**********Draft**********

Pico Lifting Step

11/07/21

**********Draft**********

cd tmp
git clone git@github.com:develone/pico-lifting.git
cd pico-lifting
cp testfiles/2048/* .
./buildpi_lift.sh
rm -f dwt.bin;./pi_jpeg 0 1

Next instead of reading the files and writing the results in dwt.bin The goal is use as serial tx & rx to send the data to the program. Then transmit the result over the serial tx.

The folder testfiles/2048/ has the files to perform a 2048 lifting step.
The folder testfiles/256/ has the files to perform a 256 lifting step.

The following command compiles the code ./buildpi_lift.sh

There is a define in pi_jpeg.c that turns off the debug

rm -f dwt.bin ; ./pi_jpeg 0 1
0x0 0x22048 0x1022048
ptrs.fwd_inv = 0x2022060
reading r.bin
fwd lifting step only
w = 0x800 ptrs.inp_buf wptr = 0x22048 alt = 0x1022048 ptrs.fwd_inverse = 0x2022060
ptrs.fwd_inverse = 0x1
starting red dwt
finished ted dwt
octave
GNU Octave, version 4.4.1
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Octave was configured for "arm-unknown-linux-gnueabihf".

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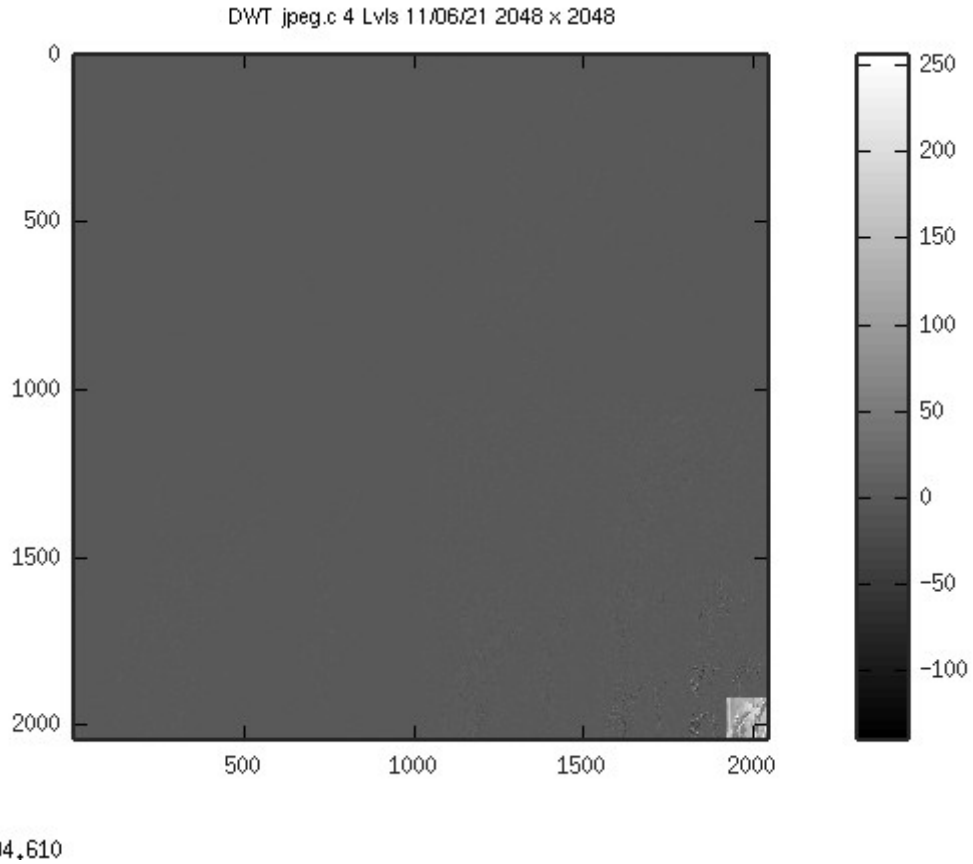
octave:1> rgb

The input was a pgm file 2048 x 2048

4 lvs 2048 x 2048 lifting step.



```
cp testfiles/256/* .
 ./buildpi_lift.sh
devel@mypi3-20:~/pico-lifting $ rm -f dwt.bin ; ./pi_jpeg 0 1
0x0 0x22048 0x62048
ptrs.fwd_inv = 0xa2060
reading r.bin
fwd lifting step only
w = 0x100 ptrs.inp_buf wptr = 0x22048 alt =  0x62048 ptrs.fwd_inverse =  0xa2060
ptrs.fwd_inverse =  0x1
starting red dwt
finished ted dwt

octave
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octave:1> rgb

The input was a pgm file 256 x 256
```
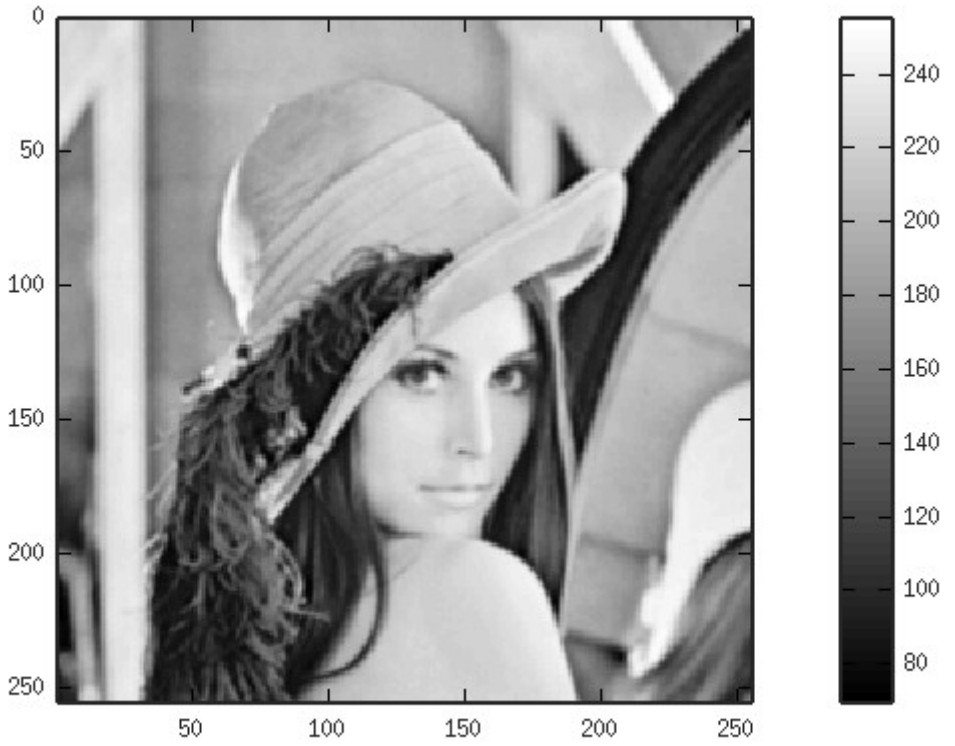
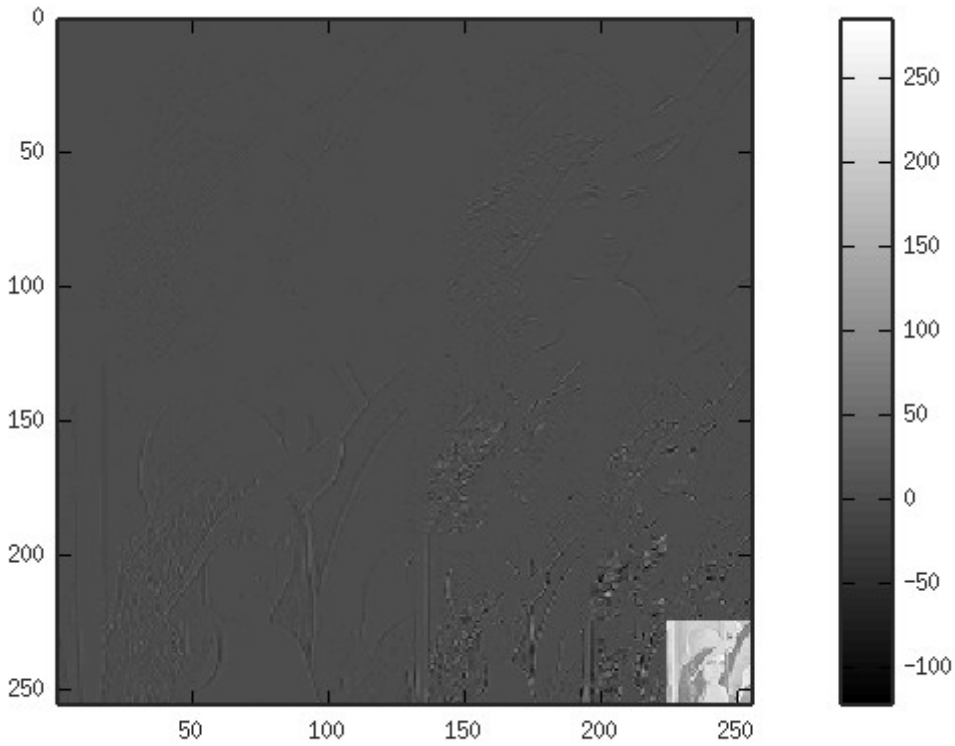



μ2= 174.001

3 lvs 256 x 256 lifting step.



μ2=-178.095