

RMS Feature validation in RPI-3 target

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Introduction

The RDKC Media Server is much more than a multi-format, multi-protocol server that delivers your media rich content across multiple screens and platforms. The RDK camera software runs on RPi-3 device. This page dedicated to bringing up and validation of RMS functionality in RPI-3.

Yocto Build Steps

Refer below link to build camera image

[RDK-C Build Instruction for RPI-3](#)

Image Flash Procedure

Image Flash step

```
$ sudo dd if="Image Name" of="Device Name" bs=4M
```

Example:

```
sudo dd if=rdk-generic-camera-image_default_20200130060729.rootfs.rpi-sdimg of=/dev/sdb bs=4M
```

RMS Validation Procedure

STEP 1:

Add require SSID and PSK in /etc/wpa_supplicant.conf file in below format

```
network={  
ssid="username"  
psk="password"  
}
```

Console output

```
ctrl_interface=/var/run/wpa_supplicant  
ctrl_interface_group=0  
update_config=1  
  
network={  
ssid="XXXX"  
psk="YYYYYYYYY"  
}
```

STEP 2:

Reboot the Target

After Reboot don't do step 1 and 2.

Note : Step 1 & 2 is only applicable for fresh target boot-up with new image.

STEP 3:

Modify needed resolution in rms configuration file

Supported Resolution:

SD:

Width - 640 , Height - 480

Width - 720 , Height - 576

HD:

Width - 1280 , Height - 720

FULL HD :

Width - 1920 , Height - 1080

Modify resolution in below configuration file

```
cd /usr/local/rms/bin
```

```
vi rms.conf
```

Console output

```
RRSIP=XXX.XXX.XXX.XXX
RRSPORT=81
ROOMID=rpi0
RRSSL=0
WIDTH=1280
HEIGHT=72
```

After resolution modification need to reboot the target.

Note: This step is not necessary, it depends on your resolution validation.

STEP 4:

WiFi connection is must needed for RMS validation.

Check WiFi connection by using below command.

```
ifconfig
```

Console output

```
root@raspberrypi0-rdk-camera:~# ifconfig
lo          Link encap:Local Loopback
            inet addr:127.0.0.1  Mask:255.0.0.0
            inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING  MTU:65536  Metric:1
            RX packets:87 errors:0 dropped:0 overruns:0 frame:0
            TX packets:87 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:4552 (4.4 KiB)  TX bytes:4552 (4.4 KiB)

wlan0       Link encap:Ethernet  HWaddr B8:27:EB:2E:72:2B
            inet addr:192.168.43.246 Bcast:192.168.43.255 Mask:255.255.255.0
            UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
            RX packets:23 errors:0 dropped:0 overruns:0 frame:0
            TX packets:44 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:2893 (2.8 KiB)  TX bytes:5887 (5.7 KiB)
```

STEP 5:

check loaded module by using below command

lsmod

Console output

```
root@raspberrypi0-rdk-camera:~# lsmod
Module                Size  Used by
bcm2835_v4l2          40563   0
v4l2_common           4809   1 bcm2835_v4l2
videobuf2_vmalloc      6264   1 bcm2835_v4l2
videobuf2_memops       1528   1 videobuf2_vmalloc
videobuf2_v4l2        12640   1 bcm2835_v4l2
videobuf2_core        27389   2 bcm2835_v4l2,videobuf2_v4l2
videodev              154457   4 v4l2_common,videobuf2_core,bcm2835_v4l2,videobuf2_v4l2
media                  23307   1 videodev
brcmfmac              258239   0
brcmutil               7590   1 brcmfmac
snd_bcm2835            21405   0
cfg80211              492836   1 brcmfmac
snd_pcm                79872   1 snd_bcm2835
rfkill                 19936   3 cfg80211
snd_timer              20294   1 snd_pcm
snd                    52949   3 snd_timer,snd_bcm2835,snd_pcm
lirc_rpi               6840   0
lirc_dev               7533   1 lirc_rpi
uio_pdrv_genirq        3469   0
uio                    8703   1 uio_pdrv_genirq
fixed                  2876   0
sch_fq_codel           9662   2
ipv6                   384101  18
```

STEP 6:

check camera device there or not by using below command

ls /dev/video0

Console output

```
root@raspberrypi0-rdk-camera:~# ls /dev/video0
/dev/video0
```

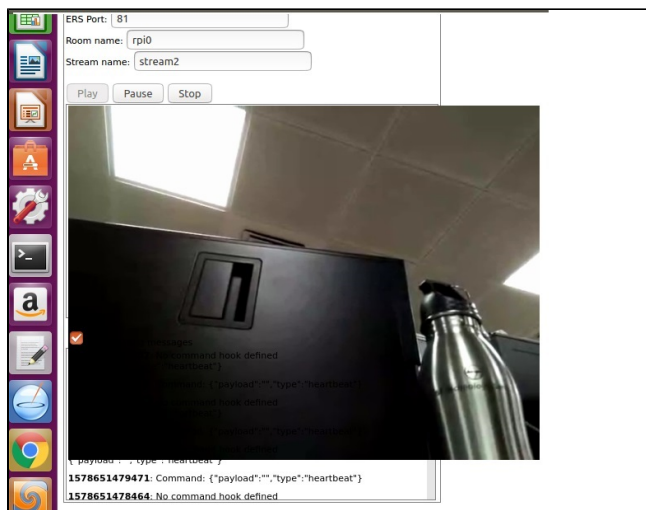
STEP 7:

On Browser of PC:

<http://community.dummysserver.com>

Need to modify roomid as rpi0

Press "PLAY" button in WebBrowser page.



We can able to see the capturing content on WebBrowser.