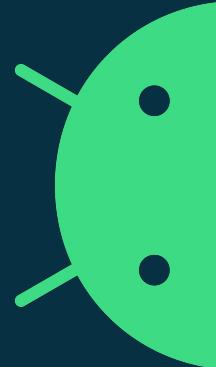


Your first AOSP Contribution

Andrea Falcone

 @asfalcone



android

Andrea Falcone

Software Engineer

Google, Jetpack

 @asfalcone



android

What is AOSP?

And why would you want to contribute?

Android Open Source Project (AOSP) refers to the people, processes, and source code that make up Android.

The people oversee the project and develop the source code. The processes are the tools and procedures that we use to manage the development of the software. The net result is the source code, which you can use in mobile phones and other devices.

What is Jetpack?



android



Jetpack comprises the androidx.* package libraries, unbundled from the platform APIs, to help developers write high-quality apps easier. It offers backward compatibility and is updated more frequently than the Android platform.

Examples of Jetpack Libraries:
Room, LiveData, RecyclerView, Fragments and CameraX

**Jetpack uses Gradle and Kotlin and is easy to build in
your local dev environment**



```
val buildTestApksTask =  
project.rootProject.tasks.named(BUILD_TEST_APKS)  
testVariants.all { variant ->  
    buildTestApksTask.configure {  
        it.dependsOn(variant.assembleProvider)  
    }  
    variant.configureApkCopy(project, this, true)  
}
```

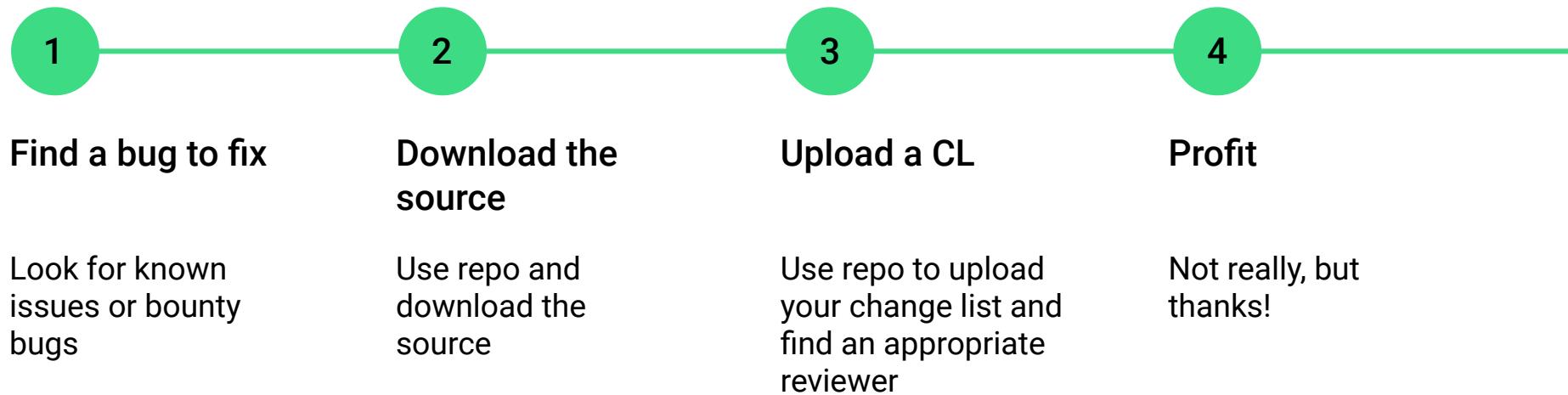
contribute

verb

con·trib·ute | \ kən-'*tri*-byət

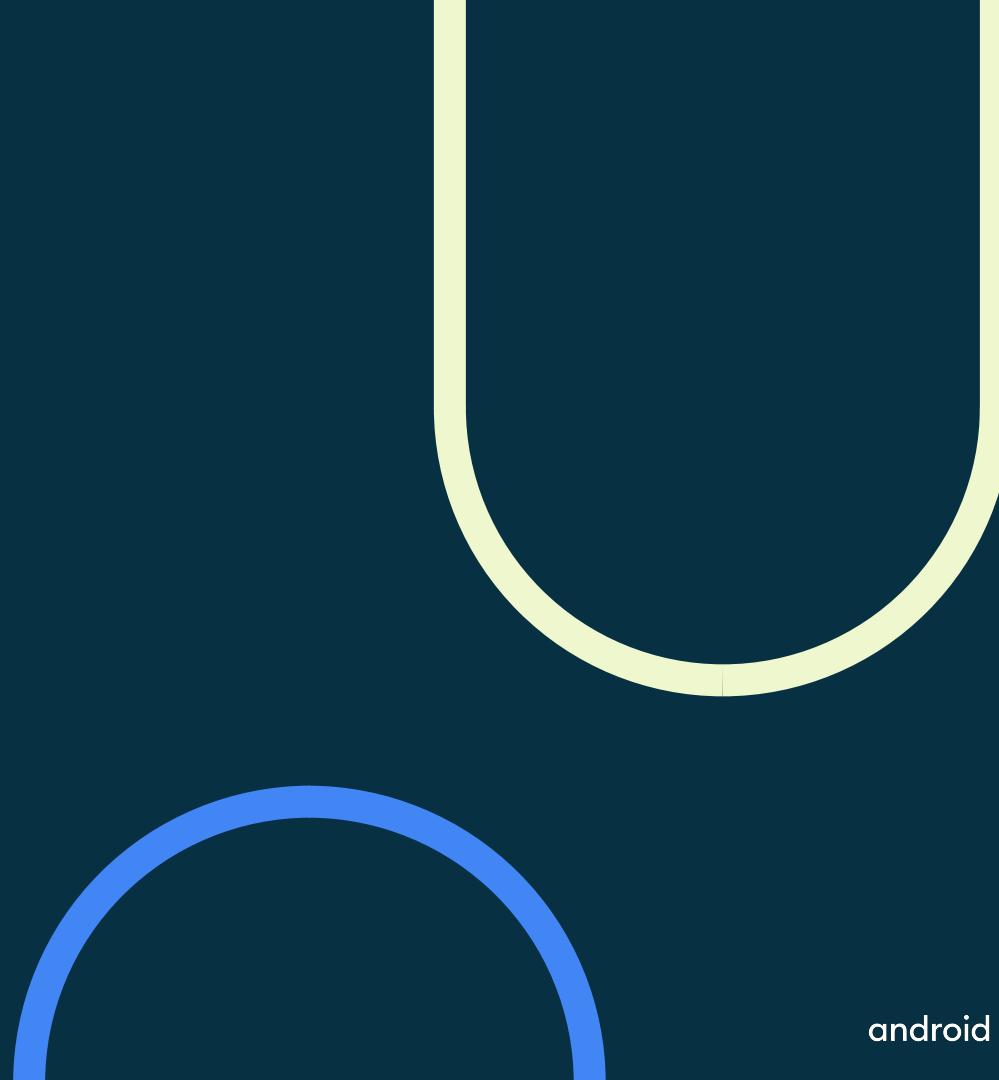
1. to give or supply in common with others
2. to play a significant part in bringing about an end or result

How to Contribute Code



android

Life of a Bug



android

Interacting with Issue Tracker

Fix a bounty bug

Address a bug that the team has identified as an issue and is willing to support

Find a known issue

Locate the list of known issues

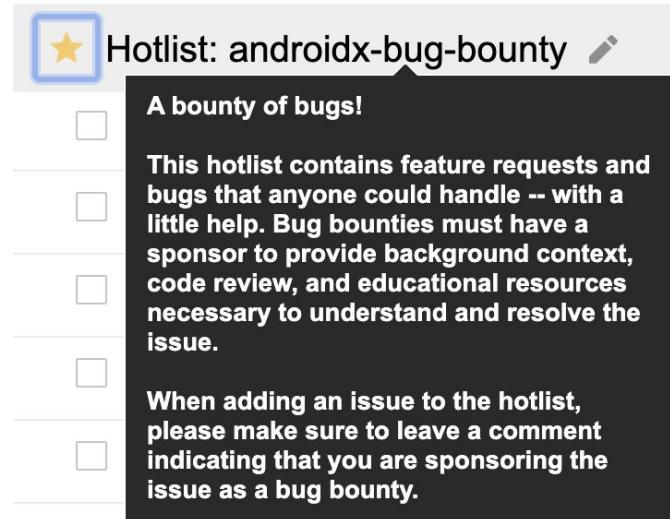
Star issues that are important to you

File a bug

File an accurate, reproducible bug

Fix a bounty bug

<https://tinyurl.com/AndroidXBugBounty>



Find a known issue

BROWSE ALL DEVELOPER TOOLS ISSUES

Browse bugs	Details	File a bug
ADB		
Android Studio	Android Studio details	
C++	Issues in Android Studio	
Emulator or System Images	Emulator details	
Gradle	Gradle details	
Instant Run	Instant Run details	
Lint		
NDK	Standalone NDK issues	
Profilers		
Jetpack (androidx)		
AndroidX Test		

<https://source.android.com/setup/contribute/report-bugs.html>

android

Find a known issue

Google Search Issue Tracker

Issue Tracker

CREATE ISSUE  Blocked by 0/0 Blocking 0/0 Duplicates (0)

Assigned to me Starred by me CC'd to me

141477802 Lint rule for WorkRequest.Builder.setRunInForeground()

Indicate that you are affected by this issue.

Anaroid Public Tracker > App Development > Jetpack (androidx) > WorkManager

File a bug

Component *

Android



Android Public Tracker



Android Public Tracker > Android Beta (Developer Preview)



Android Public Tracker > developer.android.com



Android Public Tracker > App Development > Android Studio



Android Public Tracker > source.android.com



Public Trackers > Android External Security Reports



Android Public Tracker > App Development > Android Studio > Emulator



Android Public Tracker > App Development > Android Studio > Design Tools > Layout Editor



Android Public Tracker > App Development > Android Studio > IntelliJ

<https://issuetracker.google.com>

android

File a bug

Component *

Android Public Tracker > App Development > Jetpack (androidx) > WorkManager

Template

Default

[View recent issues](#)

Title *

|

Description

Component used:

Version used:

Devices/Android versions reproduced on:

If this is a bug in the library, we would appreciate if you could attach:

- Sample project to trigger the issue.
- A screenrecord or screenshots showing the issue (if UI related).

Find a known issue

Component *

Android Public Tracker > App Development > Jetpack (androidx) > WorkManager

Template

Default

[Hide recent issues](#)

[while using workmanager getting 1000 crash daily](#)

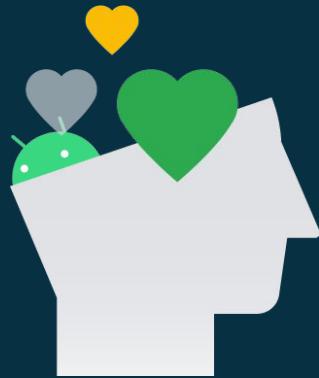
[Lint rule for WorkRequest.Builder.setRunInForeground\(\)](#)

[Add documentation around WorkManager's use in apps with multiple processes](#)

[Feature Suggestion - Kotlin Builders for Constraints and Worker Request Builders](#)

[Fallback to AlarmManager if JobScheduler encounters buggy behavior on API 23-25](#)

[View All Issues →](#)

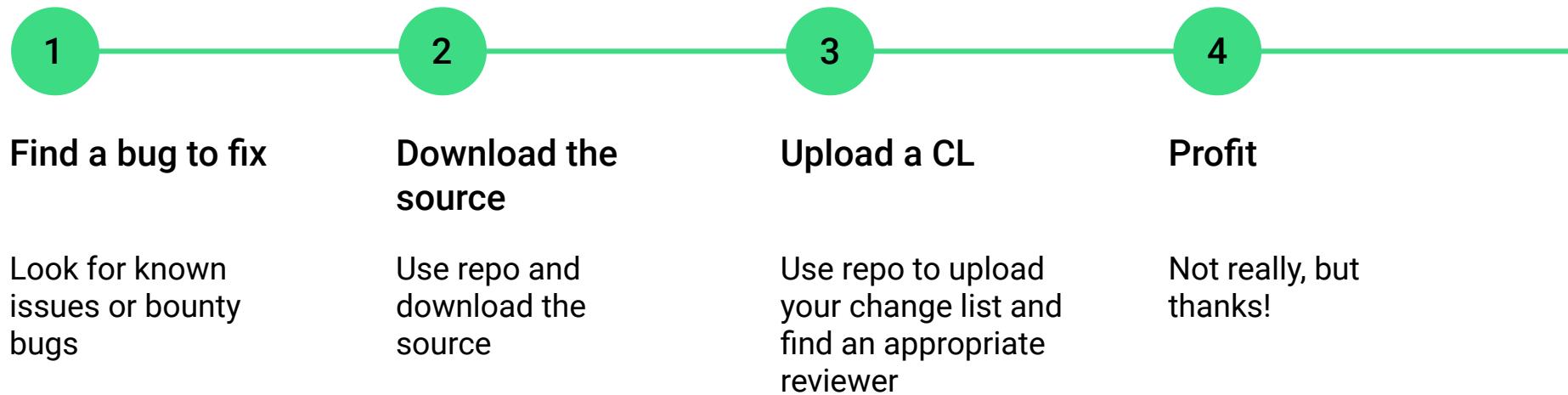


Your biggest Android contribution might be filing
the best bugs.

And that is OK!

But like, how do I code?

How to Contribute Code



android

Repo

Git... and more!

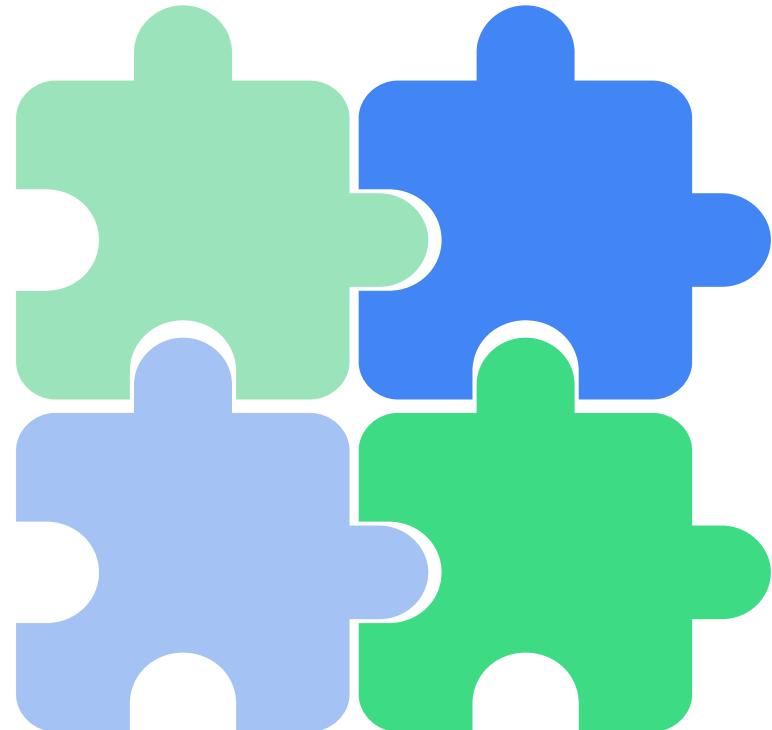
Repo unifies Git repositories when necessary, performs uploads to the Gerrit revision control system, and automates parts of the Android development workflow.

There are 20+ repositories involved in building some parts of Android

<https://source.android.com/setup/develop/repo>

Repo is open source and written in python

<https://gerrit.googlesource.com/git-repo/>



android

Repo manifest

[android / platform / manifest / refs/heads/androidx-master-dev / ./default.xml](#)

```
blob: af3b24134f58dbfcbe5ee9b120c947dac28cc326 [file] [log] [blame]

1 <?xml version="1.0" encoding="UTF-8"?>
2 <manifest>
3   <remote name="aosp"
4     fetch="..."
5     review="https://android-review.googlesource.com/" />
6   <default revision="androidx-master-dev"
7     remote="aosp"
8     sync-j="8" />
9   <!-- BEGIN dependencies -->
10  <project path="build/make" name="platform/build" />
11  <!-- External dependencies -->
12  <!-- Config: shallow + same revision -->
13  <project path="external/noto-fonts" name="platform/external/noto-fonts" groups="pdk" clone-depth="1" revision="master" />
14  <project path="external/webview_support_interfaces" name="platform/external/webview_support_interfaces" groups="pdk" clone-depth="1" revision="7a9c5e2cf0a03fecc85962e25015fe382ed4396" />
15  <project path="external/doclava" name="platform/external/doclava" groups="pdk" clone-depth="1" revision="master" />
16  <project path="external/dokka" name="platform/external/dokka" groups="pdk" clone-depth="1" revision="master" />
17  <project path="prebuilts/androidx/external" name="platform/prebuilts/androidx/external" groups="pdk" clone-depth="1" />
18  <project path="prebuilts/androidx/internal" name="platform/prebuilts/androidx/internal" groups="pdk" clone-depth="1" />
19  <project path="prebuilts/androidx/exoplayer" name="platform/prebuilts/androidx/exoplayer" groups="pdk" clone-depth="1" />
20  <project path="prebuilts/androidx/studio" name="platform/prebuilts/androidx/studio" groups="pdk" clone-depth="1" />
21  <!-- Tools dependencies -->
22  <!-- Config: shallow + master revision -->
23  <project path="prebuilts/checkstyle" name="platform/prebuilts/checkstyle" groups="pdk-fs" clone-depth="1" revision="master" />
24  <project path="prebuilts/ktlint" name="platform/prebuilts/ktlint" groups="pdk-fs" clone-depth="1" revision="master" />
25  <project path="tools/rephooks" name="platform/tools/rephooks" groups="adt-infra,cts,eclipse,motodev,pdk,tools,tradefed" revision="master" />
26  <!-- Gradle dependencies -->
27  <!-- Config: shallow + specific revision -->
28  <project path="tools/external/gradle" name="platform/tools/external/gradle" groups="tools" revision="5.5" clone-depth="1" />
29  <!-- SDK dependencies (shared) -->
30  <!-- Config: shallow + master revision -->
```

<https://android.googlesource.com/platform/manifest/+refs/heads/androidx-master-dev/default.xml>

android

Setup

Get repo

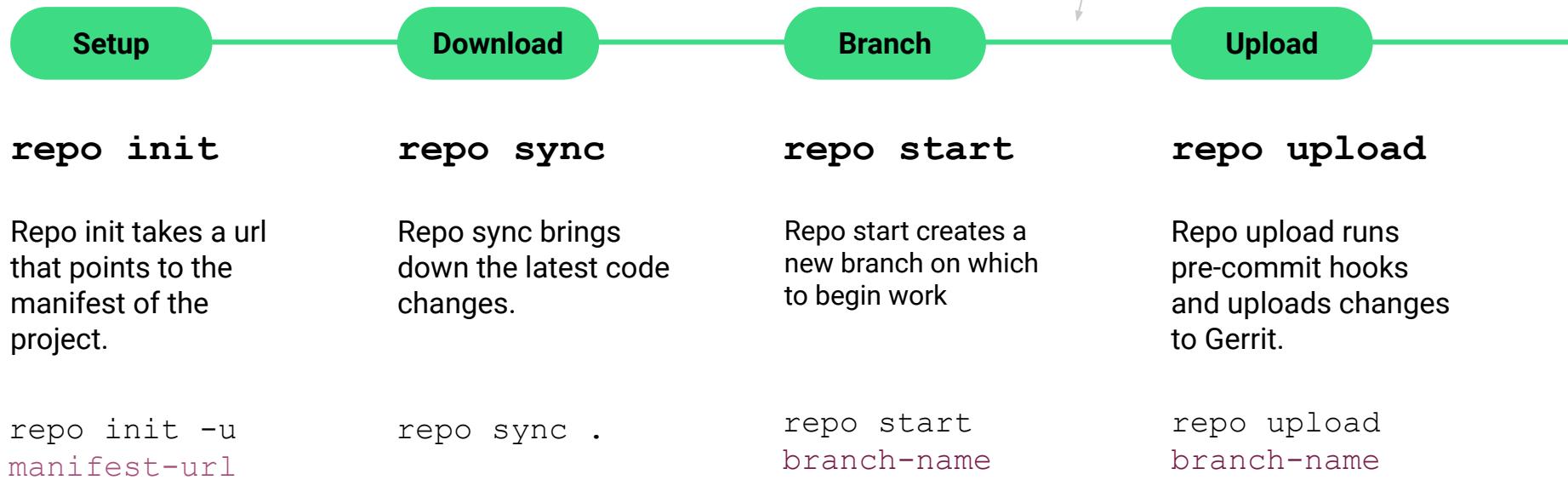
```
curl  
https://storage.googleapis.com/git-repo-download  
s/repo > ~/bin/repo
```

```
chmod a+x ~bin/repo
```

<https://source.android.com/setup/build/downloading>



Using repo



Setup

Make sure you `repo init` the correct repo!

```
repo init -u https://android.googlesource.com/platform/manifest -b branch-name
```

-b master

Most repos use the master branch

-b androidx-master-dev

Jetpack master branch. Development done directly here

-b android-10.0.0_r3

Specific Android Platform build tag from
<https://source.android.com/setup/start/build-numbers#source-code-tags-and-builds>

Setup

Repo

frameworks/support

system/core

tools/metalava

Branch

androidx-master-dev

master

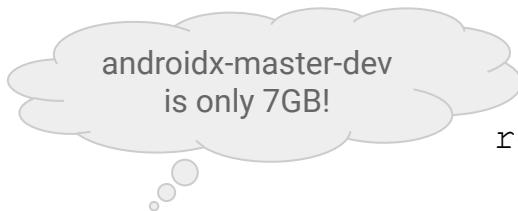
master

android

Download

```
repo sync
```

The Android Platform checkout is...
massive. You need at least 100GB of free
disk space to check out the code and an
extra 150 GB to build it.



What does `repo sync` do?

```
git remote update &&  
git rebase origin/branch
```

```
repo sync --help
```

- `-c`: Fetch only the current manifest branch from the server.
- `-j threadcount`: Split the sync across threads for faster completion.
- `-q`: Run quietly by suppressing status messages.

Add moar threads!

```
repo sync -q -j16
```



```
(androidx-master-dev) $ repo start new-change  
(new-change) $ git status
```

On branch new-change

Your branch is up to date with 'aosp/androidx-master-dev'.

nothing to commit, working tree clean

```
(new-change) $ █
```

./studiow

Jetpack has a script that launches the best version of Android Studio to use with the project.

Use this and you'll always have an up to date, stable version with which to build Jetpack libraries.



```
(androidx-master-dev) $ ./studiow
```

```
Downloading https://dl.google.com/dl/android/studio/ide-zips/3.5.0.21/android-studio-ide-191.5791312-mac.zip to /Users/asfalcone/androidx-master-dev/frameworks/support/studio/android-studio-ide-191.5791312-mac.zip
```

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
			Dload Upload	Total	Spent	Left	Speed
100	723M	100	723M 0 0	11.7M 0	0:01:01	0:01:01	--:--:-- 19.8M

android

Gradle: Build and Test changes

Jetpack uses Gradle to build

`./gradlew assemble`

Ensures that code compiles but doesn't run all of the important tasks

`./gradlew test`

Basic unit tests for all libraries. Great sanity check.

`./gradlew buildOnServer`

Builds all of the Jetpack libraries and documentation. Run this before committing.

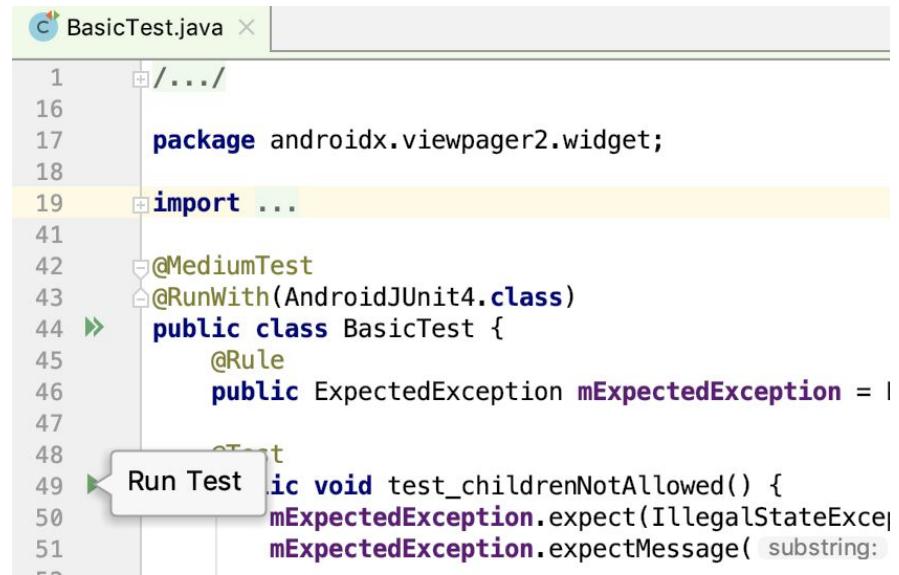
Gradle: Build and Test changes faster

Per project via Gradle

```
./gradlew viewpager2:assemble
```

```
./gradlew viewpager2:test
```

Per test via Studio



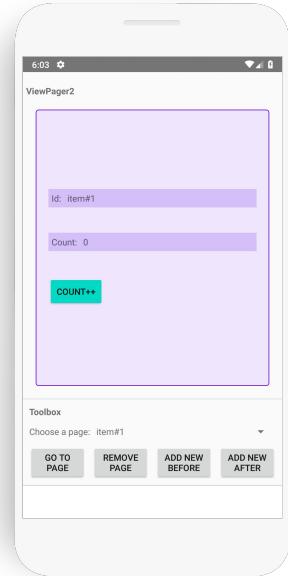
The screenshot shows an Android Studio code editor with a Java file named 'BasicTest.java'. The file contains test annotations (@MediumTest, @RunWith(AndroidJUnit4.class)) and a public class definition. A context menu is open at the end of the class definition line, with the option 'Run Test' highlighted. The code editor interface includes line numbers and syntax highlighting.

```
BasicTest.java
1  /...
16
17  package androidx.viewpager2.widget;
18
19  import ...
41
42  @MediumTest
43  @RunWith(AndroidJUnit4.class)
44  > public class BasicTest {
45      @Rule
46      public ExpectedException mExpectedException = ...
47
48  >     > t
49  >         > Run Test
50  >             > ic void test_childrenNotAllowed() {
51  >                 > mExpectedException.expect(IllegalStateException)
52  >                     > mExpectedException.expectMessage( substring:
```

Test changes in YOUR app

Create a local build of Jetpack's Maven repository artifact

```
# Create out/androidx/build/support_repo  
./gradlew createArchive
```



Test changes in YOUR app

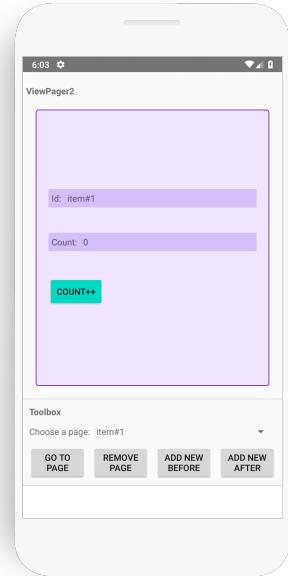
Point your app to the artifact you built

build.gradle

```
repositories {  
    ...  
    maven {  
        url "path-to-checkout/out/androidx/build/support_repo"  
    }  
}
```

app/build.gradle

```
dependencies {  
    implementation "androidx.viewpager2:viewpager2:1.0.0-beta04"  
    implementation "androidx.viewpager2:viewpager2:1.0.0-rc01"  
}
```



Code is done!

Ship it!

Maybe?

Log in to Gerrit and Create a password

<https://android.googlesource.com/new-password>

Before you can upload to Gerrit, you need to establish a password that will identify you with the server. You need to do this only once.



100111001010100101100111001010010101100111001010
01011001110010101001011001110010100101001011001110010
101001011001110010101001011001110010100101001011001110011
0010101001011001110010101001011001010010110010100101100111
1001010100111000010PASSWORD11001110010101001011
100101010010110011100101010010110010100101100111001010100
011100101010010110011100101001011001010010110010110011100101
01001011001110010101001011001010010110010100101001011001010

Committing changes

But first: Agreements and password



New Contributor Agreement

Select an agreement type:

Android CLA

Android Contributor License Agreement

Google CLA

Google Contributor License Agreement

Review the agreement:

[Please review the agreement.](#)

Committing changes



Products > Open Source Programs Office

Contributor License Agreements

We don't have any individual agreements on file for you.

Sign a new agreement:

You plan to submit contributions on behalf of:

Only Yourself

Your Employer

Committing changes

The information you provide below, along with your IP address and a timestamp, will be maintained in accordance with Google's [privacy policy](#).

* required fields

Email(s)

Learn more about [managing email addresses for your account](#).

a****@f****.com

Name *

Andrea Falcone

GitHub Username

If you [change your GitHub Username](#), please update it here too.

asfalcone



I Agree

android

Code is done!

Ship it!

Maybe?

(new-change) \$ git status

On branch new-change

Your branch is up to date with 'aosp/androidx-master-dev'.

Changes not staged for commit:

(use "git add <file>..." to update what will be committed)

(use "git checkout -- <file>..." to discard changes in working directory)

modified: work/workmanager/src/main/java/androidx/work/ArrayCreatingInputMerger.java

no changes added to commit (use "git add" and/or "git commit -a")

(new-change) \$ git add -A

(new-change) \$ git commit -m "Fixing a bug"

Run hook scripts?

Run hook scripts from

<https://android.googlesource.com/platform/manifest>
(yes/always/NO) ? **always**

Hook scripts provide:

- Essential code review functionality
- Code style checks



(new-change) \$ repo upload

[**COMMIT** ad6ef9a3ecf4] Fixing a bug

[**FAILED**] commit_msg_test_field

Commit message is missing a "Test:" line. It must match the following case-sensitive regex:

`^Test: .*$`

(new-change) \$ git commit --amend

Fixing a bug

Test: ./gradlew buildOnServer

Change-Id: I6046fa9872079e80d7385d83bd0e6db400caffc5

```
#
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Fri Sep 20 16:16:40 2019 -0400
#
# On branch new-change
# Your branch is ahead of 'aosp/androidx-master-dev' by 1 commit.
#   (use "git push" to publish your local commits)
#
# Changes to be committed:
#       modified:   work/workmanager/src/main/java/androidx/work/ArrayCreatingInputMerger.java
#
~
```

--amend is IMPORTANT

**When you make subsequent patches to this change,
YOU MUST AMEND!**

Fixing a bug

Test: ./gradlew buildOnServer



Change-Id: I6046fa9872079e80d7385d83bd0e6db400caffc5

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Fri Sep 20 16:16:40 2019 -0400
#
# On branch new-change
# Your branch is ahead of 'aosp/androidx-master-dev' by 1 commit.
#   (use "git push" to publish your local commits)
#
# Changes to be committed:
#       modified:   work/workmanager/src/main/java/androidx/work/ArrayCreatingInputMerger.java
#
```

Change-Id: is automatically when you commit.

If you upload another commit with the same Change-Id: it will update the CL you already created.

I did `git commit` but forgot `repo start`

1. `repo start new-branch` # you lose the commit from the new branch, but that's ok
2. `git reflog` # find your most recent commit in the log, usually at the top of the list, and find its hash, e.g. `e19c36d`
3. `git merge e19c36d`



Your last commit is now the tip of tree in `new-branch`. You can `repo upload` or continue coding.

(new-change) \$ repo upload

[**COMMIT** 5f6705d8a38a] Fixing a bug

[**FAILED**] checkstyle_hook

Running Checkstyle on 5f6705d8a38a079731246dcf1b4e74d696519c88 commit

ERRORS:

[platform/frameworks/support] work/workmanager/src/main/java/androidx/work/ArrayCreatingInputMerger.java:15: Trailing whitespace

[**FAILED**] repohooks for platform/frameworks/support failed

(new-change) \$ repo upload

```
[COMMIT 5f6705d8a38a] Fixing a bug
[PASSED] repohooks for platform/frameworks/support passed
Upload project frameworks/support/ to remote branch androidx-master-dev:
  branch math_compat ( 1 commit, Wed Mar 27 12:40:07 2019 +0000):
    b17fffdc8 MathCompat v1
to https://android-review.googlesource.com/ (y/N)? y
remote: Processing changes: refs: 1, new: 1, done
remote:
remote: SUCCESS
remote:
remote:   https://android-review.googlesource.com/c/platform/frameworks/support/+/934277 MathCompat v1 [NEW]
```

```
remote:
To https://android-review.googlesource.com/platform/frameworks/support
 * [new branch]           math_compat -> refs/for/androidx-master-dev
```

```
[OK      ] framework/support/ math_compat
```



Change List (CL)

Patch Set

Gerrit

Android
Open Source Project

CHANGES ▾ YOUR ▾ DOCUMENTATION ▾ BROWSE ▾ [Repositories](#)  

Subject	Status	Owner	Assignee	Repo	Branch	Updated	Size
Outgoing reviews							



Push your first change for code review
Pushing a change for review is easy, but a little different from other git code review tools. Click on the 'Create Change' button and follow the step by step instructions.

[CREATE CHANGE](#)

No outgoing changes yet

Incoming reviews

No changes

CCed on

No changes

Recently closed

No changes

Gerrit is a web-based code review system for projects that use Git.

Powered by [Gerrit Code Review](#) (2.16.11-2847-g259bd8ba0024) | [Privacy](#)

[Report bug](#) | Press "?" for keyboard shortcuts

Android Open Source Project		CHANGES ▾				DOCUMENTATION ▾		BROWSE ▾				status:open										Repositories		Sign in	
Subject		Status	Owner		Assignee	Repo		Branch	Updated	Size	AR	A	BCO	CR	DR	OSL	ORV	PLV	PR	PV	V				
ART: Add logcat output to signal_dumper	–		Andreas Gampe	–		platform/art		master	12:44	S											✓				
Modified ShortcutManagerMultiuserTest.testSecond...	–		Rett Berg	–		platform/cts		pie-cts-dev	12:43	S	✓										✓		+1		
Exposing flickerlib classes and layer tracing to sysui	–		Winson Chung	–		.../frameworks/base		master	12:42	L			✓								✓				
Hide CameraX impl packages from docs	–		Trevor McGuire	–		.../frameworks/support		androidx-master-dev	12:39	XS	✓	✓									✓				
Update Gutter.NONE behavior to set margins to 0 whe...	–		Ram Parameswara	–		.../frameworks/support		androidx-master-dev	12:39	M											✓				
Populate gpu_slices table with render_stage	–		Adam Bodnar	–		.../external/perfetto		master	12:38	M			-1								✓				
HwBinder: don't rely on kernel headers.	–		Steven Moreland	–		.../frameworks/base		master (...)	12:37	XS	✓										✓		✗		
stop exporting kernel headers	–		Steven Moreland	–		.../system/libhwBinder		master (...)	12:37	S	✓										✓	✗	+1		
Use Log.isLoggable() for FragmentManager debug lo...	–		Ian Lake	–		.../frameworks/support		androidx-master-dev	12:36	M	✓	✓	✓								✓				
[vts-core] Add vts_core_liblp_test to vts-core	–		Nelson Li	–		.../system/core		master	12:36	S											✓	+1			
Switch to llvm-ar.	–		Dan Albert	–		platform/ndk		master	12:35	S	✓										✓				
Added a gradle task to collect and zip .ec and .exec fil...	–		Owen Gray	–		.../frameworks/support		androidx-master-dev	12:31	S															
Add native bridge controller to CtsSystemApiAnnotati...	–		Lev Rумянцев		Jiyong Park	platform/cts		pie-cts-dev	12:28	XS			✓								✓		+1		
<u>Add legacy/gd shim hci layer module</u>	–		Chris Manton	–		.../system/bt		master	12:24	L											✓				
TEST: Build with separate recovery image.	–		Tao Bao	–		.../google/taimen		master	12:22	S											✓		✗		
Track the source/purpose of downloaded files.	–		Cody Schuffelen	–		.../google/cuttlefish_common		master	12:19	M											✓				
AIDEGen: Refactor source_locator.py and project_info...	–		Brandon Lee	–		.../tools/asuite		master	12:19	L	✓										✓		+1		
VtsTrebleVintfTest: only test on HIDL HALs	–		Yifan Hong	–		.../vts-testcase/hal		master (libvintf_20)	12:18	M	✓										✓		✗		
Rename to HalManifest.getHidlInstances	WIP		Yifan Hong	–		.../vts-testcase/fuzz		master (libvintf_20)	12:18	XS	✓										✓		✗		

Merged as [0608b71](#)[1087812: Generate Javadoc with Dokka](#)[\[FIND OWNERS\]](#)

Updated Aug 29

Owner Andrea Falcone

Assignee Set assignee...

Reviewers Treehugger Robot
 Aurimas Liutikas
[ADD REVIEWER](#)CC Treehugger Robot
[ADD CC](#)Repo [platform/frameworks/support](#)Branch [androidx-master-dev](#)Parent [839d880](#)

Topic No topic

Hashtags [ADD HASHTAG](#)

Code-Review

+2 Aurimas Liutikas

Other labels

Open-Source-Licensing No votes.

Autosubmit No votes.

Presubmit-Ready No votes.

Presubmit-Verified +1 Treehugger Robot

Build-Cop-Override No votes.

[REPLY](#)

Generate Javadoc with Dokka

adds a /java directory to dokkaPublicDocs and dokkaTipOfTreeDocs

The docs that are generated are not ready for dac, as more configuration is required, but they're a place to start iterating from

BUG: [130658011](#)

Test: ./gradlew buildOnServer

Change-Id: [I4b9415f7e13cadec285eff152b6ef63e8ef02774](#)

Writing good commit messages

Helpful

- Bug: 9872342
- Test: ./gradlew test and ...
- One line summary as title
- Body, starting at the 3rd line
- Explain “why”, as well as assumptions and background



Not Helpful

- “Bug fixes”
- “Changes behavior”
- “Might fix ...”
- Vague



android

Finding an Owner/Sponsor



[FIND OWNERS]

You need to assign the CL to someone for **review**.

Find Owners in Gerrit will help you.

Reviewers need to:

- Submit your change for **Presubmit** testing
- **Review** the code and **approve** the change
- **Submit** the code change when approved

Check the box before owner names to select reviewers, then click the "Apply" button.

If owner-approval requirement is enabled, each file needs at least one Code-Review +1 vote from an owner. Owners listed after a file are ordered by their importance. (Or declare "Exempt-From-Owner-Approval: reasons..." in the Commit Message.)

Files with +1 or +2 Code-Review vote from owners:

* ./buildSrc/src/main/kotlin/androidx/build/BuildOnServer.kt: aurimas jeffrygaston
 sjgilbert adamp alanv asfalcone c craik clarabaybarri emberr ilake
 jsproch kirillg mount nickanthony obenabde pavlis romraiguy sergeyv
 sheshapard siyamed sumir yboyar

Cancel

Owners in alphabetical order:

adamp@google.com
alanv@google.com
ASFalcone@google.com (+2)
aurimas@google.com
ccraik@google.com
clarabaybarri@google.com
emberr@google.com
ilake@google.com
jeffrygaston@google.com (+1)
jsproch@google.com
kirillg@google.com
mount@google.com
nickanthony@google.com

Responding to or Resolving Comments

Click on the line number to comment or resolve

```
25 import androidx.build.getDistributionDirectory  
26 import com.android.build.gradle.LibraryExtension  
27 import org.gradle.api.Project  
28 import org.gradle.api.logging.LogLevel
```

DRAFT ⓘ

What is the impact of this change?

Resolved

CANCEL SAVE

```
29 import org.gradle.api.plugins.JavaBasePlugin  
30 import org.gradle.api.tasks.TaskProvider
```

Responding to or Resolving Comments

You must click the Reply button and then Send in order for the comments to be published

REPLY (1)



1121685: Significantly reduce Dokka task output verbosity

SIGNOFFS

REVIEWERS

REVIEWER COMMENTS

REPLY (1)

Significantly reduce Dokka task output verbosity

Lutikas

Reviewers Treehugger Robot Andrea Falcone Add reviewer...

CC Add CC...

Say something nice...

Preview formatting

Autosubmit 0 +1 Do not submit CL automatically

Code-Review -2 -1 0 +1 +2 No score

Presubmit-Ready 0 +1 Not Ready

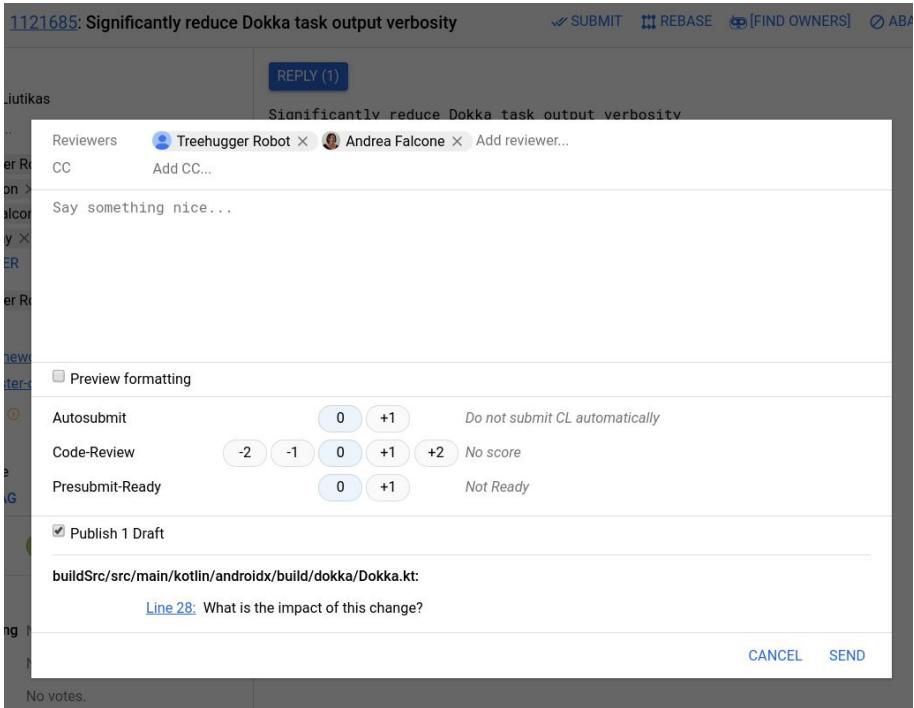
Publish 1 Draft

buildSrc/src/main/kotlin/androidx/build/dokka/Dokka.kt:

[Line 28:](#) What is the impact of this change?

No votes.

CANCEL SEND



Responding to or Resolving Comments

All comments should be resolved before the CL is Ready to submit.

Change Log Comment Threads

Only comments

Aurimas Liutikas Uploaded patch set 1.

Aurimas Liutikas added to REVIEWER: Jeff Gaston Andrea Falcone Owen Gray

Aurimas Liutikas Autosubmit +1 Presubmit-Ready +1 Patch Set 1: Autosubmit+1 Presubmit-Ready+1

Treehugger Robot added to CC: Treehugger Robot

Treehugger Robot Patch Set 1: == Started presubmit run: L7130000365400171 == CL status: https://android-build.googleplex.com/builds/where-is-my-cl/android-review

Andrea Falcone Code-Review +2 Patch Set 1: Code-Review+2

Aurimas Liutikas Patch Set 1: -Autosubmit Ugh this does not seem to work :/

Treehugger Robot Removed Presubmit-Ready+1 by Aurimas Liutikas <aurimas@google.com>

Treehugger Robot added to REVIEWER: Treehugger Robot

Treehugger Robot Presubmit-Verified -1 Patch Set 1: Presubmit-Verified-1 TreeHugger finished with: 18 passed, 4 failed. Status: https://android-build.googleplex.com/build:

Change Log Comment Threads

Only unresolved threads Only threads with drafts

[buildSrc/src/main/kotlin/androidx/build/dokka/Dokka.kt#28 Patchset 1](#)

DRAFT ⓘ 1:56 PM ▾

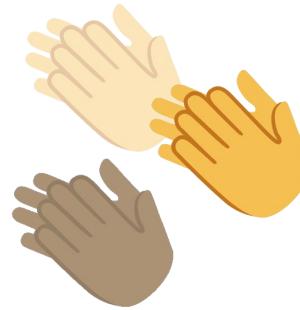
What is the impact of this change?

Resolved

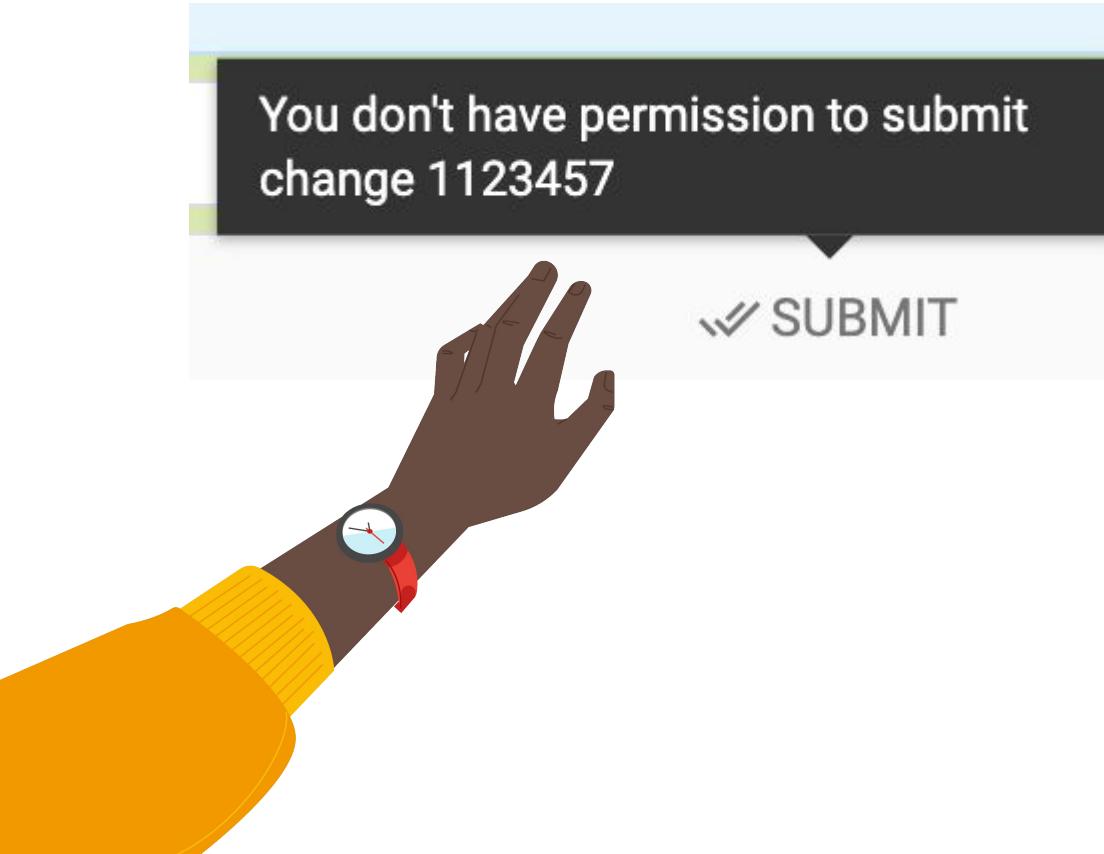
DISCARD EDIT



✓ SUBMIT

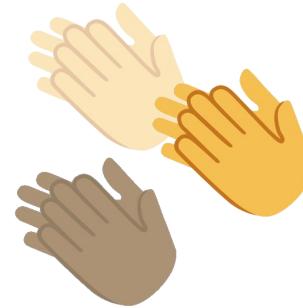


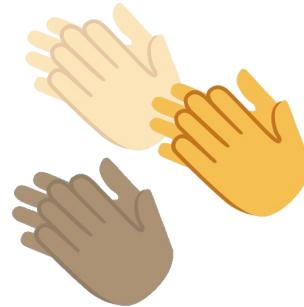
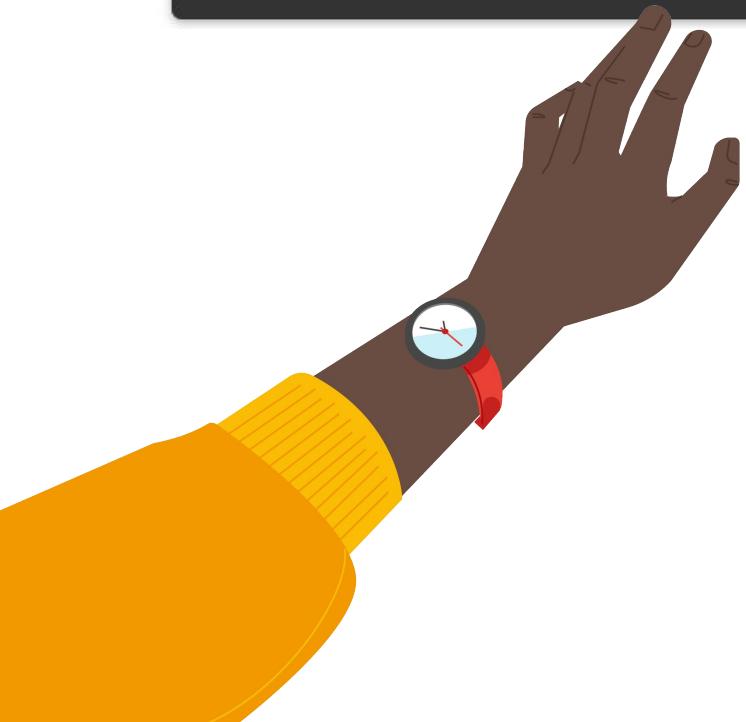
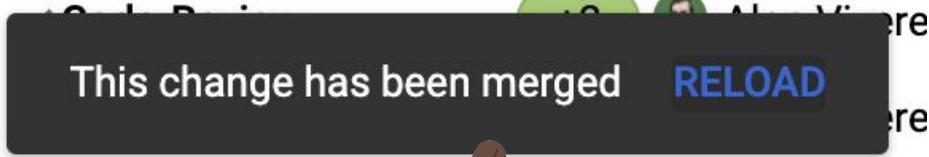
android



You don't have permission to submit
change 1123457

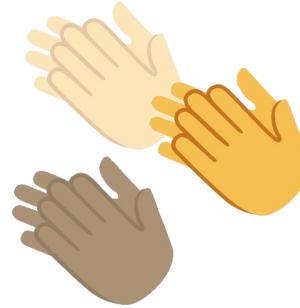
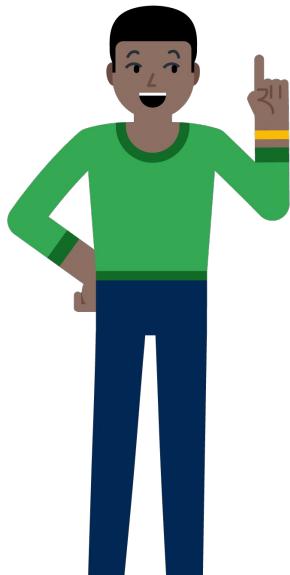
✓ SUBMIT





android

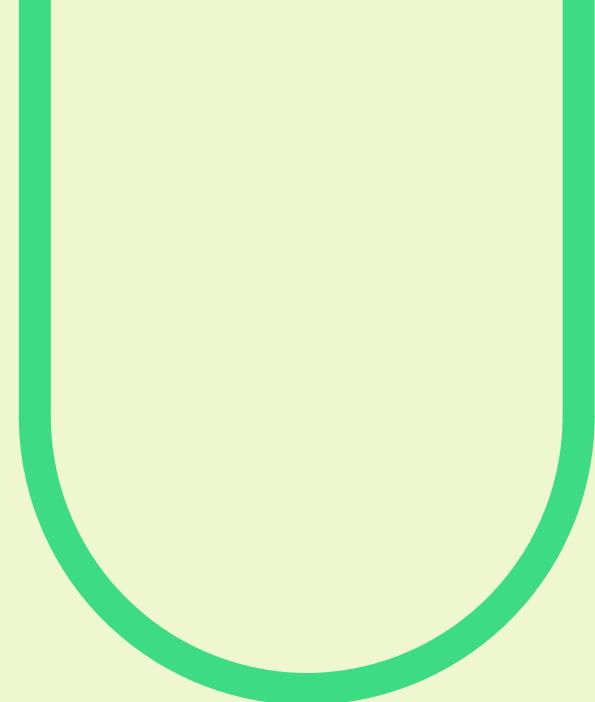
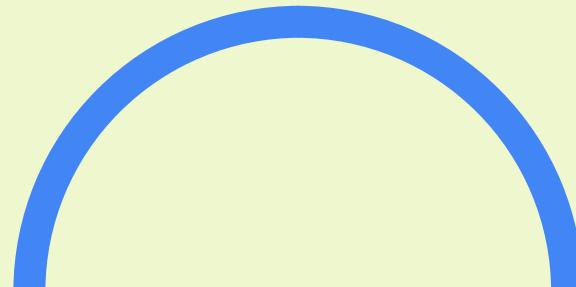
Merged



android

We can do better

and we're working on it!



android

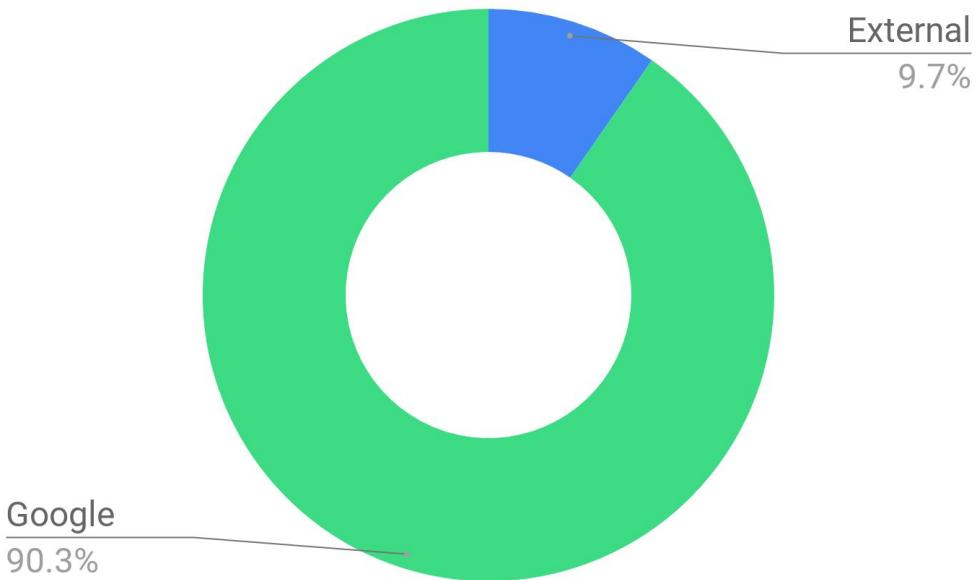
unique AndroidX contributors

Contributors to androidx-master-dev
since Sept 1, 2018

- Google contributors
- External contributors

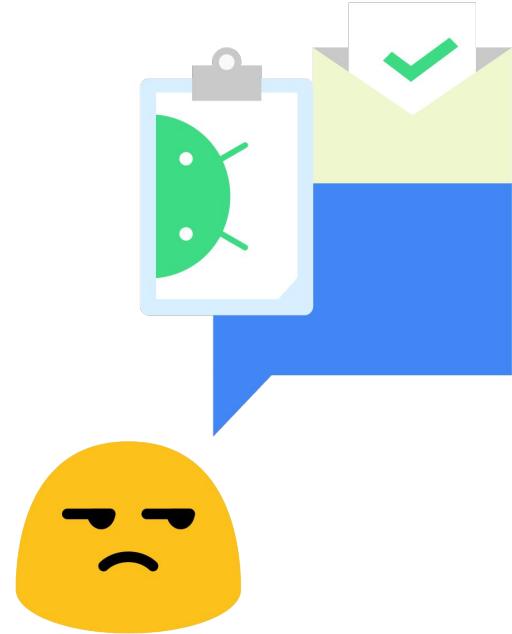
androidx-master-dev

```
$ git log --format=%ae --no-merges --after=2018-09-01 | grep  
-v @google.com | grep -v @android.com | sort | uniq -c | wc -l  
> 22  
  
$ git log --format=%ae --no-merges --after=2018-09-01 | sort |  
uniq -c | wc -l  
> 205
```



Known Issues

- Not all issues are filed publicly
- Documentation for style guides and what makes a good API are internal only
- External contributors cannot see presubmit build errors or logs
- Code search is very difficult
- Cannot edit source from browser
- Signal when a change is ready to submit isn't clear externally
- Windows is not supported as a development platform



Resources for successful contribution

Java style guide

<https://source.android.com/setup/contribute/code-style>

Kotlin style guide

<https://developer.android.com/kotlin/style-guide>

Kotlin-Java interop guide

<https://developer.android.com/kotlin/interop>

See ya in the code!



android

Thank you!

