

JACOB SCEARCY

- Consultant at Magenic (<https://magenic.com>)
- Twitter: @JacobScearcy
- GitHub: JScearcy (<https://github.com/JScearcy>)



NATIVESCRIPT BLE OBSERVER

WHAT IS NATIVESCRIPT?

- NativeScript is an open source Apache 2 licensed platform supported by Progress, also known for Telerik and Kendo UI.
- The software allows us to create cross platform mobile applications using Angular, TypeScript, or JavaScript.
- Uses a JVM (V8 on Android, JavaScriptCore on iOS) to bridge the gap between JavaScript and the underlying operating system for a nearly native experience.

INSTALLING NATIVESCRIPT: STEP 1



- The NativeScript CLI requires Node.js and is installed using npm (Node Package Manager)
- Check if node is installed by executing node – version in the command prompt, if no error is returned node has been installed. Otherwise it can be installed from <https://nodejs.org/>

INSTALLING NATIVESCRIPT: STEP 2

- Run command `npm install --g nativescript`
- You may be asked two questions during the installation: *Do you want to visit the official documentation?* As well as: *Do you want to run the setup script?* You can answer no for now
- Tns and nativescript will both invoke the cli at this point



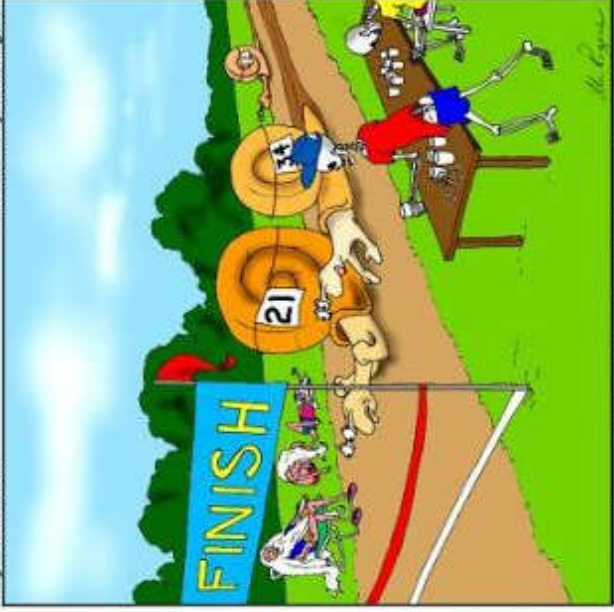
INSTALL NATIVESCRIPT: STEP 3

- Windows: Run in powershell the command here <https://docs.nativescript.org/start/quickest-setup#windows>
- MacOS: Run the terminal command here <https://docs.nativescript.org/start/quickest-setup#macos>



LONDON'S TIMES

By Rick London
Illustrated by Alan Rogers



Meanwhile at the finish line of the
snail marathon olympics

FINISHED!

- To verify the install run this command: `tns doctor`
- For any more info about set up visit <https://docs.nativescript.org/start/quick-setup>

STARTING A NATIVESCRIPT PROJECT

- Basic start command: `tns create <package-name>` will create a hello world application
- Using other templates: `tns create<package-name> --template <template>` -
ex: `tns create my-app-name --template`
<https://github.com/JScearcy/bleObserver.git#template>
- Will create a new project using the git repo as a template – the hash at the end indicates the branch if needed

LET'S DIVE INTO THESE TOPICS WITH NATIVESCRIPT



NATIVESCRIPT-BLUETOOTH PACKAGE

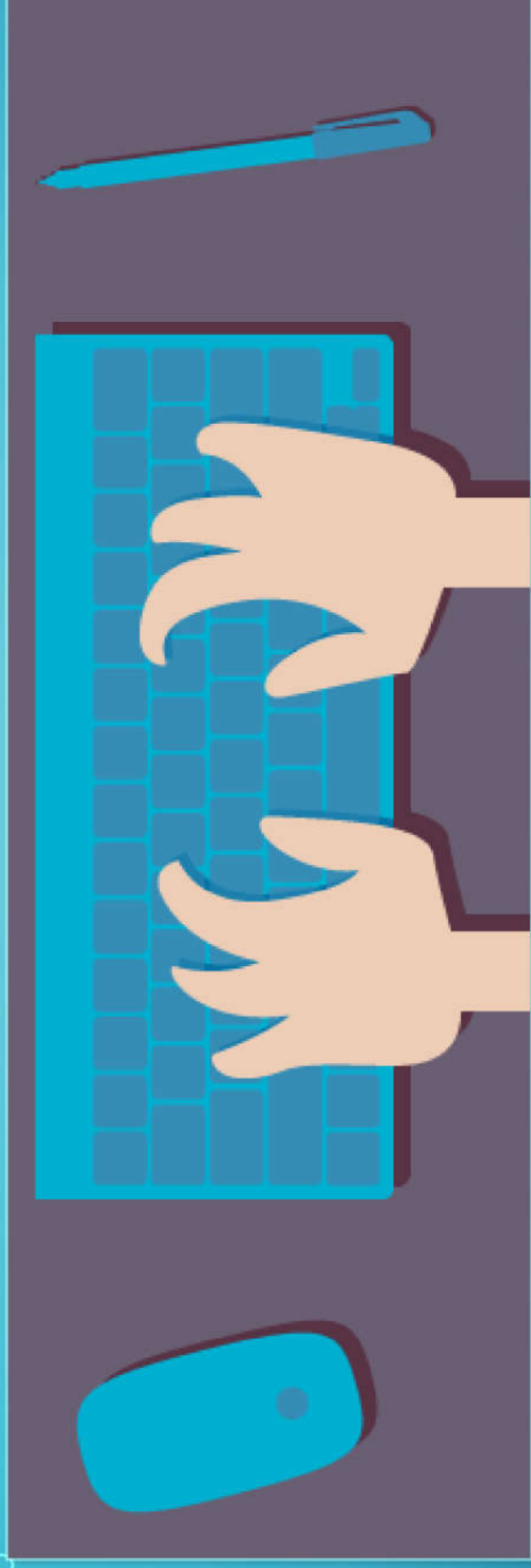
- <https://github.com/EddyVerbruggen/nativescript-bluetooth>
- Provides a cross platform implementation of bluetooth hardware in an Android or iOS device.
- With an application looking to read advertisements we have to do some extra work when an item is found — this package by default only shows unique BLE devices by filtering MAC addresses it's already seen.

NATIVESCRIPT MQTT

- A nativescript package to communicate with MQTT services. Under the covers it does use Websockets, so the service that is being called must support this.
- The template I've created is set up to transfer the encrypted payload to

Adafruit IO

- In the template I've created the URL can be edited in the `app/resources/mqtt.config.ts` file, along with the feed, and whether or not the Username should be prepended (Adafruit IO requires this)



LETS LOOK

Now lets switch gears and get into the code