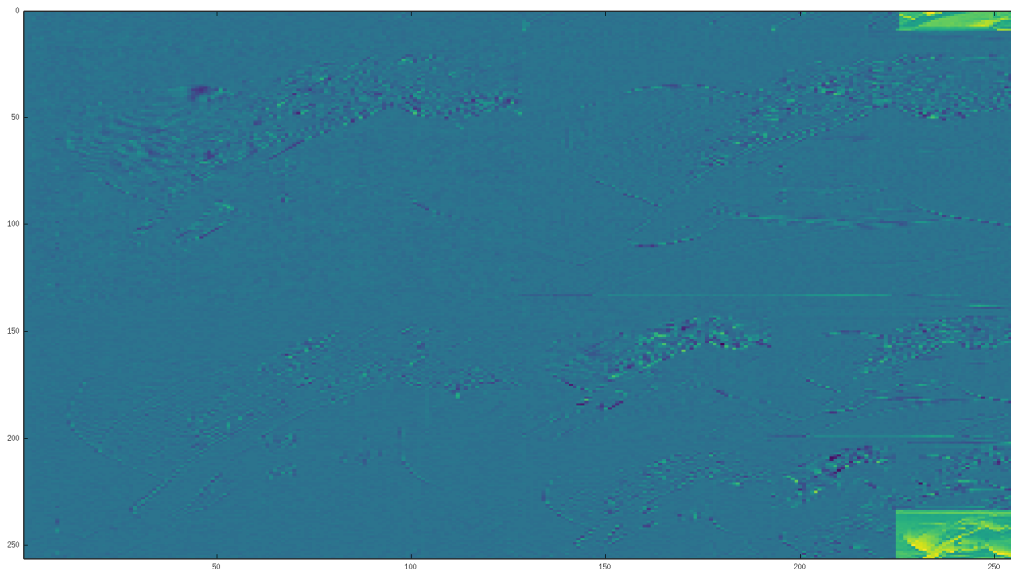This is an attempt at trying to understand why cputest and jpeg fail in hardware on mypi3-21. Several software packages aree needed (autofpga, icestorm, nextpnr, yoysys, zipcpu, and verilator). Additional Verilog (wbxbar, skidbuffer.v, and addrdecode.v) files were needed with autofpga ver 08/14/20.

	Mypi3-18	Mypi3-16	Mypi3-20	upgraded	No-upgrade	github	Upgraded-on
autofpga	x	x	x	08/14/20	01/01/20	no	Mypi3-16
icestorm	x	x	x	03/09/21		no	Mypi3-16
nextpnr	x	x		03/26/21	02/03/20	no	Mypi3-16
yosys		x		03/30/21	02/09/20	no	Mypi3-16
verilator	4.1	4.1	4.1				
zipcpu	x		x	11/11/21	04/01/19	11/11/21	Mypi3-20
Catzip-tst		x					

Mypi3-21	Tb3-18	Tb3-18-tst	tb3-20-tst	Tb3-16	Tb3-20	
jpgeg				x	x	Tb3-16Tb3-20 im4(1:10,1:1)=0
cputest				x	x	
sdram test hw x	x	x				
Arachne-pnr no	no	no	binary	no		tb3-18-tsttb3-20-tst modified: Makefile
0x0100f120	0x0200f120	0x0200f120	0x0100f120	0x0100f120		
version	20210419	20210420	20210420	20200702	20210419	

On tb3-20 ver 20210419 & tb3-16 ver 20200702 show same results with jpeg.

277.396, -22.2784

```
octave:3> im4(1:10,1:1)
ans =

  237118588
  232923267
  237114485
```

```
    238166139
    236071034
    237115516
    235018352
    233970337
    230821997
         0
octave:5 im4(1:10,1:1)=0;
octave:6> imagesc(im4)
```

Additonal notes are found in fpgatools-upgrade-mypi3-18.txt & fpgatools-upgrade-mypi3-20.txt.