Downloading the Source

The Android source tree is located in a Git repository hosted by Google. The Git repository includes metadata for the Android source, including changes to the source and when the changes were made. This page describes how to download the source tree for a specific Android code line.

To start with a factory image for a specific device instead of downloading the source, see Selecting a device build.

[Initializing a Repo client]

After installing the Repo Launcher, set up your client to access the Android source repository:

1. Create an empty directory to hold your working files. Give it any name you like:

```
cd ~
mkdir aosp
cd aosp
```

2. Configure Git with your real name and email address. To use the Gerrit code-review tool, you need an email address that's connected with a registered Google account. Ensure that this is a live address where you can receive messages. The name that you provide here shows up in attributions for your code submissions.

```
git config --global user.name Your Name
git config --global user.email you@example.com
```

3. Run the following command(s) in the terminal:

```
sudo rm /usr/bin/python

sudo ln -s /usr/bin/python2.7 /usr/bin/python

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

```
fenago@fenago:~/aosp$ sudo ln -s /usr/bin/python2.7 /usr/bin/python
fenago@fenago:~/aosp$ repo init -u https://android.googlesource.com/platform/manifest
gpg: keybox '/home/fenago/.repoconfig/gnupg/pubring.kbx' created
gpg: /home/fenago/.repoconfig/gnupg/trustdb.gpg: trustdb created
gpg: key 16530D5E920F5C65: public key "Repo Maintainer <repo@android.kernel.org>" imported
gpg: key 67B7E448692B382C: public key "Conley Owens <cco3@android.com>" imported
gpg: Total number processed: 2
gpg:               imported: 2

Get https://gerrit.googlesource.com/git-repo/clone.bundle
Get https://gerrit.googlesource.com/git-repo
  File "/home/fenago/aosp/.repo/repo/main.py", line 79
    file=sys.stderr)
        ^
SyntaxError: invalid syntax
```

Note: You will get error in repo init. You can ignore the error for now.

4. Run the following command in the terminal to create symlink for `python3` :

```
sudo rm /usr/bin/python

sudo ln -s /usr/bin/python3 /usr/bin/python
```

```
fenago@fenago:~/aosp$ sudo rm /usr/bin/python
fenago@fenago:~/aosp$ sudo ln -s /usr/bin/python3 /usr/bin/python
```

4. Run `repo init` to get the latest version of Repo with its most recent bug fixes. You must specify a URL for the manifest, which specifies where the various repositories included in the Android source are placed within your working directory.

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

Note:

A successful initialization ends with a message stating that Repo is initialized in your working directory. Your client directory now contains a `.repo` directory where files such as the manifest are kept.

```
fenago@fenago:~/aosp$ repo init -u https://android.googlesource.com/platform/manifest
warning: Python 3 support is currently experimental. YMMV.
Please use Python 2.6 - 2.7 instead.

... A new version of repo (2.21) is available.
... New version is available at: /home/fenago/aosp/.repo/repo/repo
... The launcher is run from: /usr/bin/repo
!!! The launcher is not writable.  Please talk to your sysadmin or distro
!!! to get an update installed.

Downloading manifest from https://android.googlesource.com/platform/manifest
remote: Sending approximately 130.98 MiB ...
remote: Counting objects: 1422, done
remote: Finding sources: 100% (15/15)
remote: Total 96197 (delta 29946), reused 96196 (delta 29946)
Receiving objects: 100% (96197/96197), 130.81 MiB | 14.00 MiB/s, done.
Resolving deltas: 100% (29946/29946), done.

Your identity is: Ali <Ali@example.com>
If you want to change this, please re-run 'repo init' with --config-name

Testing colorized output (for 'repo diff', 'repo status'):
  black    red      green    yellow   blue     magenta  cyan     white
  bold     dim      ul       reverse
Enable color display in this user account (y/N)? y

repo has been initialized in /home/fenago/aosp
fenago@fenago:~/aosp$
```

[Downloading the Android source tree]

More rarely, Linux clients experience connectivity issues, getting stuck in the middle of downloads (typically during *receiving objects*). Adjusting the settings of the TCP/IP stack and using non-parallel commands can improve the situation. You must have root access to modify the TCP setting.

To download the Android source tree to your working directory from the repositories as specified in the default manifest, run:

```
sudo sysctl -w net.ipv4.tcp_window_scaling=0
repo sync -j1
```

The Android source files are downloaded in your working directory under their project names.

To suppress output, pass the `-q` (quiet) flag. See the Repo Command Reference for all options.