# Setting Up the R&D Environment

In order to test Infer and expand its capabilities, we had to establish a testing environment in which we build Infer from source. We used a Linux virtual machine running Ubuntu 16.04.2 over Oracle VM Virtual Box. To build and use InfeRS, follow the commands below.

Move to your local directory:

cd ~

Download the latest version of InfeRS forked from Infer:

git clone https://github.com/jsachs/infer.git

Or download and untar the latest version of infer:

wget https://github.com/facebook/infer/releases/download/v0.10.0/infer-linux64-v0.10.0.tar.xz

tar xf infer-linux64-v0.10.0.tar.xz

Download and install build dependencies:

sudo apt-get install -y autoconf automake build-essential git libgmp-dev libmpc-dev libmpfr-dev m4 pkg-config python-software-properties unzip zlib1g-dev

apt-get install python-ctypeslib

apt-get install libffi

apt-get install cmake

Install Java:

sudo add-apt-repository ppa:openjdk-r/ppa

sudo apt-get update

sudo apt-get install openjdk-7-jdk

Install Opam:

apt-get install opam

Make sure dependencies are install and up to date:

opam --version

python --version

java --version

gcc --version

autoconf --version

automake --version

Build the java analyzer:

cd ~/infer/

./build-infer.sh java

Export infeRS to path:

export PATH=`pwd`/infer/bin:$PATH

Test Java Analyzer

infer -- java examples/Hello.java

Download and install Android 64-bit build dependencies:

sudo apt-get install libc6:i386 libncurses5:i386 libstdc++6:i386 lib32z1 libbz2-1.0:i386

Download and unzip Android studio:

wget https://dl.google.com/dl/android/studio/ide-zips/2.3.0.8/android-studio-ide-162.3764568-linux.zip

unzip android-studio-ide-162.3764568-linux.zip

cd android-studio/bin/

Run Android Studio:

./studio.sh

Follow the onscreen wizard to install the latest Android SDK and build tools.

Add the Android SDK path to the android example project:

cd ~/infer/examples/android\_infeRS/

Create a file called “local.properties” with its content being the following single line contacting the location to the downloaded SDK:

sdk.dir=<location of your Android SDK>

Run the example:

infer -- ./gradlew build

See results.