Standalone Executables

Part 1: node.js apps

Goal

Run 1 command on any platform to get a single file that is ready to use with 0 prerequisites and 0 additional instructions.

What is a standalone executable?

- 1 file a user can just run *a.k.a*
  - static binary
  - standalone binary
  - exe, bin

The löve Method

1. Build `<runtime>.exe`

2. Create `<app.zip>` of application and dependencies

3. Append `<app.zip>` to `<runtime>.exe` to create `<app>.exe`

4. `<app>.exe#main()` extracts `<app.zip>` to temp then executes it

_third_party_main.js

Related Projects

nexe

Pros Active since 2012, does the job for simple apps

Cons Filesystem hacks, no native addon support, no dynamic require statements

nar

Pros It works, really amazing documentation!

Cons Written in LiveScript, focused more on distribution of archives

enclose

Pros Sweet landing page

Cons No idea how it works as the code has 0 comments, doesn't work for me

lone

- Feb. 2014: New project for MongoDB: `mongoscope`

- Deliver as additional executable in `mongotools` tarball

- "Yay! I'll write it in golang! Ugh..."

- "I wish I could just use js..."

example: eslint

```bash
#!/usr/bin/env bash

git clone git@github.com:eslint/eslint.git ~/eslint
cd ~/eslint && npm install
npm install lone
./node_modules/.bin/lone
./.lone/.dist/eslint
```

example: myapp/package.json

```json
{
  "name": "myapp",
  "version": "0.0.1",
  "scripts": {
    "test": "mocha",
    "dist": "lone"
  },
  "bin": {"myapp": "bin/myapp.js"},
  "config": {
    "lone": {
      "icon": "myapp.ico",
      "ignore": ["test/**"]
    }
  },
  "devDependencies": {
    "lone": "^0.5.0",
    "mocha": "^2.2.4"
  }
}
```

Ione put on ice

- Intitial prototype worked suprisingly well!

- But electron was a better solution for mongoscope which became Compass

Build lone@1.0.0 Together

- #19 Signing

- #20 Distribution

- #25 Native addon support

- #26 Improve boot time

- #28 Oneliner

- #29 Make a pretty landing page

Next up:

Part 2: Python apps

Part 3: Python apps + node.js

Questions?
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