

# IMPROVING DEVELOPER EXPERIENCE (DX) WITH DOCKER

**DOCKER'S AWAKENING DX**

# THE LEGEND OF $/(/(N((N/)))$ : DX

According to Aaron (1.5 years old)

**DUSTIN MASTERS**

Senior Software Engineer, Olo

**FIVE GUYS**



Skip the line<sup>®</sup> and  
build your order online.



Welcome to Five Guys

How do you want your order?

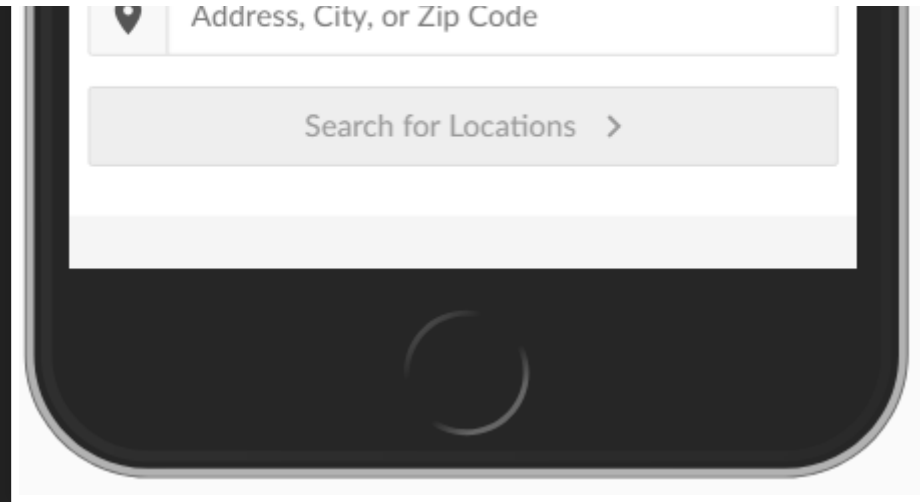


Pickup



ASAP





## SEE ALSO:

- <https://ReactJS.NET>
- <https://woke.dev>

**SLOW BUILDS ARE THE WORST**



# REBUILDS TOOK OVER 6 SECONDS ON AVERAGE BETWEEN CHANGES 🐢

When not running as admin, could be as slow as 30 seconds, because symlinks..

**JAVASCRIPT BUILDS ACCESS  
LOTS OF FILES**

SILICON SATIRE

# What Happened When I Peeked Into My Node\_Modules Directory

Just absolute madness



Jordan Scales

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Aug 5, 2016 · 6 min read ★



Photo: Mint Images/Getty Images



The left-pad fiasco shook the JavaScript community to its core when a rouge developer removed a popular module from npm, causing tens of projects to go dark.

While code bloat continues to slow down our websites, drain our batteries, and make “npm install” slow for a few seconds, many developers like myself have decided to carefully audit the dependencies we bring into our projects.


# ROOT PROBLEM


Our Ember build creates a *lot* of temporary files


# FILESYSTEM ACCESS ON WINDOWS CAN BE SLOW


Even with WSL, NTFS is still used behind the scenes via  
DrvFs


<https://github.com/Microsoft/WSL/issues/873>


 Microsoft / WSL


 Watch 534


 Star 7,342


 Fork 292


 Code

 Issues 546


 Pull requests 0

 Projects 0

 Wiki

 Insights

# Major performance (I/O?) issue in /mnt/\* and in ~ (home) #873

 Open


 Mika56 opened this issue on Aug 11, 2016 · 249 comments



Mika56 commented on Aug 11, 2016

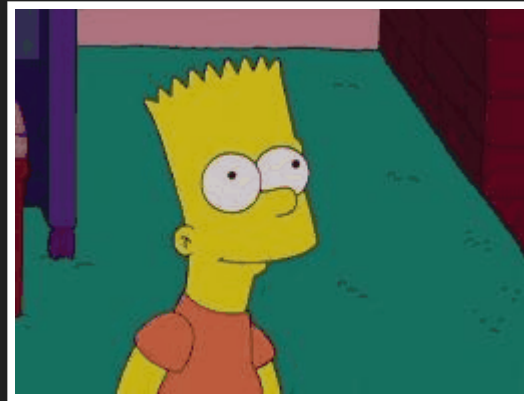
A brief description

Assignees

 mscraigloewen

Labels

 66



**WHAT IF WE USED THE  
BLOCKCHAIN?**





**WHAT IF WE USED CONTAINERS?**



# PERF TEST ON A VM

Native: 78s build, 6s rebuild

Container: 45s build, 2s rebuild

# OTHER BENEFITS

- Consistent build environment
- Multiple containers can be linked

# NEW PROBLEM: KEEPING THE FILES IN SYNC

Docker does not notify mapped volumes that data has  
changed

# DOTNET TOOL TO THE RESCUE

<https://github.com/dustinsoftware/Docker-Volume-Watcher>

```
dotnet install --global  
DockerVolumeWatcher
```

# AUTOMATION IS

yarn docker-start boots up all the containers  
and does sanity checks

```
  "scripts": {
    "build": "ember build",
    "lint:hbs": "ember-template-lint .",
    "lint:js": "eslint .",
    "start": "ember serve",
    "docker-start": "powershell -ExecutionPolicy RemoteSigned .\\docker-start.ps1",
    "test": "ember exam --launch Chrome",
    "tdd": "ember exam -s",
    "pretty-all": "prettier --write '{app,tests,types,config,e2e,rfccs}/**/*.{ts,js,json,md}' *.js *.md *.json",
    "precommit": "lint-staged"
  },
  "devDependencies": {
```



# THANKS!

@dustinsoftware 

# CREDITS

- `reveal-md`
- `dotnet tool`