## \*\*\*\*\*\*\*\*\*\*\*\*\*DRAFT\*\*\*\*\*\*\*\*\*

## Testing Latest OPENJPEG Upgraded V2.3.1 07/31/20

```
{Global constants}
const
{Version constants}
                                  = '29 September 2019';
ULTIBO_RELEASE_DATE
ULTIBO RELEASE NAME
                                   = 'Beetroot':
ULTIBO RELEASE VERSION
                                    = '2.0.745';
ULTIBO_RELEASE_VERSION_MAJOR = 2;
ULTIBO RELEASE VERSION MINOR = 0;
ULTIBO_RELEASE_VERSION_REVISION = 745;
A major upgrade to v2.3.1
The libopenjp2.a is created from 30 C files and 35 header files.
deleted: raw.c
deleted: raw.h
new file: sparse_array.c
new file: sparse_array.h
modified 12 C files and 13 header files.
Updated /home/devel/Ultibo Projects/jpeg2000/src from
commit 57096325457f96d8cd07bd3af04fe81d7a2ba788 (HEAD, tag: v2.3.1)
Author: Antonin Descampe <antonin@gmail.com>
Date: Tue Apr 2 14:45:15 2019 +0200
  update token for appveyor auto release
2 files were removed and 2 new files.
25 of the C & header files were modified.
~/Ultibo_Projects/jpeg2000/src $ ./compile_ultibo.sh
The word count here should be 22
the word count in /home/pi/jpeg-2000-test/bare-metal/openjp
when ./libbuild.sh is executed should be 22
22 22 182 libopenjp2_obj.txt
~/Ultibo_Projects/jpeg2000/RPi2 $ ./libbuild.sh
dwtlift.c: In function 'decompress':
dwtlift.c:658:3: warning: implicit declaration of function 'octave_write_byte'; did you mean
'opj_write_tile'? [-Wimplicit-function-declaration]
 octave_write_byte(r_decompress_fn,r_decompress,da_x1*da_y1);
 \Lambda
 opj_write_tile
when ./libbuild.sh is executed should be 23
23 23 192 libdwtlift obj.txt
```

With Lazarus IDE (Ultibo Edition) DWT\_LIFT\_RPi2.lpi Run/Clean up and Build. md5sum kernel7.img 27b9a8da3189bf5d94611cfd2cc2b4cf kernel7.img

-rwxr-xr-x 1 devel devel 3225052 Jul 31 05:09 kernel7.img

~/firmwar\_for\_ultibo/jpeg2000 \$ tftp 192.168.1.245

tftp> binary

tftp> put lena\_rgb\_1024.bmp MyBitmap.bmp

Sent 3145850 bytes in 8.3 seconds

tftp> put 1024com testfile

Sent 24 bytes in 0.0 seconds

tftp> quit

~/Ultibo\_Projects/jpeg2000/ultibo \$ ~/tmp/openjpeg/build/bin/opj\_compress -r 80,40,20,10,1 -i test\_wr.bmp -o tt.j2k

[INFO] tile number 1 / 1

[INFO] Generated outfile tt.j2k

encode time: 3253 ms

~/tmp/openjpeg/build/bin/opj\_decompress -l 1 -i tt.j2k -o test\_wr80.bmp

[INFO] Start to read j2k main header (0).

[INFO] Main header has been correctly decoded.

[INFO] No decoded area parameters, set the decoded area to the whole image

[INFO] Header of tile 1 / 1 has been read.

[INFO] Generated Outfile test\_wr80.bmp

decode time: 785 ms

~/tmp/openjpeg/build/bin/opj\_decompress -l 2 -i tt.j2k -o test\_wr60.bmp

[INFO] Start to read j2k main header (0).

[INFO] Main header has been correctly decoded.

[INFO] No decoded area parameters, set the decoded area to the whole image

[INFO] Header of tile 1 / 1 has been read.

[INFO] Generated Outfile test\_wr60.bmp

decode time: 812 ms

~/tmp/openjpeg/build/bin/opj\_decompress -l 5 -i tt.j2k -o test\_wr1.bmp

[INFO] Start to read j2k main header (0).

[INFO] Main header has been correctly decoded.

[INFO] No decoded area parameters, set the decoded area to the whole image

[INFO] Header of tile 1 / 1 has been read.

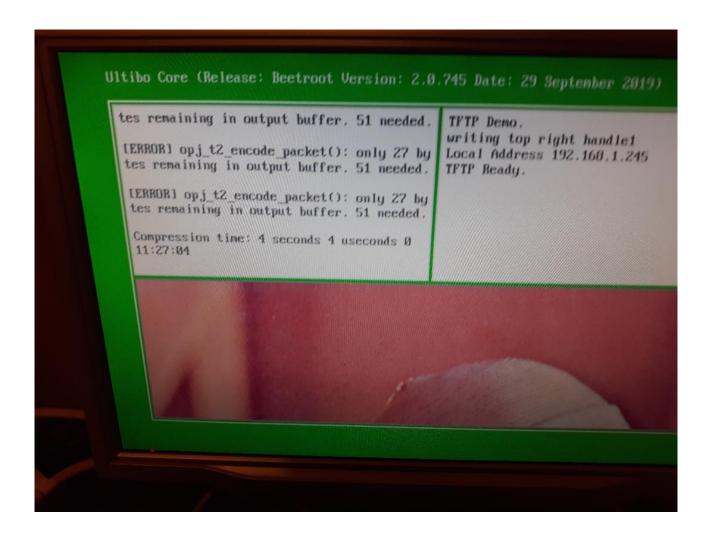
[INFO] Generated Outfile test wr1.bmp

decode time: 1178 ms

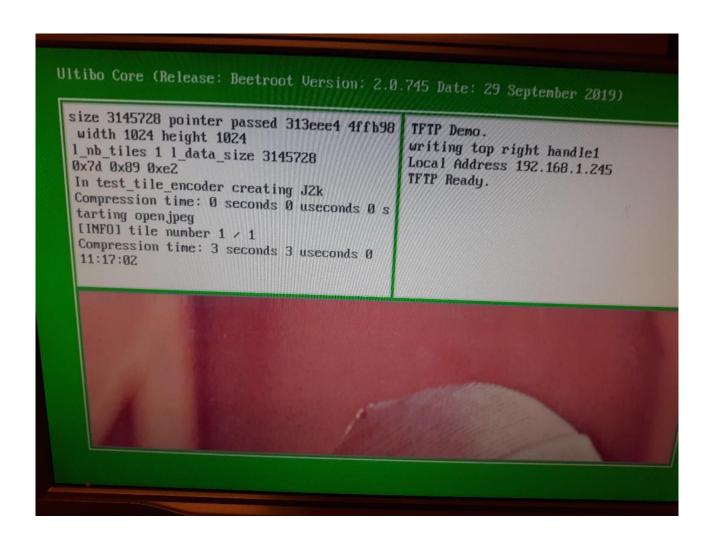
Below is the 1024x1024 bitmap image tested on Ultibo.



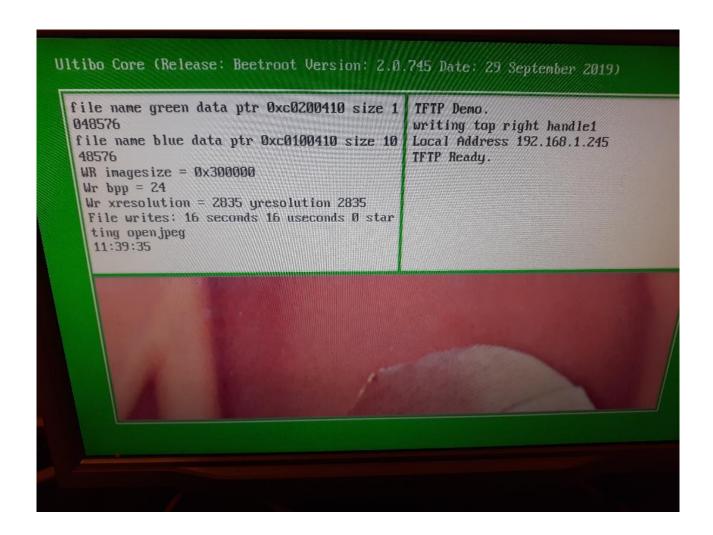
The file test.j2k was decompressed on Raspbian ultibo.bmp. Prior to upgrade the output displayed Errors but the test.j2k was created.



Now the output is cleaner.



Decompression



Used Lazarus IDE (Ultibo Edition) to compile kernel7.img
devel@mypi3-15:~/Ultibo\_Projects/jpeg2000/RPi2 \$ scrot -d 10 -s laz.png

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```

devel@mypi3-15:~/openjpeg/build/bin \$ ./opj\_decompress -i test.j2k -o ultibo.bmp

[INFO] Start to read j2k main header (0).

[INFO] Main header has been correctly decoded.

[INFO] No decoded area parameters, set the decoded area to the whole image

[INFO] Header of tile 1 / 1 has been read.

[INFO] Generated Outfile ultibo.bmp

decode time: 144 msxx

