Build the Android Development Tools for Eclipse (ADT) with Replicant 4.2

See feature [#657](#) for the discussion about a ADT for Replicant and this page.

Principle of operation

The [Android 4.2 source code](#) ships a sdk/eclipse/ directory with ADT build scripts.
The build script will also download Eclipse 3.6.2 files as build dependencies.

Note: as of 2015-07, ADT is [deprecated](#) in favor of Android Studio, based on IntelliJ.

Recreate matching build environment

Replicant 4.2 is based on CyanogenMod 10.1 which is based on AOSP 4.2.2, released 2013-02.
The build environment used by NDK release managers should be Ubuntu LTS 10.04.

To recreate it easily with LXC, follow:

*   [Trisquel 4.1 Taranis (based on Ubuntu 10.04) with LXC](#)
*   [Non-privileged user setup](#)

Build dependencies

```
# Based on https://web.archive.org/web/20121201011547/http://source.android.com/source/initializin
g.html
# git recompiled manually, mingw32 dropped
apt-get install wget gnupg flex bison gperf build-essential \
  zip curl zlib1g-dev libc6-dev lib32ncurses5-dev ia32-libs \
  x11proto-core-dev libx11-dev lib32readline5-dev lib32z-dev \
  libgl1-mesa-dev g++-multilib python-markdown \
  libxml2-utils xsltproc
apt-get install openjdk-6-jdk libasm-java
```

Preparing the sources

Login as user replicant and prepare the Replicant 4.2 source code as described in [ReplicantSourceCode](#).
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Building ADT 21

```
. build/envsetup.sh
cd sdk/eclipse/

# Complies with setup_eclipse.sh and fix download URL
sudo mkdir -p /buildbot/eclipse-android
sudo chown replicant /buildbot/eclipse-android
sed -i -e '/eclipse-rcp-helios-SR2/ s/download.eclipse.org/archive.eclipse.org/' \
  scripts/setup_eclipse.sh
# Note: I tried with 'apt-get install eclipse-rcp eclipse-pde' and ECLIPSE_HOME=/usr/lib/eclipse
# but it lacks org.eclipse.wst.* plugins aka eclipse-wtp-xmltools

mkdir ~/adt/
scripts/build_server.sh ~/adt
# 15mn with 4 cores, 32GB (inc. 17GB .repo)
```

The ADK release is in ~/adt/android-eclipse-v201507252158.zip :)

Signing ADT

By default, Eclipse display on install:

```
Warning: You are installing software that contains unsigned content.
The authenticity or validity of this software cannot be established. Do
you want to continue with the installation?
```

Let's sign the package.
Make sure you have keytool (openjdk-6-jre-headless) and jarsigner (openjdk-6-jdk), and:

```
# generate self-signed certificate
keytool -genkey -dname 'cn=Builder,ou=ADT,o=Replicant,c=FR' -keystore ~/adt/cacerts -validity 3650
 -storepass 'changeme' -keypass 'changeme' -alias 'replicant'
# sign the JARs and repack
unzip -d t/ android-eclipse-v201507261317.zip
find t/features/ t/plugins/ -name "*.jar" -exec jarsigner -keystore ~/adt/cacerts -storepass 'chan
geme' -verbose {} 'replicant' \;
(cd t/ && zip -r ../android-eclipse-v201507261317.zip *)
rm -rf t/
```

At install time, Eclipse will ask the user if she trusts "Builder; ADT; Replicant".

Testing

See the nice Eclipse tutorial at [SDK](#).

TODOs

- Note: partial incompatibility in Eclipse 3.8.1, in the layout edition view. Needs testing with an older Eclipse:

  ```
  This version of the rendering library is more recent than your version of ADT plug-in. Please
  update ADT plug-in
  ```

  ADT 21 should work with 3.6.2 (used for compilation) and possibly with 3.7 (to be tested).

- Do we rely on prebuilt/prebuilts dirs?