

GVM

Groovy enVironment Manager

ABOUT ME

MARCO VERMEULEN

- Java Dev for past 10 years
- Groovy and Grails for 5
- Worked for Shazam, Associated Newspapers, Burberry
- Currently: Consulting at Equal Experts
- Author of GVM (Groovy enVironment Manager)
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ABOUT THE TALK

- The Problem: SDK Management
- A Solution: GVM
- The Nuts and Bolts of GVM
- The future of GVM

THE ITCH

- Working with many SDKs
- Downloading SDKs
- Manage many _HOME variables
- Adding these to PATH
- Simlinks to switch versions
- A Mundane Task!
- A Pain!!

THE SCRATCH

- An SDK Manager
- Install multiple Candidates
- Multiple Versions per Candidate
- Performs Downloads
- Deals with Archives
- Handle `_HOME` and `PATH` variables
- Notifications
- Always up to date
- Runs anywhere
- This already exists!

GVM

DOES ALL OF THIS!

GVM ARCHITECTURE

- Client Server Application
- MongoDB
- Vert.x in Groovy
- Bash Client
- drone.io
- Heroku

GVM ARCHITECTURE

MONGODB

COLLECTIONS

- Candidates
- Versions
- Broadcast
- Audit

GVM ARCHITECTURE

VRTX WITH GROOVY

DO WE REALLY NEED A SERVER?

- Centralised distribution
- **Comprehensive API**
- **server.groovy**

GVM ARCHITECTURE

BASH CLIENT

WHY IN BASH?

- Light weight
- Fast startup (no Java)
- Many platforms (OSX, Linux, Cygwin, Solaris, BSD)
- No dependencies (only Curl, Zip)
- Geek appeal :D

GVM ARCHITECTURE

BASH CLIENT: BOOTSTRAP



GVM ARCHITECTURE

BASH CLIENT: BOOTSTRAP

```
#THIS MUST BE AT THE END OF THE FILE FOR GVM TO WORK!!!  
[[ -s "/home/muppet/.gvm/bin/gvm-init.sh" ]]  
  && source "/home/muppet/.gvm/bin/gvm-init.sh"
```

~/ .bash_profile

GVM ARCHITECTURE

BASH CLIENT: BOOTSTRAP

```
# Source gvm module scripts.  
for f in $(find "${GVM_DIR}/src" -type f -name 'gvm-*'); do  
    source "${f}"  
done
```

~/ .gvm/bin/gvm-init.sh

GVM ARCHITECTURE

BASH CLIENT: BOOTSTRAP

```
function __gvmtool_offline {  
    if [[ "$1" == "enable" ]]; then  
        GVM_FORCE_OFFLINE="true"  
        echo "Forced offline mode enabled."  
    fi  
    if [[ "$1" == "disable" ]]; then  
        GVM_FORCE_OFFLINE="false"  
        GVM_ONLINE="true"  
        echo "Online mode re-enabled!"  
    fi  
}
```

~/ .gvm/src/gvm-offline.sh

GVM ARCHITECTURE

BASH CLIENT: BOOTSTRAP

```
function gvm {
    COMMAND="$1"
    QUALIFIER="$2"

    CMD_FOUND=""
    CMD_TARGET="${GVM_DIR}/src/gvm-${COMMAND}.sh"
    if [[ -f "$CMD_TARGET" ]]; then
        CMD_FOUND="$CMD_TARGET"
    fi

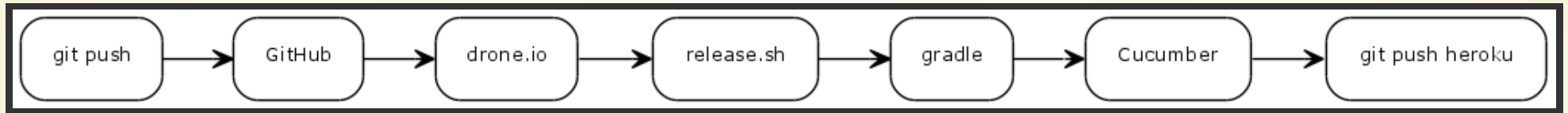
    CONVERTED_CMD_NAME=$(echo "$COMMAND" | tr '-' '_')

    if [ -n "$CMD_FOUND" ]; then
        # It's available as a shell function
        __gvmtool_ "$CONVERTED_CMD_NAME" "$QUALIFIER" "$3" "$4"
    fi
}
```

~/ .gvm/src/gvm-main.sh

GVM ARCHITECTURE

CONTINUOUS DEPLOYMENT PIPELINE



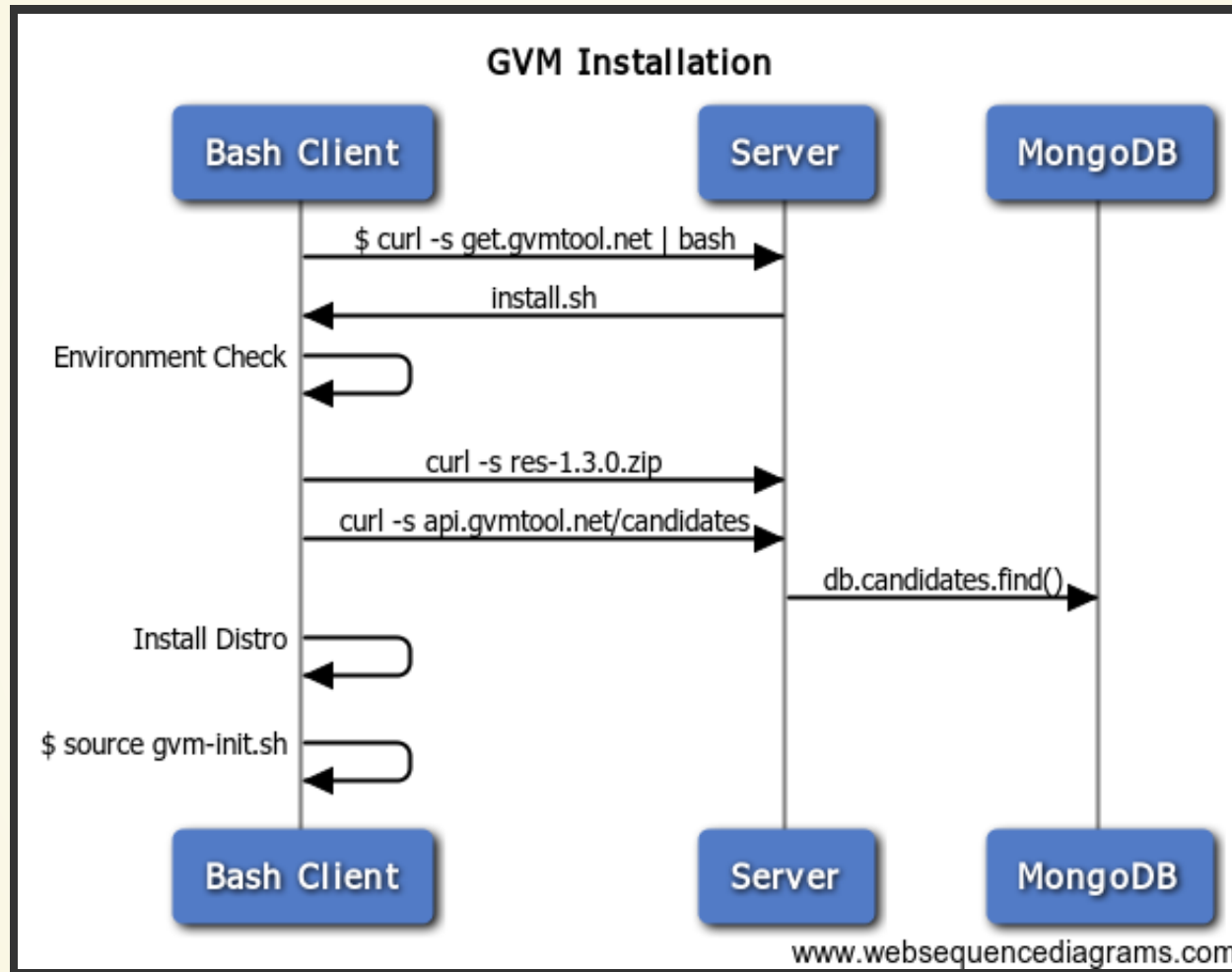
1. Push to GitHub
2. Github hooks into Drone.io
3. Drone executes `setversion.sh`
4. Gradle builds
5. Cucumber runs
6. Drone push to Heroku
7. Heroku deploys

INSTALLATION

SHOULD BE A PAINLESS AFFAIR FOR USERS...

```
$ curl -s get.gvmtool.net | bash
```

INSTALLATION



HOW WE DID IT

A SOCIAL EXPERIMENT IN BDD

- Cucumber **Specifications**
- Community discussion on **GitHub**
- Early Feedback
- Development of Features

GVM

THE FUTURE

GVM v2

Self Learning Feature

Dropwizard or Ratpack

xVM

White Label

scalaVM?, clojureVM?, javaVM?

Possibilities Endless!

CONCLUSION

SDK Management is a Pain

GVM can Release that Pain

Currently supports all things Groovy

Will grow into something far bigger!

THANK YOU!!

Q & A