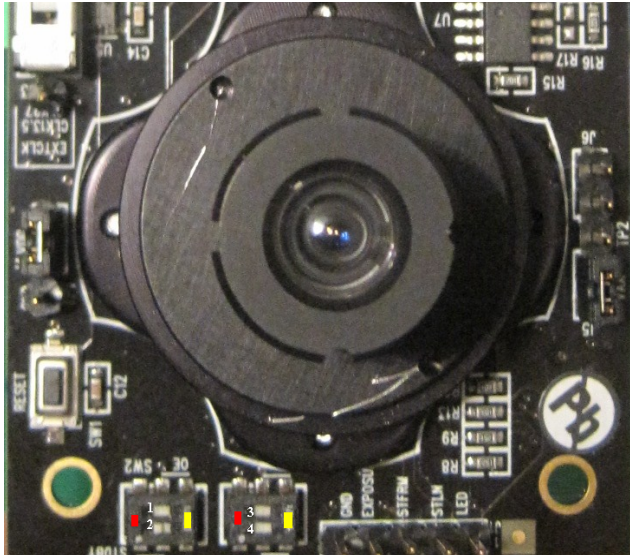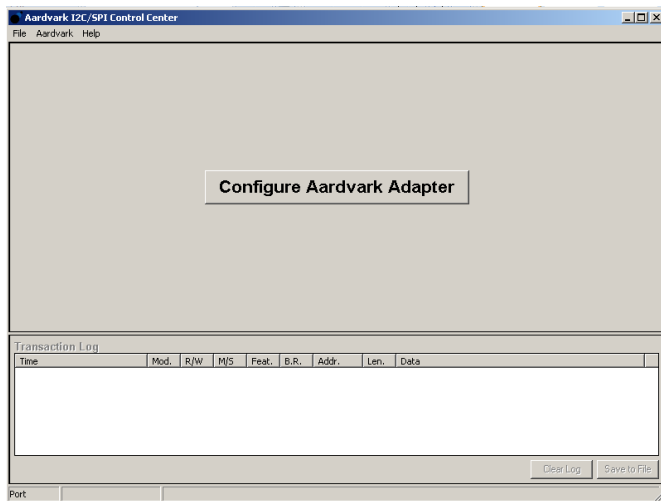This document is just for having quick TIPS for using I2C debugger (AARDVARK), basically based on experiment performed by Najeem Lawal and Muhammad Imran for setting camera register of 1/3-Inch Wide-VGA CMOS Digital Image SensorMT9V032.
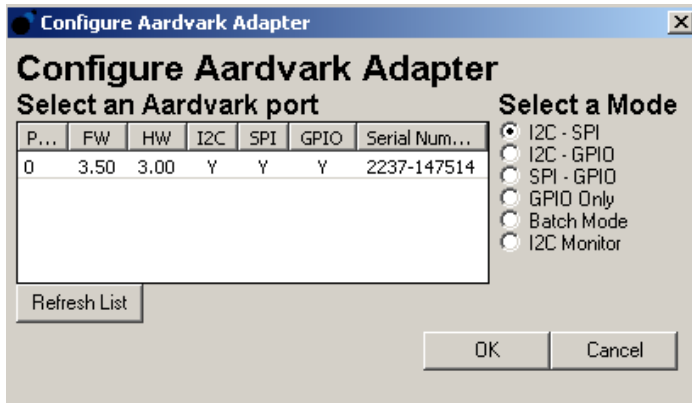

1,3,4 sho be towards yellow direction when programing I2C register..2 on RED direction

open AARDVARK GUI

Click I2C-SPI and select the port

Switch on the i2c by writing 0x(E6/2)=0x73 as the 8-bit address of a two-wire serial interface device consists of 7 bits of address and 1 bit of direction. A "0" in the LSB of the address indicates write mode, and a "1" indicates read mode. But this will wash out the previously configured data in camera if you did through programming. If already configured register through code, then instead of 0x73 give slave address 0xB8/2=0x5C. Every time you want to see any value in register, first write its address through Master Write, then read it using Master Read.You can Free the bus when needed. How many number of bytes needs to be read or written can be specified in the Text box of Number of Bytes.

```
slv_adr_o <= "11100110"; -- 0xE6
reg_adr_o <= "00000001"; -- 0x01
reg_dat_o <= "00000001"; -- 0x01
```
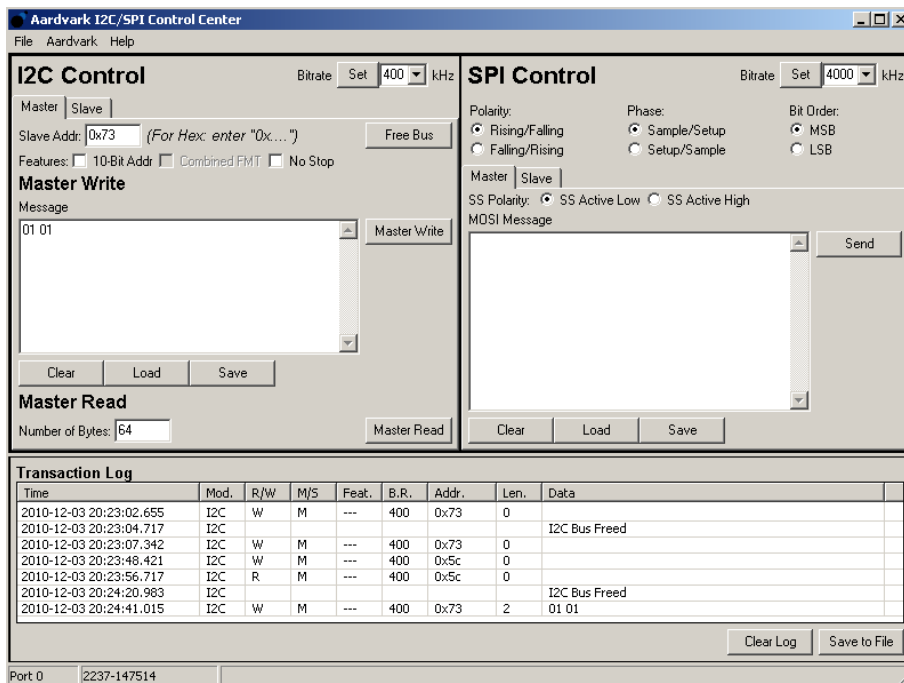

Next step is setting values for different registers either throgh code or through this software

slv_adr_o <= "10111000"; -- 0xB8
reg_adr_o <= "00000011"; -- 0x03   ---rows regiter
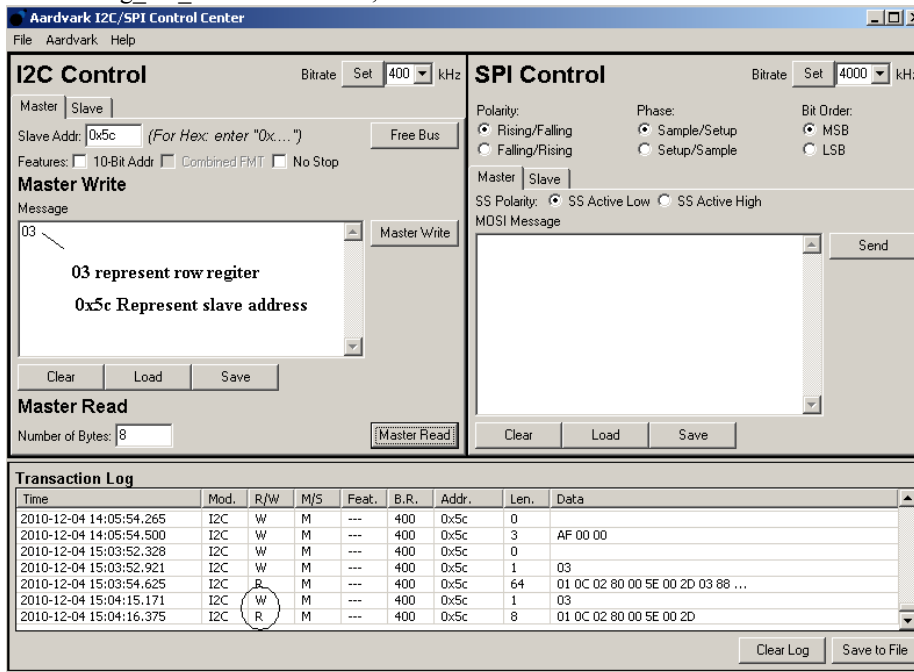reg_dat_o <= "00000001"; -- 0x01   ---"00000001"; defualt in program 0x01

next is the first byte

slv_adr_o <= "10111000"; -- 0xB8
reg_adr_o <= "11110000"; -- 0xF0
reg_dat_o <= "00001100";-- 0x01C0=268 rows

first write 03, reading 8 bytes.if Master write does not work first time, press it again.
then press Master Read. you can see 8 bytes

Najeem Lawal, PhD, Electronic Design Division, Mid Sweden University, Sweden.

Muhammad Imran, PhD Student, Electronics Design Division, Mid Sweden University, Sweden

muhammad.imran@miun.se , najeem.lawal@miun.se

Download software http://www.totalphase.com/support/product/aardvark_i2cspi/