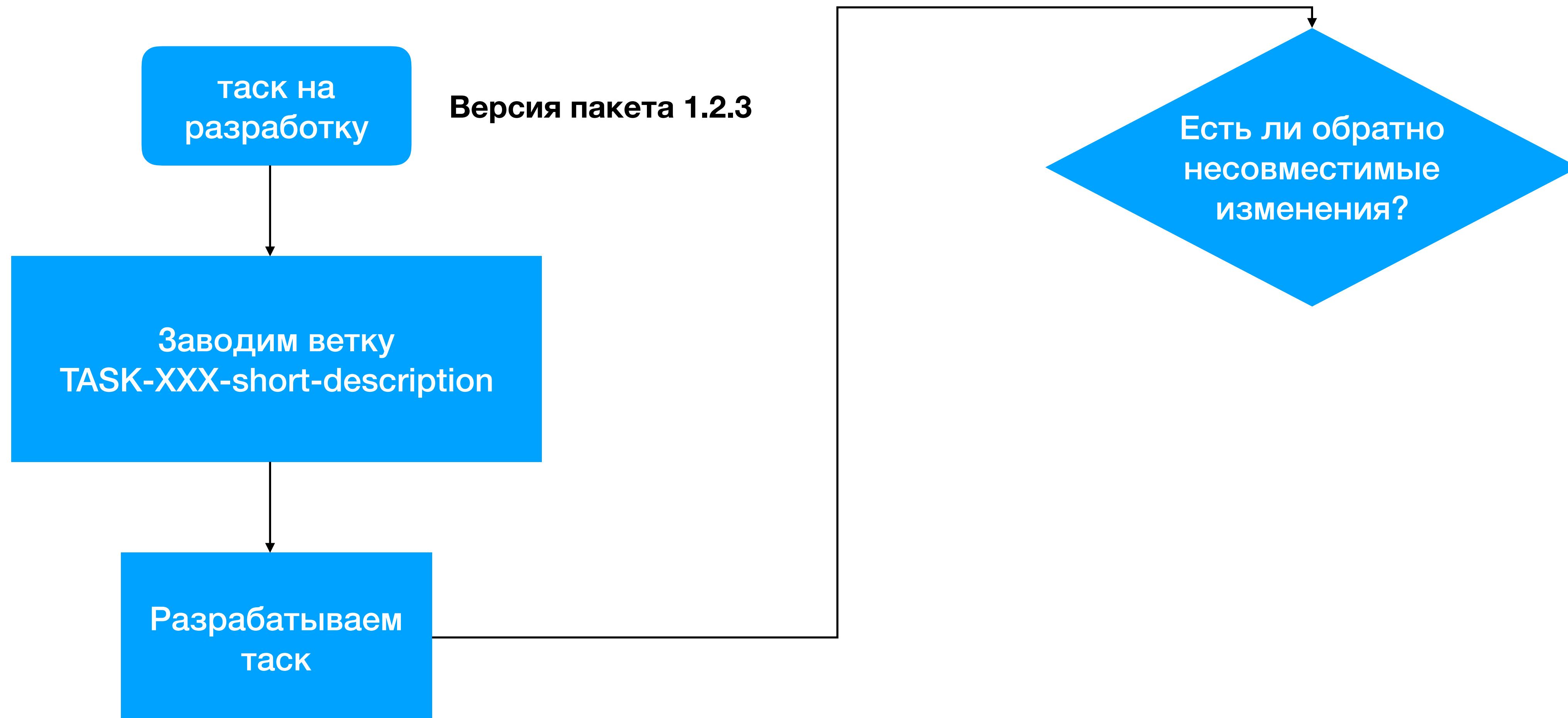
Версионирование

- `latest` тег ТОЛЬКО для стабильных версий
- Версии в разработке должны иметь формат `semver-project.issue[.n]`
- Версии в разработке должны публиковаться с тегом `issue` или `dev`
- Алгоритм работы с версиями

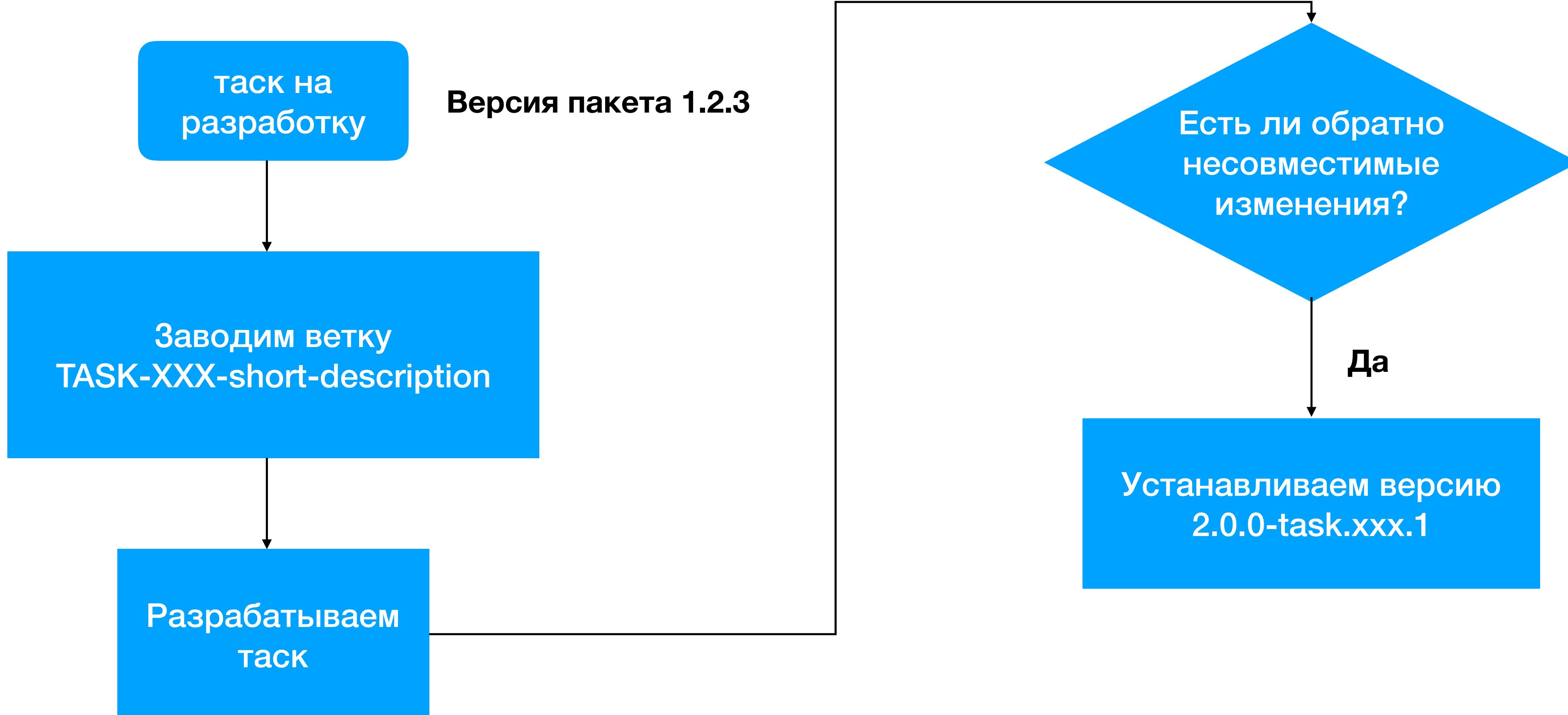
Алгоритм работы с версиями



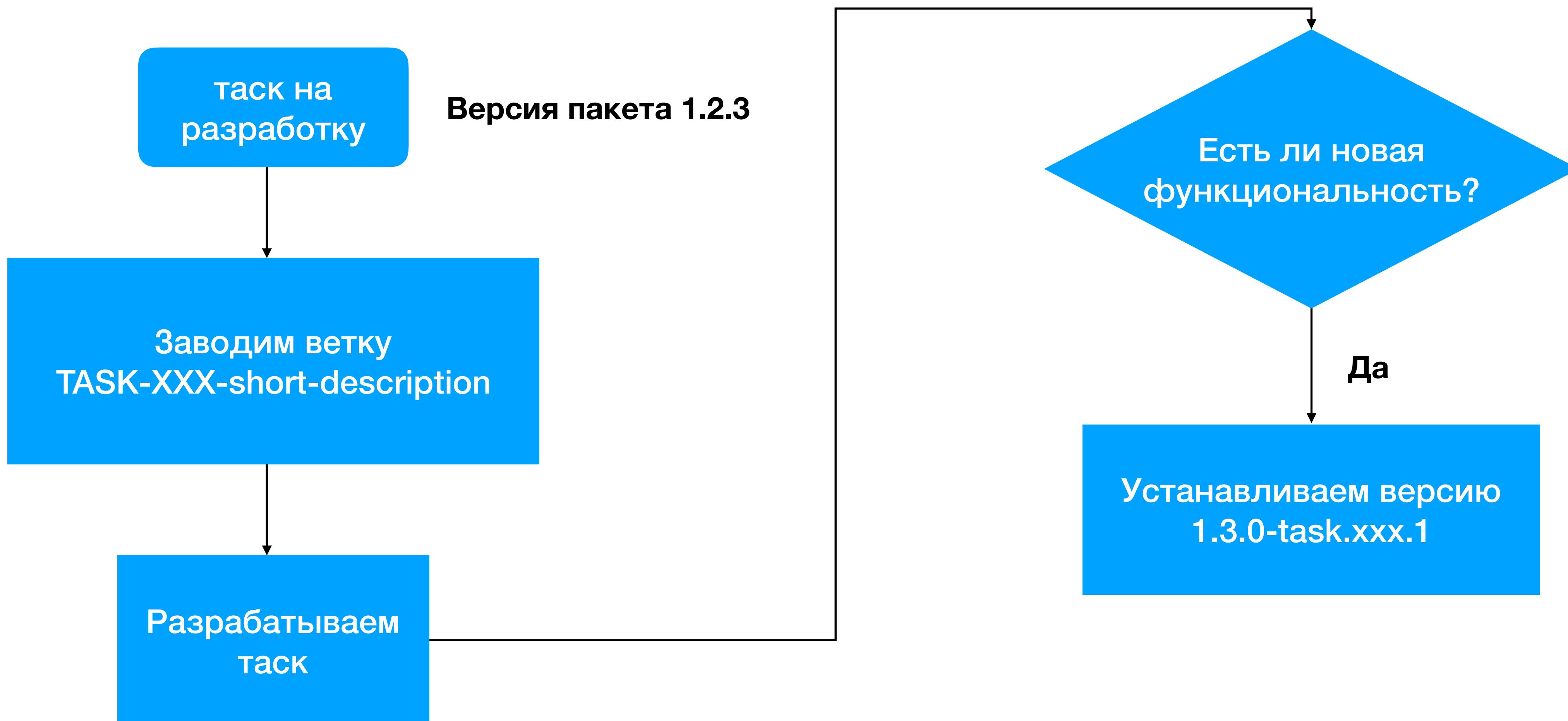
Алгоритм работы с версиями



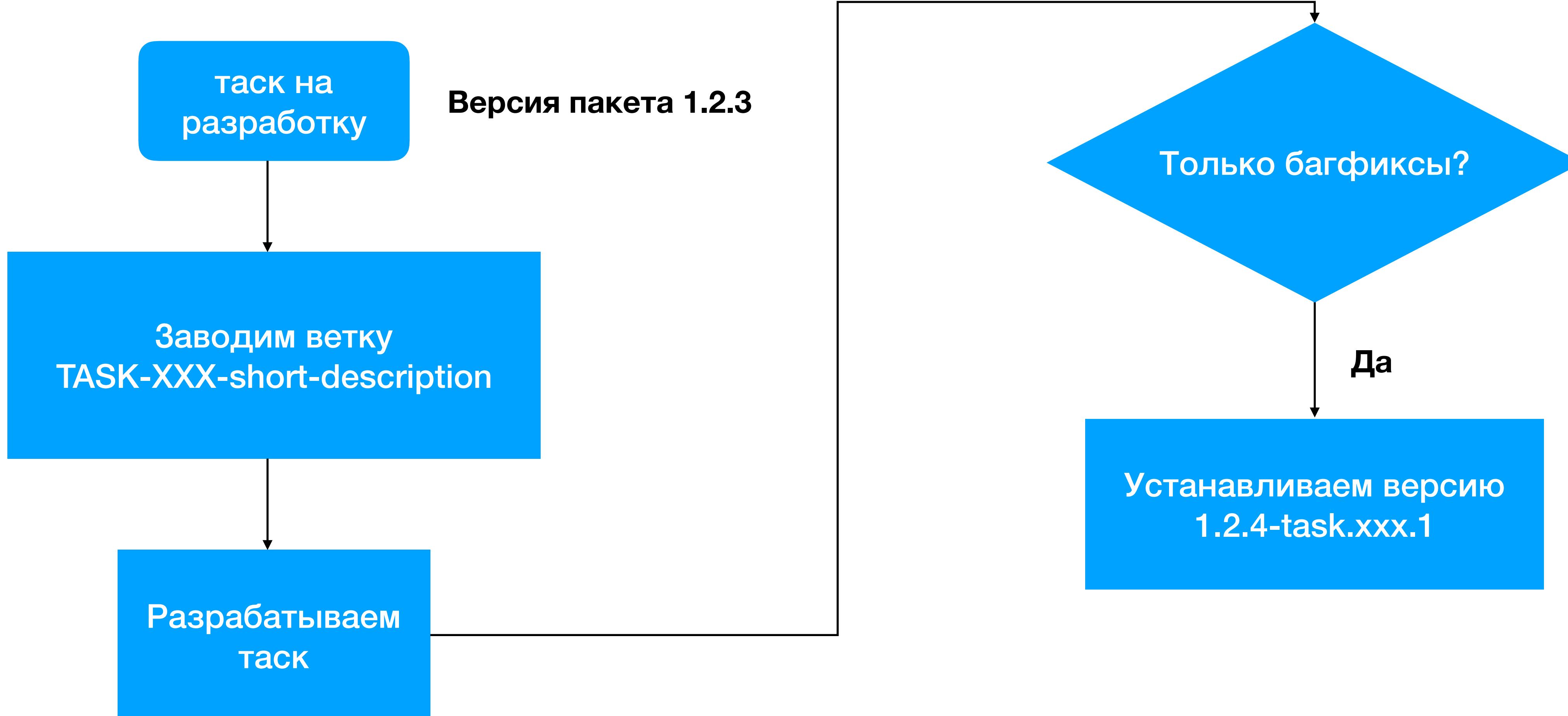
Алгоритм работы с версиями

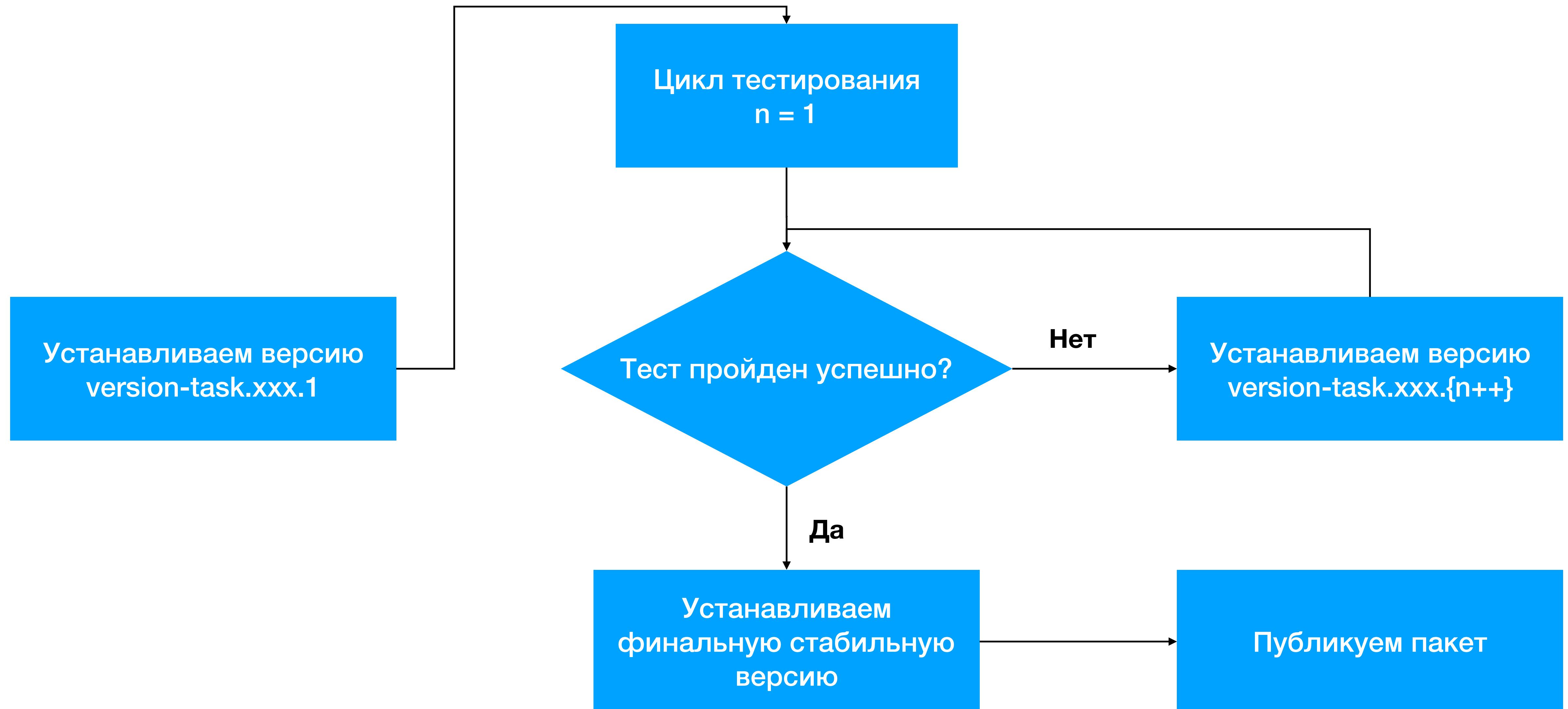


Алгоритм работы с версиями

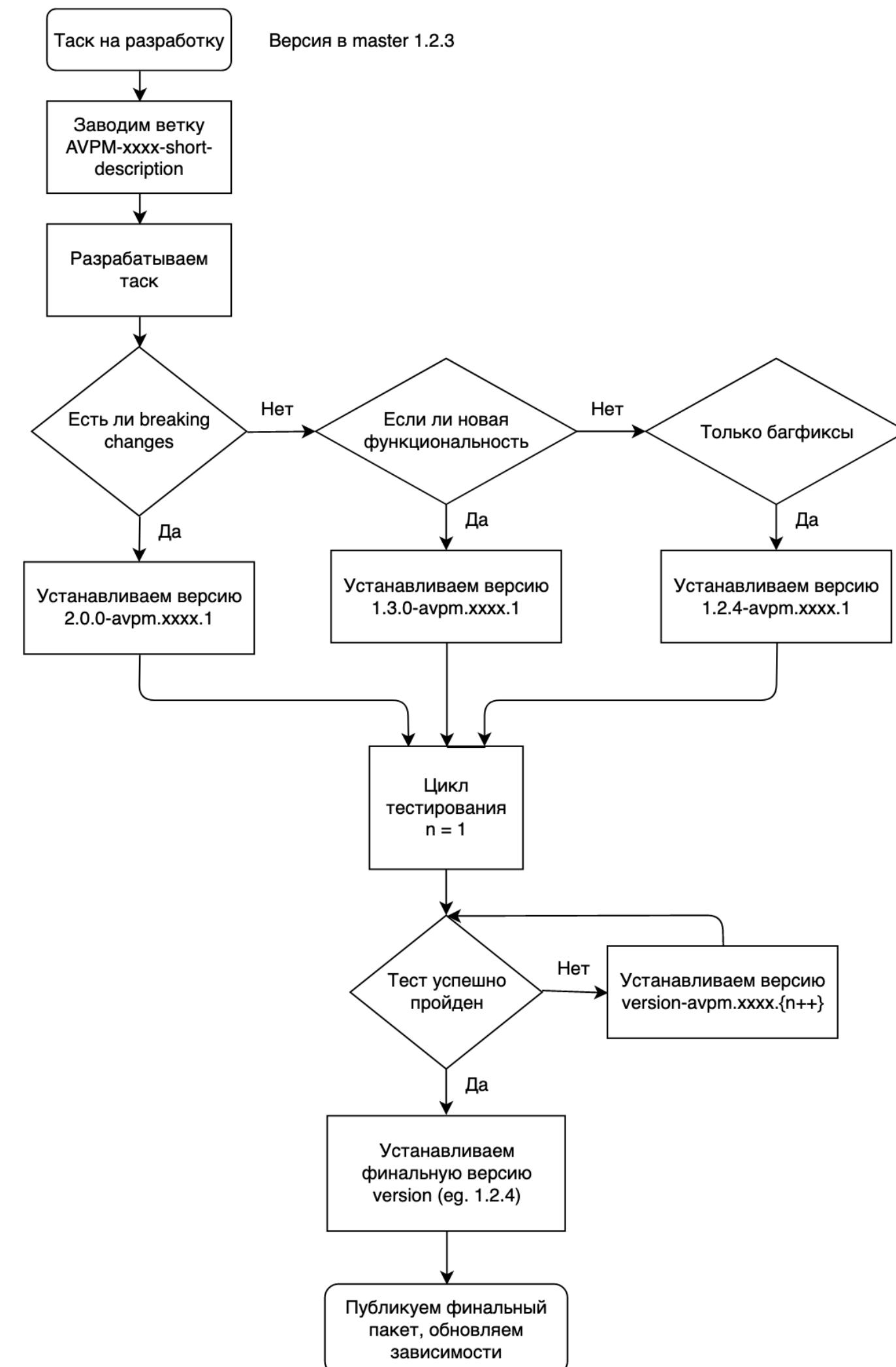


Алгоритм работы с версиями

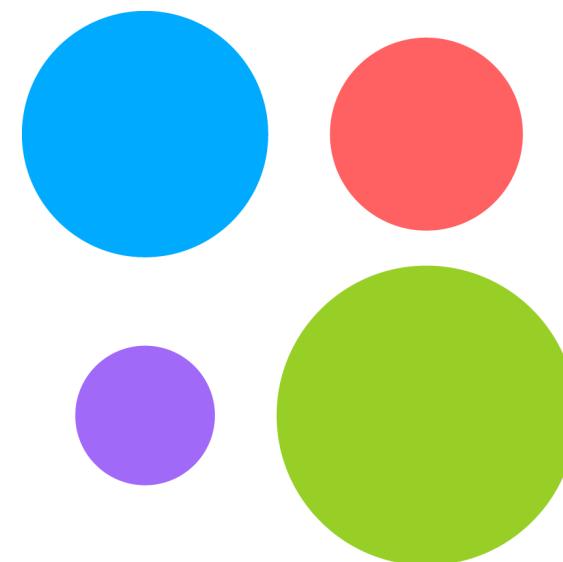




Алгоритм работы с версиями



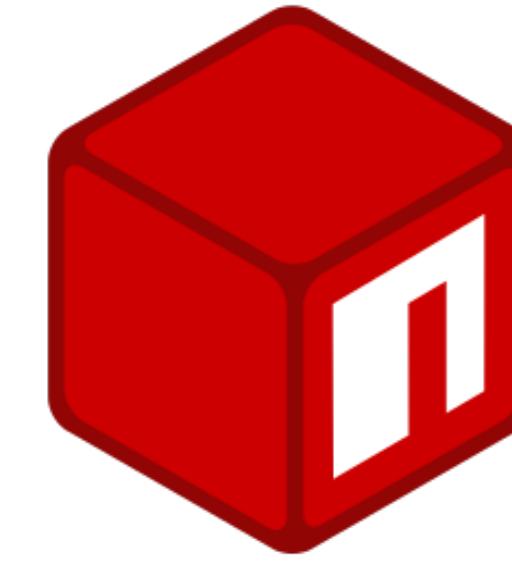
Управление зависимостями



Avito-site



```
"dependencies": {  
  "react": "X",  
  "@avito/ui": "X"  
}
```

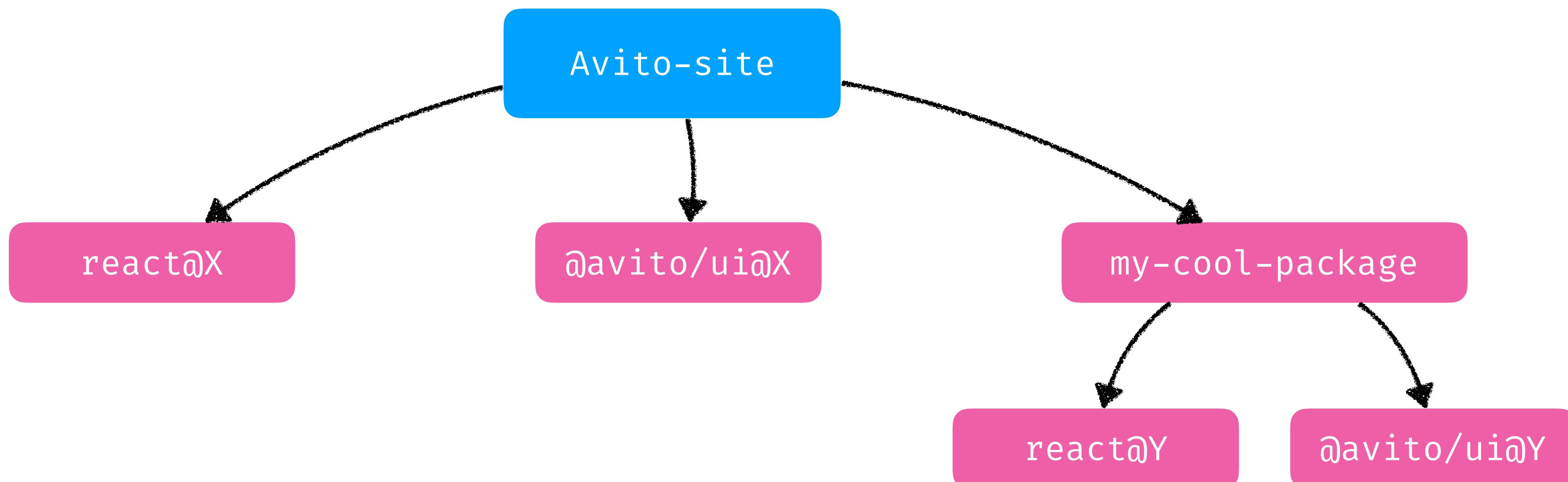


my-cool-package

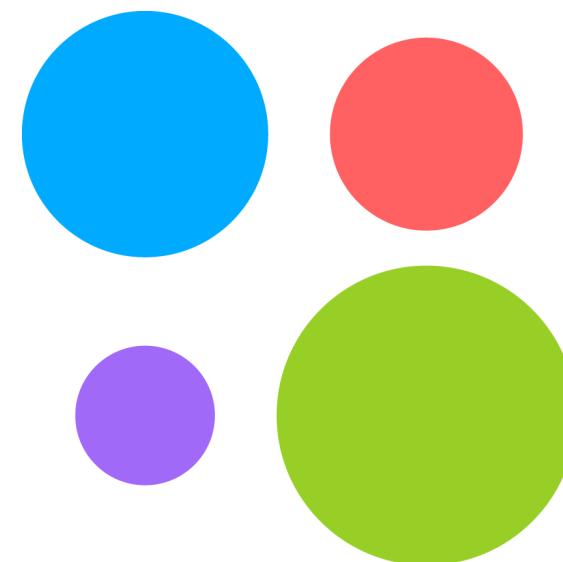


```
"dependencies": {  
  "react": "Y",  
  "@avito/ui": "Y"  
}
```

Deps graph

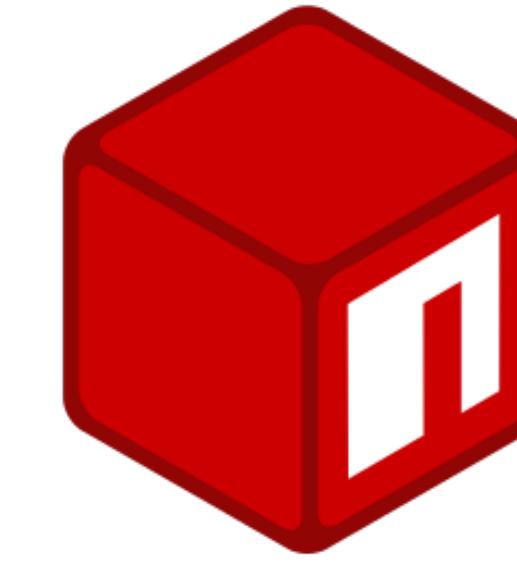


Управление зависимостями



Avito-site

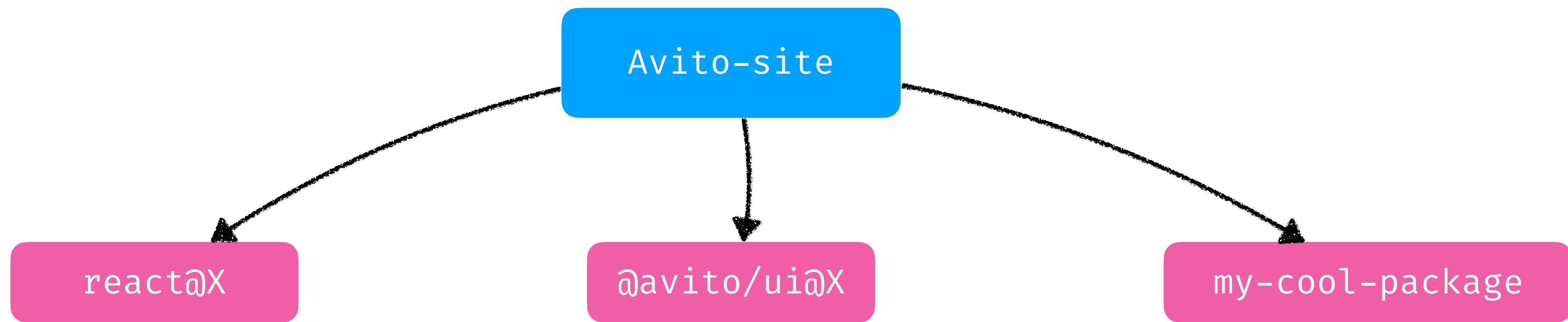
```
"dependencies": {  
  "react": "X",  
  "@avito/ui": "X"  
}
```



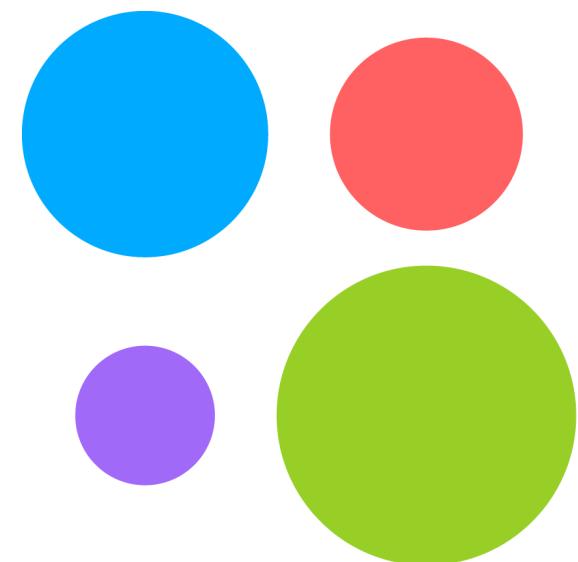
my-cool-package

```
"peerDependencies": {  
  "react": "Y",  
  "@avito/ui": "Y"  
}
```

Deps graph

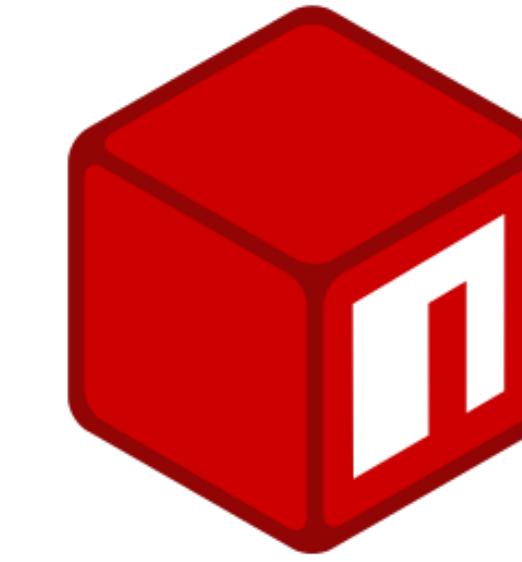


Управление зависимостями



Avito-site

```
"dependencies": {  
  "react": "X",  
  "@avito/ui": "X"  
}
```



my-cool-package

```
"peerDependencies": {  
  "react": "Y",  
  "@avito/ui": "Y"  
}
```

```
"devDependencies": {  
  "react": "Y",  
  "@avito/ui": "Y"  
}
```

Публикация

- Настройка реестра
- Теггирование пакетов при публикации
- Ограничение прав доступа к пакетам

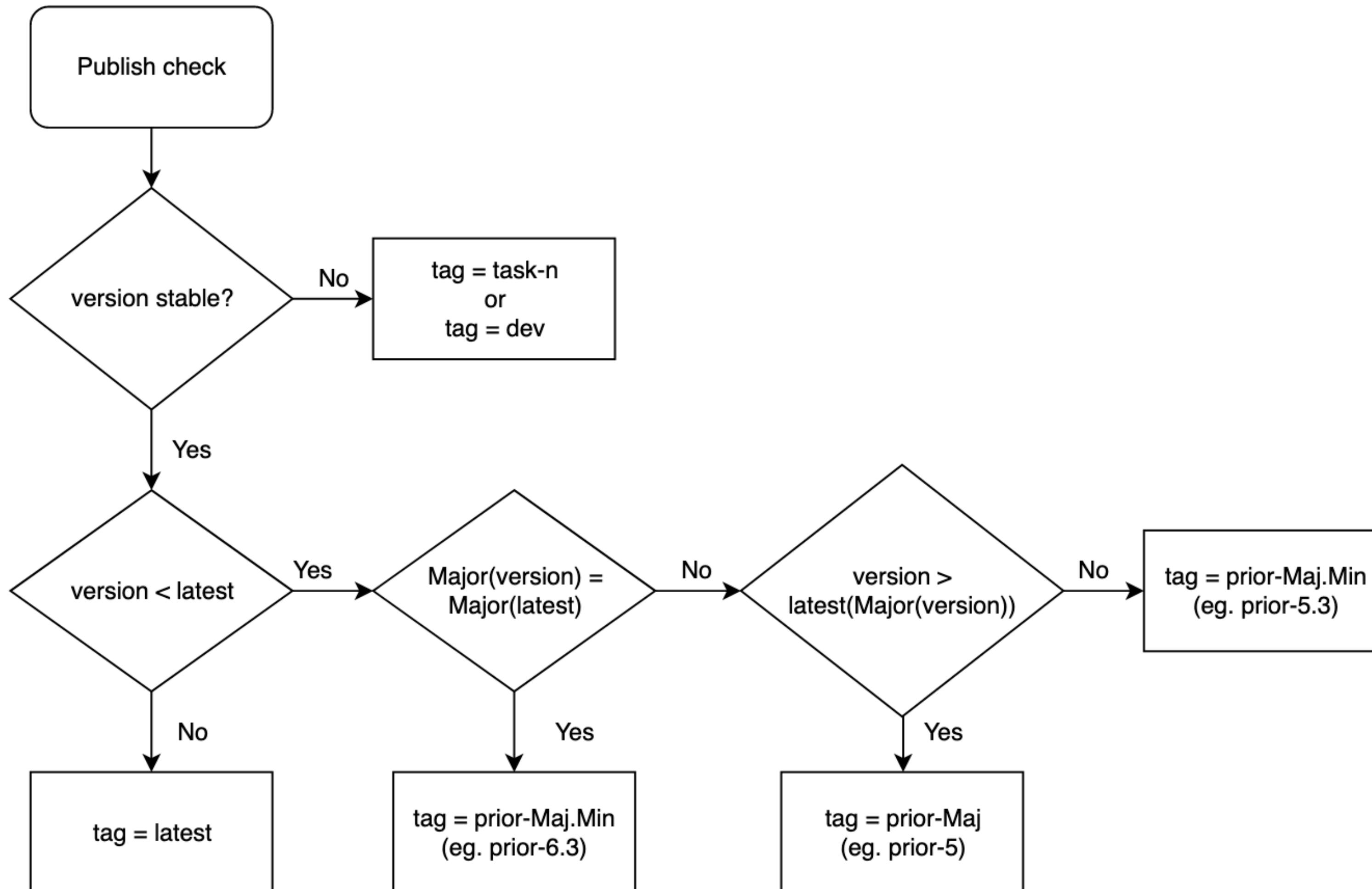
Настройка реестра

```
npm login --registry http://private-npm.com
```

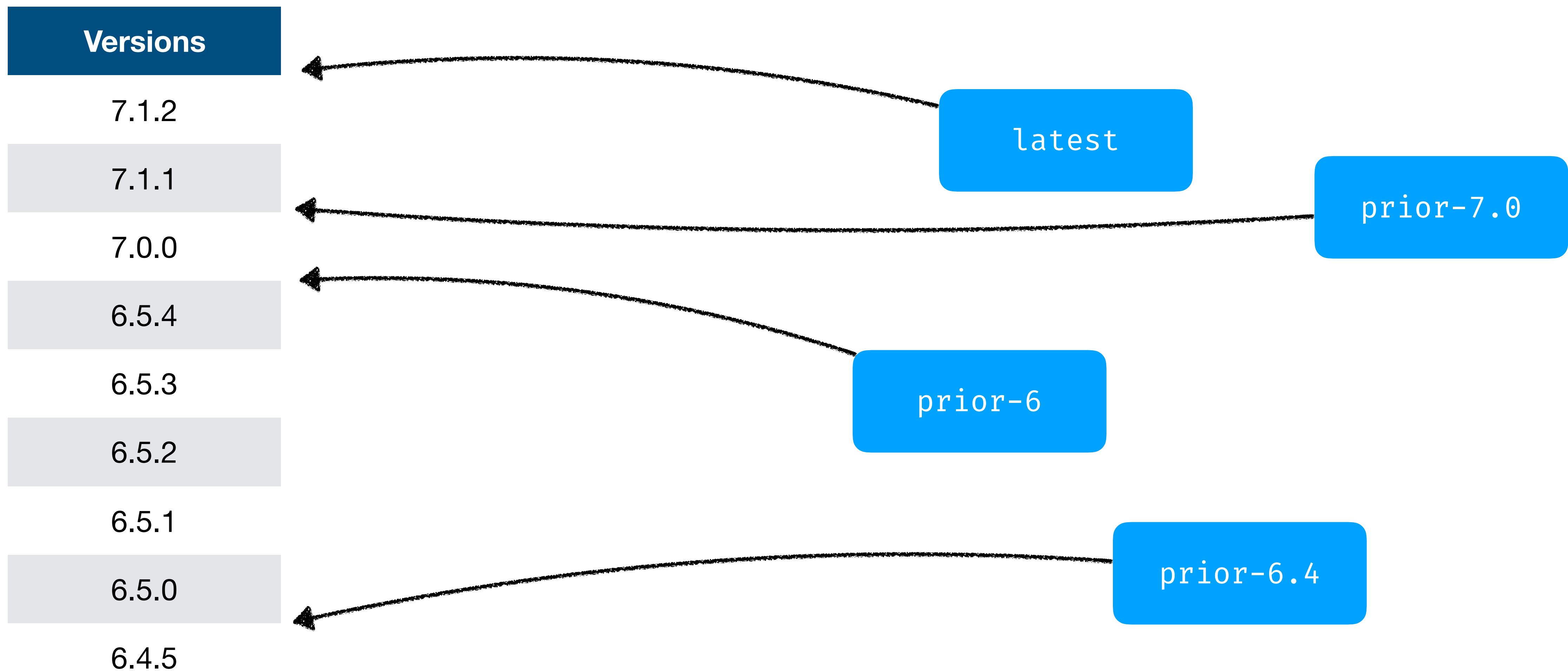
```
echo "registry = https://private-npm.com" >> .npmrc
```

```
echo "registry = https://private-npm.com" >> ~/.npmrc
```

Валидация тега



Валидация тега



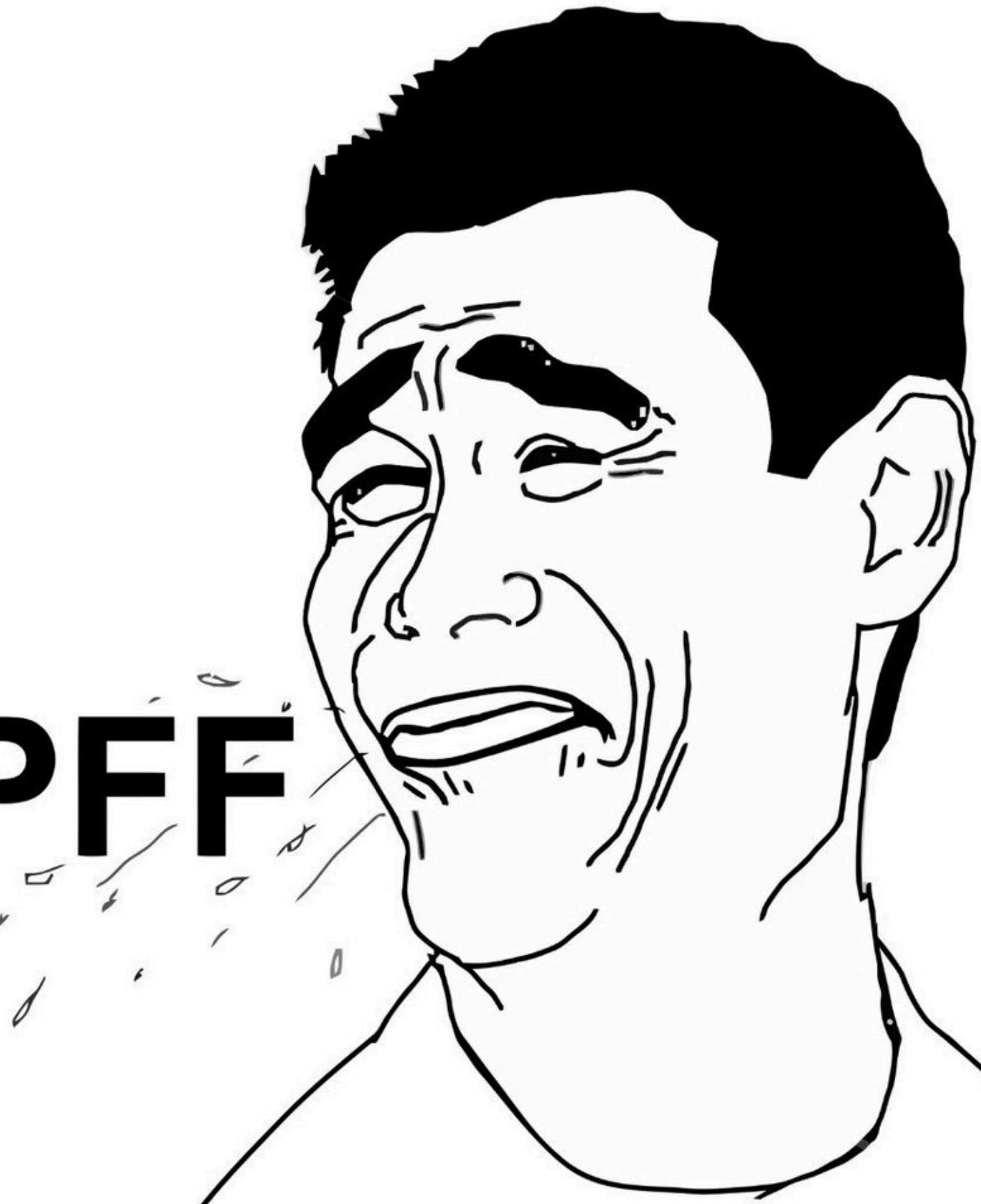
Валидация тега

version = 1.0.0-task.123.1 → tag = task-123

version = 1.0.0-task.123.1 → tag = dev

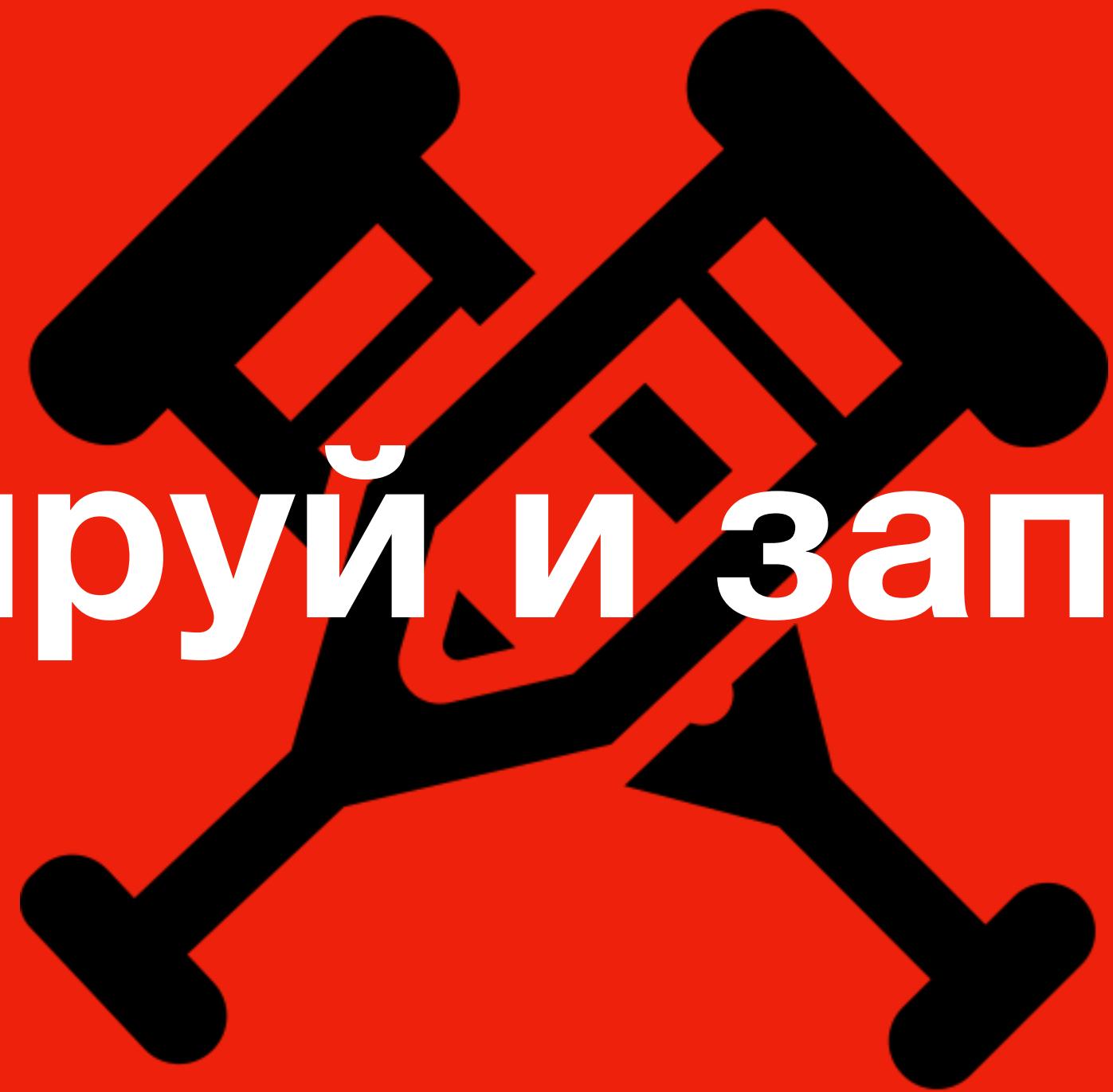
Правила?

PFF

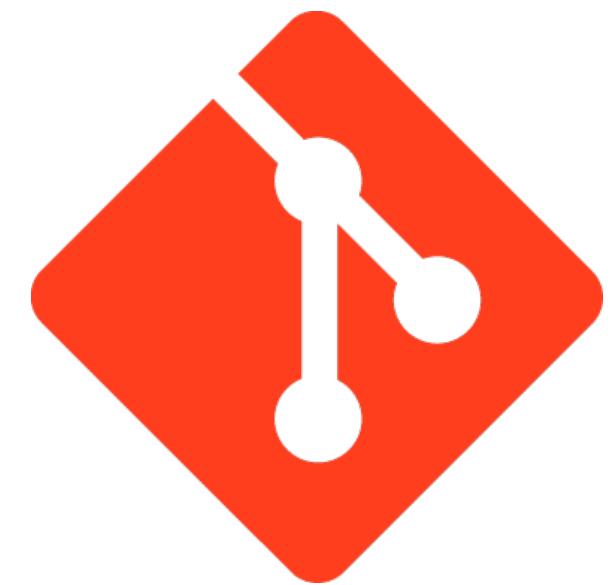


Правильно!

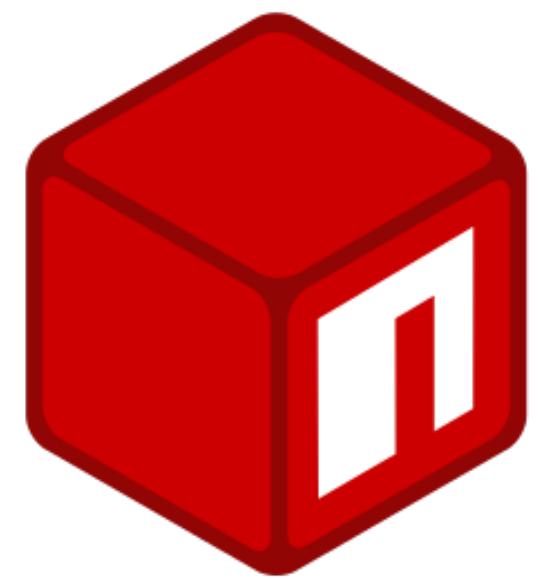
Валидируй и запрещай!



Как валидировать NPM-пакеты?



Git hooks



NPM hooks

Git hooks

- Клиентские (--no-verify)
- Серверные

Серверные NPM-хуки?



Self-hosted NPM registry

Self-hosted NPM

- [DIY NPM](#)
- [Cnpmjs.org](#)
- [NPM-register](#)
- [Nexus](#)
- [Sinopia](#)
- [Verdaccio](#)



Verdaccio

Verdaccio

- Fork sinopia
- NodeJS
- Express
- Plugin system

Verdaccio package rights restriction

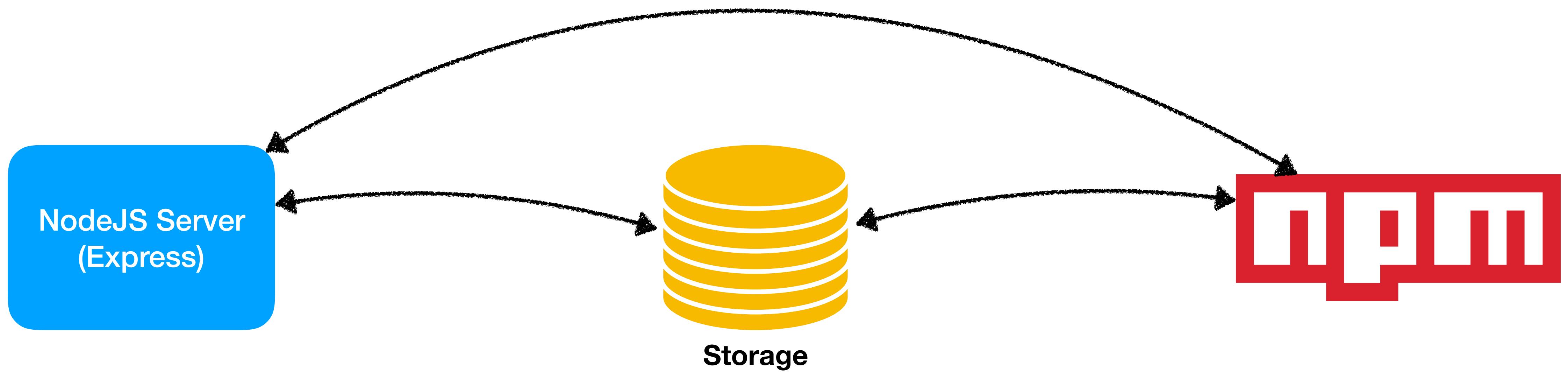
```
packages:  
  'jquery':  
    access: $all  
    publish: $all  
    unpublish: root  
  'my-company-*':  
    access: $all  
    publish: $authenticated  
    unpublish:  
  '@my-local-scope/*':  
    access: $all  
    publish: $authenticated  
    # unpublish: property commented out  
  '**':  
    access: $all  
    publish: $authenticated  
    proxy: npmjs
```

<https://www.npmjs.com/package/verdaccio-ldap>

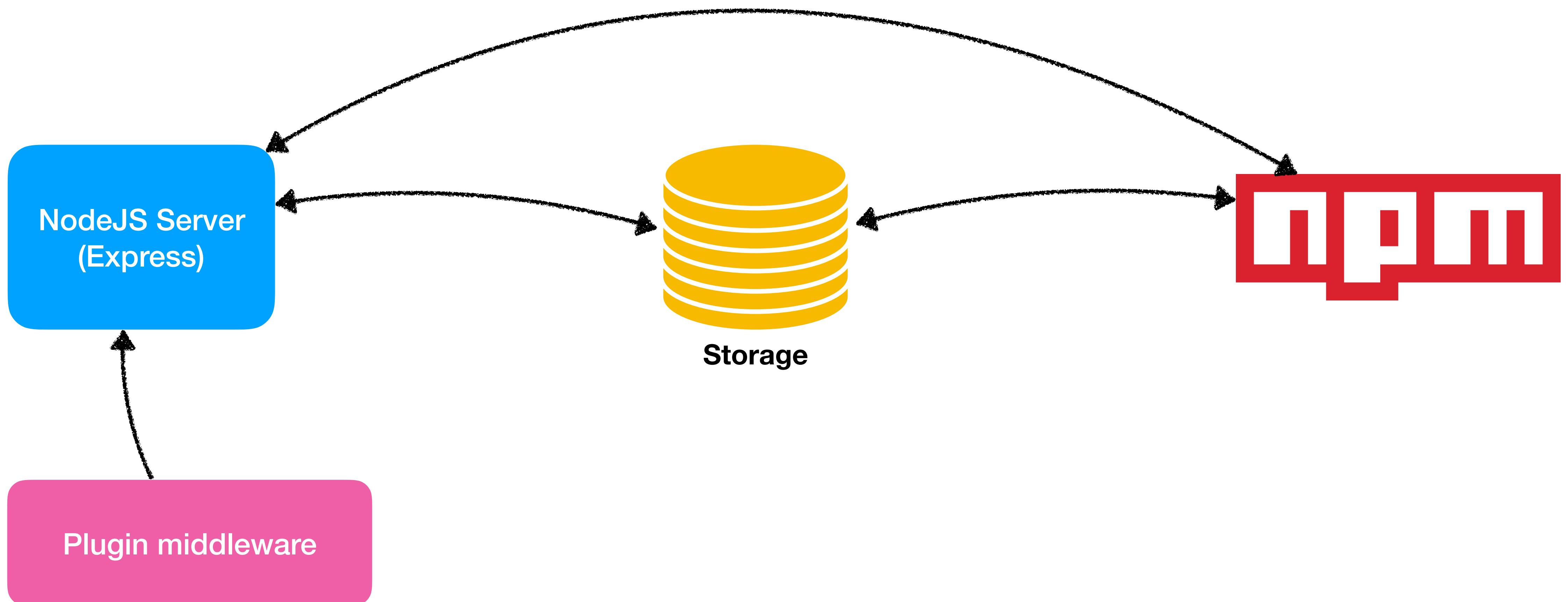
Problems

- Dependency hell and duplication
- Impact analysis and Update/Migration
- Own packages control
- Code ownership
- ~~Rights restriction~~

Verdaccio



Verdaccio

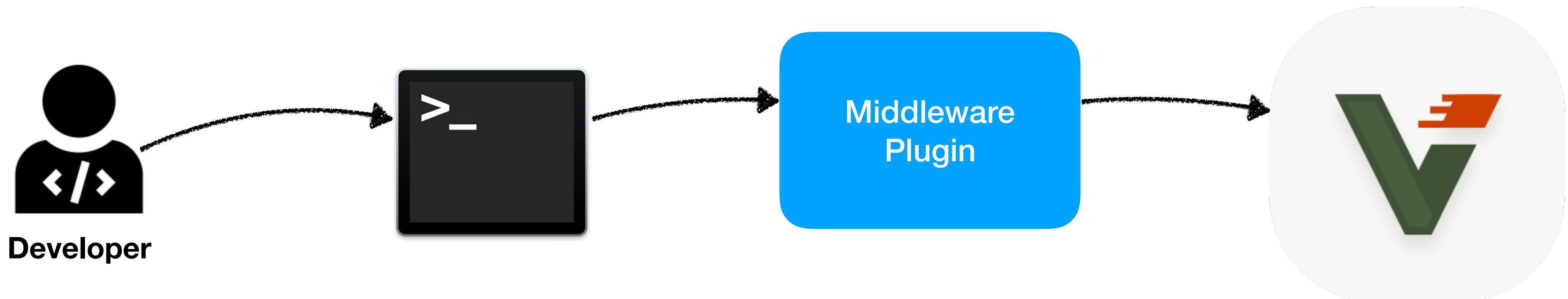


Verdaccio plugins



Developer

Verdaccio plugins



Publish request

- Package name
- Package version
- Package tag
- Publisher
- **Dist tarball**

**Что мы можем сделать с
этой информацией?**

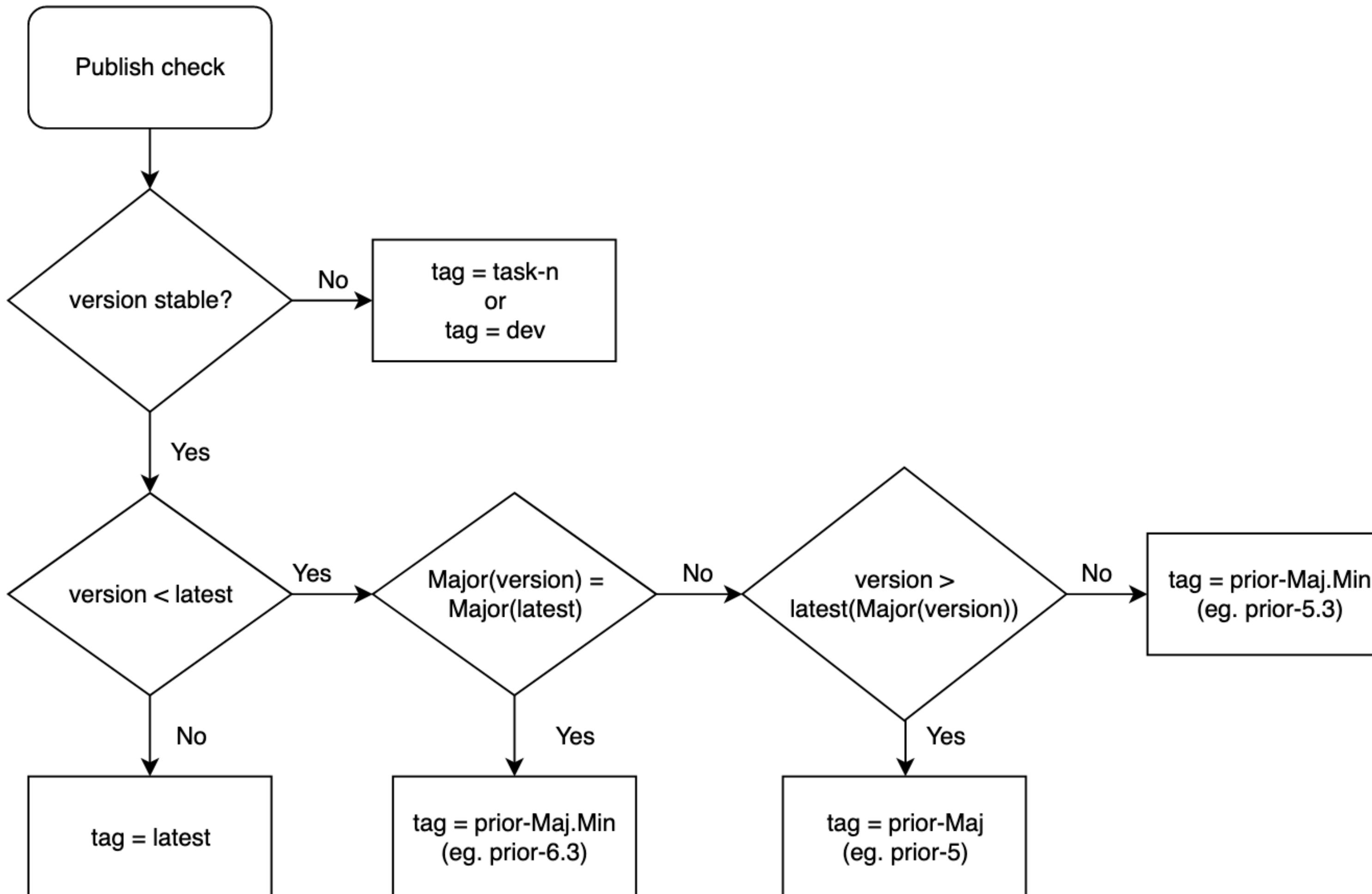
Валидация публикации пакета

- Валидация имени пакета
- Валидация версии и тега публикации

Валидация имени пакета

`!package.name.match(PATTERN) → publish deny`

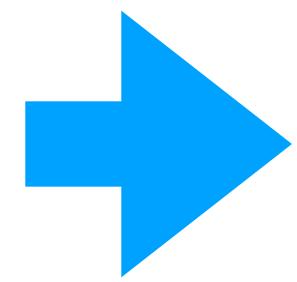
Валидация версии и тега



2. ~/d/create-boilerplate (fish)

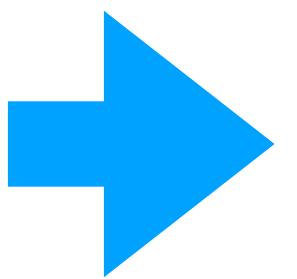
```
npm ERR!
npm ERR! Package publishing is denied
npm ERR! =====
npm ERR!
npm ERR! ➔ Wrong package name! Package name must start with "@avito/"
npm ERR!
npm ERR! =====
```





- .
- └ dist
- └ src
- └ test
- └ .cache
- └ .gitignore
- └ .gitattributes
- └ .npmignore
- └ .npmrc
- └ CHANGELOG.md
- └ README.md
- └ some.spec.js
- └ package-lock.json
- └ package.json
- └ phakt.config.js

Validator



```
•
  └── dist
  └── src
  └── test
  └── .cache
  └── .gitignore
  └── .gitattributes
  └── .npmignore
  └── .npmrc
  └── CHANGELOG.md
  └── README.md
  └── some.spec.js
  └── package-lock.json
  └── package.json
  └── phakt.config.js
```

1.1.0 (25-06-2019)
* Some fixes

1.0.0 (25-25-2019)
* Some improvements

Validator

Валидация контента пакета

- Можно валидировать наполнение пакета
- Можно валидировать содержимое любого файла

Пример CHANGELOG.md

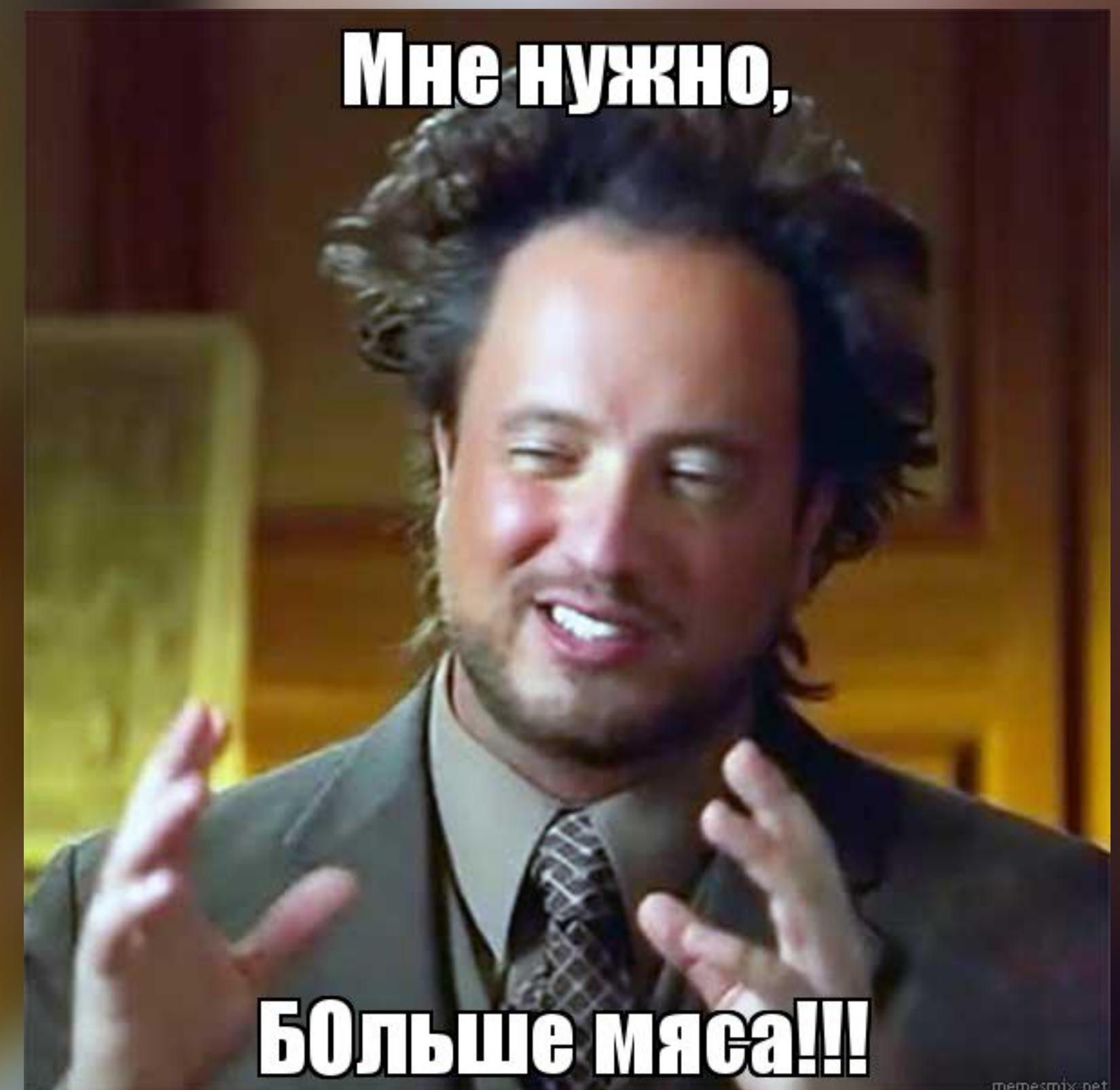
- Проверка наличия CHANGELOG.md
- Проверка наличия записи в логе о публикуемой версии (стабильной)
- Проверка консистентности формата записи в логе

2. ~/d/create-boilerplate (fish)

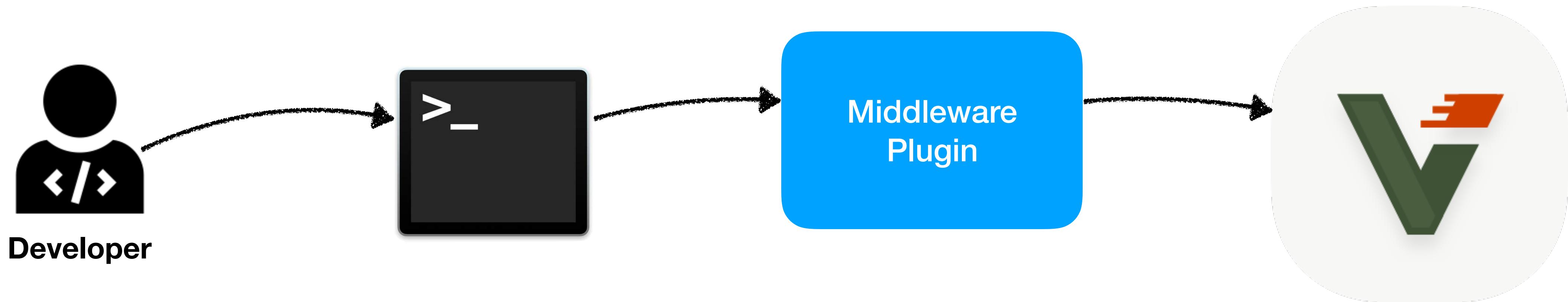
```
npm ERR!
npm ERR! Package publishing is denied
npm ERR! =====
npm ERR!
npm ERR! ➔ Package @avito/create-boilerplate has no changelog entry for version "1.1.1"
npm ERR!
npm ERR! =====
```

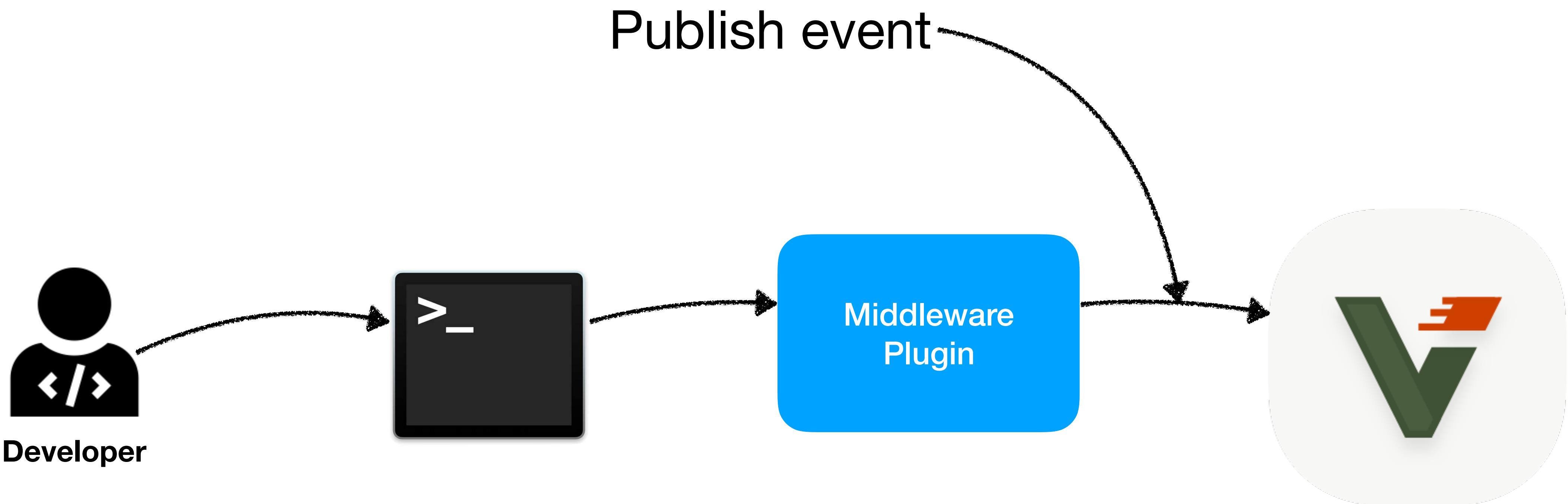
Problems

- Dependency hell and duplication
- Impact analysis and Update/Migration
- ~~Own packages control~~
- Code ownership
- ~~Rights restriction~~



memesmix.net





Система нотификаций

Система нотификаций

- Нотификации в чаты разработчиков, о публикации очередной версии
- Триггер различных сервисов (например сборка бандлов)



Npm-notifier APP 8:19 PM

Опубликован пакет @avito/ui 

Components UI collection

Version

8.3.8

Tag

prior-8

Changelog

- [Uploader](#)
 - Добавлен тест на параметр `onPreviewClick` (SEL-6914)
 - Убраны лишние отступы при `options.description === false` (SEL-6914)
 - Параметр `onChange` сделан обязательным (SEL-6914)

Published by [@vmakimov](#)



Npm-notifier APP 8:19 PM

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prior-8

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 - Параметр `onChange` сделан обязательным (SEL-6914)

Published by @vmakimov

GameOver

Доска объявлений от Ч. Х. +

https://www.avito.ru/moskva

Объявления Магазины Бизнес Помощь Вход и регистрация Подать объявление

Avito Авто Недвижимость Работа Услуги ещё...

Любая категория Поиск по объявлениям Москва Станция метро Найти

только в названиях только с фото

Все объявления в Москве 8 783 257

Личные вещи 3 711 443 Для дома и дачи 675 813 Услуги 116 756 Для бизнеса 58 148
Транспорт 2 499 626 Бытовая электроника 584 912 Недвижимость 93 875 Бесплатно 3800
Хобби и отдых 846 595 Работа 133 218 Животные 62 869

VIP-объявления

Коляска Peg Perego GT3
8 000 ₽ ↓
М. Планерная
24 сентября 06:24

Холодильники
6 000 ₽
м. Аннино
Сегодня 17:46

Сервисы и услуги Авито

 **Доставка**
Проверка при получении и возможность бесплатно вернуть товар

 **Автотека**
Отчёт с историей авто: пробег, владельцы, сведения о залоге, ДТП и ремонтах

 **Онлайн-бронирование жилья**
Выбор свободных дат в календаре и оплата онлайн для гарантированного заселения

Новые объявления

Apple iPhone 7 и 7+
10

Ветрогенератор 400 ватт
6

Эбу Мозг на Ваз УАЗ Газ Чип
10

12+ **Работа в два счёта**
Выберите вакансию и заполните две строки резюме
Найти работу

 Avito РАБОТА

Доска объявлений от Ч. Х +

https://www.avito.ru/moskva

Объявления Магазины Бизнес Помощь Вход и регистрация Подать объявление

Avito Авто Недвижимость Работа Услуги ещё...

Любая категория Поиск по объявлениям Москва Станция метро Найти

только в названиях только с фото

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 Холодильники 6 000 ₽
м. Аннино Сегодня 17:46

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Доставка Проверка при получении и возможность бесплатно вернуть товар

Автотека Отчёт с историей авто: пробег, владельцы, сведения о залоге, ДТП и ремонтах

Онлайн-бронирование жилья Выбор свободных дат в календаре и оплата онлайн для гарантии заселения

Работа в два счёта
Выберите вакансию и заполните две строки резюме

Найти работу

Avito РАБОТА

Новые объявления

 Apple iPhone 7 и 7+
10

 Ветрогенератор 400 ватт
6

 Эбу Мозг на Ваз УАЗ Газ Чип
10

Header

Объявления Магазины Помощь

Star Вход и регистрация

Logo Avito

HeaderCategory АВТО HeaderCategory Недвижимость HeaderCategory Работа HeaderCategory Услуги HeaderCategory Еще...

Button Подать объявление

Select Form Автомобили Поиск по объявлениям Select Москва Select Станция метро Button Найти

SearchFilters InputCheckbox Старое InputCheckbox Новые InputCheckbox Состоящим в Автотеки InputCheckbox Только в названиях InputCheckbox Только с фото Сохранить поиск

Select Марка Select Модель SelectSticker! Тип кузова SelectSticker! Год выпуска SelectSticker! Пробег, тыс. км

SelectSticker! Коробка передач SelectSticker! Тип двигателя SelectSticker! Объем двигателя, л SelectSticker! Привод InputRange Цена от Input Range До, руб.

Breadcrumbs Объявления в Москве / Транспорт / Автомобили 86 599

Component Breadcrumbs legacy

Audi 3 374	BMW 4 495	KIA 4 144	Mitsubishi 2 353	Renault 2 038	Toyota 3 750
BMW 5 295	Honda 1 183	Land Rover 1 857	Nissan 4 318	Skoda 2 180	Volkswagen 5 441
Chevrolet 2 522	Huanghai 1 579	Lexus 1 255	Opel 2 526	SsangYong 633	Volvo 1 428
Citroen 1 033	Hyundai 4 179	Mazda 2 007	Peugeot 1 531	Subaru 657	ВАЗ (LADA) 4 932
Daewoo 794	Infiniti 852	Mercedes-Benz 6 414	Porsche 970	Suzuki 744	ГАЗ 2 208

GameOver

GameOver

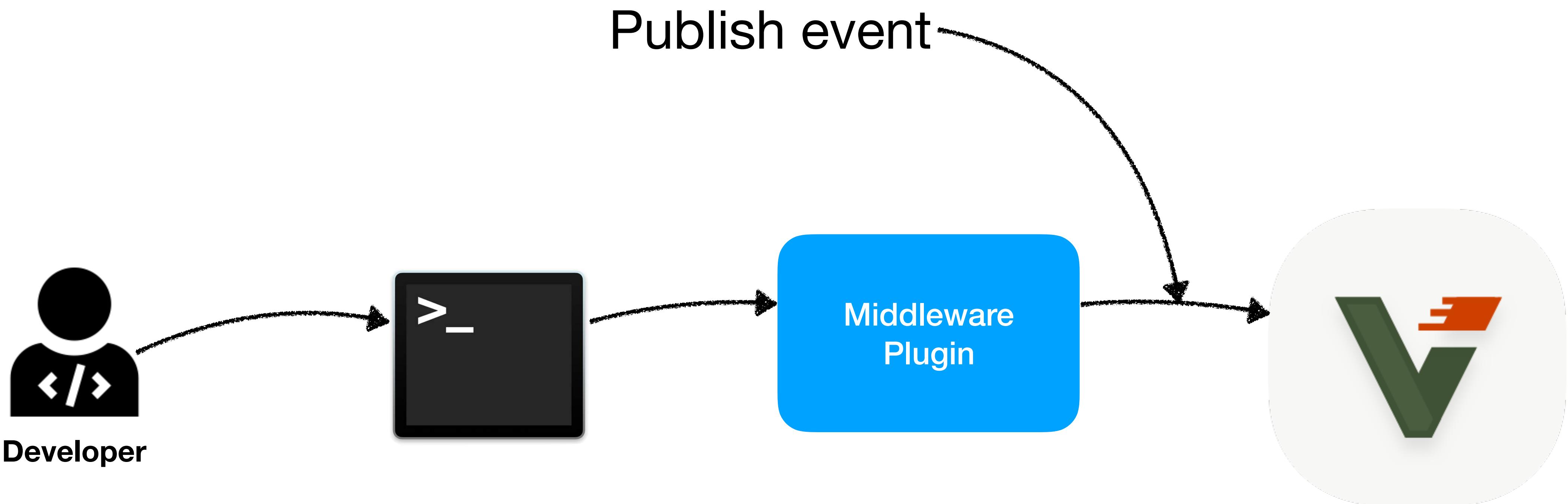
- Можно очертить зоны ответственности (приблизительно)
- Локализовать легаси
- Сложно увидеть всю картину
- **Данные о блоках нужно где-то хранить**
- **Обновлять в реальном времени**

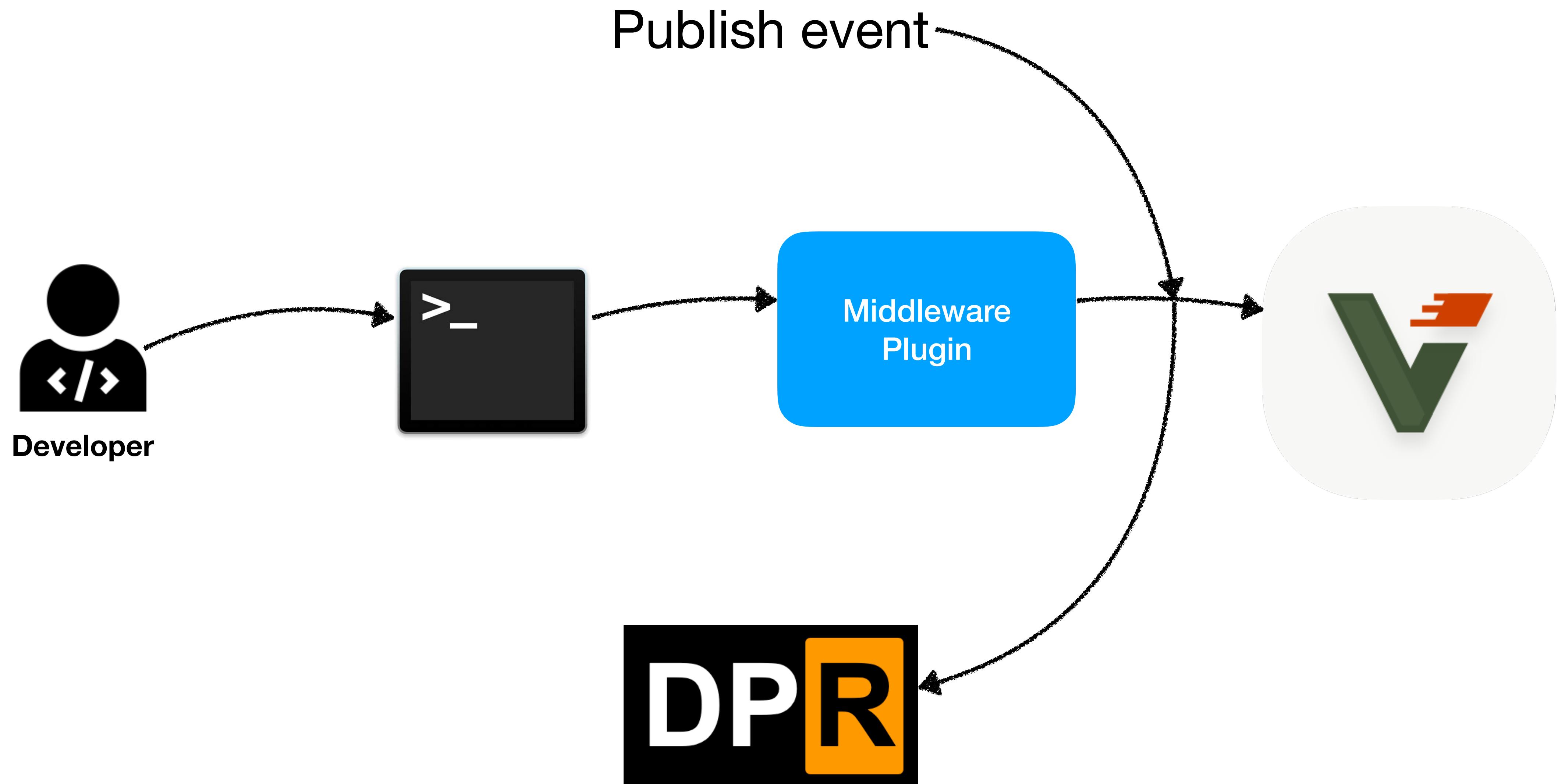
DP-registry

DPregistry

DP-Registry

- Хранилище
- Модели
- Rest-интерфейс





Phakt, Design System

Search with DuckDuckGo or enter address

Компоненты Примеры Задачи Пакеты Логи изменений Войти

Логи изменений

@avito/ui

9.0.4

- [Popups](#)
 - Исправлен баг с крестиком закрытия убегающим в угол (DP-1544)
- [Alert](#)
 - Исправлен баг с крестиком не по центру области контента (DP-1543)

9.0.3

- [Slider](#)
 - Исправлен баг когда при `thumbsCount` равным одному возвращался массив а не одно значение

9.0.2

- [Slider](#)
 - Исправлен алгоритм работы с дискретными значениями для `thumbsCount` большем чем один (DP-1522)

9.0.4, 9.0.3, 9.0.2

- 9.0.4
- 9.0.3
- 9.0.2
- 9.0.1
- 9.0.0
- 8.3.8
- 8.3.7
- 8.3.6
- 8.3.5
- 8.3.4

Сбор метаданных

Сбор метаданных

- Мы знаем все пакеты, которые публикуются
- Знаем репозитории
- Знаем кто публикует

Пакет

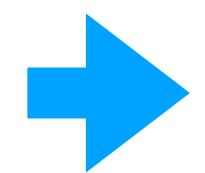
- Репозиторий
- История версий
- Теги
- Содержание
- Хозяин



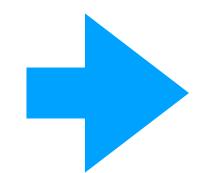
Developer



npm publish



```
{  
  "name",  
  "repo",  
  "version",  
  "tag",  
  "publisher",  
  "dependencies"  
}
```



Frontend artifacts & ownership

Data collected at 6/29/2019 11:37:57 AM

361 Artifacts	64 Artifacts w/o owner	101 Projects	92 Repositories	168 NPM packages	23 Teams
-------------------------	----------------------------------	------------------------	---------------------------	----------------------------	--------------------

@avito/ui

Repository JS/avito-ui

. Project Avito UI NPM package @avito/ui

Components UI collection

Raw data

```
package { id: "5bd6f185db36290011d1678d", name: "@avito/ui", owner: {...}, versions: [...], ...233 more... ], ...6 more... }
```

Versions (237) latest 9.0.4 dev 8.0.0-rc.9

> 5 tags exclude latest, dev, next and beta

8.3.8 , 8.3.7 , 8.3.6 , 8.3.5 , 8.3.4 , 9.0.4 , 9.0.3 , 9.0.2 , 9.0.1 , 9.0.0 , 8.3.3 , 8.3.2 , 8.3.1 , 8.3.0 , 8.2.2 , 8.2.1 , 8.2.0 , 8.1.2 , 8.1.1 , 8.1.0 , 8.0.5 ,
8.0.4 , 8.0.3 , 8.0.2 , 8.0.1 ,

Show 25 more...

Show all the rest 212 items...

Latest version Version 9.0.4 Publish date 2019-04-17T17:48:56.310Z

> package.json

> Tarball (365 files in 960.7Kb)

filename	size
package.json	3603
CHANGELOG.md	90953
ensime-langserver.log	10322
MIGRATION.md	5033
pc.stdout.log	1944
phakt.config.js	2678
README.md	63
tsconfig.json	5506
changelog/8.1.0/button.png	75294
changelog/8.1.0/uploader.png	69515
changelog/8.1.2/suggest.png	106411
env/jest-setup.js	243
env/theme.js	111
env/theme.md	22184
examples/design-system/design-system.platform.js	17233
examples/form-filter/form-filter.platform.js	8691
examples/form-filter/style.css	218
examples/form-horizontal/form-horizontal.platform.js	4472
examples/form-narrow/form-narrow.platform.js	5247
examples/form-sections/form-sections.platform.js	9213
examples/form-sizes/form-sizes.platform.js	13393
examples/form-wide-medium/form-wide-medium.platform.js	8177
examples/forms-site/forms-site.platform.js	27443
examples/texts/texts.platform.js	8509
examples/utils/container.css	331

Frontend artifacts & ownership X +

Search with DuckDuckGo or enter address

pha

Projects 2

[@avito/phakt-migrate](#)

[Phakt](#)

Packages 7

[@avito/phakt](#)

[@avito/phakt-adapter-react](#)

[@avito/phakt-config](#)

[@avito/phakt-migrate](#)

[@avito/phakt-uikit](#)

[@avito/phakt-utils](#)

[@avito/phakt-webpack-analyzer](#)

Repos 2

[JS/phakt](#)

[JS/service-phakt](#)

Project Frontend Architecture

Phakt

Repository JS/phakt

Project	Phakt	NPM package	@avito/phakt
Project	@avito/babel-plugin-meta-info	NPM package	@avito/babel-plugin-meta-info
Project	@avito/babel-preset-avito	NPM package	@avito/babel-preset-avito
Project	@avito/deploy-package	NPM package	@avito/deploy-package
Project	@avito/phakt-migrate	NPM package	@avito/phakt-migrate
Project	@avito/react-instance-info	NPM package	@avito/react-instance-info
Project	@avito/webpack-plugin-theming	NPM package	@avito/webpack-plugin-theming

Phakt is a development environment for UI components. It allows you to browse a component library, view the different states of each component, and interactively develop and test components.

Artifacts

<http://phakt.k.avito.ru/>

Repository: [JS/phakt](#)

Package: [@avito/phakt](#)

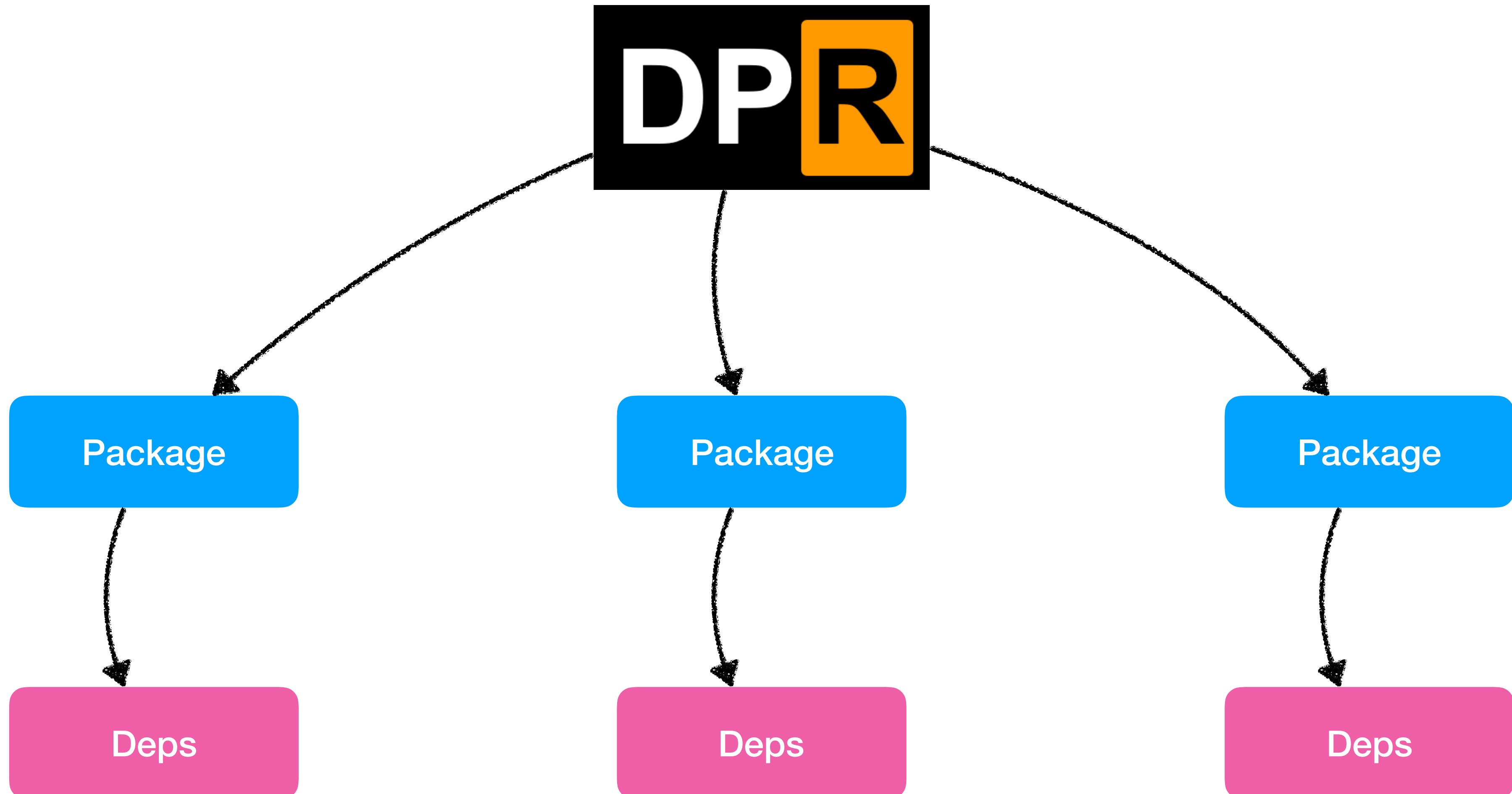
Raw data

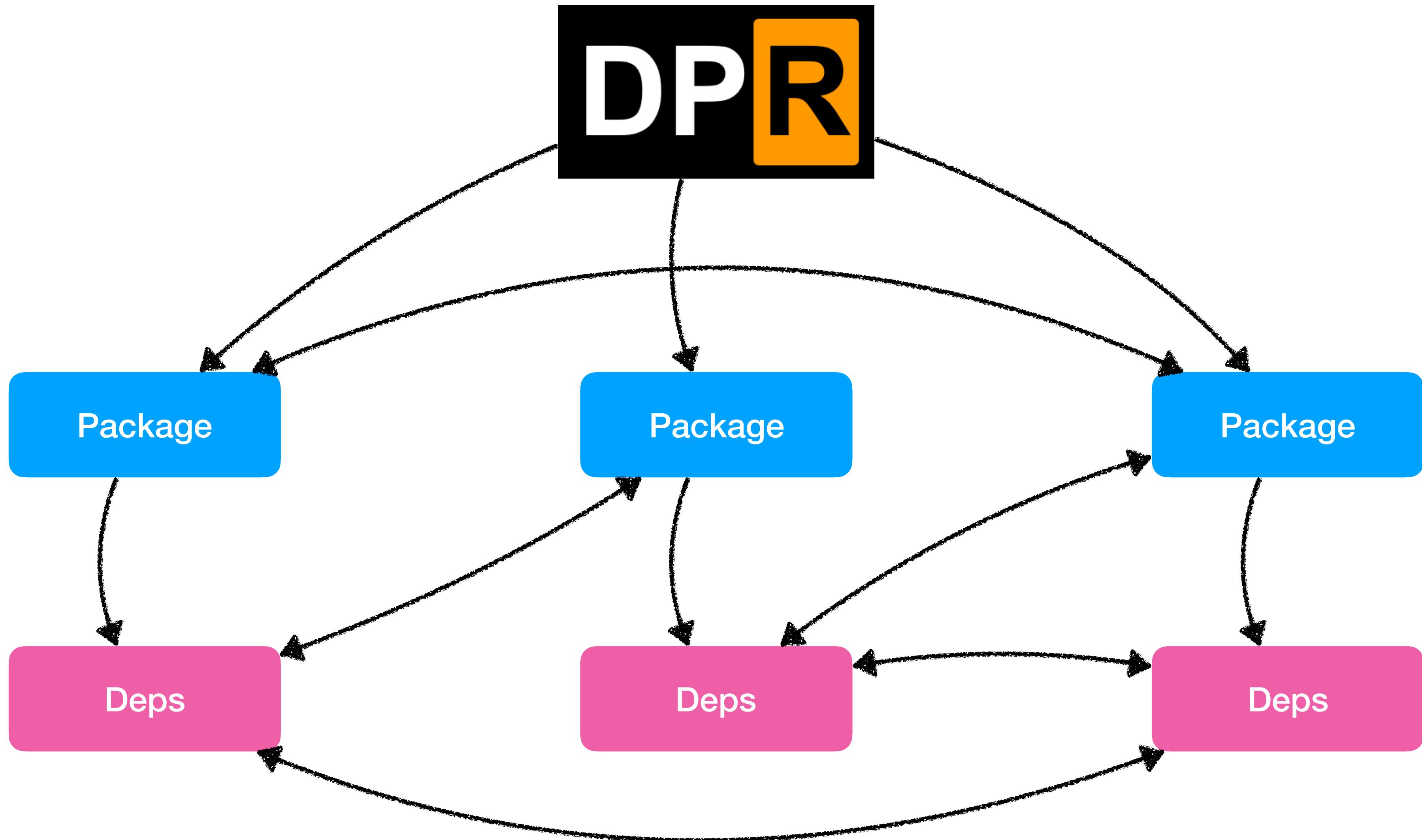
```
project { - [s] f
  id: project "5c1238b5c21c1d001145bc82",
  owner: team { id: "5bf1da6710178b2c44aafec1", name: "Frontend Architecture", url: "https://avito.intra.avito.ru/display/FE/Team+Frontend+Architecture" },
  package: package { id: "5bc4b16bdb36290011d161b1", name: "@avito/phakt", owner: {...}, versions: [...], ...51 more..., ...6 more... },
  path: "",
  name: "Phakt",
  description: "Phakt is a development environment for UI components. It allows you to browse a component library, view the different states of each component, and interactively develop and test components.",
  repo: repo { id: "5b718f3d730976e48353408b", name: "JS/phakt", owner: {...}, stashUrl: "https://avito.intra.avito.ru/stash/repo/JS/phakt", ...6 more... },
  endpoints: [...],
  packageJson: package { name: "@avito/phakt", version: "9.11.1", main: "./src/index.js", license: "MIT", ...6 more... },
  packageLockJson: package { name: "@avito/phakt", version: "9.11.1", lockfileVersion: 1, requires: true, ...1 more... }
}
```

Зависимости

Зависимости

- При публикации можно получить все зависимости пакета
- Можно получить как зависимости, так и зависимые пакеты
- Можно видеть насколько актуальны зависимости





Dependencies for latest version (21)

Package	Type	Requested	Latest
@avito/boilerplate	dev	^1.2.0	2.0.0
@avito/react-utils	prod	^2.1.2	2.2.0
@avito/utils	prod	^5.0.1	5.2.2
@avito/webpack-plugin-theming	dev	^2.0.1	3.0.0
@types/classnames	dev	^2.2.7	
@types/prop-types	dev	^15.5.8	
@types/react	dev	^16.8.2	
@types/react-dom	dev	^16.8.0	
classnames	prod	^2.2.6	
hoist-non-react-statics	prod	^3.1.0	
inputmask	prod	^4.0.3	
jest-dom	dev	^3.0.0	
memoize-one	prod	^4.0.3	
prop-types	dev	^15.7.1	
react	dev	^16.8.1	
react-dom	dev	^16.8.1	
react-list	prod	^0.8.10	
react-popper	prod	^1.3.0	
react-test-renderer	dev	^16.8.1	
react-testing-library	dev	^5.7.0	

Show all the rest 1 items...

Dependant packages (66)

Package	Type	Requested
@avito/app-admin-pricing	prod	^4.3.0
@avito/app-configurator	prod	^8.0.0
@avito/app-configurator-admin	prod	6.1.0
@avito/app-configurator-ux-3	prod	^8.0.0
@avito/app-cpcvas	prod	^5.0.1
@avito/app-cv-packages	prod	8.3.3
@avito/app-delivery	prod	2.11.0
@avito/app-helpcenter	dev	5.4.1
@avito/app-helpcenter-admin	prod	4.5.1
@avito/app-helpdesk	prod	4.4.0
@avito/app-messenger-context-boilerplate	prod	5.3.1
@avito/app-messenger-redesign	prod	7.1.0
@avito/app-mnz-presence-common	prod	^8.3.0
@avito/app-nc	prod	4.5.0
@avito/app-subscription-request-split-test	prod	^5.3.1
@avito/bx-catalog	prod	^7.0.2
@avito/bx-change-location	prod	^7.1.1
@avito/bx-core	prod	^8.0.1
@avito/bx-development-view	prod	^8.3.3
@avito/bx-developments-catalog	prod	^8.3.3

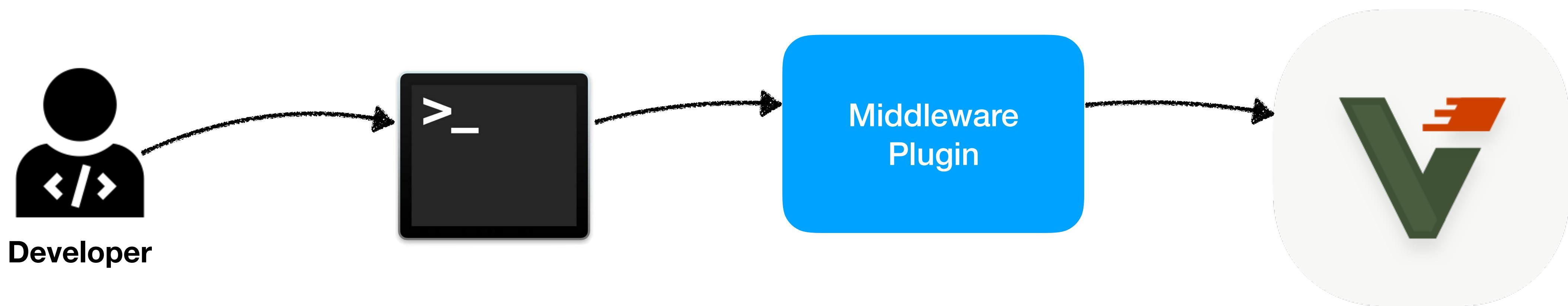
Show 20 more...

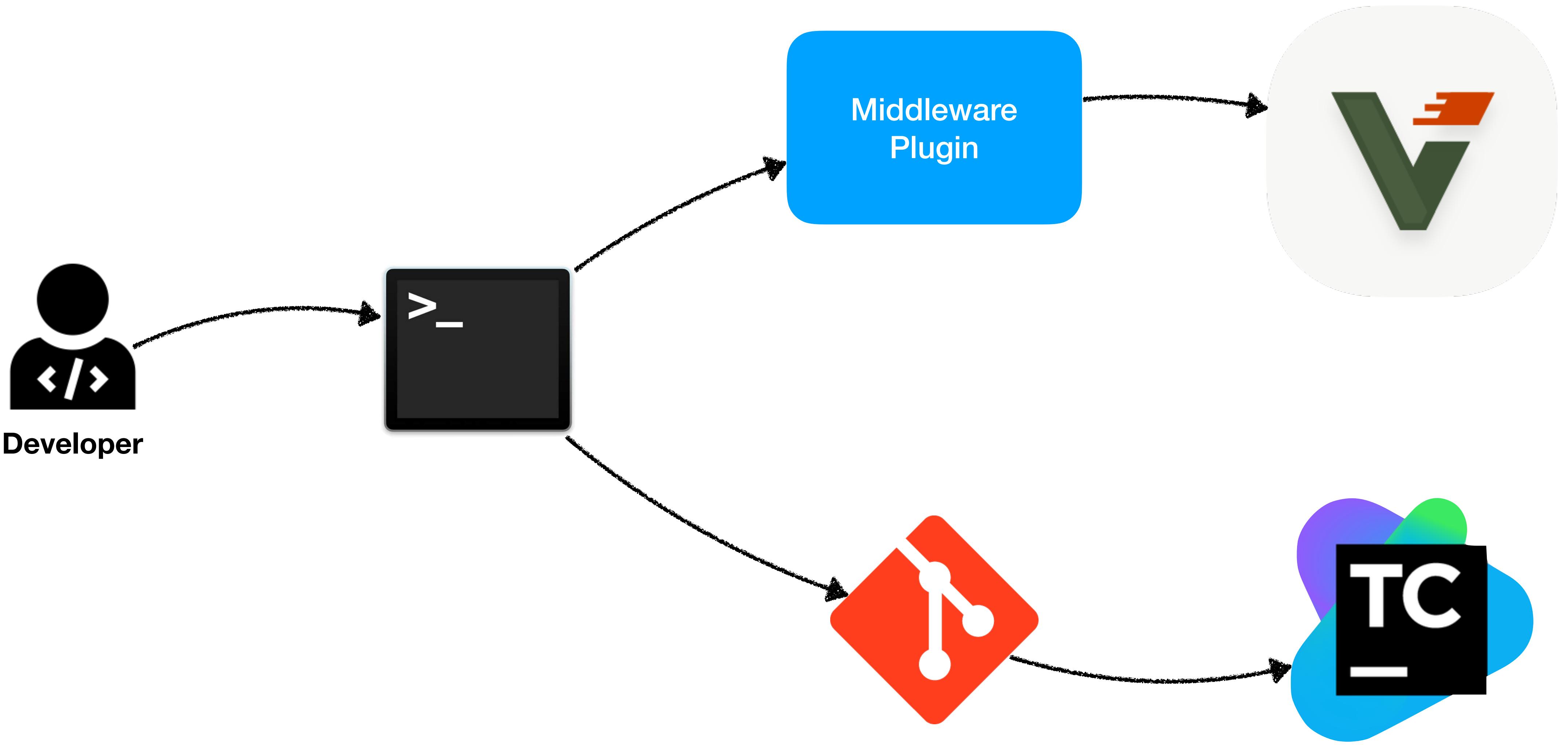
Show all the rest 46 items...

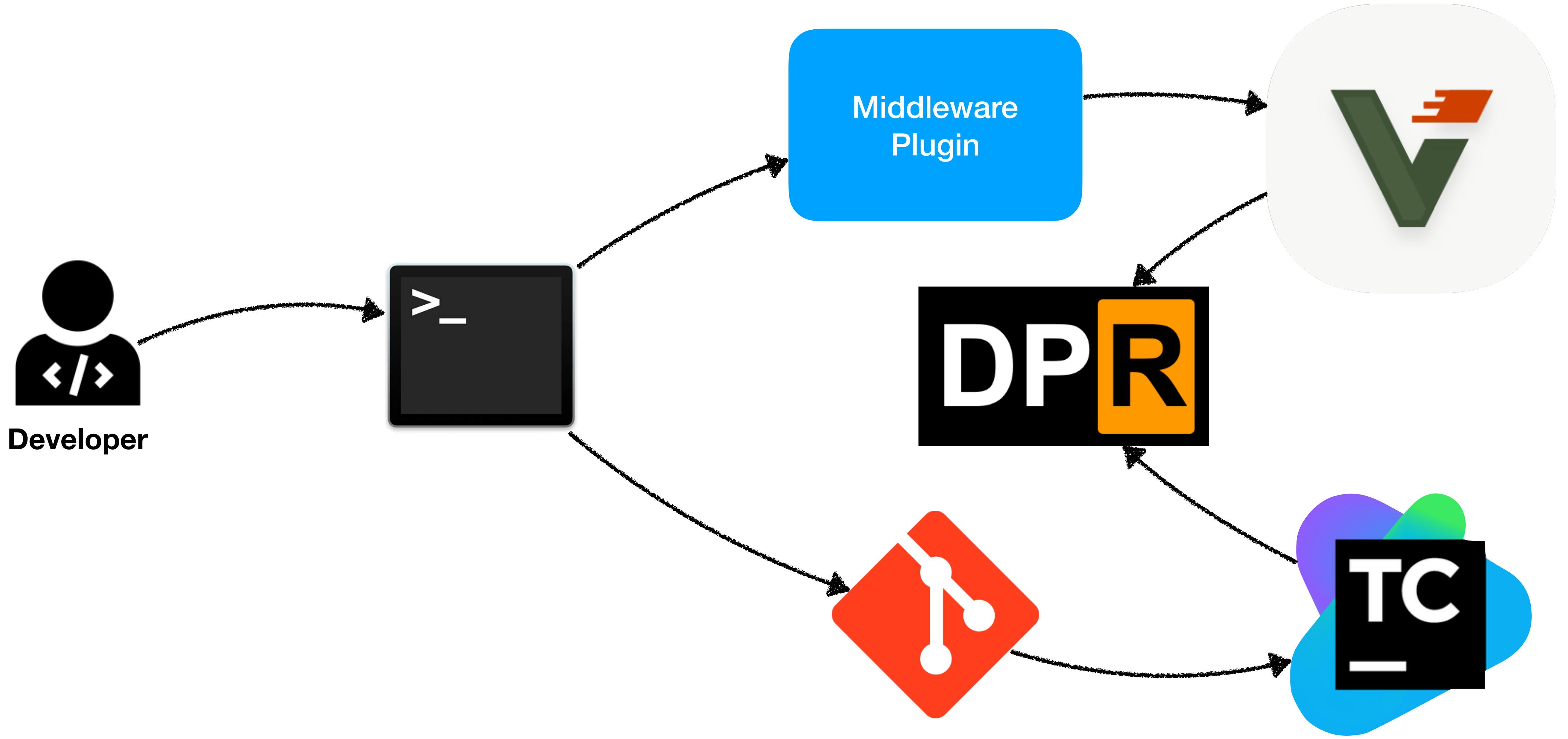


WAIT A MINUTE

package-lock.json не публикуется







Resolved @avito deps (21)

Package	Type	Resolved	Latest
@avito/atlassian-rest-client	dev	0.2.0	0.3.1
@avito/babel-plugin-meta-info	dev	2.0.1	3.0.0
@avito/babel-preset-avito	dev	3.0.4	4.0.3
@avito/boilerplate	dev	1.5.3	2.0.0
@avito/deploy-package	dev	1.2.3	1.2.4
@avito/eslint-config-es5	dev	2.5.0	2.5.0
@avito/eslint-config-es6	dev	1.7.0	1.7.0
@avito/eslint-config-react	dev	2.8.1	2.8.1
@avito/eslint-plugin-custom-rules	dev	1.5.0	1.5.0
@avito/jest-snapshot-image	dev	2.0.2	2.0.2
@avito/metric-sender	dev	1.1.0	1.1.0
@avito/phakt	dev	9.11.1	
@avito/phakt-migrate	dev	1.0.0	1.0.0
@avito/react-instance-info	dev	1.0.2	1.0.2
@avito/react-snapshot	dev	3.9.0	3.9.0
@avito/react-utils	prod	2.2.0	2.2.0
@avito/stylelint-config	dev	2.0.0	2.0.0
@avito/test-utils	dev	1.4.0	1.4.0
@avito/theme-avito-site	dev	0.0.1	0.0.1
@avito/utils	prod	5.1.7	5.2.2

Show all the rest 1 items...

Dependencies for latest version (21)

Package	Type	Requested	Latest
@avito/boilerplate	dev	<code>^1.2.0</code>	2.0.0
@avito/react-utils	prod	<code>^2.1.2</code>	2.2.0
@avito/utils	prod	<code>^5.0.1</code>	5.2.2
@avito/webpack-plugin-theming	dev	<code>^2.0.1</code>	3.0.0
@types/classnames	dev	<code>^2.2.7</code>	
@types/prop-types	dev	<code>^15.5.8</code>	
@types/react	dev	<code>^16.8.2</code>	
@types/react-dom	dev	<code>^16.8.0</code>	
classnames	prod	<code>^2.2.6</code>	
hoist-non-react-statics	prod	<code>^3.1.0</code>	
inputmask	prod	<code>^4.0.3</code>	
jest-dom	dev	<code>^3.0.0</code>	
memoize-one	prod	<code>^4.0.3</code>	
prop-types	dev	<code>^15.7.1</code>	
react	dev	<code>^16.8.1</code>	
react-dom	dev	<code>^16.8.1</code>	
react-list	prod	<code>^0.8.10</code>	
react-popper	prod	<code>^1.3.0</code>	
react-test-renderer	dev	<code>^16.8.1</code>	
react-testing-library	dev	<code>^5.7.0</code>	

Show all the rest 1 items...

Dependant packages (66)

Package	Type	Requested
@avito/app-admin-pricing	prod	<code>^4.3.0</code>
@avito/app-configurator	prod	<code>^8.0.0</code>
@avito/app-configurator-admin	prod	<code>6.1.0</code>
@avito/app-configurator-ux-3	prod	<code>^8.0.0</code>
@avito/app-cpcvas	prod	<code>^5.0.1</code>
@avito/app-cv-packages	prod	<code>8.3.3</code>
@avito/app-delivery	prod	<code>2.11.0</code>
@avito/app-helpcenter	dev	<code>5.4.1</code>
@avito/app-helpcenter-admin	prod	<code>4.5.1</code>
@avito/app-helpdesk	prod	<code>4.4.0</code>
@avito/app-messenger-context-boilerplate	prod	<code>5.3.1</code>
@avito/app-messenger-redesign	prod	<code>7.1.0</code>
@avito/app-mnz-presence-common	prod	<code>^8.3.0</code>
@avito/app-nc	prod	<code>4.5.0</code>
@avito/app-subscription-request-split-test	prod	<code>^5.3.1</code>
@avito/bx-catalog	prod	<code>^7.0.2</code>
@avito/bx-change-location	prod	<code>^7.1.1</code>
@avito/bx-core	prod	<code>^8.0.1</code>
@avito/bx-development-view	prod	<code>^8.3.3</code>
@avito/bx-developments-catalog	prod	<code>^8.3.3</code>

Show 20 more...

Show all the rest 46 items...

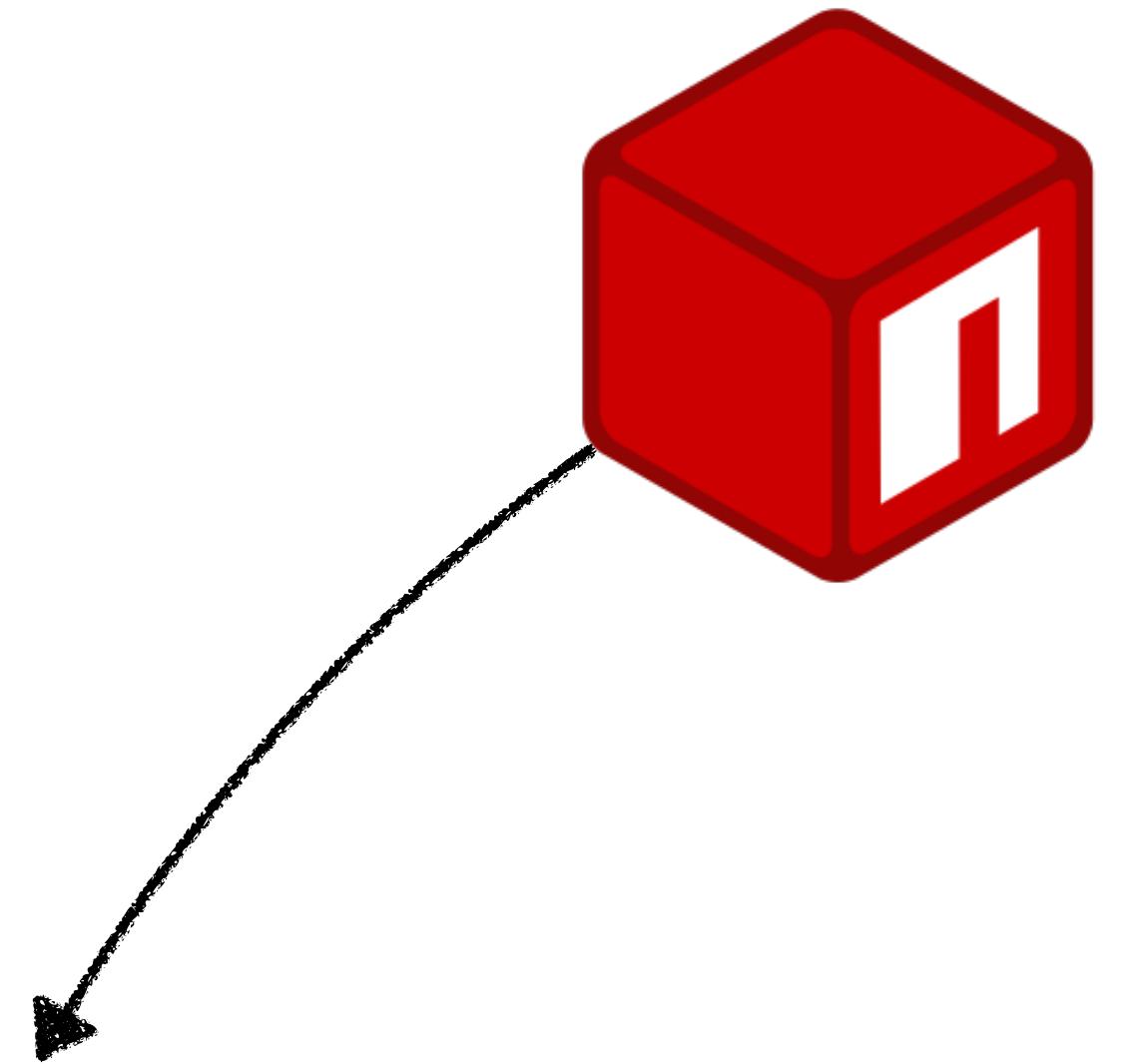
Resolved @avito deps (21)

Package	Type	Resolved	Latest
@avito/atlassian-rest-client	dev	<code>0.2.0</code>	0.3.1
@avito/babel-plugin-meta-info	dev	<code>2.0.1</code>	3.0.0
@avito/babel-preset-avito	dev	<code>3.0.4</code>	4.0.3
@avito/boilerplate	dev	<code>1.5.3</code>	2.0.0
@avito/deploy-package	dev	<code>1.2.3</code>	1.2.4
@avito/eslint-config-es5	dev	<code>2.5.0</code>	2.5.0
@avito/eslint-config-es6	dev	<code>1.7.0</code>	1.7.0
@avito/eslint-config-react	dev	<code>2.8.1</code>	2.8.1
@avito/eslint-plugin-custom-rules	dev	<code>1.5.0</code>	1.5.0
@avito/jest-snapshot-image	dev	<code>2.0.2</code>	2.0.2
@avito/metric-sender	dev	<code>1.1.0</code>	1.1.0
@avito/phakt	dev	<code>9.11.1</code>	
@avito/phakt-migrate	dev	<code>1.0.0</code>	1.0.0
@avito/react-instance-info	dev	<code>1.0.2</code>	1.0.2
@avito/react-snapshot	dev	<code>3.9.0</code>	3.9.0
@avito/react-utils	prod	<code>2.2.0</code>	2.2.0
@avito/stylelint-config	dev	<code>2.0.0</code>	2.0.0
@avito/test-utils	dev	<code>1.4.0</code>	1.4.0
@avito/theme-avito-site	dev	<code>0.0.1</code>	0.0.1
@avito/utils	prod	<code>5.1.7</code>	5.2.2

Show all the rest 1 items...

Пример

- Мы разрабатываем и поддерживаем `avito/boilerplate`
- Важно понимать сколько пакетов используют `avito/boilerplate`
- Важно знать какие конкретно версии установлены у пользователей



```
{  
  "@avito/boilerplate": "^1.0.0" → "@avito/boilerplate": "1.0.3"  
}
```



Developer

{

"@avito/boilerplate": "^1.0.0"

}

?



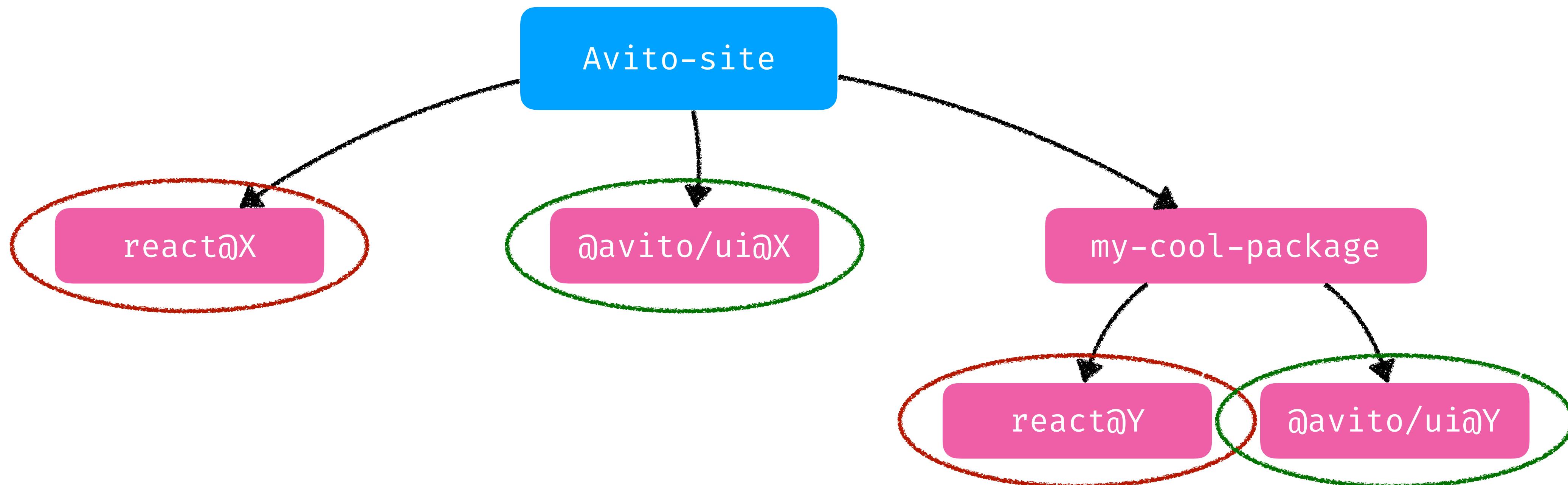
Package
Maintainer

Packages with boilerplate

Data collected at 6/29/2019 6:47:01 PM | View built at 6/29/2019 7:00:48 PM

name	Owner	Requested version	Resolved version
@avito/app-cv-packages	Avito PRO	^1.4.2	1.4.2
@avito/app-mnz-presence-common	Monetization of Presence	latest	1.5.4
@avito/app-nc	Communications	^1.1.7	1.1.7
@avito/bx-change-location	Buyer Experience	1.5.0	1.2.0
@avito/bx-geo-search	Buyer Experience	1.5.0	0.0.14
@avito/component-auth	Trust and Safety	^1.3.0	1.3.0
@avito/favorite-sellers	Trust and Safety	^1.1.2	1.3.0
@avito/frontend-delivery-claim	SafeDeal (Delivery)	^1.5.0	1.5.0
@avito/frontend-delivery-components	SafeDeal (Delivery)	^1.0.5	1.0.5
@avito/frontend-messenger-ui	Messenger	^1.0.3	1.0.3
@avito/frontend-mnz-presence-activation	Monetization of Presence	~1.1.2	1.1.2
@avito/frontend-rise	Monetization Rise	^1.2.2	1.2.2
@avito/sx-ui	Seller Experience	^1.4.2	1.4.2

Physical deps tree



Duplicated packages (162)

Package	Versions
supports-color 65	2.0.0 3.2.3 4.5.0 5.5.0 6.1.0 Show 5 more... Show all the rest 60 items...
chalk 36	2.1.0 1.1.3 2.4.2 1.1.3 2.4.1 Show 5 more... Show all the rest 31 items...
postcss 31	5.2.18 7.0.14 5.2.18 6.0.23 5.2.18 Show 5 more... Show all the rest 26 items...
has-flag 31	2.0.0 1.0.0 1.0.0 3.0.0 1.0.0 Show 5 more... Show all the rest 26 items...
kind-of 29	6.0.2 6.0.2 3.2.2 4.0.0 5.1.0 Show 5 more... Show all the rest 24 items...
extend-shallow 21	2.0.1 3.0.2 2.0.1 2.0.1 2.0.1 Show 5 more... Show all the rest 16 items...
source-map 17	0.6.1 0.6.1 0.5.7 0.6.1 0.6.1 Show 5 more... Show all the rest 12 items...
isobject 16	3.0.1 3.0.1 3.0.1 3.0.1 3.0.1 Show 5 more... Show all the rest 11 items...
define-property 15	1.0.0 0.2.5 2.0.2 0.2.5 0.2.5 Show 5 more... Show all the rest 10 items...
prop-types 15	15.7.2 15.6.2 15.5.8 15.7.2 15.7.2 Show 5 more... Show all the rest 10 items...
is-descriptor 12	1.0.2 1.0.2 0.1.6 0.1.6 1.0.2 Show 5 more... Show all the rest 7 items...

Problems

- ~~Dependency hell and duplication~~
- ~~Impact analysis and Update/Migration~~
- ~~Own packages control~~
- Code ownership
- ~~Rights restriction~~

Packages with boilerplate

Data collected at 6/29/2019 6:47:01 PM | View built at 6/29/2019 7:00:48 PM

name	Owner	Requested version	Resolved version
@avito/app-cv-packages	Avito PRO	^1.4.2	1.4.2
@avito/app-mnz-presence-common	Monetization of Presence	latest	1.5.4
@avito/app-nc	Communications	^1.1.7	1.1.7
@avito/bx-change-location	Buyer Experience	1.5.0	1.2.0
@avito/bx-geo-search	Buyer Experience	1.5.0	0.0.14
@avito/component-auth	Trust and Safety	^1.3.0	1.3.0
@avito/favorite-sellers	Trust and Safety	^1.1.2	1.3.0
@avito/frontend-delivery-claim	SafeDeal (Delivery)	^1.5.0	1.5.0
@avito/frontend-delivery-components	SafeDeal (Delivery)	^1.0.5	1.0.5
@avito/frontend-messenger-ui	Messenger	^1.0.3	1.0.3
@avito/frontend-mnz-presence-activation	Monetization of Presence	~1.1.2	1.1.2
@avito/frontend-rise	Monetization Rise	^1.2.2	1.2.2
@avito/sx-ui	Seller Experience	^1.4.2	1.4.2

Packages with boilerplate

Data collected at 6/29/2019 6:47:01 PM | View built at 6/29/2019 7:00:48 PM

name	Owner	Requested version	Resolved version
@avito/app-cv-packages	Avito PRO	^1.4.2	1.4.2
@avito/app-mnz-presence-common	Monetization of Presence	latest	1.5.4
@avito/app-nc	Communications	^1.1.7	1.1.7
@avito/bx-change-location	Buyer Experience	1.5.0	1.2.0
@avito/bx-geo-search	Buyer Experience	1.5.0	0.0.14
@avito/component-auth	Trust and Safety	^1.3.0	1.3.0
@avito/favorite-sellers	Trust and Safety	^1.1.2	1.3.0
@avito/frontend-delivery-claim	SafeDeal (Delivery)	^1.5.0	1.5.0
@avito/frontend-delivery-components	SafeDeal (Delivery)	^1.0.5	1.0.5
@avito/frontend-messenger-ui	Messenger	^1.0.3	1.0.3
@avito/frontend-mnz-presence-activation	Monetization of Presence	~1.1.2	1.1.2
@avito/frontend-rise	Monetization Rise	^1.2.2	1.2.2
@avito/sx-ui	Seller Experience	^1.4.2	1.4.2

Frontend artifacts & ownership X +

ui Search with DuckDuckGo or enter address Index Reload with no cache Switch model

Projects 5

- [@avito/domofond-ui](#)
- [@avito/frontend-messenger-ui](#)
- [@avito/hyper-ui](#)
- [@avito/sx-ui](#)
- [Avito UI](#)

Packages 9

- [@avito/avi-pro-ui](#)
- [@avito/bx-ui](#)
- [@avito/domofond-ui](#)
- [@avito/frontend-messenger-ui](#)
- [@avito/hyper-ui](#)
- [@avito/mobile-ui](#)
- [@avito/phakt-uikit](#)
- [@avito/sx-ui](#)
- [@avito/ui](#)

Repos 7

- [AV/frontend-messenger-ui](#)
- [DOM/domofond-ui](#)
- [JS/avito-ui](#)
- [JS/hyper-ui](#)
- [JS/service-mobile-ui](#)
- [JS/service-ui](#)
- [SX/sx-ui](#)

Projects

Data collected at 6/29/2019 2:07:09 PM | View built at 6/29/2019 2:25:56 PM

Name	Owner	Repo	Package
@avito/amw-front-end-git-hooks	Avito Mobile Web	JS/code-style/packages/amw-frontend-git-hooks	@avito/amw-front-end-git-hooks
@avito/app-admin-pricing	Autoteka	id-admin-pricing	@avito/app-admin-pricing
@avito/app-autoloads	Avito Mobile Web	id-autoloads	@avito/app-autoloads
@avito/app-configurator		id-configurator	@avito/app-configurator
@avito/app-configurator-admin	Avito PRO	id-configurator	@avito/app-configurator-admin
@avito/app-configurator-ux-3	Avito WEB	id-configurator-ux-3	@avito/app-configurator-ux-3
@avito/app-cpcvas	Avito.People	id-cpcvas	@avito/app-cpcvas
@avito/app-cv-packages	Billing	id-cv-packages	@avito/app-cv-packages
@avito/app-delivery	Buyer Experience	id-delivery	@avito/app-delivery
@avito/app-helpcenter	Communications	inter-frontend	@avito/app-helpcenter
@avito/app-helpdesk	Domofond	sk-frontend	@avito/app-helpdesk
@avito/app-messenger	Frontend Architecture	id-messenger	@avito/app-messenger
@avito/app-messenger-context-boilerplate	Growth Hacking	id-messenger-context-boilerplate	@avito/app-messenger-context-boilerplate
@avito/app-messenger-redesign	Messenger	id-messenger	@avito/app-messenger-redesign
@avito/app-mnz-presence-common	Moderation Systems	id-mnz-presence-common	@avito/app-mnz-presence-common
@avito/app-nc	Monetization Rise	id-nc	@avito/app-nc
@avito/app-subscription	Monetization of Presence	id-subscriptions	@avito/app-subscription
@avito/app-subscription-request	Pricing	id-subscription-request	@avito/app-subscription-request
@avito/babel-plugin-meta-info	Recommendations	babel/packages/babel-plugin-meta-info	@avito/babel-plugin-meta-info
@avito/babel-preset-avito	SWAT	babel/packages/babel-preset-avito	@avito/babel-preset-avito
@avito/bx-catalog	SafeDeal (Delivery)	bx/catalog	@avito/bx-catalog
@avito/bx-change-location	SafeDeal (STR)	bx/location	@avito/bx-change-location
@avito/bx-core		bx/arch	@avito/bx-core
@avito/bx-geo-search		bx/components	@avito/bx-geo-search
@avito/bx-item-components			@avito/bx-item-components

Show 25 more... Show all the rest 76 items...

DP Registry

150% 1427

DP-Registry

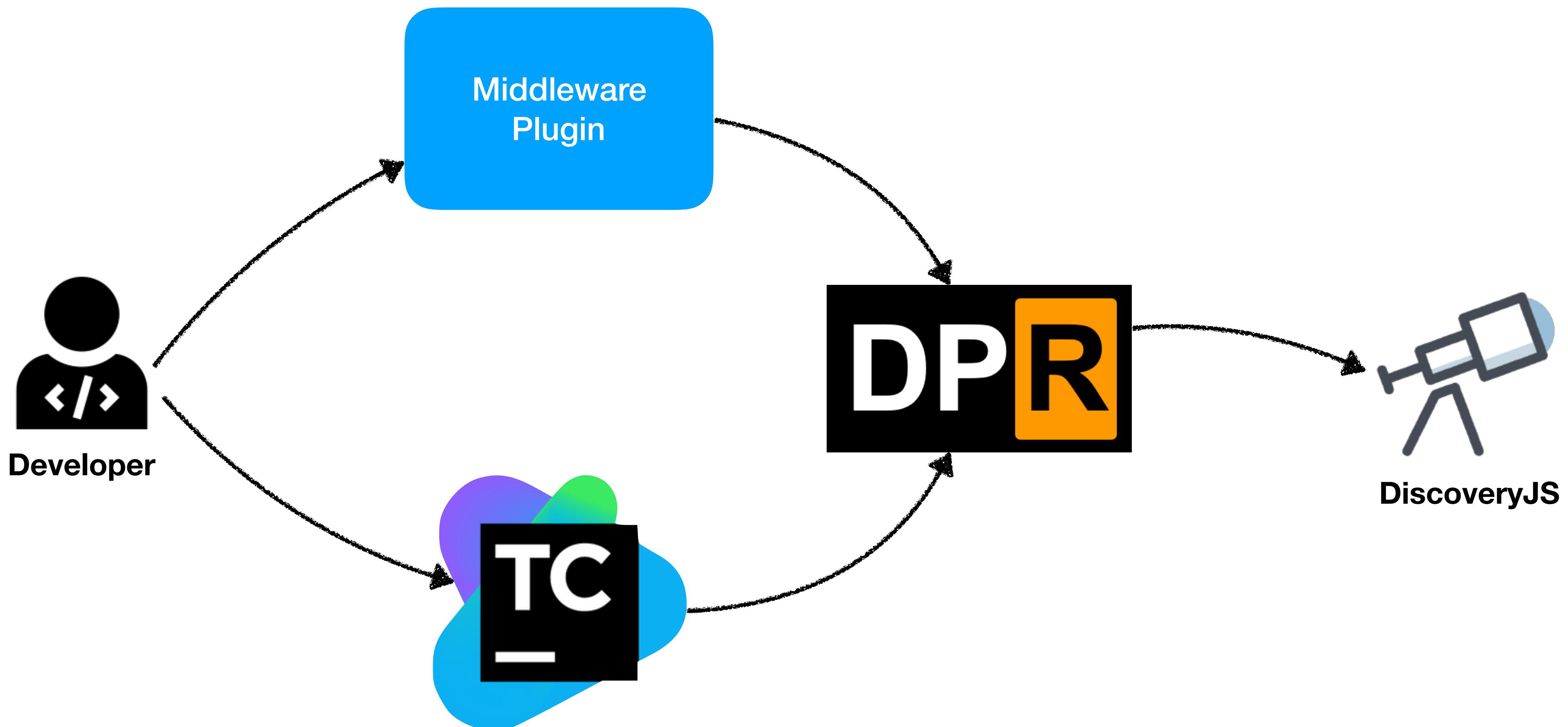
Welcome Repos Projects NPM Packages Teams AV/avito-site Ownership Signals

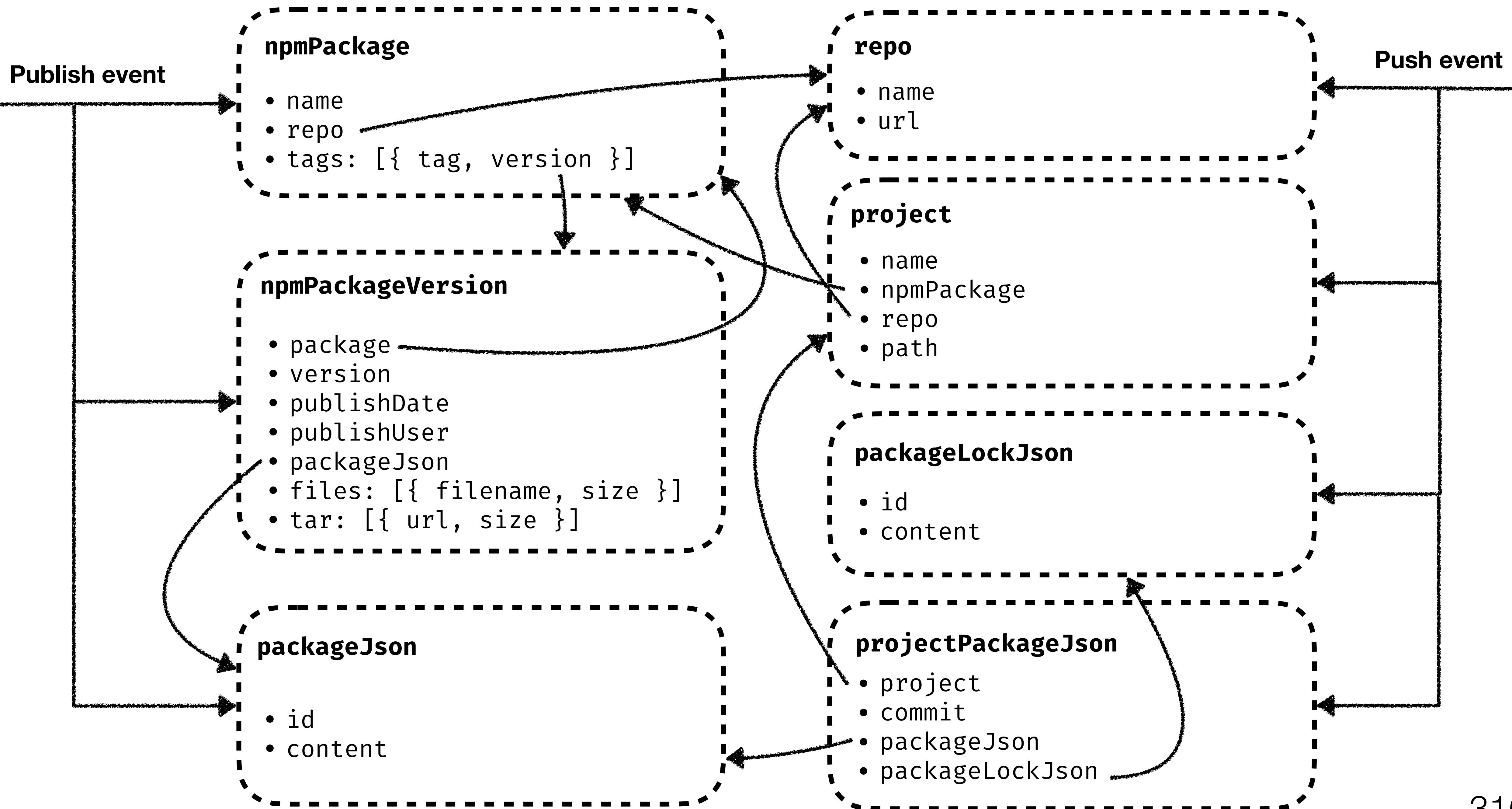
[var / www / s](#)

- + a ? 319 files | all unowned
- + admin ? 284 files | all unowned
- + app ? 36 files | all unowned
- avito ? 3812 files | unowned 1592 files | Frontend Architecture, Trust and Safety, Monetization Rise, Support systems, Autoteka, Buyer Experience, Monetizati
- + mocks_ ? 1 file | all unowned
- apps ? 2040 files | unowned 6 files | Frontend Architecture, Trust and Safety, Monetization Rise, Support systems, Autoteka, Buyer Experience, Monetizati
- + abuse Trust and Safety 1 file
- + advancement-landing Monetization Rise 21 files
- + advert-config Monetization Rise 49 files
- + auth Trust and Safety 2 files | Support systems
- + auto-customer-services Autoteka 3 files
- + autodealer Monetization of Presence 14 files
- + autoloads ? 1 file | all unowned
- + autoteka-item-contacts Autoteka 2 files
- + change-location Buyer Experience 1 file
- + checkout Monetization Rise 50 files

Problems

- ~~Dependency hell and duplication~~
- ~~Impact analysis and Update/Migration~~
- ~~Own packages control~~
- ~~Code ownership~~
- ~~Rights restriction~~





Рассмотрим весь цикл

```
● ● ● 2. ~/d/test-package (fish)
I ➤ ~/d/test-package ➤ ↵ master ➤ la Wed Jul 24 19:14:14 2019
total 8
drwxr-xr-x    4 dekolesnikov 1285728151 128B Jul 24 19:13 .
drwxr-xr-x  147 dekolesnikov 1285728151 4.6K Jul 21 13:59 ..
drwxr-xr-x   12 dekolesnikov 1285728151 384B Jul 24 19:14 .git
-rw-r--r--    1 dekolesnikov 1285728151 13B Jul 21 12:18 .gitignore
I ➤ ~/d/test-package ➤ ↵ master ➤ ┌─ Wed Jul 24 19:14:17 2019
```

```
● ● ● 2. ~/d/test-package (fish)
git repository: (ssh://git@stash.msk.avito.ru:7999/js/test-package.git)
keywords:
author:
license: (ISC)
About to write to /Users/dekolesnikov/dev/test-package/package.json:

{
  "name": "@avito/test-package",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "repository": {
    "type": "git",
    "url": "ssh://git@stash.msk.avito.ru:7999/js/test-package.git"
  },
  "author": "",
  "license": "ISC"
}

Is this OK? (yes)
I ➔ ~/d/test-package ➔ ↵ master ... ➔ 25.7s < Wed Jul 24 19:15:03 2019
```

2. ~/d/test-package (fish)

```
I ➤ ~/d/test-package ➤ master ... ➤ npm i --save lodash
npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN @avito/test-package@1.0.0 No description

+ lodash@4.17.15
added 1 package from 2 contributors in 0.416s
I ➤ ~/d/test-package ➤ master ... █ 1137ms < Wed Jul 24 19:15:48 2019
```

2. CHANGELOG.md + (~/dev/test-package) - VIM (vim)

1 CHANGELOG.md+ 

2 ## 1.0.0

1

3 * Initial version

卷之三

X CHANGELOG.md+

NORMAL ➔ ↗ master ➔ CHANGELOG.md[+]
"CHANGELOG.md" [New File]

5 words < 100% ↵ 3: 17

```
2. ~/d/test-package (fish)
I ➤ ~/d/test-package ➤ ↵ master ... ➤ git s           Wed Jul 24 19:16:50 2019
On branch master
Untracked files:
  (use "git add <file> ..." to include in what will be committed)

    CHANGELOG.md
    package-lock.json
    package.json

nothing added to commit but untracked files present (use "git add" to track)
I ➤ ~/d/test-package ➤ ↵ master ... ➤ git add .           Wed Jul 24 19:16:54 2019
I ➤ ~/d/test-package ➤ ↵ master ~ ➤ git c -m "DP-1740 initial commit"
[master e8cca55] DP-1740 initial commit
  3 files changed, 34 insertions(+)
  create mode 100644 CHANGELOG.md
  create mode 100644 package-lock.json
  create mode 100644 package.json
I ➤ ~/d/test-package ➤ ↵ master ➤ git ph           Wed Jul 24 19:17:05 2019
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (5/5), 894 bytes | 447.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0)
To ssh://stash.msk.avito.ru:7999/js/test-package.git
```

Repo:

{

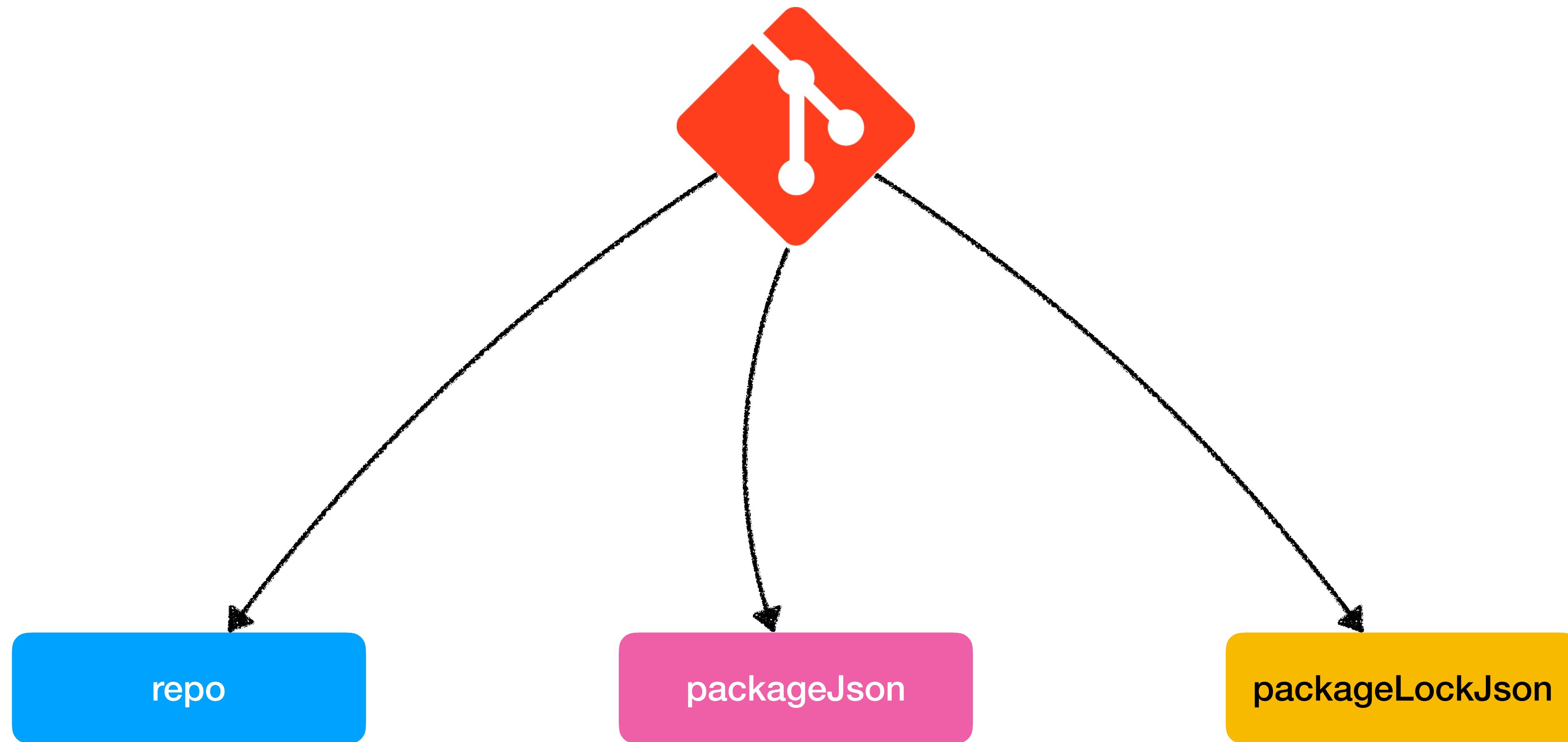
"id": ... ,

"project": "JS" ,

"name": "test-package" ,

...

}



```
● ● ● 2. ~/d/test-package (fish)
I ➔ ~/d/test-package ➤ ↵ master ➔ npm publish .
Wed Jul 24 19:24:39 2019

npm notice
npm notice      @avito/test-package@1.0.0
npm notice  === Tarball Contents ===
npm notice 374B package.json
npm notice 28B CHANGELOG.md
npm notice  === Tarball Details ===
npm notice name:          @avito/test-package
npm notice version:       1.0.0
npm notice package size:  385 B
npm notice unpacked size: 402 B
npm notice shasum:        02c75d4fa81d6530dfe10e593dbf519fcf609420
npm notice integrity:     sha512-voq3bCw6+ZPTM[ ... ]1gtLY/NLKfCvw=
npm notice total files:   2
npm notice
+ @avito/test-package@1.0.0
I ➔ ~/d/test-package ➤ ↵ master ➔ █
1701ms < Wed Jul 24 19:24:43 2019
```

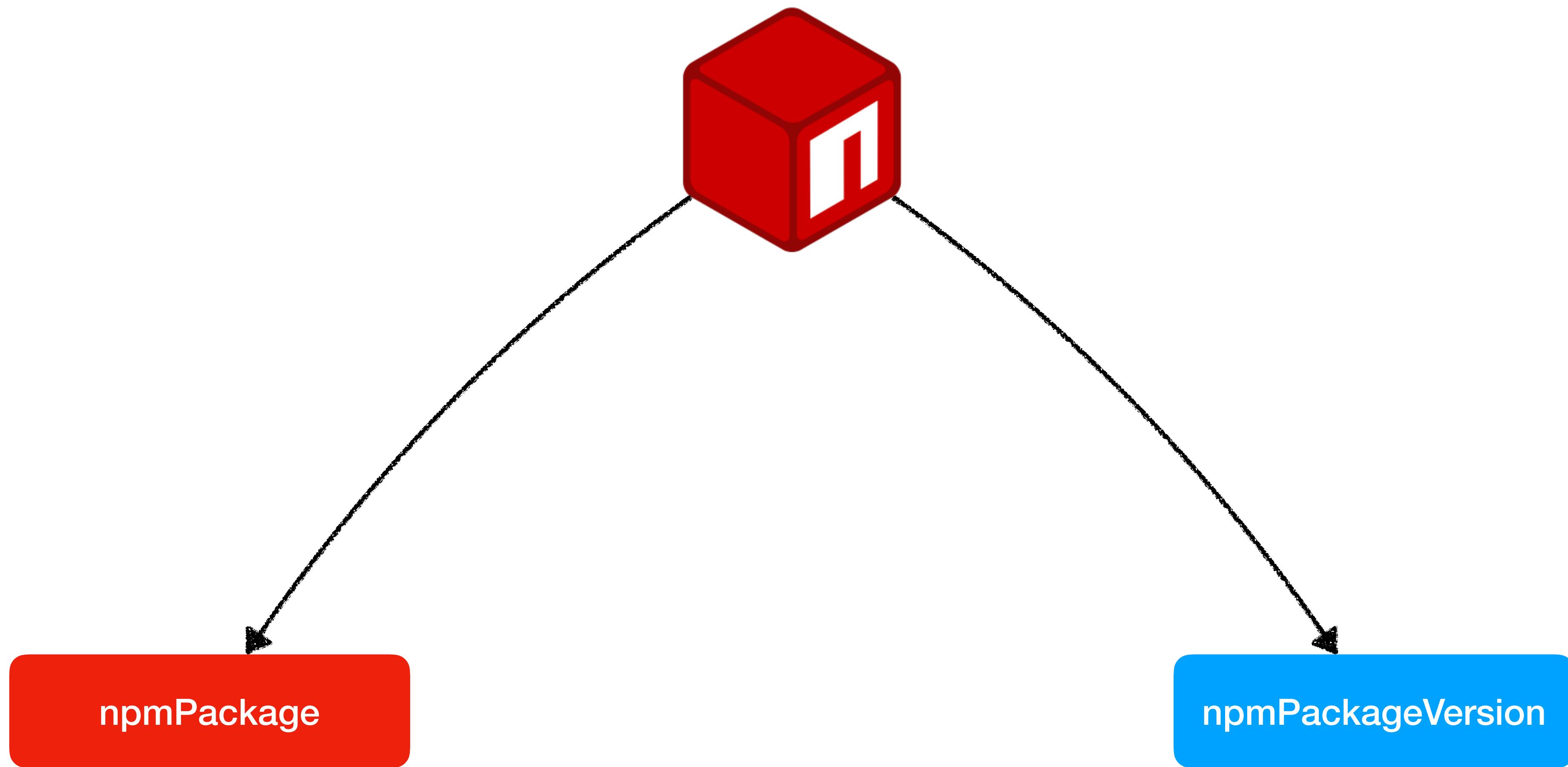
```
NpmPackage
{
    "id": ... ,
    "notifications": ... ,
    "labels": [],
    "name": "@avito/test-package",
    "tags": [
        {
            "name": "latest",
            "version": "1.0.0"
        }
    ],
    "repo": "ssh://git@...",
    ...
}
```

NpmPackage

```
{  
  "id": "...",  
  "notifications": "...",  
  "labels": [],  
  "name": "@avito/test-package",  
  "tags": [  
    {  
      "name": "latest",  
      "version": "1.0.0"  
    }  
  ],  
  "repo": "ssh://git@... ",  
  ...  
}
```

NpmPackageVersion

```
{  
  "id": "...",  
  "npmPackage": %ID%,  
  "packageVersion": "1.0.0",  
  "packageJson": { ... },  
  "files": [  
    {  
      "filename": "package.json",  
      "size": 374  
    },  
    ...  
  ],  
  "tar": {  
    "size": 385,  
    "url": "http:// ... "  
  }  
}
```



NPM package No owner

@avito/test-package

Repository Unknown

. Project Unknown NPM package @avito/test-package

Raw data

```
package { id: "5d38864b9886820012633a2a", name: "@avito/test-package", owner: null, versions: [...] , ...6 more... }
```

Versions (1) latest 1.0.0

1.0.0

Latest version Version 1.0.0 Publish date 2019-07-24T16:24:43.628Z

- > package.json
- > Tarball (2 files in 385.0bytes)

Dependencies for latest version (1)

Package	Type	Requested	Latest
lodash	prod	^4.17.15	

Dependant packages (0)

Package	Type	Requested

Resolved @avito deps (0)

Package	Type	Resolved	Latest

Duplicated packages (0)

Package	Versions

```
npm notice total files: 2
npm notice
+ @avito/test-package@1.0.0
I ➔ ~/d/test-package ➤ master ➔ npm i --save @avito/ui
npm WARN @avito/ui@9.0.4 requires a peer of react@^16.8.1 but none is installed.
  You must install peer dependencies yourself.
npm WARN @avito/ui@9.0.4 requires a peer of react-dom@^16.8.1 but none is installed.
  You must install peer dependencies yourself.
npm WARN @avito/react-utils@2.2.0 requires a peer of @avito/utils@^4.5.0 but none is installed. You must install peer dependencies yourself.
npm WARN react-list@0.8.11 requires a peer of react@0.14 || 15 || 16 but none is installed. You must install peer dependencies yourself.
npm WARN react-transition-group@2.9.0 requires a peer of react@≥15.0.0 but none is installed. You must install peer dependencies yourself.
npm WARN react-transition-group@2.9.0 requires a peer of react-dom@≥15.0.0 but none is installed. You must install peer dependencies yourself.
npm WARN react-popper@1.3.3 requires a peer of react@0.14.x || ^15.0.0 || ^16.0.0 but none is installed. You must install peer dependencies yourself.
npm WARN create-react-context@0.2.2 requires a peer of react@^0.14.0 || ^15.0.0 || ^16.0.0 but none is installed. You must install peer dependencies yourself.
npm WARN @avito/test-package@1.0.0 No description
```

```
+ @avito/ui@9.0.4
added 38 packages from 112 contributors in 2.793s
```

```
I ➔ ~/d/test-package ➤ master *
```

```
3804ms < Wed Jul 24 19:29:45 2019
```

```
● ● ● 2. ~/d/test-package (fish)
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 4.35 KiB | 4.35 MiB/s, done.
Total 5 (delta 1), reused 0 (delta 0)
To ssh://stash.msk.avito.ru:7999/js/test-package.git
  e8cca55 .. 5d1de66 master → master
I ➔ ~/d/test-package ➤ master ➔ npm publish .
npm notice
npm notice      @avito/test-package@1.1.0
npm notice  === Tarball Contents ===
npm notice 401B package.json
npm notice 57B CHANGELOG.md
npm notice  === Tarball Details ===
npm notice name:          @avito/test-package
npm notice version:        1.1.0
npm notice package size:   405 B
npm notice unpacked size: 458 B
npm notice shasum:         4239ef3b157806cfcc1c5e776926fd703d0ffb597
npm notice integrity:      sha512-q3UTbQX43ya/U[ ... ]ZPNxBsxVDvohg=
npm notice total files:   2
npm notice
+ @avito/test-package@1.1.0
I ➔ ~/d/test-package ➤ master ➔ 1380ms < Wed Jul 24 19:31:26 2019
```

ProjectPackageJson

```
{
```

```
  "id": ... ,
```

```
  "project": %PROJECT_ID%,
```

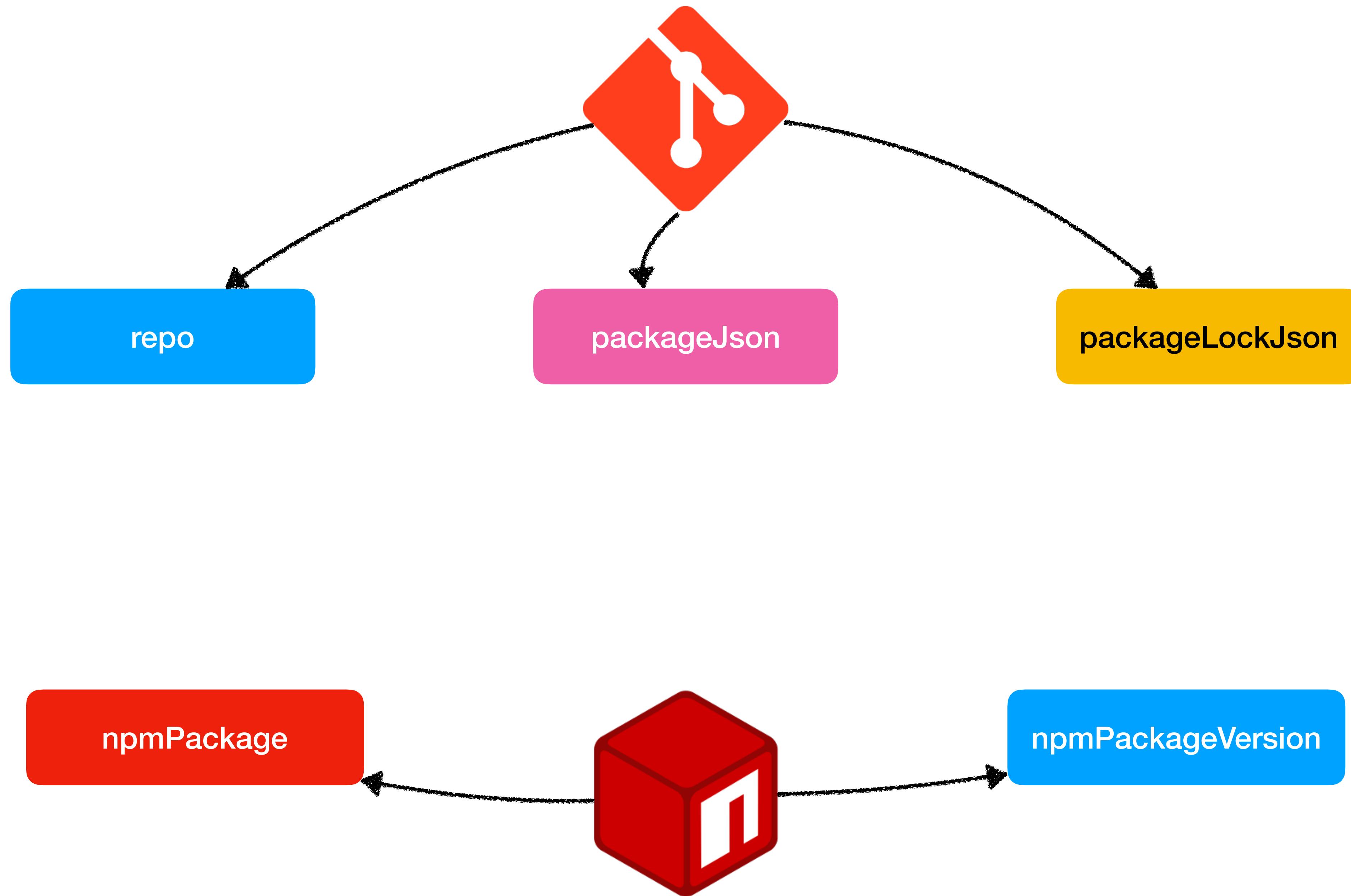
```
  "commit": %COMMIT_ID%,
```

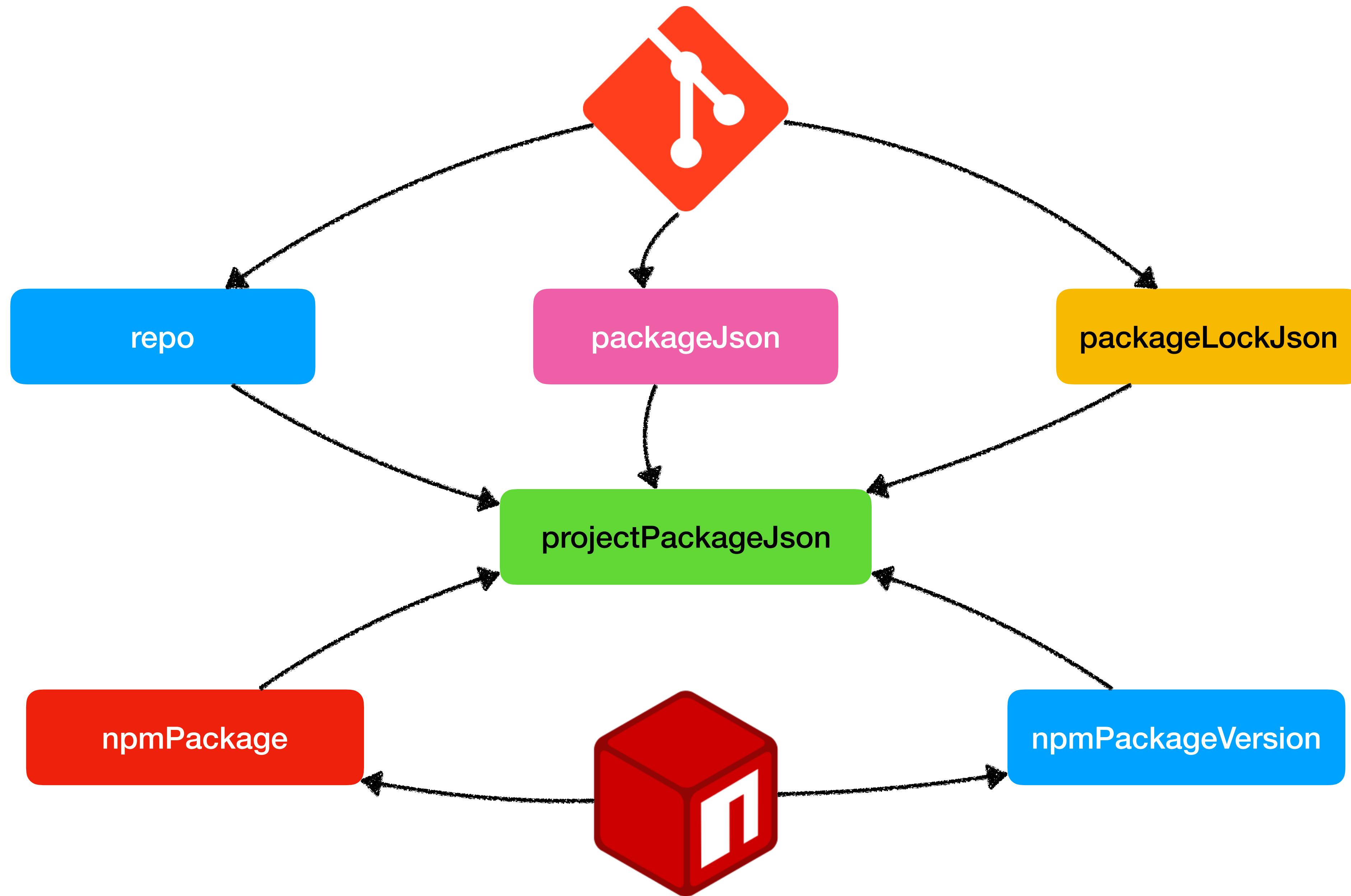
```
  "packageJson": %PACKAGE_JSON_ID%,
```

```
  "packageLockJson": %PACKAGE_LOCK_JSON_ID%,
```

```
  ...
```

```
}
```





Dependencies for latest version (2)

Package	Type	Requested	Latest
@avito/ui	prod	^9.0.4	9.0.4
lodash	prod	^4.17.15	

Dependant packages (0)

Package	Type	Requested

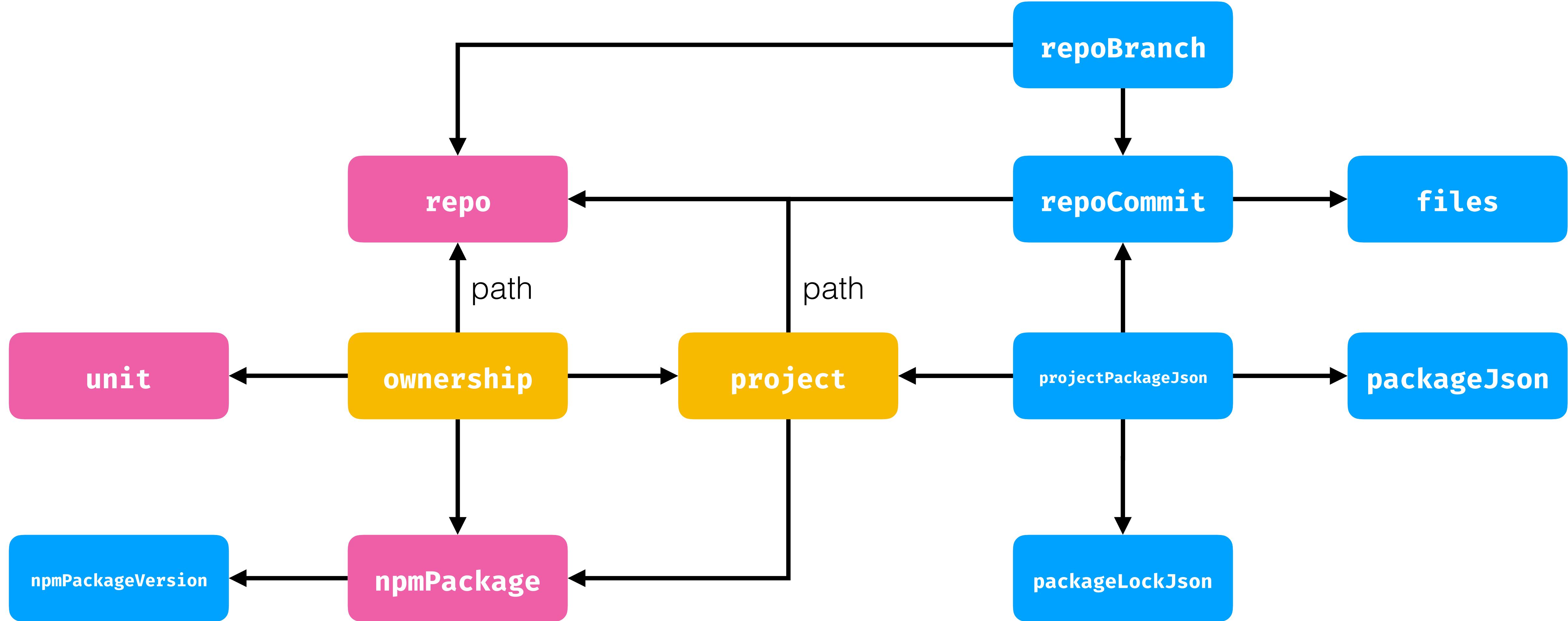
Resolved @avito deps (3)

Package	Type	Resolved	Latest
@avito/react-utils	prod	2.2.0	2.2.0
@avito/ui	prod	9.0.4	9.0.4
@avito/utils	prod	5.2.2	5.2.2

Duplicated packages (0)

Package	Versions

Структура артефактов



Подводим итоги

npm install

npm publish

**Две простые команды, которые мы выполняем каждый день.
Эти команды призваны упростить жизнь разработчикам и они с
этой задачей справляются, но “есть пара нюансов”**

Problem

Problem

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PPPP	r r r r	o o o o	b b b b	l l l l	e e e e	m m m m
P	P r r r	o o o o	b b b b	l l l l	e e e e	m m m m
PPPP	r r r r	o o o o	b b b b	l l l l	e e e e	m m m m
P	r r r r	o o o o	b b b b	l l l l	e e e e	m m m m
P	r r r r	o o o o	b b b b	l l l l	e e e e	m m m m

PROBLEM

IDEA

PROBLEM

PROBLEM IDEA

SOLUTION

Профит

- Получили стройную систему управления модулями
- Увидели всю картину кода и его связей
- Разблокировали возможности автоматического обновления зависимостей
- Поняли как жить в условиях хаоса

Хаос – нормальное состояние любой сложной системы, его не возможно полностью искоренить и борьба с ним – это борьба с ветряными мельницами. С хаосом не стоит бороться, его нужно контролировать.

Спасибо!