

docker-cmd

A guide to your first Rust project

Once I noticed a problem...

* originally here was a screen capture *

```
[~/Desktop]$ docker exec -it
```

```
[~/Desktop]$ # forgot the container name
```

```
[~/Desktop]$ docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
73b207e896a0	python:3.6	"python3"	2 minutes ago	Up 2 minutes		fervent_austin
2fe384f0ff65	ubuntu:xenial	"/bin/bash"	4 minutes ago	Up 4 minutes		determined_wright

```
[~/Desktop]$ docker exec -it 73b207e896a0 /bin/bash
```

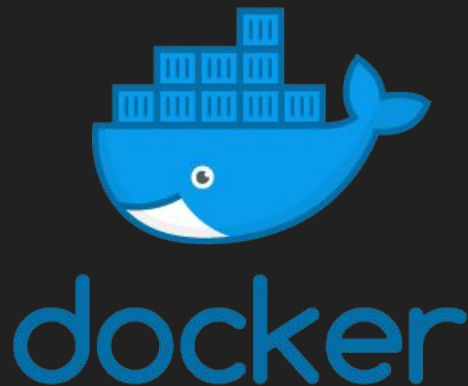
```
root@73b207e896a0:/# now I can work
```

A solution?



Requirements

- should help to automate the mentioned problem
- autocomplete for Docker container IDs
- rather simple script than complex application
- lightweight (therefore no JS/Node) single binary (therefore no Python*)



Why Rust?

- More coding practice
- All needed components available at crates.io
- Rust is compiled (single binary, lightweight in release mode)



docker-cmd (previously docker-bash)

* originally here was a screen capture *

```
[~/Desktop]$ # let's see how it works
```

```
[~/Desktop]$ docker-cmd
```

ID	IMAGE	COMMAND	STATUS
> 73b207e896a0	python:3.6	"python3"	Up 2 minutes
> 2fe384f0ff65	ubuntu:xenial	"/bin/bash"	Up 4 minutes

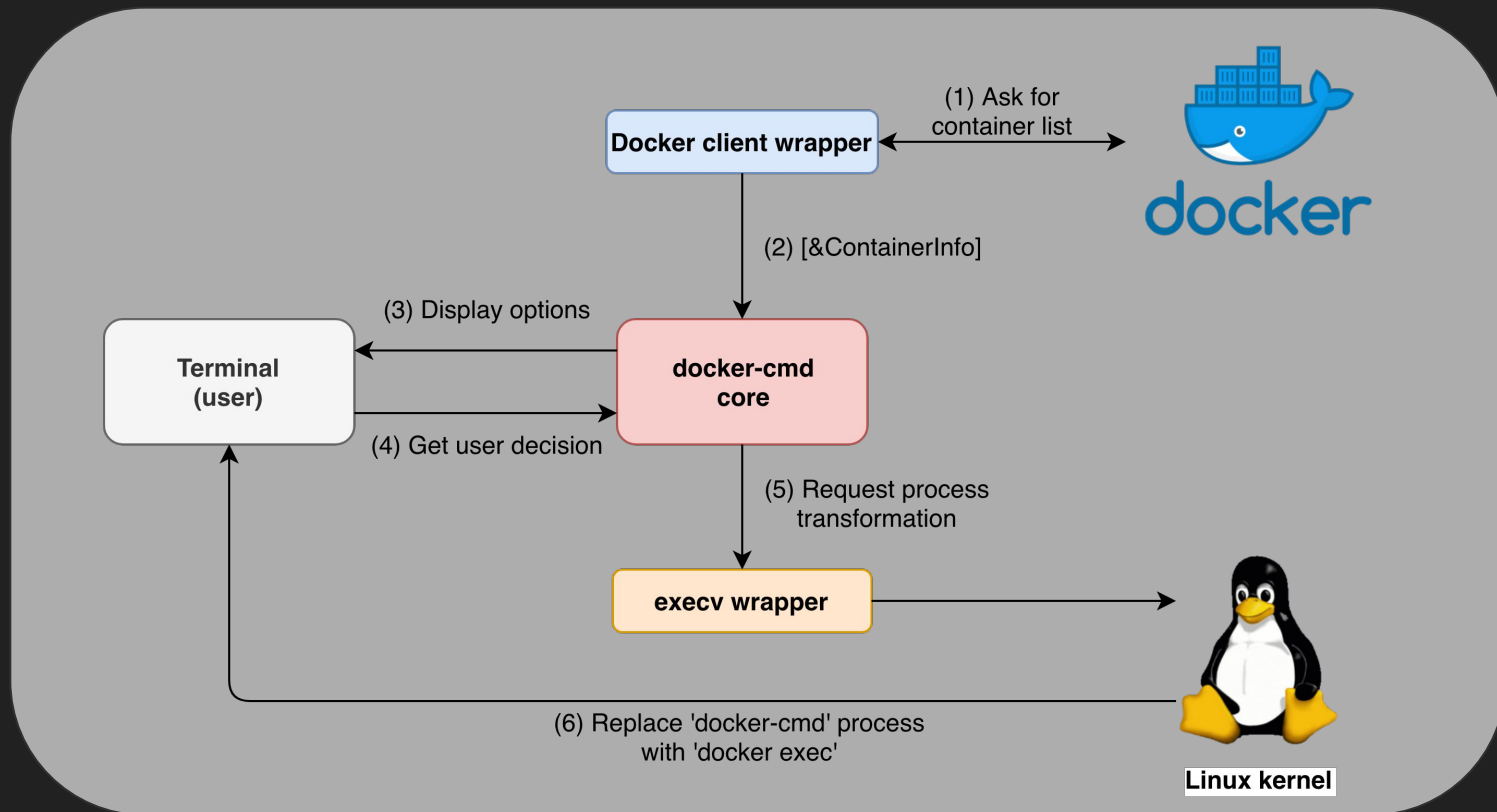
<after selection of the first container; hit Enter>

```
[~/Desktop]$ # let's see how it works
```

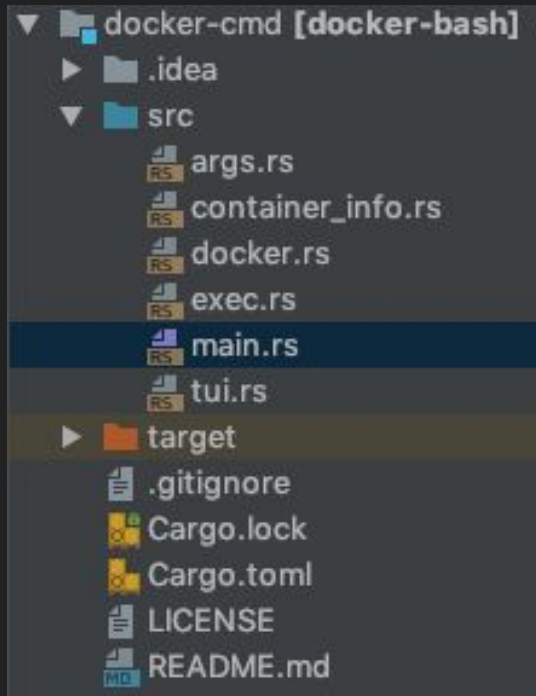
```
[~/Desktop]$ docker-cmd
```

```
root@73b207e896a0:/#
```

docker-cmd - architecture & flow



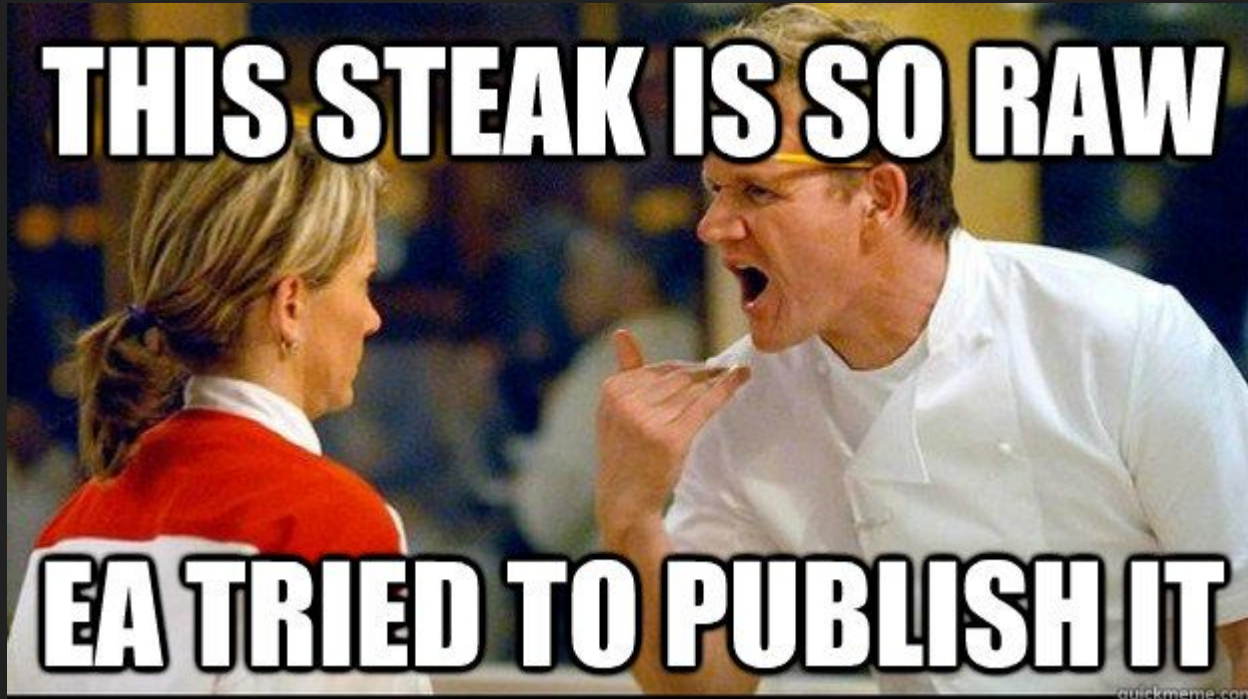
How does it look in code?



Live code presentation

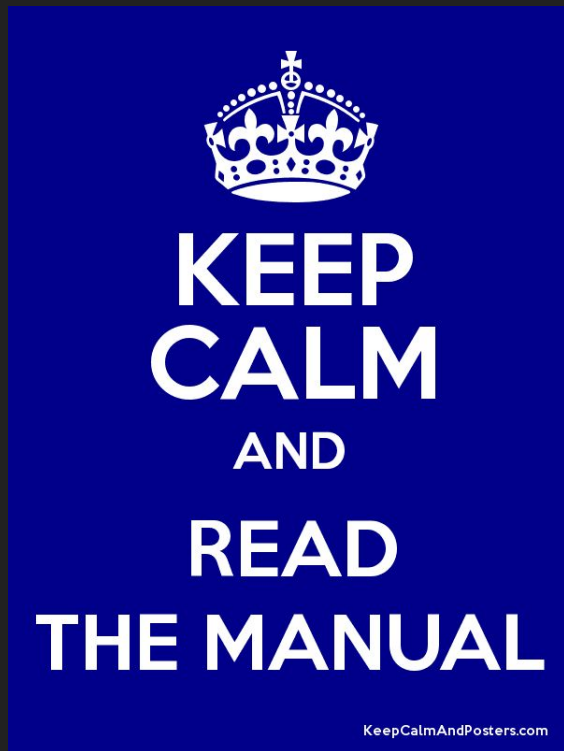
(if you missed the presentation, have a look on: <https://github.com/pbielak/docker-cmd>)

I created an application, what now?



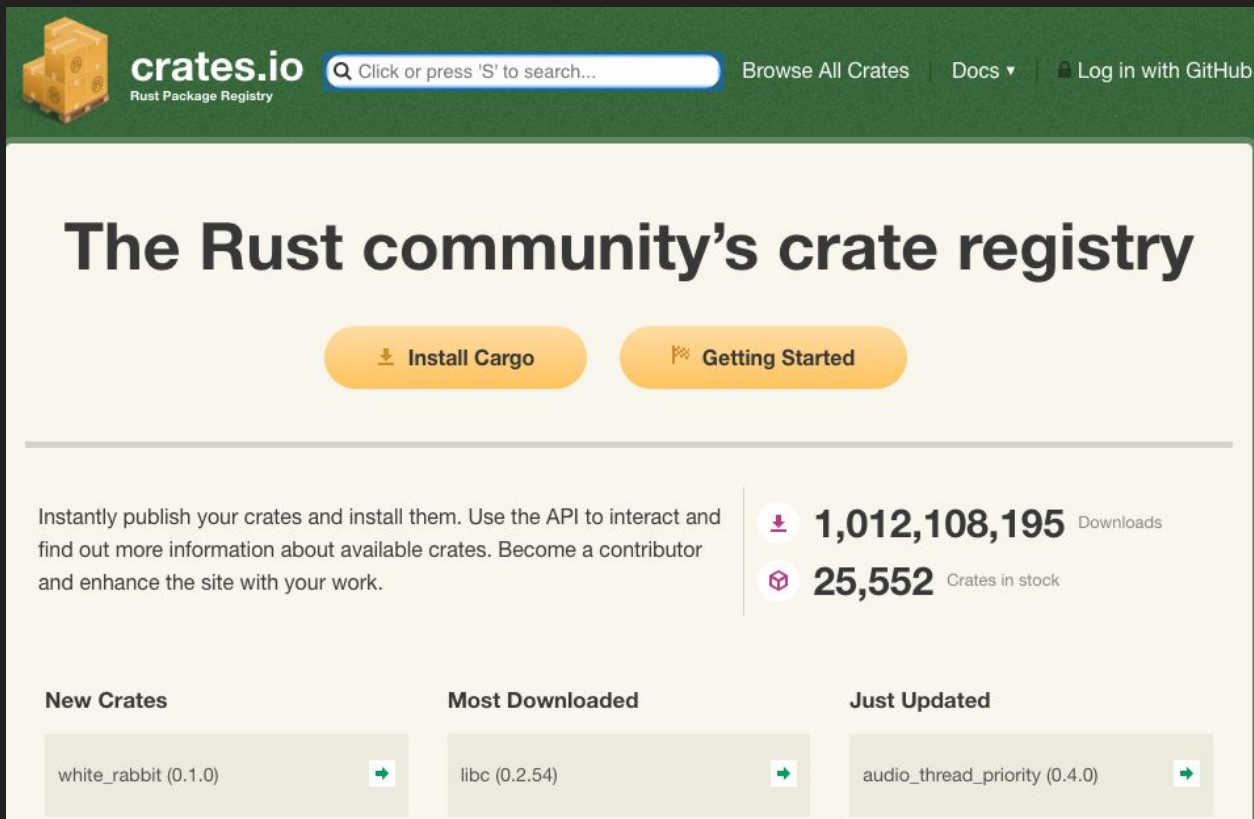
Publish it? where? how?

Publish it? where? how?




<https://doc.rust-lang.org/book/ch14-02-publishing-to-crates-io.html>

Publish it? where? how?





The screenshot shows the crates.io website, which is the Rust Package Registry. The header is green and contains the crates.io logo, a search bar, and links to 'Browse All Crates', 'Docs', and 'Log in with GitHub'. The main content area is white and features a large heading 'The Rust community's crate registry'. Below this are two orange buttons: 'Install Cargo' and 'Getting Started'. A horizontal line separates this from the statistics section, which includes a paragraph about publishing crates and two statistics: '1,012,108,195 Downloads' and '25,552 Crates in stock'. At the bottom, there are three columns: 'New Crates', 'Most Downloaded', and 'Just Updated', each with a list of crates and a green arrow icon.



 **crates.io**
Rust Package Registry




Click or press 'S' to search... Browse All Crates Docs Log in with GitHub

The Rust community's crate registry

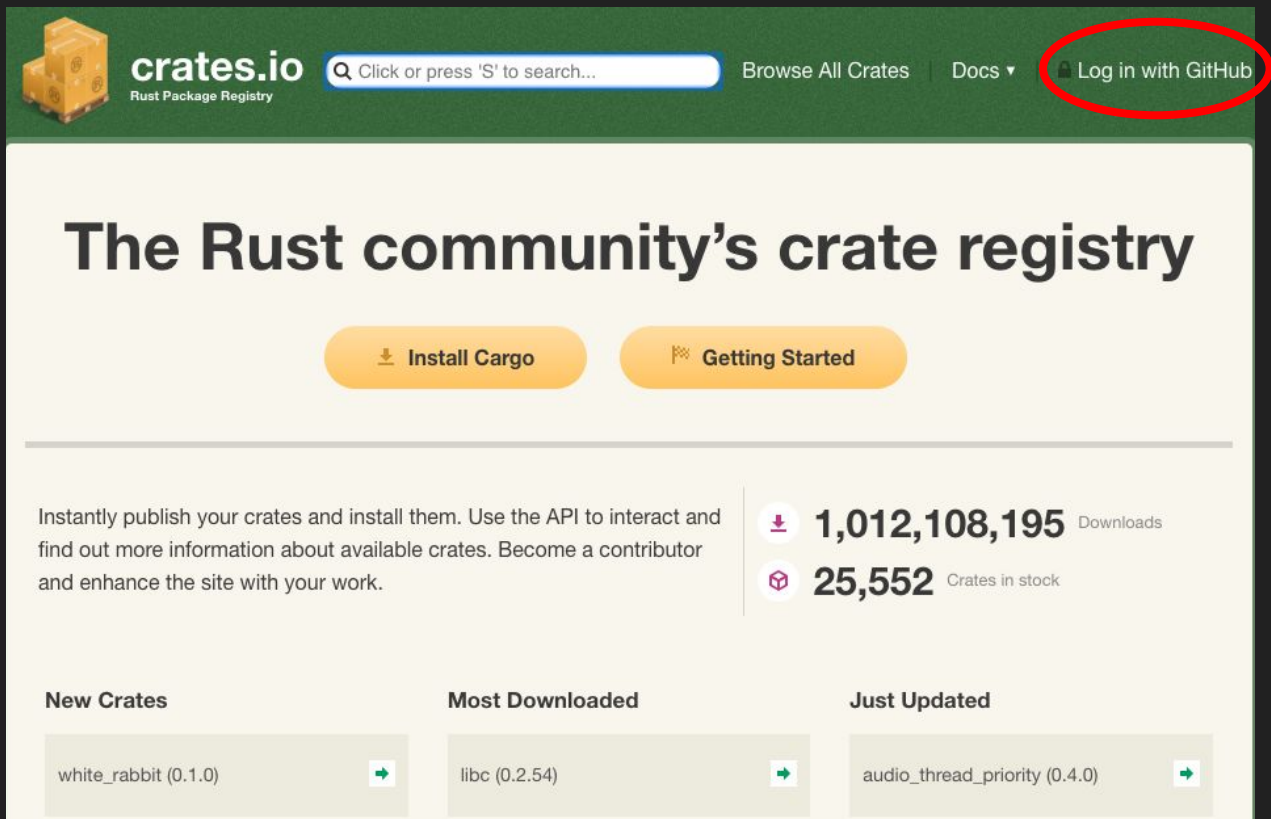
 Install Cargo  Getting Started

Instantly publish your crates and install them. Use the API to interact and find out more information about available crates. Become a contributor and enhance the site with your work.

 **1,012,108,195** Downloads
 **25,552** Crates in stock

New Crates	Most Downloaded	Just Updated
white_rabbit (0.1.0) 	libc (0.2.54) 	audio_thread_priority (0.4.0) 

Publish it? where? how?



The screenshot shows the crates.io website, which is the Rust Package Registry. The header is green and contains the crates.io logo, a search bar, and links to 'Browse All Crates', 'Docs', and 'Log in with GitHub' (which is circled in red). The main content area is white and features the title 'The Rust community's crate registry'. Below the title are two orange buttons: 'Install Cargo' and 'Getting Started'. A horizontal line separates this from the statistics section, which shows '1,012,108,195 Downloads' and '25,552 Crates in stock'. At the bottom, there are three sections: 'New Crates', 'Most Downloaded', and 'Just Updated', each with a list of crates and a green arrow icon.

crates.io
Rust Package Registry

Click or press 'S' to search... Browse All Crates Docs Log in with GitHub

The Rust community's crate registry

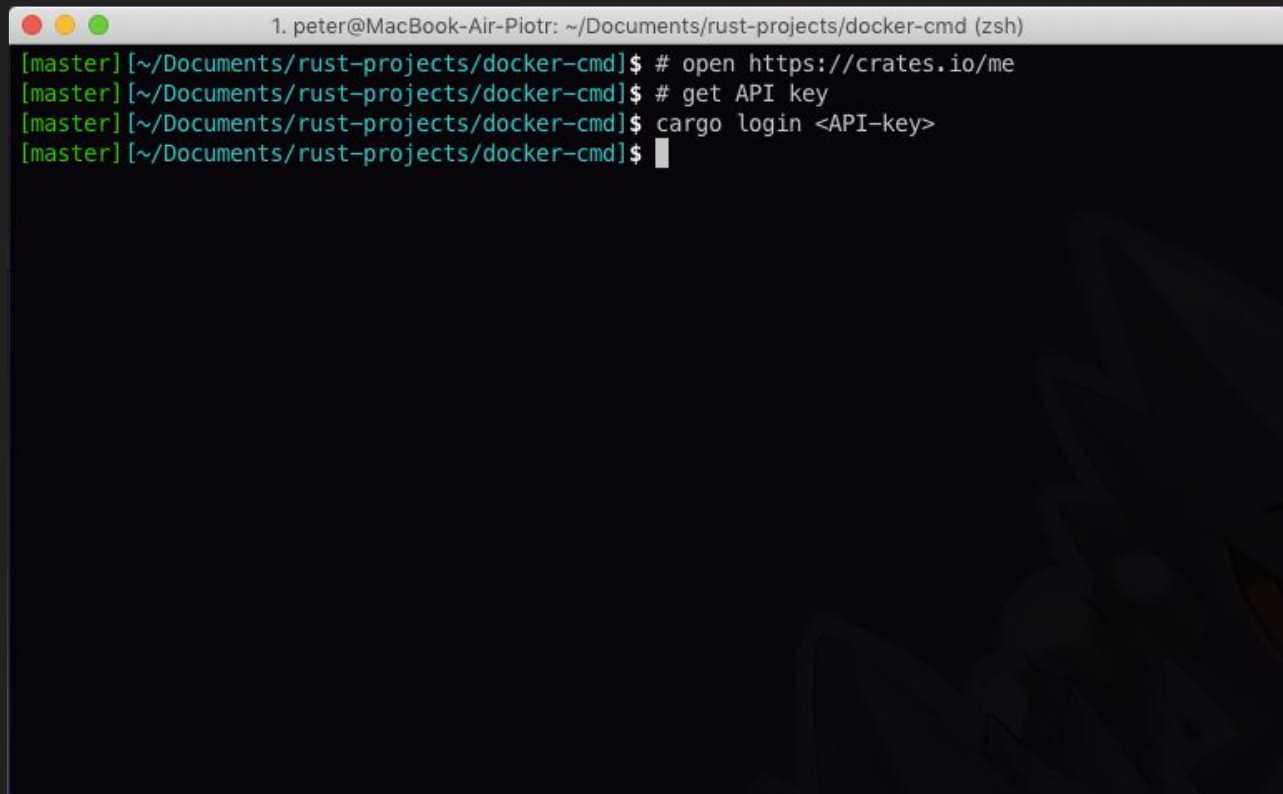
[Install Cargo](#) [Getting Started](#)

Instantly publish your crates and install them. Use the API to interact and find out more information about available crates. Become a contributor and enhance the site with your work.

1,012,108,195 Downloads
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New Crates	Most Downloaded	Just Updated
white_rabbit (0.1.0) →	libc (0.2.54) →	audio_thread_priority (0.4.0) →

Publish it? where? how?

A terminal window with a title bar showing '1. peter@MacBook-Air-Piotr: ~/Documents/rust-projects/docker-cmd (zsh)'. The terminal contains four lines of text: a prompt followed by a comment to open a crates.io profile, a comment to get an API key, a 'cargo login' command with a placeholder for the API key, and a final prompt with a cursor.

```
1. peter@MacBook-Air-Piotr: ~/Documents/rust-projects/docker-cmd (zsh)
[master] [~/Documents/rust-projects/docker-cmd]$ # open https://crates.io/me
[master] [~/Documents/rust-projects/docker-cmd]$ # get API key
[master] [~/Documents/rust-projects/docker-cmd]$ cargo login <API-key>
[master] [~/Documents/rust-projects/docker-cmd]$ █
```

Publish it? where? how?

```
Cargo.toml x
1  [package]
2    name = "docker-cmd"
3    version = "0.2.0"
4    authors = ["pbielak"]
5    license = "MIT"
6    description = "A simple CLI tool for running commands in Docker containers."
7    readme = "README.md"
8    homepage = "https://github.com/pbielak/docker-cmd"
9    repository = "https://github.com/pbielak/docker-cmd"
10   keywords = ["cli", "docker", "command"]
11   categories = ["command-line-utilities"]
12   edition = "2018"
13
14   [dependencies]
15   console = "0.7.5"
16   dialoguer = "0.3.0"
17   derive_more = "0.13.0"
18   nix = "0.13.0"
19   structopt = "0.2"
20   tabwriter = "1.1.0"
21
```

Fill the metadata

Publish it? where? how?

* originally here was a screen capture *

```
[master][~/Documents/rust-projects/docker-cmd]$ cargo publish
```

```
  Updating crates.io index
```

```
  Packaging docker-cmd v0.2.0 (/Users/peter/Documents/rust-projects/docker-cmd)
```

```
  Verifying docker-cmd v0.2.0 (/Users/peter/Documents/rust-projects/docker-cmd)
```

```
  Updating crates.io index
```

```
  Compiling autocfg v0.1.2
```

```
  Compiling ...
```

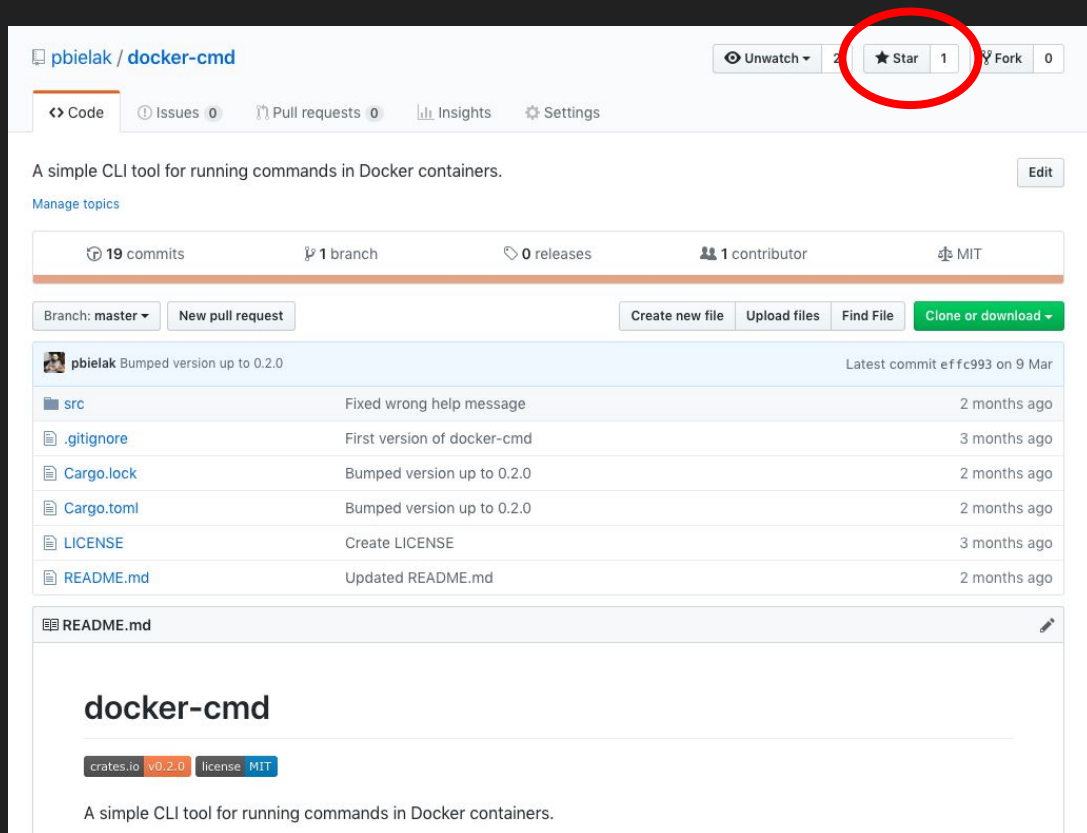
```
...
```

```
  Compiling docker-cmd v0.2.0 (/Users/peter/Documents/rust-projects/docker-cmd)
```

```
  Finished dev [unoptimized + debuginfo] target(s) in 1m 13s
```

```
  Uploading docker-cmd v0.2.0 (/Users/peter/Documents/rust-projects/docker-cmd)
```

docker-cmd 0.2.0 (two months later)



pbielak / docker-cmd

Unwatch 2 ★ Star 1 Fork 0

Code Issues 0 Pull requests 0 Insights Settings

A simple CLI tool for running commands in Docker containers. [Edit](#)

[Manage topics](#)

19 commits 1 branch 0 releases 1 contributor MIT

Branch: master New pull request Create new file Upload files Find File Clone or download

pbielak Bumped version up to 0.2.0 Latest commit effc993 on 9 Mar

src	Fixed wrong help message	2 months ago
.gitignore	First version of docker-cmd	3 months ago
Cargo.lock	Bumped version up to 0.2.0	2 months ago
Cargo.toml	Bumped version up to 0.2.0	2 months ago
LICENSE	Create LICENSE	3 months ago
README.md	Updated README.md	2 months ago

README.md

docker-cmd

crates.io v0.2.0 license MIT

A simple CLI tool for running commands in Docker containers.


docker-cmd 0.2.0 (two months later)

pbielak / docker-cmd

Unwatch 2 ★ Star 1 Fork 0

Stargazers

All 1 You know 0

 jbonjean
Adenops
Follow

19 commits

Branch: master New pull request

Upload files Find File Clone or download

pbielak Bumped version up to 0.2.0 Latest commit effc993 on 9 Mar

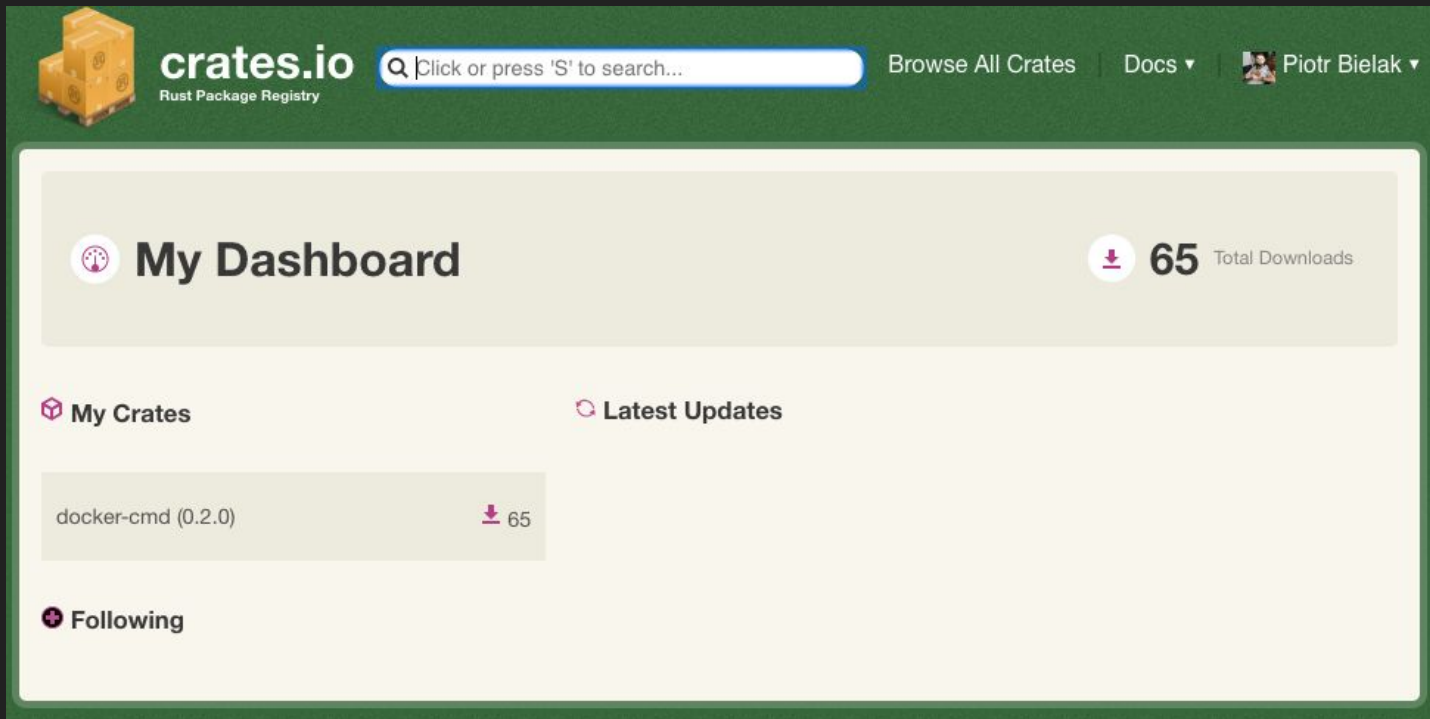
src	Fixed wrong help message	2 months ago
.gitignore	First version of docker-cmd	3 months ago
Cargo.lock	Bumped version up to 0.2.0	2 months ago
Cargo.toml	Bumped version up to 0.2.0	2 months ago
LICENSE	Create LICENSE	3 months ago
README.md	Updated README.md	2 months ago

docker-cmd

crates.io v0.2.0 license MIT

A simple CLI tool for running commands in Docker containers.

docker-cmd 0.2.0 (two months later)



The screenshot shows the crates.io website interface. At the top, there's a green header with the crates.io logo (orange crates) and the text "Rust Package Registry". A search bar contains the placeholder text "Click or press 'S' to search...". Navigation links include "Browse All Crates", "Docs", and a user profile for "Piotr Bielak".

The main content area is titled "My Dashboard" and shows a summary of the user's crates. It indicates "65 Total Downloads" with a download icon. Below this, there are two sections: "My Crates" and "Latest Updates".

Under "My Crates", there is a single entry for "docker-cmd (0.2.0)" with a download icon and the number "65".

Under "Latest Updates", there is a section titled "Following" with a plus icon.

docker-cmd 0.2.0 (two months later)





ONE DOES NOT SIMPLY

SAY THANK YOU WITHOUT A MEME

memes.com