

Native Apps with Appium on Real Devices

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<http://www.meetup.com/pdx-se>

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Appium ?!?

- WebDriver for devices
- **Appium** is an open source, cross-platform, test automation framework for native, hybrid and mobile web apps on iOS and Android

What do I need?

- iOS
 - XCode, iOS Dev Account, ideviceinstaller, ios_webkit_debug_proxy
- Android
 - Android SDK, Java JDK

Prepeare Devices

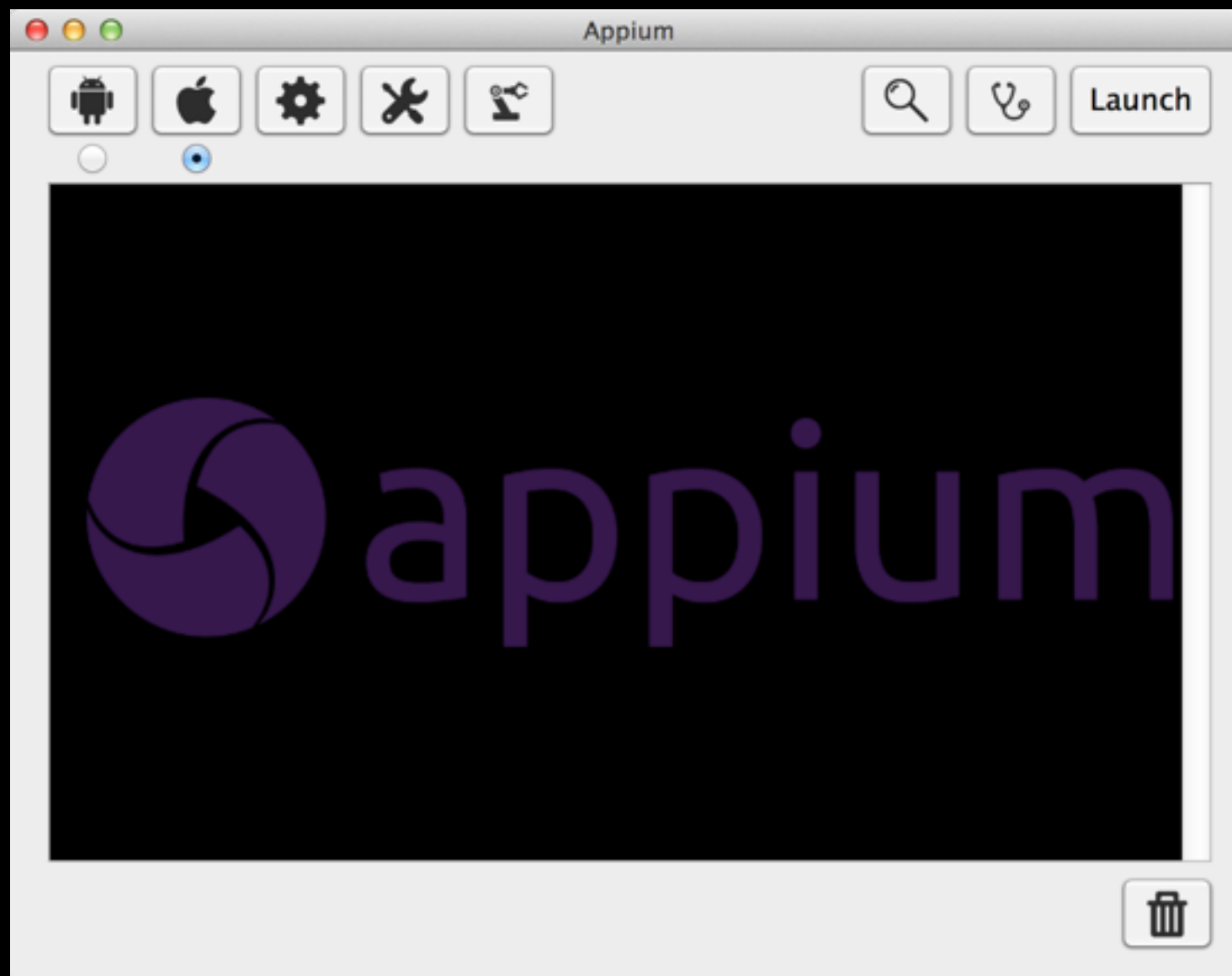
- iOS
 - enable Web Inspector by going to **Settings** > **Safari** > **Advanced** and switching ON **Web Inspector**
- Android
 - enable USB debugging by going to **Settings** > **Developer options** and checking **USB debugging**. If Developer options is hidden, go to **Settings** > **About phone** and tap **Build number** seven times.

Prepare App

- iOS
 - Archive, export to .ipa provisioned for device
- Android
 - Build debug version of apk

How do I use Appium?

- Node.js VS Gui



Android Mode

Android Settings

Application

☒ App Path: dPress/build/outputs/apk/WordPress-vanilla-debug.apk

☒ Package: org.wordpress.android

☒ Wait for Package: org.wordpress.android

☒ Launch Activity: ui.WPLaunchActivity

☒ Wait for Activity: ui.WPLaunchActivity

☐ Use Browser: Chrome ☐ Full Reset ☒ No Reset

☐ Intent Action: android.intent.action ☐ Intent Category: android.intent.catego

☐ Intent Flags: 0x10200000 ☐ Intent Arguments:

Launch Device

☐ Launch AVD: test ☐ Device Ready Timeout: 5 s

☐ Arguments:

Capabilities

Platform Name: Android Automation Name: Appium

Platform Version: 4.4 KitKat (API Level 19)

☒ Device Name: 4d

☐ Language: en ☐ Locale: US

Advanced

☐ Android SDK Path:

☐ Coverage Class:

☐ Bootstrap Port: 0 ☐ Selendroid Port: 8085 ☐ Chromedriver Port: 9515

Keystore Settings

☐ Use Custom Settings

Keystore Path: /Users/an.doan/.android/debug.key Key Alias:

Keystore Password: Password:

iOS Mode

iOS Settings

Application

☒ App Path:

☐ BundleID ☐ Use Mobile Safari

Device Settings

☒ Force Device

Platform Version ☒ UDID

☐ Force Orientation ☐ Force Language

☐ Force Calendar ☐ Force Locale

☐ Full Reset ☐ No Reset ☐ Show Simulator Log ☐ Isolate Simulator Device

Advanced

☐ Use Native Instruments Library

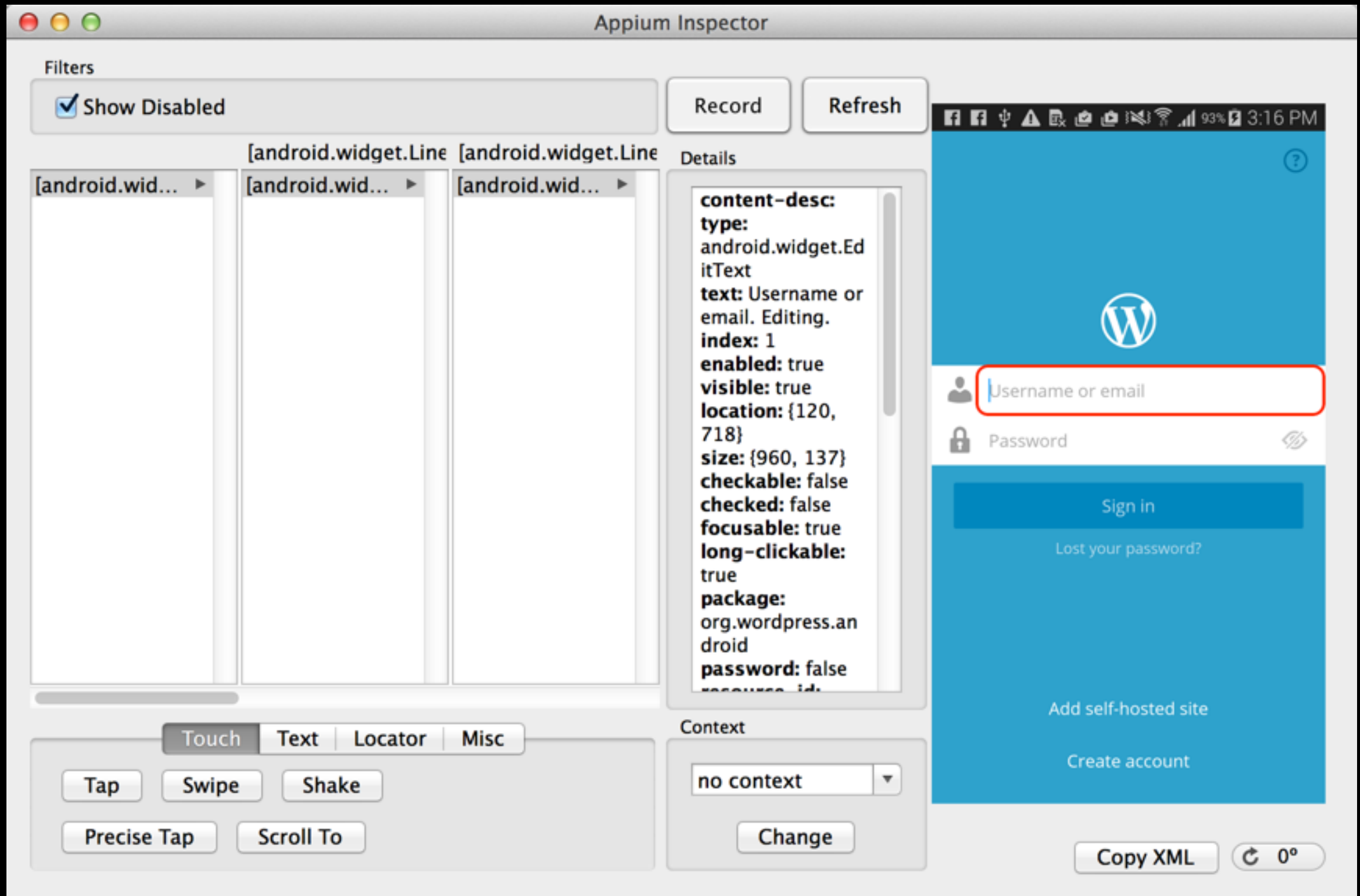
☐ Backend Retries ☐ Instruments Launch Timeout ms

☐ Trace Template Path

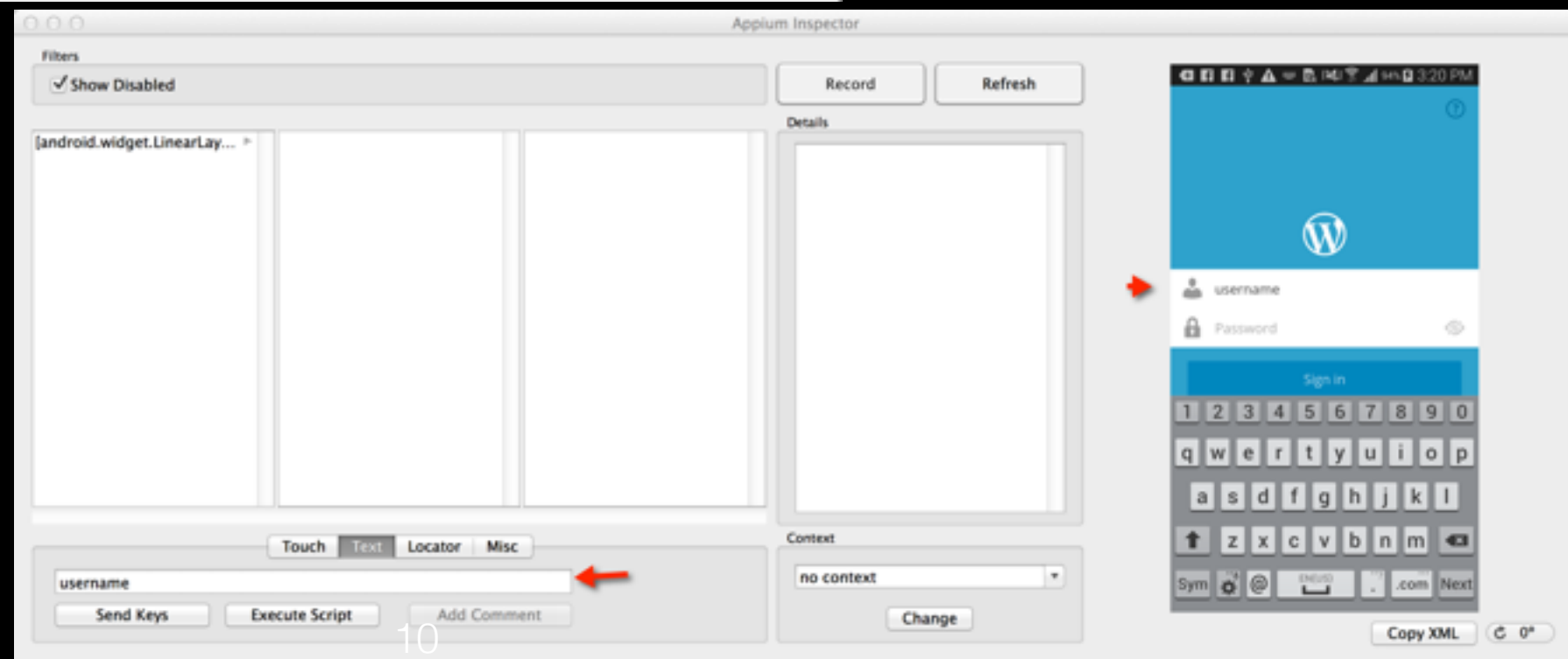
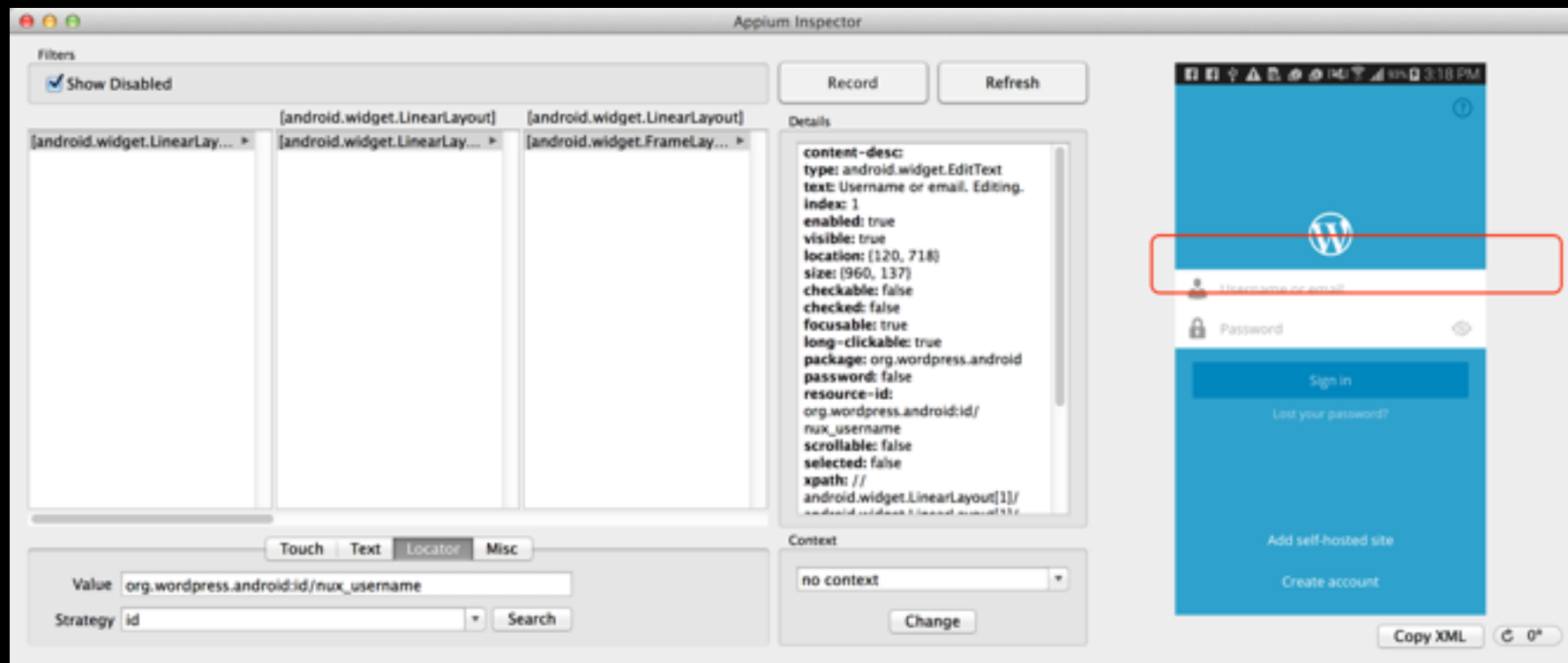
☐ Trace Directory

Xcode Path

Inspector



Find and Interact



Simple Test

```
public class SimpleAndroidTest {
    @Test
    public void iCanSeeTheLoginErrorMessage() {
        //define capabilities
        DesiredCapabilities capabilities = new DesiredCapabilities();
        capabilities.setCapability("automationName", "appium");
        capabilities.setCapability("platformName", "Android");
        capabilities.setCapability("platformVersion", "4.4");
        capabilities.setCapability("deviceName", "4");
        capabilities.setCapability("app", "org.wordpress.android");
        //define Selenium Grid URL
        URL seleniumGridUrl = null;
        try {
            seleniumGridUrl = new URL("http://0.0.0.0:4723/wd/hub");
        } catch (MalformedURLException e) {
            e.printStackTrace();
        }
        //start up an AppiumDriver session
        AppiumDriver ad = new AndroidDriver(seleniumGridUrl, capabilities);
        ad.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
        //perform the test steps
        ad.findElement(By.id("org.wordpress.android:id/nux_username")).sendKeys("myusername@email.com");
        ad.findElement(By.id("org.wordpress.android:id/nux_password")).sendKeys("password123");
        ad.findElement(By.id("org.wordpress.android:id/nux_sign_in_button")).click();
        Assert.assertEquals(ad.findElement(By.id("org.wordpress.android:id/nux_dialog_title")).getText(), "We can't log you in");
        //close the WebDriver session
        ad.quit();
    }
}
```

<https://github.com/verybadsushi/appium-examples>



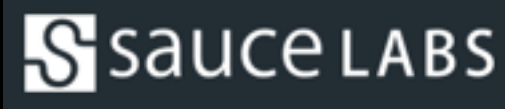
Whats Hot

- Newer devices work better
 - uiautomator vs. Instrumentation
- Hybrid Apps

Whats Not

- Android 2.3 -> 4.1 (Instruments, Selendroid)
- System Apps on iOS (Passbook, Maps)
- Multiple Apps on iOS
- Multiple Device on iOS

How well does it scale?

- Your own Selenium Grid
 - Use Node.js version
- In the cloud
 -  AppThwack
 - Real Devices!
 -  appurify
 - Joined Google, now stuck in private beta
 -  sauce LABS
 - Emulators only, real devices soon?