This guide is elaborated to show how to setup and run the dual video + dual HD1080P60 display demo on i.Mx6x EVB board.

**Text for user input.**

***Text for important hints.***

1. How to build the program?

**./tools/build-sdk –target mx61 –board evb –board\_rev 1 –test vdec –clean**

1. How to setup the demo?
2. Create the image over SD card. Under linux, using fidsk/mkfs.vfat/dd to create a bootable image together with the FAT32 file system on the same SD card.

* sudo fidsk /dev/sdx , sdx is the device name of your SD card.

**sudo fdisk /dev/sdb**

Command (m for help): **m**

***Delete existing partition if there is.***

Command (m for help): **d**

Selected partition 1

Command (m for help): **n**

Command action

e extended

p primary partition (1-4)

**p**

Partition number (1-4): **1**

First cylinder (1-1023, default 1): **256**

***Here the start address should be larger than 2M(space reserved to burn the test binary). for one cylinder it is 4k. Here I reserved 1G space.***

Last cylinder or +size or +sizeM or +sizeK (256-1023, default 1023): **1023**

Command (m for help): w

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

Now I have one partitions on the SD card.

**cat /proc/partitions**

major minor #blocks name

8 0 78125000 sda

8 1 104391 sda1

8 2 78019672 sda2

253 0 75956224 dm-0

253 1 2031616 dm-1

8 16 3872256 sdb

8 17 2904576 sdb1

* Using mkfs.vfat to format the partition

**sudo mkfs.vfat /dev/sdb1**

* Copy two video clips to the SD card. ***Note that the filename should be less than 8 characters with “.264” extension. The video should be RAW h264 encoded files with no any container. The program will find the first two valid 264 files for playing.***
* Burn the image to the SD card.

**sudo dd if=output/mx61/evb/bin/mx61evb-vdec-sdk.bin of=/dev/sdb seek=2 skip=2 & sync**

***NOTE that seek=2 skip=2 is mandatory, without them the MBR of the file system would be overwritten!!***

1. put the SD card into SLOT4
2. set the boot switch to boot from SD4
3. plug the HDMI expansion board onto the parallel display connector J19, connect the expansion board with one HDMI monitor/TV
4. plug the HDMI cable to J5 for the secondary display
5. connect the serial cable and 5V power supply, power on the board.

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Diagnostics Suite (1.0) for i.MX61 TO1.0 Armadillo EVB Rev A

Build: Nov 25 2011, 17:27:40

Freescale Semiconductor, Inc.

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======== Clock frequencies(HZ) =========

Cortex A9 core : 792,000,000

DDR memory : 528,000,000

UART4 for debug : 80,000,000

EPIT1 for system timer : 66,000,000

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========== DDR configuration ===========

data bits: 64, num\_banks: 8

row: 14, col: 10

DDR type is DDR3

Both chip select CSD0 and CSD1 are used

Density per chip select: 1024MB

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File 0 is IMX6.264

File 1 is AMV.264

The first HDMI display is configured!!

The second HDMI display is configured!!

Now the endless loopback decoding + display is working.

1. Limitations
2. There is no resizing on the video output. For example if you are decoding some video clips with resolution other than 1080p, the video will show on the top-left of the screen with its original size.
3. Video clips must be raw with no any container.
4. Currently only H264 video decoding is supported. Other formats such as VC1, H263, MPEG3, MPEG4 will be added in the next release.