

Yocto Build Instructions - RPi - RDK Video - 2021 - M2

Host Setup

Refer to the below link for Host Machine Setup

[How to Build#SettinguptheHostEnvironment](#)

Yocto Build Setup

All RPi based RDK images with the latest features are from the rdk-next branch

Initializing the Build Environment

To build RDK images from rdk-next branch, follow the below build procedure

Yocto 3.1 LTS (Dunfell)

workspace setup

```
mkdir workspace; cd workspace

# initialize the manifest with repo tool
repo init -u https://code.rdkcentral.com/r/reference/manifests -b master -m rpi/release/rdkv-dunfell-21m2.xml

repo sync -j `nproc` --no-clone-bundle --no-tags
```

bug fixes

```
# revert cryptography related changes in wpeframework-clientlibraries (causing build error)
(cd meta-rdk-video; git revert 5cfd49b6e1a56540c1bbf9caada22cdb9097e0e2 --no-edit)
```

Yocto 2.2 (Morty)

workspace setup

```
mkdir workspace; cd workspace

# initialize the manifest with repo tool
repo init -u https://code.rdkcentral.com/r/reference/manifests -b master -m rpi/release/rdkv-morty-21m2.xml

repo sync -j `nproc` --no-clone-bundle --no-tags
```

Image Build

Media Client

generic image

```
MACHINE=raspberrypi-rdk-mc source meta-cmf-raspberrypi/setup-environment

bitbake rdk-generic-mediaclient-wpe-image
```

Media Gateway (Hybrid)

generic image

```
MACHINE=raspberrypi-rdk-hybrid source meta-cmf-raspberrypi/setup-environment  
  
bitbake rdk-generic-hybrid-wpe-image
```

Media Gateway (Hybrid) with Operator Ref. App.

generic image

```
MACHINE=raspberrypirdkhybreffapp source meta-cmf-raspberrypi/setup-environment  
  
bitbake rdk-generic-hybrid-refapp-image
```

The Kernel image and root file-system collectively created as an image and it will be available under `build-<MACHINE>/tmp/deploy/images/<MACHINE>` folder.

Flash Procedure

Yocto 3.1 LTS (Dunfell)

```
# of - output file (the device file for the inserted micro SD card  
bzcacat <IMAGE_NAME>-<MACHINE>.wic.bz2 | sudo dd of=/dev/<sd_file> bs=4M iflag=fullblock oflag=direct conv=fsync  
# eg. bzcat rdk-generic-mediaclient-wpe-image-raspberrypi-rdk-mc.wic.bz2 | sudo dd of=/dev/sdc bs=4M  
iflag=fullblock oflag=direct conv=fsync
```

Yocto 2.2 (Morty)

```
# Insert the micro SD card and mention the card's device file name  
# input file (if) is the image file to flash and the output file (of) is the card's device file name  
sudo dd if=<IMAGE_NAME>-<MACHINE>.rpi-sdimg of=/dev/<sd_file> bs=4M  
# Eg. sudo dd if=rdk-generic-mediaclient-wpe-image-raspberrypi-rdk-mc.rpi-sdimg of=/dev/sdc bs=4M
```