

RDK-V (Raspberry Pi) Yocto Build Instructions - Morty



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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

General build

Generic build

```
mkdir workspace
cd workspace

# initialize the manifest with repo tool
repo init -u https://code.rdkcentral.com/r/manifests -b rdk-next -m rdkv-nosrc.xml

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

Build with external source

generic build with external source

```
mkdir workspace
cd workspace

# initialize the manifest with repo tool
repo init -u https://code.rdkcentral.com/r/manifests -b rdk-next -m rdkv-extsrc.xml

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

Build from development branch

To build the image from the development branch, the respective sprint month's development branch to be chosen and follow the below build procedure

For example, to take the development branch of September 2020, the *rdk-dev-2009* branch to be used

Generic build from development branch

```
mkdir workspace
cd workspace

# initialize the manifest with repo tool
repo init -u https://code.rdkcentral.com/r/manifests -b rdk-dev-2009 -m rdkv-nosrc.xml

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

apply bug fixes

Image build

Link to check possible RDK images on RPi - <https://code.rdkcentral.com/r/plugins/gitiles/components/generic/rdk-oe/meta-cmf-raspberrypi/+refs/heads/rdk-next/recipes-core/images/>

Media Client

Generic Image

generic image

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

# both rdk-generic-mediadclient-image and rdk-generic-mediadclient-wpe-image are same now
bitbake rdk-generic-mediadclient-image
```

Generic Image with TDK

TDK image

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

bitbake rdk-generic-mediadclient-wpe-tdk-image
```

Media Gateway (Hybrid)

Generic Image

generic image

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

#both rdk-generic-hybrid-image and rdk-generic-hybrid-wpe-image are same now
bitbake rdk-generic-hybrid-image
```

Generic Image with TDK

TDK image

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

Flashing Procedure

The image file will be generated under `build-<MACHINE>/tmp/deploy/images/<MACHINE>` directory

```
# 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=rdk-generic-hybrid-wpe-image-raspberrypi-rdk-hybrid.rpi-sdimg of=/dev/<sd file> bs=4M
```