

IoT: Client Devices

Daemon Processes

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EVERY OS HAS SOMETHING LIKE THIS

- ▶ Called a service (windows-land) or a daemon (unix)
- ▶ I've seen both terms used with MacOS

STARTUP & SHUTDOWN

- ▶ Starts with the system, stops with the system

You'll use these in your project!

Not a Regular Program

OPERATING SYSTEM SERVICES

- ▶ Not all services are available (e.g. no console for output)

FOLLOW CERTAIN CONVENTIONS

- ▶ Forking, default file permissions, group affiliation

OPERATING SYSTEM CONFIGURATION

- ▶ Linux needs to be configured to start your daemon

Languages

MULTIPLE LANGUAGES SUPPORT DAEMONS

- ▶ Python and python-daemon
- ▶ Ruby with Daemons
- ▶ Perl, bash, C

WE'RE EMBEDDED THOUGH

- ▶ No python, perl, ruby, etc.
- ▶ We do have bash and C

Pros & Cons of C/Bash

CONFIGURATION IN BASH

- (+) Well supported standard way to configure Linux startup
- (-) Really, the only supported way to configure Linux startup

CODE DEVELOPMENT IN C

- (+) Native to Linux/Unix
- (+) Abundance of services and libraries
- (+) Well supported via build root
- (+) Small footprint
- (-) Wordy
- (-) Complex
- (-) Powerful

When you have a hammer...