



Building, testing and deploying mobile apps with Jenkins & friends

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iosphere

ios







Building



Building: Prerequisites



Ant / Maven

Built-in

Android SDK tools
Android platform(s)

Android Emulator plugin
↳ automated install



xcodebuild
iOS SDK

XCode + command line tools
↳ manual setup

Building: Not so different...

Get code

Prepare



"Install Android project prerequisites" step

"Create Android build files" step



Build

XCode plugin

Archive

Archive the artifacts



`**/* .apk`

Recipe Plugin





Testing

Testing: Frameworks & Tools



Calabash.sh

iOS

KIF

OCUnit



- JUnit support built-in
- xUnit plugin
- JUnit attachments plugin
- Build Failure Analyser

Testing: Running & Results

Copy artifacts from latest build (.apk, .ipa...)

Android Emulator Plugin

"Run an Android emulator during build"

"Install Android package"

iOS Device Connector Plugin

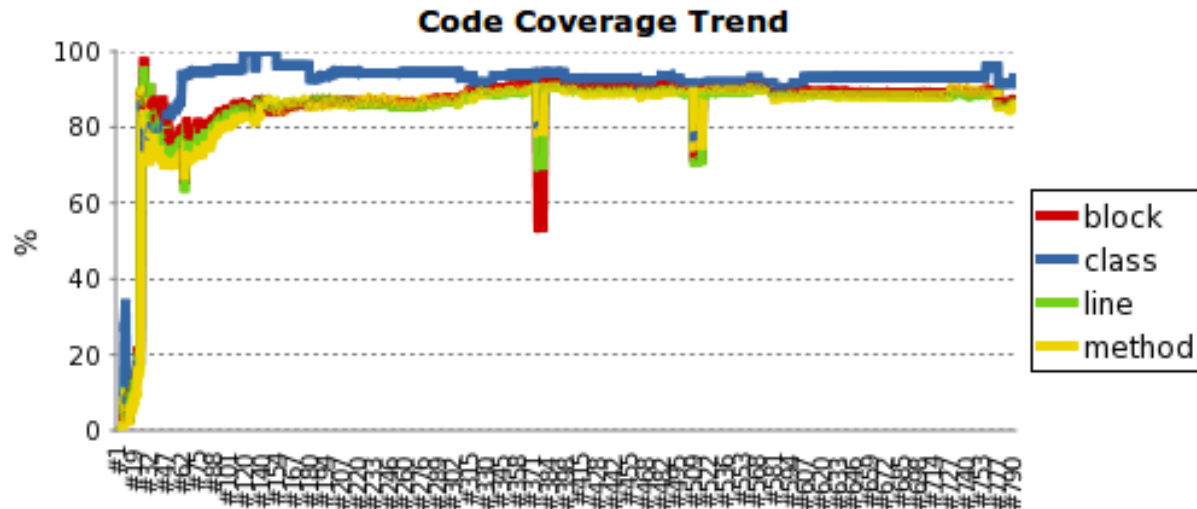
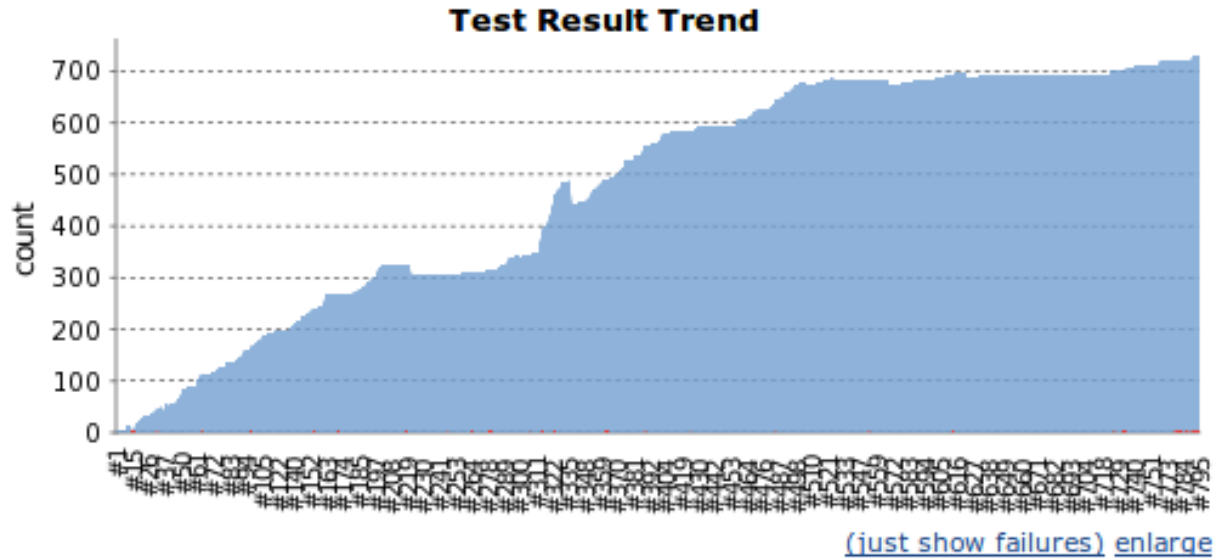
"Deploy iOS app to device"

Other possibilities?

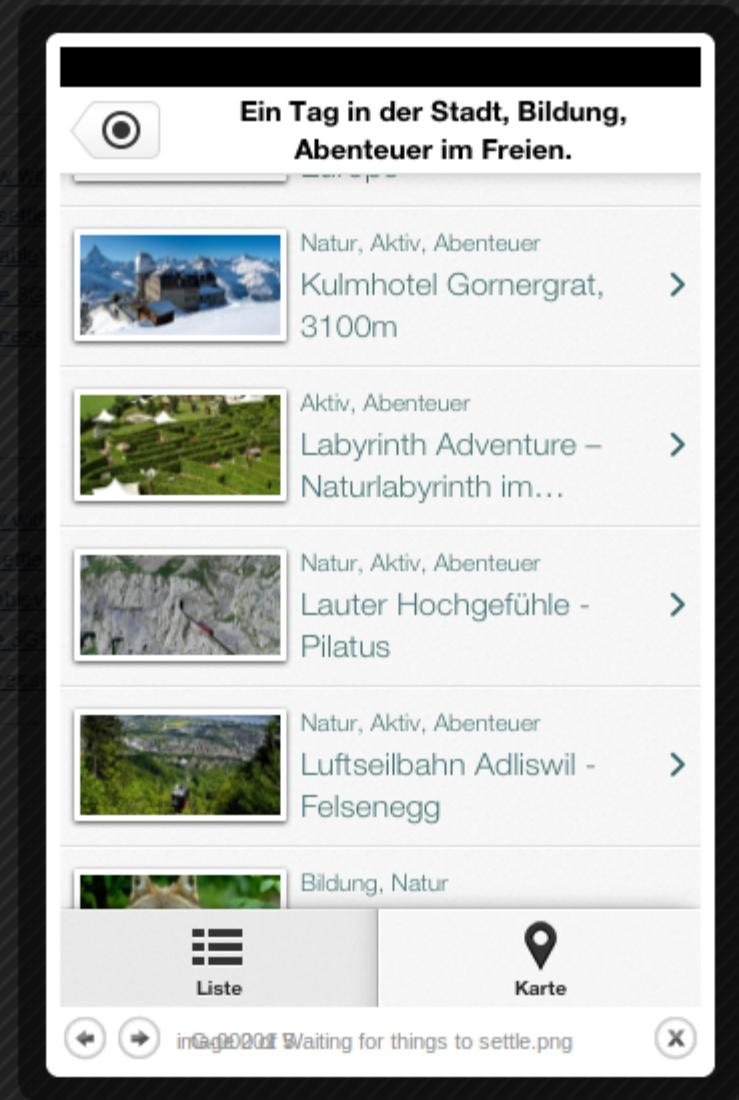
Extract **JUnit XML** from device, or generate it

Publish test report

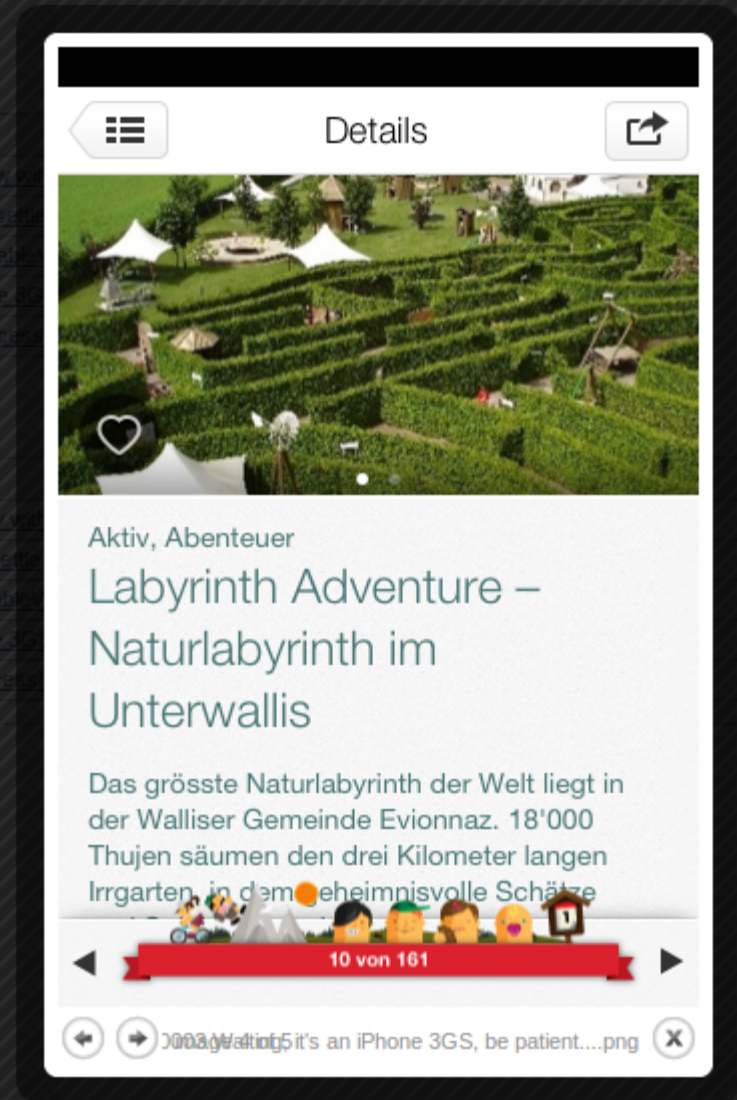
Testing: Running & Results



JUnit Attachments



JUnit Attachments



Build Failure Analyser



Identified problems

iOS device was not connected

Build failed because the configured iOS device was not found

Indication 1

A photograph of two hands held up against a dark, textured background. The hands are positioned one above the other, with fingers spread. The person is wearing a dark blue long-sleeved shirt. The word "Deploy" is written in large, white, sans-serif font over the right side of the image.

Deploy

Triggering a Deployment

No trigger

- ↳ Every successful build gets deployed

Manual

- ↳ Click the button yourself

SCM-triggered

- ↳ Build and deploy for git tags

Build promotion

- ↳ "Only manually-tested builds may be deployed"

Build Promotion

Promotions

 **CuckooChess QA Approval**

This promotion has not happened.

Force promotion

Met Qualification

Unmet Qualification

Manual Approval

Approvers

List of users or groups that can approve this promotion

Approve

Build Promotion

Promotions


CuckooChess QA Approval

Promotion History
 _cuckoochess-android-QA » promotion » CuckooChess QA Approval #3

Qualification (promoted 32 sec ago — 2 hr 37 min after build)

Manually Approved
Approved by Mark Prichard

Status

 Successfully promoted ([log](#))

Re-execute promotion

Deploying the App

Basic

- ↳ Push to webserver with "Publish over..." plugins

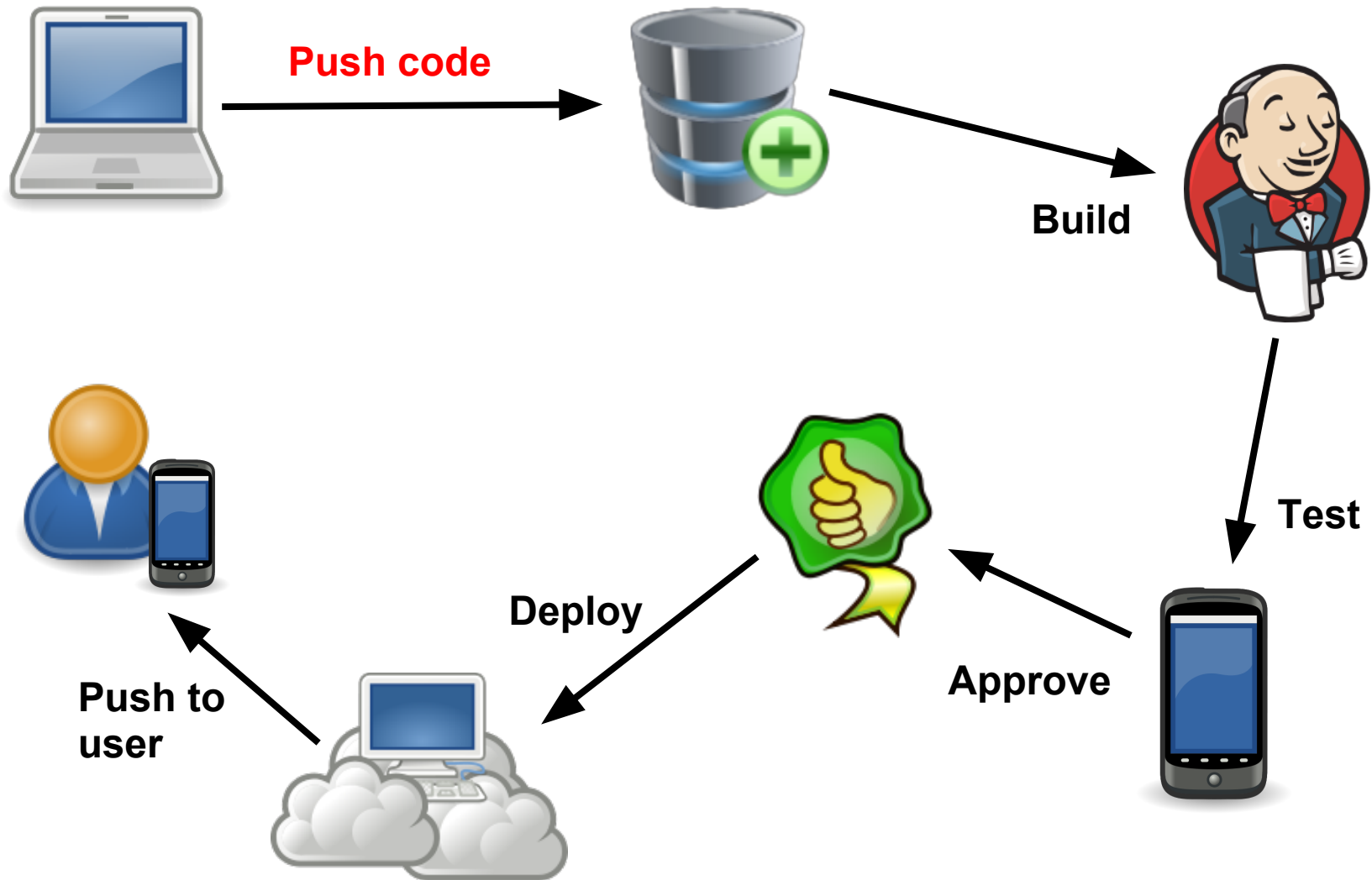
iOS ad-hoc deployment plugin

- ↳ Generate ad-hoc metadata and push to webserver
(Not quite ready)

Third-party solutions

- ↳ Plugins available for all the most popular services
 - HockeyApp
 - TestFlight
 - Zubhium

From developer to user



Thanks to...

Plugins

Android Emulator

Android Lint

Build Failure Analyser

Copy Artifact

HockeyApp

iOS Device Connector

OTA Ad-hoc Deployment

Promoted Builds

Recipe

Release

Warnings

XCode

Images

"Broadway Tower", by Newton2 at en.wikipedia [CC BY 2.5]

https://commons.wikimedia.org/wiki/File%3ABroadway_tower.jpg

"Digital Multimeter", by oomlout on Flickr [CC BY-SA 2.0]

<http://www.flickr.com/photos/snazzyguy/3811449250/>

Recipes!

tinyurl.com/recipeplugin

Slides!

chris.orr.me.uk/jenkins-mobile-recipes

What can be improved?

Next session: Jenkins dev discussion

Donate!

jenkins-ci.org/donate