

*****DRAFT*****

./pi_jpeg tests Rpi3B+

04/16/19

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To compile the code

```
pi@mypi3-1:~/testbuilds/catzip/sw/board $ ./buildpi_lift.sh
```

```
pi@mypi3-1:~/testbuilds/catzip/sw/board $ cp pi_jpeg ../host
```

/* First parameter is used to tell the program which sub band to use

* 0 Red

* 1 Green

* 2 Blue

* 2nd parameter is used to tell the program to compute the fwd lifting step only or fwd lifting then inv lifting step

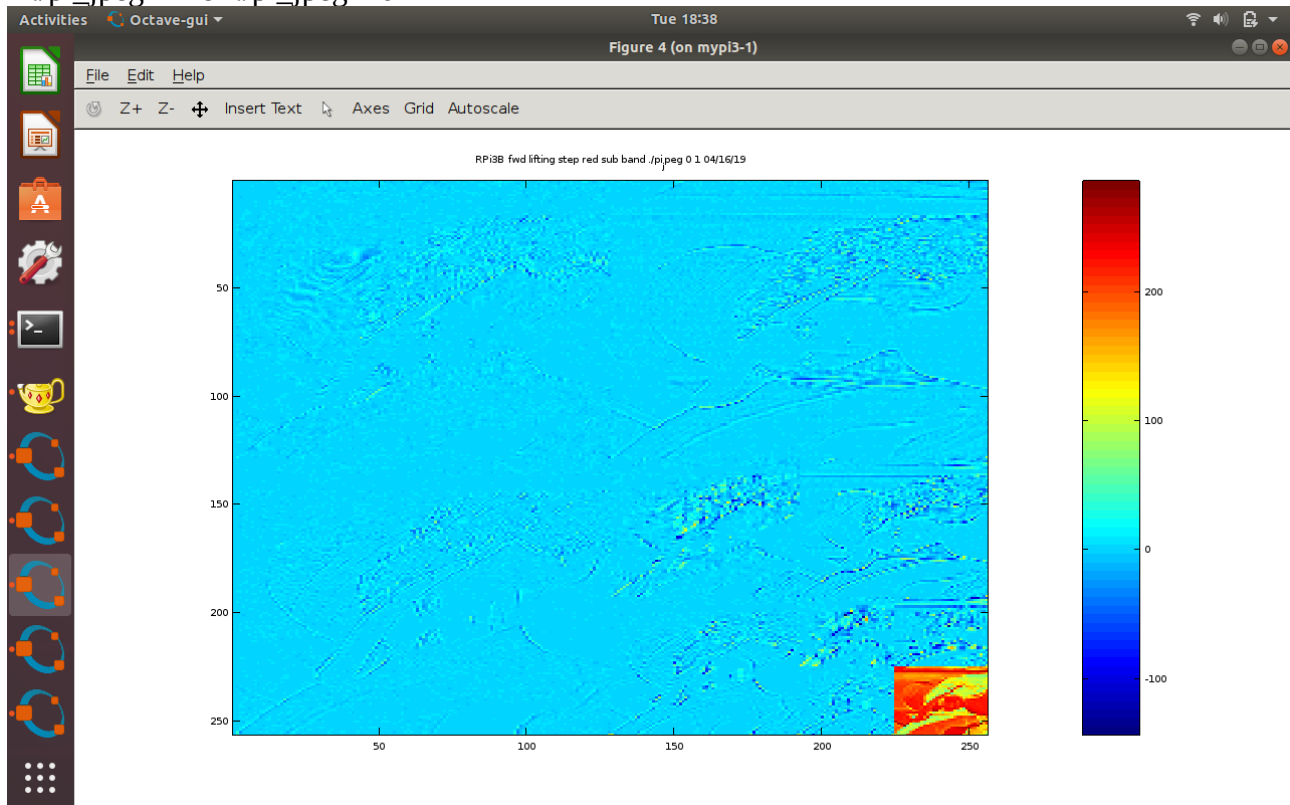
* 0 fwd lifting then inv lifting step

* 1 fwd lifting step only

* ./pi_jpeg 0 1 or ./pi_jpeg 0 0

* ./pi_jpeg 1 1 or ./pi_jpeg 1 0

* ./pi_jpeg 2 1 or ./pi_jpeg 2 0



```
rm -f dwt.bin ; ./pi_jpeg 0 1
```

```
buf_red = 0x76d51008
```

```
fwd_inv = 0x1b72008
```

splitting red sub band

fwd lifting step only

```
x = 0xe22247c sp = 0xe2 z = 0xe200000
```

```
x = 0xde22083 sp = 0xde z = 0xde00000
```

```
x = 0xe221475 sp = 0xe2 z = 0xe200000
```

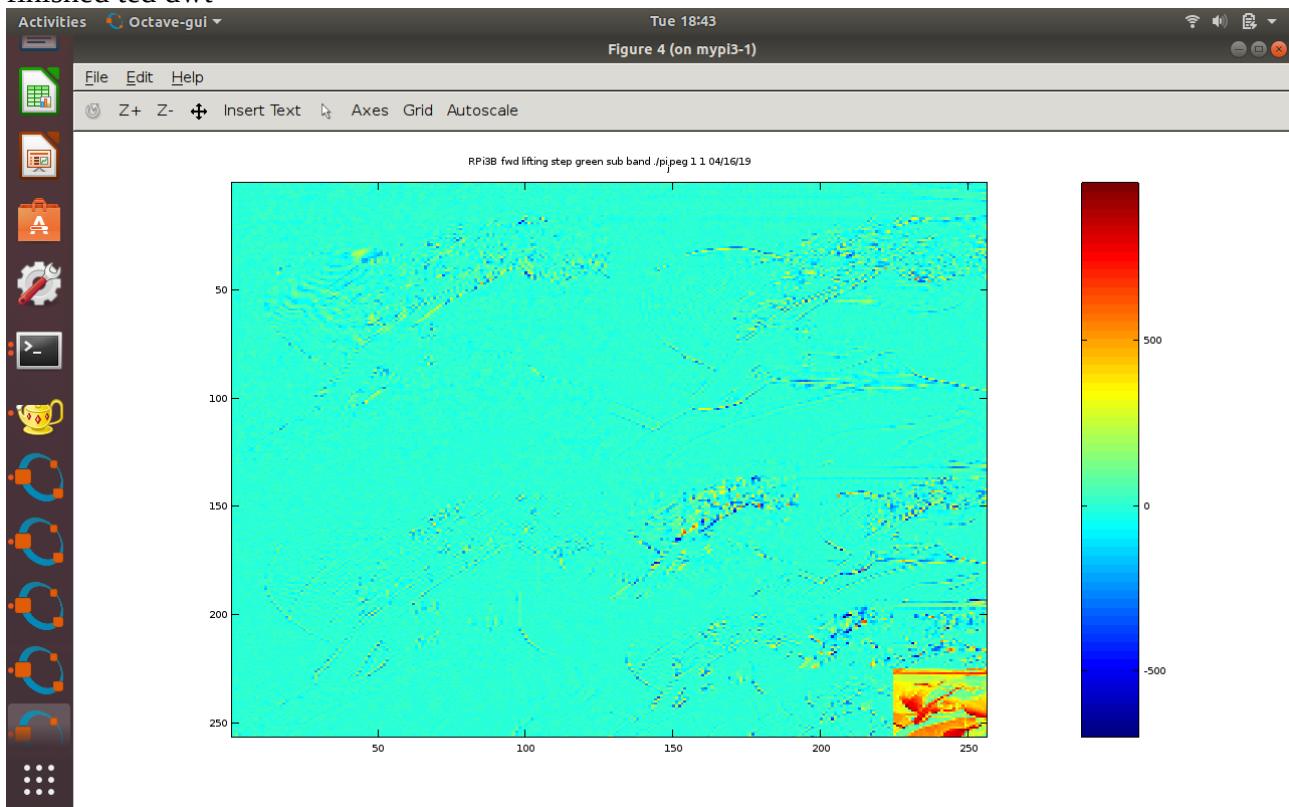
```
x = 0xe32207b sp = 0xe3 z = 0xe300000
```

```
x = 0xa812055 sp = 0xa8 z = 0xa800000
```

```

x = 0xb210c4c sp = 0xb2 z = 0xb200000
w = 0x100 buf_red wptr = 0x76d51008 alt = 0x76d91008 fwd_inverse = 0x1b72008 fwd_inverse
= 0x1
starting red dwt
ip = 0x76d51008 tp = 0x76d91008
in lifting
in singlelift
in singlelift
back from singlelift
in lifting
in singlelift
in singlelift
back from singlelift
in lifting
in singlelift
in singlelift
back from singlelift
testing test_fwd
finished ted dwt

```



```

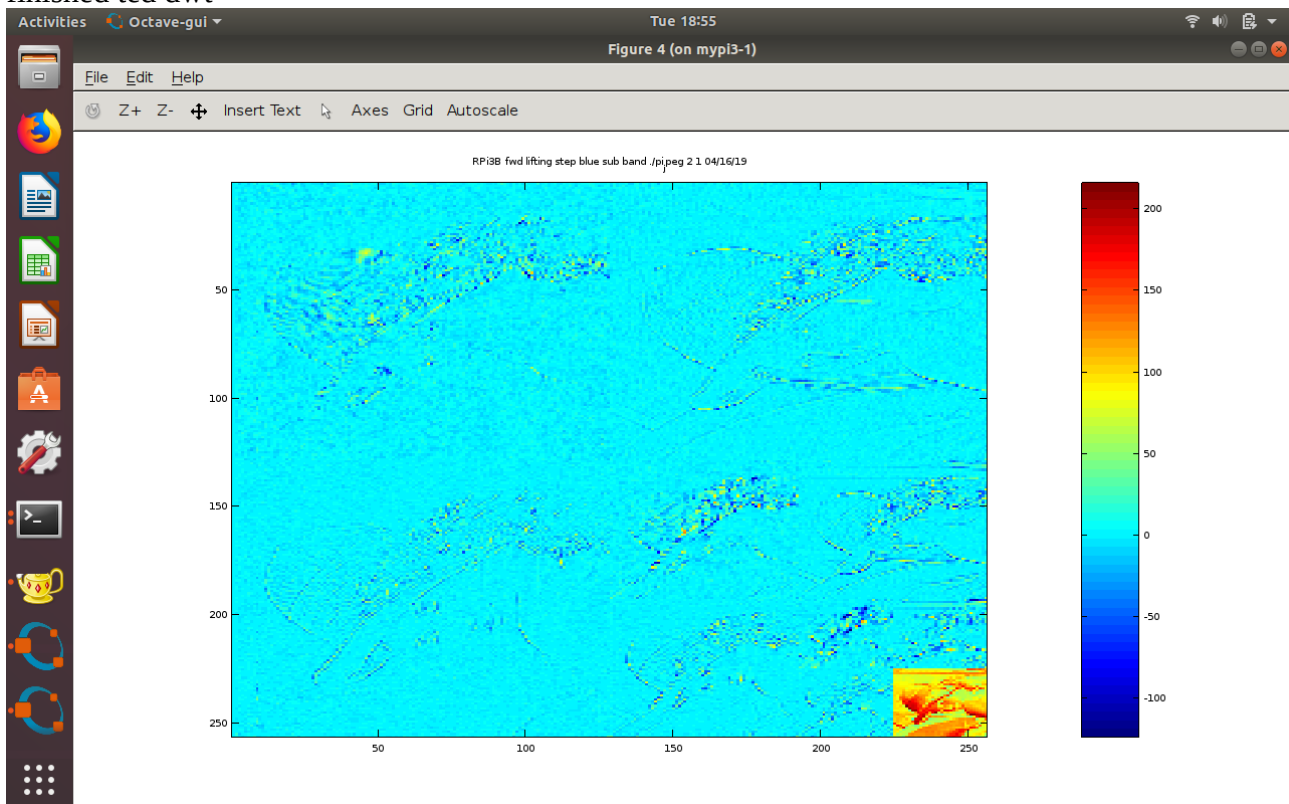
rm -f dwt.bin ; ./pi_peg 1 1
buf_red = 0x76d15008
fwd_inv = 0x124b008
splitting green sub band
fwd lifting step only
x = 0xe22247c sp = 0x224 z = 0x22400
x = 0xde22083 sp = 0x220 z = 0x22000
x = 0xe221475 sp = 0x214 z = 0x21400
x = 0xe32207b sp = 0x220 z = 0x22000
x = 0xa812055 sp = 0x120 z = 0x12000

```

```

x = 0xb210c4c sp = 0x10c z = 0x10c00
w = 0x100 buf_red wptr = 0x76d15008 alt = 0x76d55008 fwd_inverse = 0x124b008 fwd_inverse
= 0x1
starting red dwt
ip = 0x76d15008 tp = 0x76d55008
in lifting
in singlelift
in singlelift
back from singlelift
in lifting
in singlelift
in singlelift
back from singlelift
in lifting
in singlelift
in singlelift
back from singlelift
testing test_fwd
finished ted dwt

```



```

rm -f dwt.bin ; ./pi_jpeg 2 1
buf_red = 0x76d9d008
fwd_inv = 0xe64008
splitting blue sub band
fwd lifting step only
x = 0xe22247c sp = 0x7c z = 0x7c
x = 0xde22083 sp = 0x83 z = 0x83
x = 0xe221475 sp = 0x75 z = 0x75
x = 0xe32207b sp = 0x7b z = 0x7b
x = 0xa812055 sp = 0x55 z = 0x55

```

x = 0xb210c4c sp = 0x4c z = 0x4c
w = 0x100 buf_red wptr = 0x76d9d008 alt = 0x76ddd008 fwd_inverse = 0xe64008 fwd_inverse =
0x1
starting red dwt
ip = 0x76d9d008 tp = 0x76ddd008
in lifting
in singlelift
in singlelift
back from singlelift
in lifting
in singlelift
in singlelift
back from singlelift
in lifting
in singlelift
in singlelift
back from singlelift
testing test_fwd
finished ted dwt