

June2022 tagged dunfell build for Rpi3 Gateway

Host Setup

The OpenEmbedded build system should be able to run on Ubuntu 18.04 distribution/other compatible linux distribution with the following versions for Git, tar, and Python.

- Git 1.8.3.1 or greater
- tar 1.27 or greater
- Python 3.4.0 or greater
- Coreutils(E.g realpath)

Note: You should also have about 50 Gbytes of free disk space for building images.

The essential packages you need for a supported Ubuntu or Debian distribution are shown in the following command:

```
$ sudo apt-get install gawk wget git-core diffstat unzip texinfo gcc-multilib \
build-essential chrpath socat cpio python python3 python3-pip python3-pexpect \
xz-utils debianutils iputils-ping python3-git python3-jinja2 libegl1-mesa libsdl1.2-dev \
pylint3 xterm bmap-tools

$ sudo apt-get install git cmake autoconf texinfo openjdk-8-jdk openjdk-8-jre \
m4 libtool libtool-bin curl pkg-config lib32z1 doxygen
```

Repo Setup

In order to use Yocto build system, the repo tool must be properly installed on the machine.

To install Repo make sure you have a /bin directory in your home directory and that it is included in your path

Repo Setup Steps

```
$ mkdir ~/bin
$ PATH=~/bin:$PATH
Download the repo tool and ensure that it is executable
$ curl http://commondatastorage.googleapis.com/git-repo-downloads/repo > ~/bin/repo
$ chmod a+x ~/bin/repo
```

Note: it is also recommended to put credentials in ~/.netrc when interacting with repo.

A sample ~/.netrc file is illustrated below

.netrc

```
machine code.rdkcentral.com login YOUR_USERNAME password YOUR_PASSWORD
```

Yocto Build Steps

To build, follow below instructions

Please append the below lines in setup-environment file in your local workspace,

RPI3

RPI3 - Build Steps

```
$ mkdir <workspace dir>
$ cd <workspace dir>
$ repo init -u https://code.rdkcentral.com/r/reference/manifests -m rpi-tags/rpi3_rdkb_dunfell_30June2022.xml -
b master
$ repo sync -j`nproc` --no-clone-bundle
```

RPI3

RPI3

```
$ MACHINE=raspberrypi-rdk-broadband source meta-cmf-raspberrypi/setup-environment
$ bitbake rdk-generic-broadband-image
```

Flashing Procedure

Following command can be used to flash the RPI image to sd card using linux machine . bmap tool should be available in linux

Flash command

```
bzip2 -d <path to ImageName.wic.bz2>
sudo -E bmaptool copy --nobmap <path to ImageName.wic> <path to SD card space>
```

Example:

```
$ bzip2 -d rdk-generic-broadband-image-raspberrypi-rdk-broadband.wic.bz2
$ sudo -E bmaptool copy --nobmap rdk-generic-broadband-image-raspberrypi-rdk-broadband.wic /dev/sdb
```

Supported Features

[Features in RDK-B Reference Platform](#)