Xcode + Xcode Server CI

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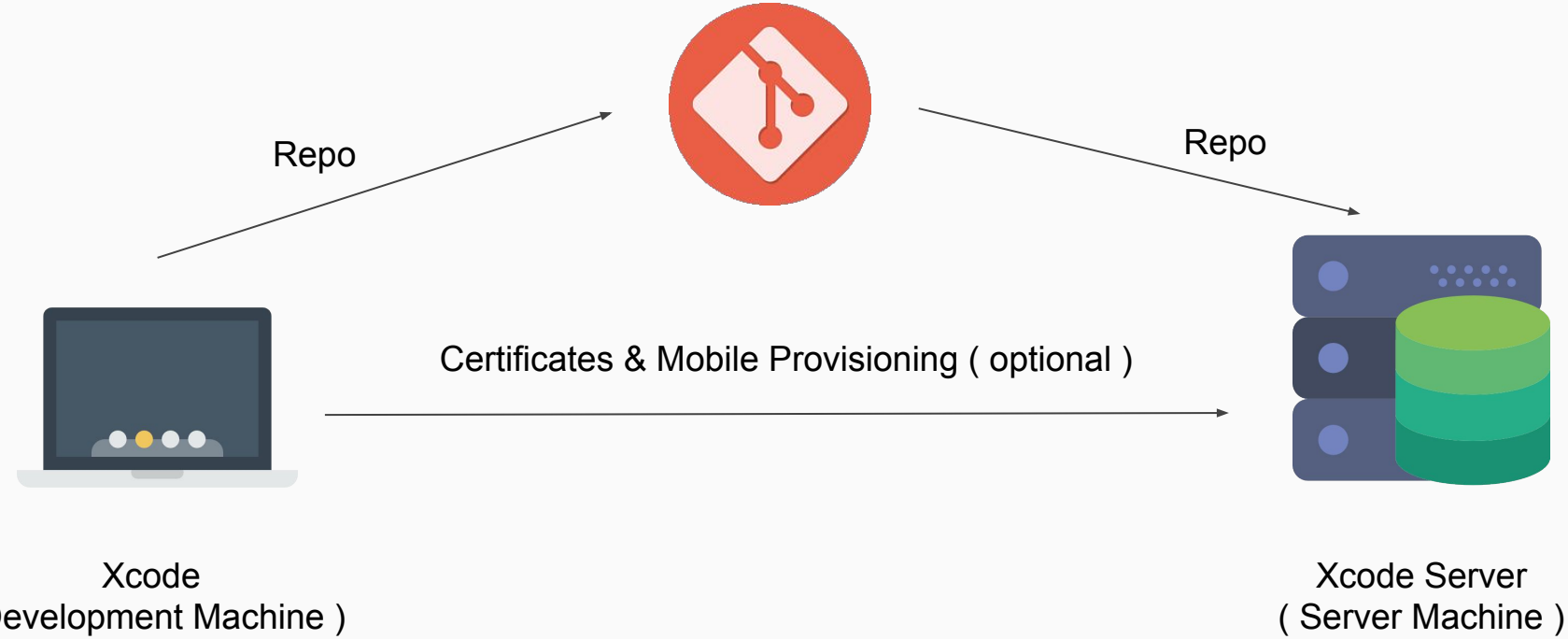
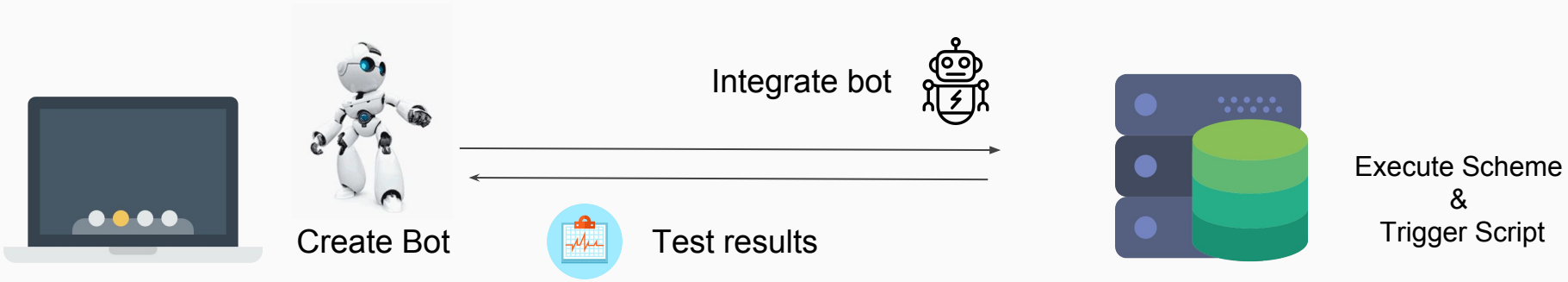
Intro

- Xcode CI
- Expectation
  - Run test cases
  - Release beta (with fastlane)
  - Release to Appstore
- Comparison
- Next step

How it works?


Repo
Repo
Certificates & Mobile Provisioning (optional)
Xcode
(Development Machine)
Xcode Server
(Server Machine)

How to make it work?



What is a bot?

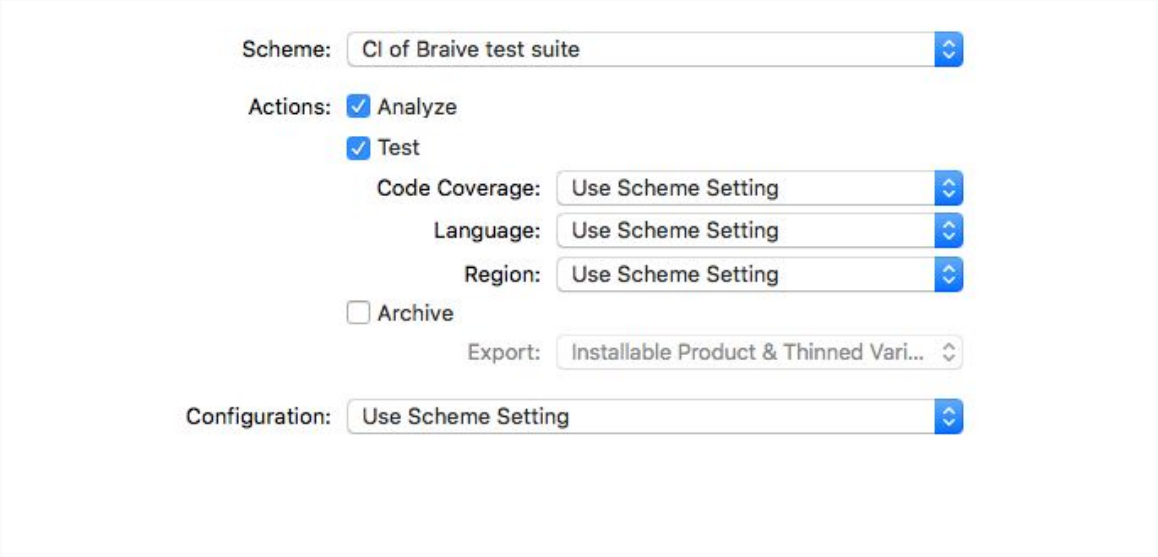
Bot is like a configuration for Xcode server

- Info
  - Bot name
  - Server to send bot to.
- Repository (SSH can be send from Development machine)
  - Name
  - Branch to run
- Schedule
  - Build triggering by: commits, schedule, manually
- Code Signing
  - Can be copy from development machine to server machine automatically

What is a bot?

Bot is like a configuration for Xcode server

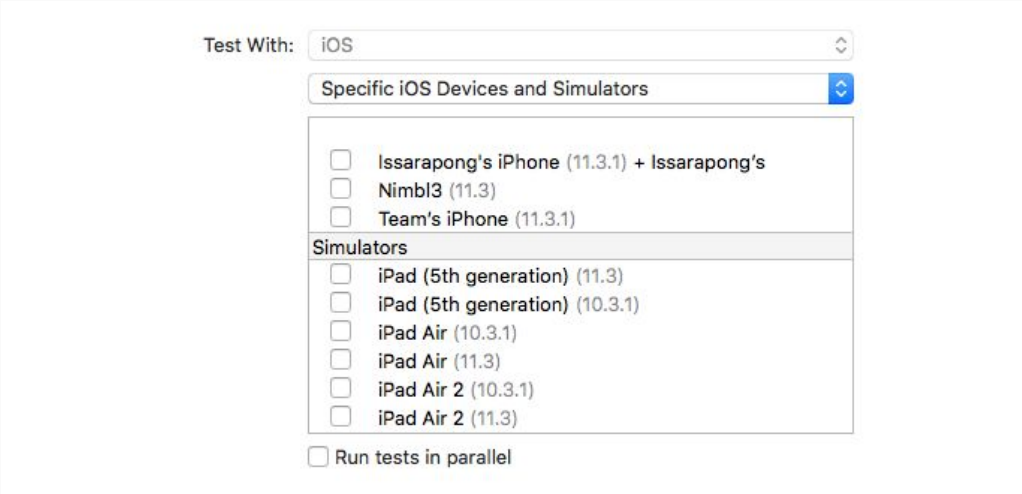
- Configurations
  - Scheme, Region, Language



What is a bot?

Bot is like a configuration for Xcode server

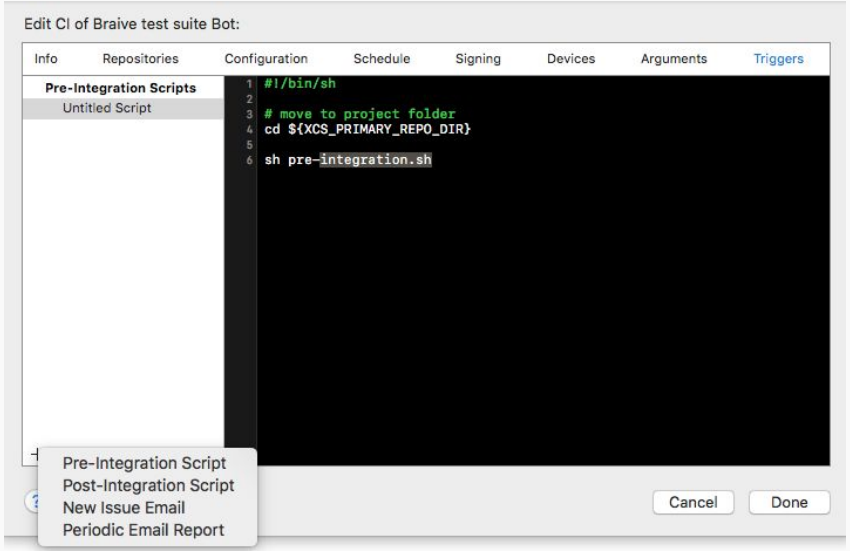
- Devices
  - Simulator, iOS Devices
  - Parallel testing just one check
  - All simulators check + parallel testing is not possible (memory issue)



What is a bot?

Bot is like a configuration for Xcode server

- Arguments
  - Setup environment variable
- Triggers
  - Shell script that’s going to be execute
    On `Pre-Integration` and
    `Post-Integration`



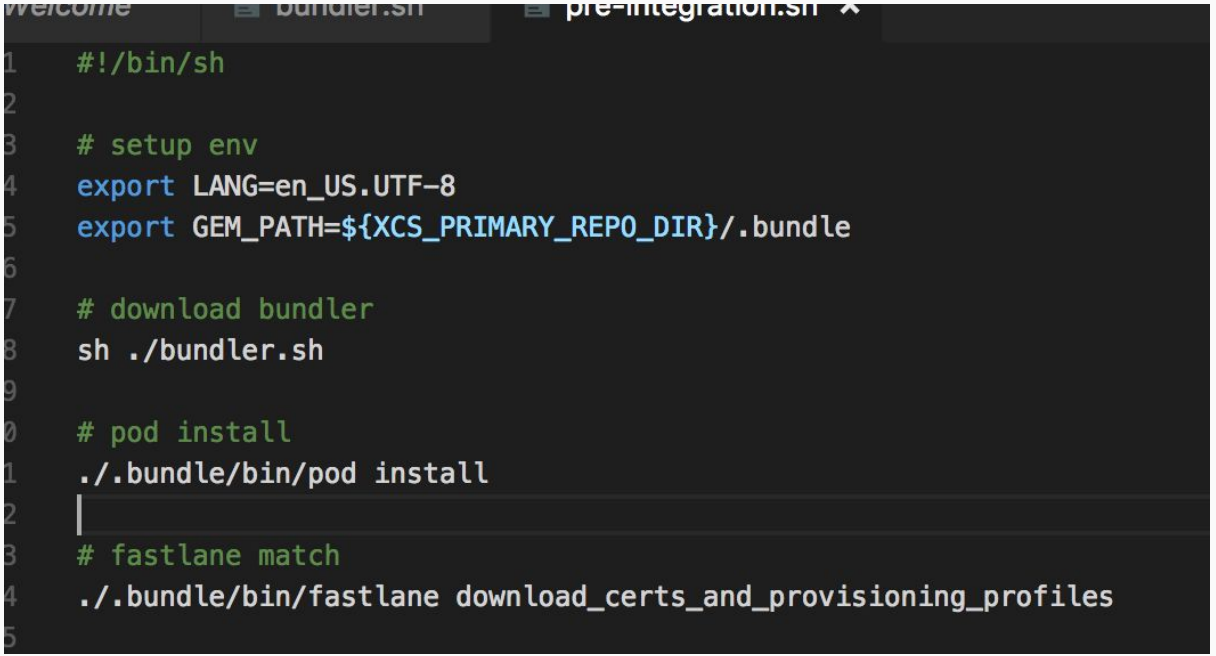
Achievements and progress

- Embed gems inside the project `./.bundle`
  - No permission needed.
- Execute gems (pod, fastlane) from `./.bundle/bin`

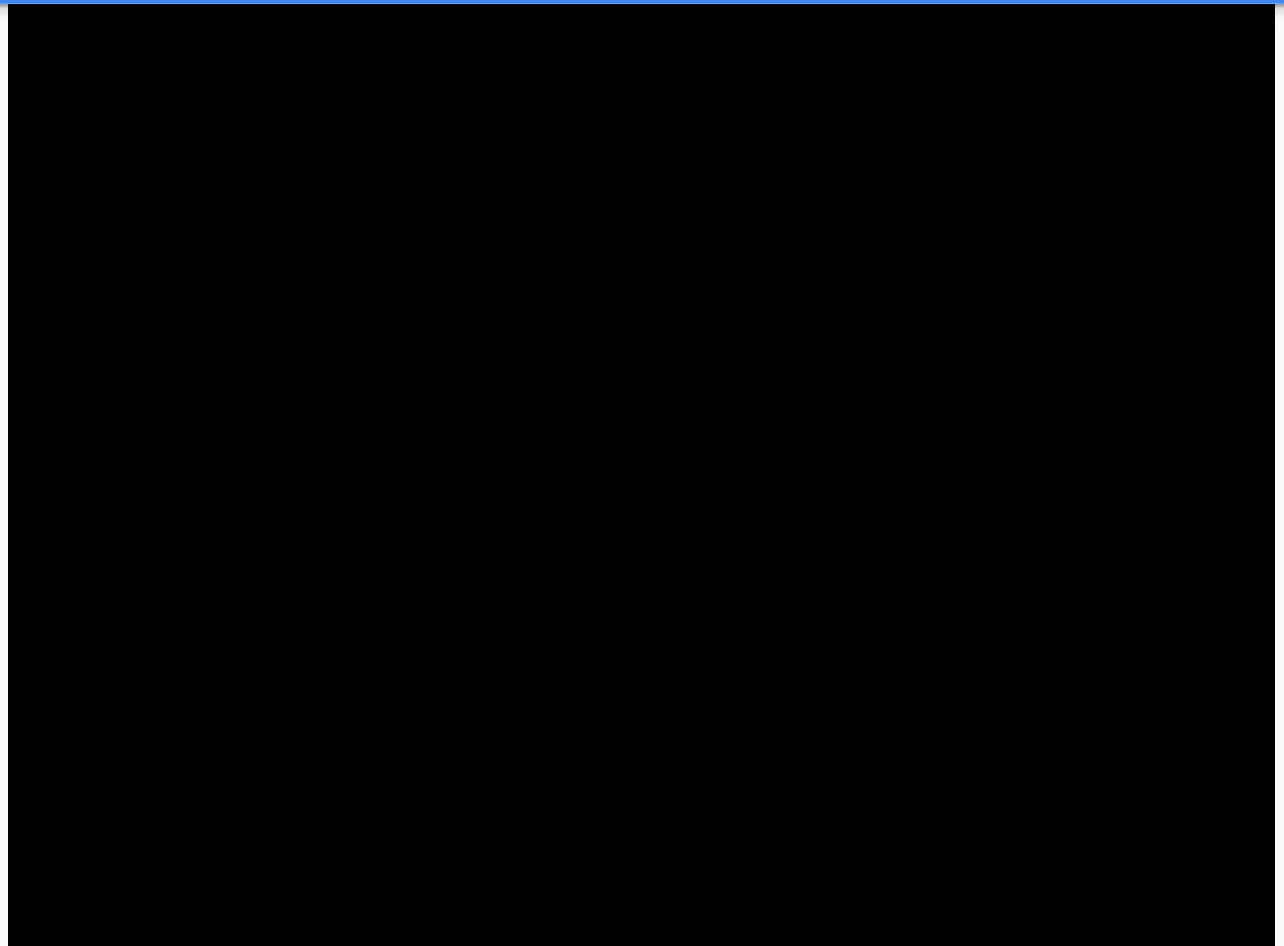
```
#!/bin/bash

BUNLDER_VERSION="1.16.2"
BUNDLER_BINARY_URL="https://github.com/bundler/bundler/archive/v$BUNLDER_VERSION.zip"
BUNDLER_HOME_PATH=".bundle"

# Clean bundle directory
rm -rf ./$BUNDLER_HOME_PATH

# Create bundler directory
mkdir -p $BUNDLER_HOME_PATH

# Download bundler.zip
curl -LkSs $BUNDLER_BINARY_URL -o $BUNDLER_HOME_PATH/bundler.zip

# Unzip bundler.zip
unzip ./$BUNDLER_HOME_PATH/bundler -d $BUNDLER_HOME_PATH

# bundle install
./$BUNDLER_HOME_PATH/bundler-$BUNLDER_VERSION/bin/bundle install --path $BUNDLER_HOME_PATH

# Move binaries to ./bundle
mv ./$BUNDLER_HOME_PATH/ruby/*/* ./$BUNDLER_HOME_PATH
```

Achievements and progress

Pre-Integration script



Achievements and progress: Parallel testing



Achievements and progress

Test results for multiple devices

Status	Tests	iPhone X Simulator	iPhone SE Simulator	Issarapong's iPhone	Nimbl3
▼	ButtonSpec › BraiveTests				
✓	Button__should_update_background_color_whe	✓	✓	✓	✓
✓	when_creating_with_default_style__should_hav	✓	✓	✓	✓
✓	when_creating_with_border_style__should_have	✓	✓	✓	✓
✓	Button__should_update_background_color_whe	✓	✓	✓	✓
✓	when_creating_with_border_style__should_have	✓	✓	✓	✓
✓	Button__should_update_background_color_whe	✓	✓	✓	✓
✓	Button__when_loading__should_hide_activity_in	✓	✓	✓	✓
✓	Button__when_loading__should_add_activity_in	✓	✓	✓	✓
✓	when_creating_with_default_style__should_hav	✓	✓	✓	✓

Achievements and progress

CI Result

Integrate (51)

Integrate | Edit Bot...

Status: Warnings
Scheme: CI of Braive test suite
Branch: test-xcode-ci
Queued Time: Today 16:52
Start Time: Today 16:52
Duration: 13 minutes, 49 seconds
Configuration: Use Scheme Setting
Toolchain: Default

0	7	0	84
Errors	Warnings	Analysis Issues	Tests
-1	-155	No change	No change

Bot Configuration Changes

- Device configuration changed

Device Testing

Devices: 4
Total Tests: 84
Tests Passed: 84
Tests Failed: 0

iPhone X
iPhone X (Simulator)
iOS 11.3
All Tests Passed

Team's iPhone
iPhone 6
iOS 11.3.1
All Tests Passed

iPhone SE
iPhone SE (Simulat...
iOS 11.3
All Tests Passed

Nimbl3
iPhone 6s
iOS 11.3
All Tests Passed

Conclusion

Xcode CI/CD	**Jenkins + Appium**
Native interface	Open source
Reliable and solid performance	Easy integration with various services
iOS only so easy and straightforward configuration	Android / iOS
Simple	Useful visualization and information
Commander - Multiple executors	Commander -> Master -> Multiple executors

Next Steps

- If the project is iOS only, it may be considered to be used.
- The system itself is production ready if it is configured correctly.

Thanks!

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