

RDK-B rdk-next Yocto 3.1 dunfell build for Raspberrypi 3B+

Host Setup

[How to Build#SettinguptheHostEnvironment](#)

Build Setup

build setup

```
repo init -u https://code.rdkcentral.com/r/manifests -b rdk-next -m rdkb-extsrc.xml
```

Once repo init was done, Please follow the below instructions,

- Go to .repo/manifests/
- open the oe-layers.xml
- Delete all the lines in the file
- Update the below lines in the oe-layers.xml file

oe-layers.xml

```
<?xml version='1.0' encoding='UTF-8'?>
<!-- AUTOGENERATED - PLEASE DO NOT MODIFY -->
<manifest>
  <project name="meta-gplv2" remote="yocto" revision="dunfell"/>
  <project name="meta-python2" remote="openembedded" revision="dunfell"/>
  <project name="rdk/components/opensource/oe/bitbake" path="openembedded-core/bitbake" revision="1.46"/>
  <project name="rdk/components/opensource/oe/meta-browser" path="meta-browser" revision="rdk/morty"/>
  <project name="rdk/components/opensource/oe/meta-java" path="meta-java" revision="dunfell"/>
  <project name="rdk/components/opensource/oe/meta-jz-mips" path="meta-jz-mips" revision="master"/>
  <project name="rdk/components/opensource/oe/meta-openembedded" path="meta-openembedded" revision="dunfell"/>
  <project name="rdk/components/opensource/oe/meta-qt5" path="meta-qt5" revision="rdk/morty"/>
  <project name="rdk/components/opensource/oe/meta-raspberrypi" path="meta-raspberrypi" revision="dunfell"/>
  <project name="rdk/components/opensource/oe/meta-rtlwifi" path="meta-rtlwifi" revision="dunfell"/>
  <project name="rdk/components/opensource/oe/meta-virtualization" path="meta-virtualization" revision="dunfell"/>
  <project name="rdk/components/opensource/oe/openembedded-core" path="openembedded-core" revision="dunfell"/>
</manifest>
```

Build - setup

```
repo sync -j4 --no-clone-bundle
```

Apply Bug Fixes

1. Go to meta-cmf-raspberrypi layer and cherry-pick the below change-set,
`git fetch "https://code.rdkcentral.com/r/components/generic/rdk-oe/meta-cmf-raspberrypi" refs/changes/60/48460/3 && git cherry-pick FETCH_HEAD`
2. Go to below path and place the wireless tools recipe manually
`~/openembedded-core/meta/recipe-connectivity/`
3. Please create the wireless-tools folder
4. Download the wireless tools recipe from below link and placed inside the wireless-tools folder,
`http://cgit.openembedded.org/openembedded-core/tree/meta/recipes-connectivity/wireless-tools/wireless-tools_30.pre9.bb?h=fido`

Note: The above bug fixes changes are temporary given as instructions. This is not required once the change is get merged into the appropriate repo

BroadBand Gateway

image build

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

Validated Functionalities

Basic functions are validated in dunfell branch,

1. RPI 3B+ Board was successfully up
2. Able to browse the internet
3. Able to get the erouter0 ip
4. dmcli commands are working as expected
5. All ccsp process and hostapd process are up
6. Able to connect the wireless clients
7. In wireless clients, Captive Portal page was launched for initial set-up
8. Re-connect the wifi clients with updated password and SSID
9. Able to browse the internet successfully in Connected clients
10. WebUI was launched in Web Browser
11. Able to login successfully
12. Factory_reset , Password change , Advanced functionalities are worked as expected
13. iptables rules are properly updated.
14. reboot and poweroff are working as expected.

Known Issues

1. In WebUI, toggle the sub-menu is not happening .
2. Public wifi 2g support is not available in dunfell branch due to rtl8192eu driver source code is not compatibility in latest kernel version of 5.4.72
3. Default password pop-up change is not happening in WebUI.