

The AOSP and AAOS May Meetup

Agenda

Times are in GMT (UTC+0)

18:00 Welcome

18:15 Introducing AOSP Meetup Projects

Chris Simmonds

18:30 Automotive AOSP Ecosystem: challenges and opportunities for App Developers

José Freitas, Faurecia Aptoide

19:00 You Can't Escape the Past: How early design decisions continue to influence Android today

Chet Haase

19:45 Q&A; networking

20:00 Session ends

Build system changes

- master ->main, see https://groups.google.com/g/android-building/c/c2wv8FUxdok/m/78e_0X_qAAAJ
- The migration from Soong to Bazel is cancelled:
<https://source.android.com/docs/setup/build/bazel/introduction>

Android on Bazel



Caution: As of October 2023, the project to migrate Android to Bazel is cancelled.

- Unexpected changes in `android-14.0.0_r29`
 - format of lunch target changed to allow for trunk stable release
 - lunch menu no longer displays
 - repo sync download jumped from c. 115 GB to c. 900 GB

Lunch and trunk stable

Lunch target is now 3 elements: `lunch <product>-<release>-<variant>`

`<release>` is one of `trunk_staging`, `next`, `trunk_food`

For example:

```
$ lunch aosp_arm-trunk_staging-eng
```

No lunch menu

```
$ . build/envsetup.sh
$ lunch
You're building on Linux
Warning: Cannot display lunch menu.
```

If you really want to see the menu, this command works:

```
$ TARGET_RELEASE=ap1a get_build_var COMMON_LUNCH_CHOICES | tr " " "\n"
```

Explanation

Items on the lunch menu are declared in multiple `AndroidProducts.mk` files and used to populate Soong variable `COMMON_LUNCH_CHOICES`

You can display a variable using `get_build_var`, but just typing this gives an error

```
$ get_build_var COMMON_LUNCH_CHOICES
build/make/core/release_config.mk:100: error: No release config set for target; please set
TARGET_RELEASE, or if building on the command line use 'lunch <target>-<release>-<build_type>',
where release is one of: ap1a.
```

So, you need to supply a value for `TARGET_RELEASE`. Finally, `get_build_var` outputs a space separated list, which is hard to read. So use the `tr` command to replace spaces with newlines

repo sync download size

Since android-14.0.0_r29 a default repo sync downloads c. 900 GB

Why? Before r29, most of the binary blobs in the manifest were marked with `clone-depth="1"` so you only got the most recent version. Now you get all versions. For example the repository for `.repo/projects/device/google/bluejay-kernel.git/` has gone from 0.5 GB to 14 GB

Solution 1: do a partial clone (download all reachable commits; download missing objects on demand later):

```
$ repo init --partial-clone -u .....
```

Downside: you need to be on-line to access remote git repositories

Solution 2: set the clone depth to 1:

```
$ repo init --depth=1 -u .....
```

Downside: you have no git history

GOOD NEWS: this change is reverted on **main** and **android14-qpr2-release** branches

Upcoming conferences

- Droidcon Berlin, 3 to 5 July
 - There will be talks, workshops and a panel session dedicated to AAOS
 - CARIAD, BMW, Aptoide, Paradoxcat and many others will have booths
 - There will be a Birds Of a Feather session where AOSP and AAOS developers can gather together
- Linux Plumbers, Vienna, 18 to 20 September
 - The Android microconference CFP is out
 - <https://lpc.events/>

Group resources

- General: <https://aospandaaos.github.io/>
- The Meetup group: <https://www.meetup.com/the-aosp-and-aaos-meetup/>
- I will post links to all talks; they will be open to everyone, not just the group
- Talks will be recorded, unless you tell me not to!

Future meetups

- The AOSP and AAOS July Meetup
Wednesday, 17th July 2024
- DroidCon Berlin BoF

Call for contributions

- Let me know if you have something you want to say
- Ideally, a few weeks before each meetup