

Resizer Sample Application Usage Note

This document provides overview about how to execute Resizer sample examples and how to verify the output image

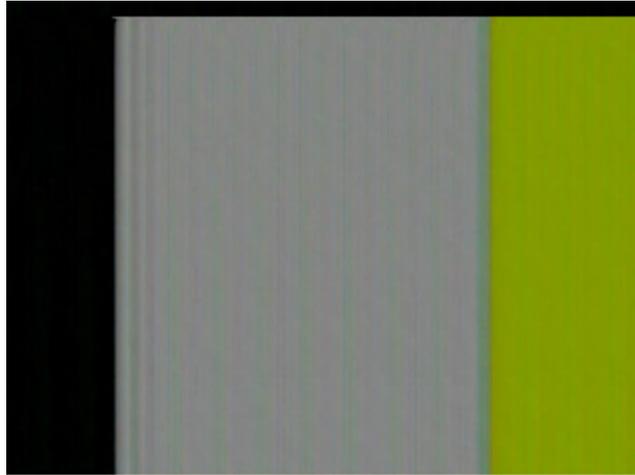


Figure 1. Input image used in Resizer Upscale sample example

Resizer up scaling Example:

(The input image size is 320x240, as shown above in Figure 1)

1. For hardware setup, Connect XDS 510 USB emulator to the JTAG connector on DM6437 board. Switch on the power supply for board.
2. Open CCS 3.3 setup. Import EVMDM6437_XDS510USB configuration. Click on "Save & Quit" button and exit the setup.
3. Open CCS3.3. This will open "CCStudio: Parallel Debug Manager" window. Connect C64PLUS and open the CCS window.
4. Open
`<root> \packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\resizer\psp_bios_resz_st_upscale_example.pjt.`
5. Load the generated .out file at path
`<root> \packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\bin\Debug` or
`<root> \packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\bin\Release` folder and execute it.
6. Now, the output image from Resizer can be viewed in CCS image viewer. To view the image, go to View->Graph->Image as shown in Figure 2.

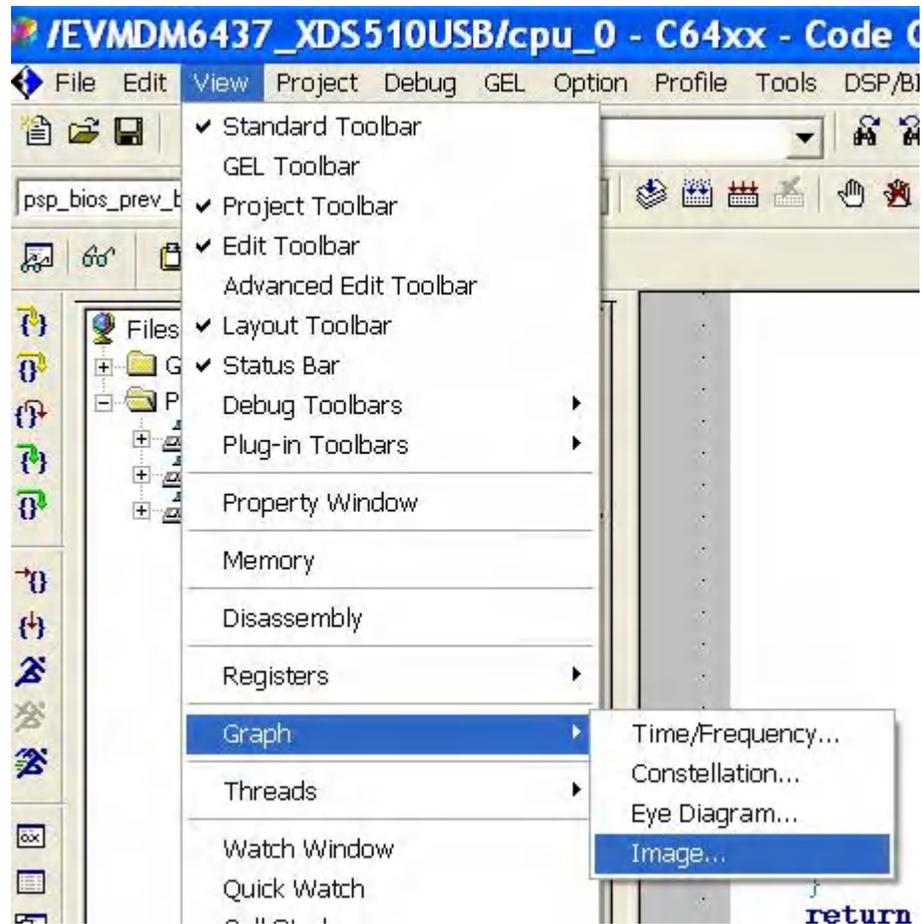


Figure 2. CCS View->Graph->Image

7. The Graph Property Dialog will be displayed as shown in Figure 3. In Graph Property Dialog window enter all configuration values as shown in Figure 3. Configure it with ycharoutput, cbcharoutput and crcharoutput. Configure lines per display as 480 and pixel per line as 640. Also select YUV ratio as 4:2:2 and image origin as Top-left.

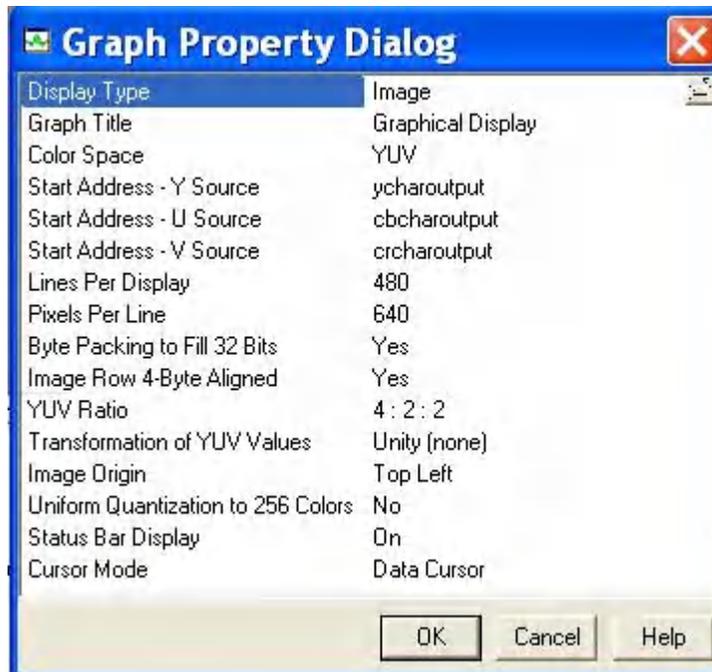


Figure 3. Graph Property Dialog settings for up scaling application

8. Press OK to view the Resizer output image.
9. The output image should be as below.

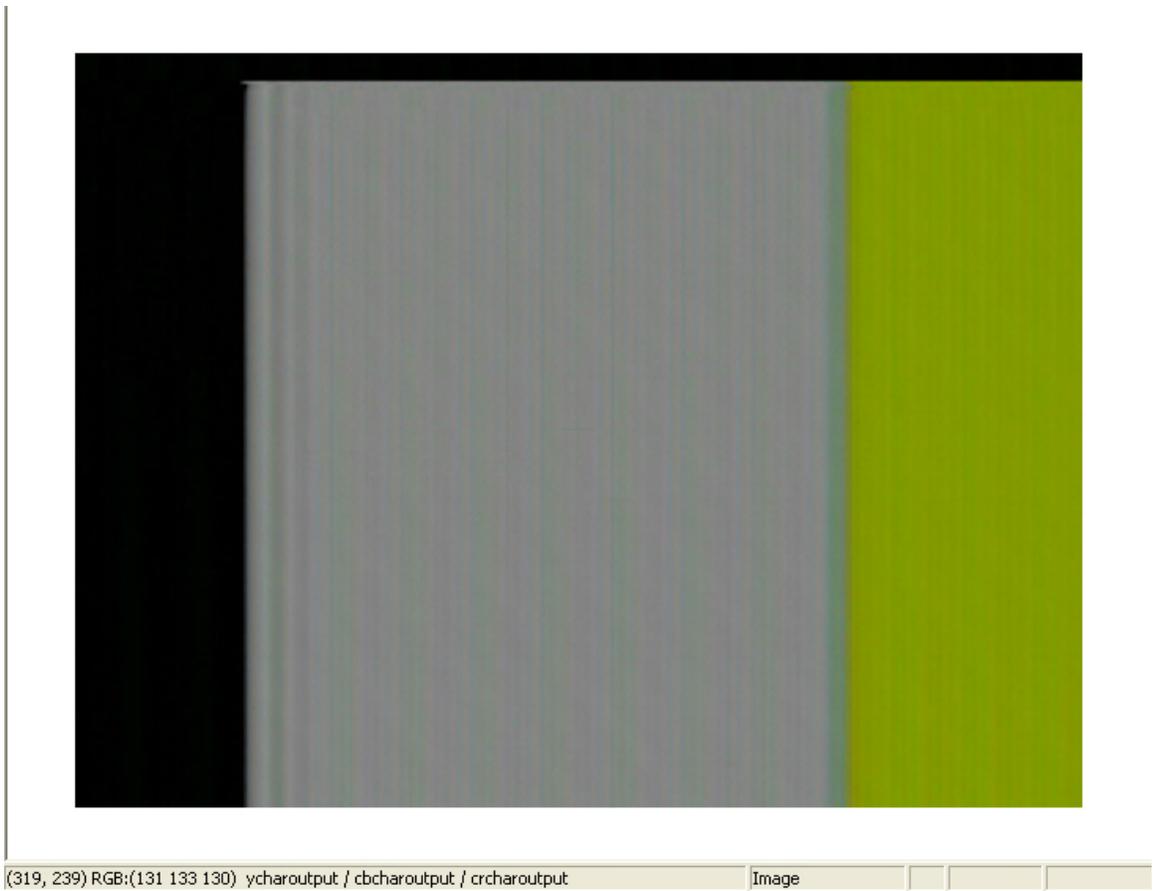


Figure 4. Output image for Resizer upscale example

10. After completion of this application execution, "Test successful" message will be printed on DSP/BIOS -> Message Log.

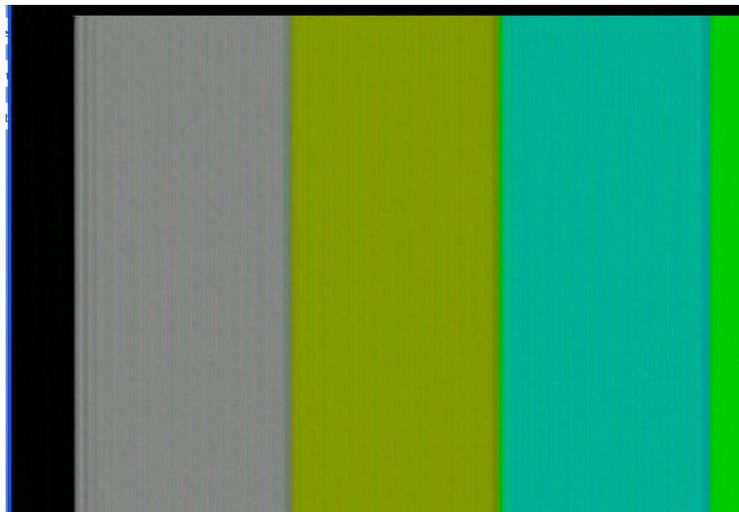


Figure 5. Input image used in Resizer downscale sample example

Resizer down scaling Example:

(The input image size is 640*480 as shown above in Figure 5)

1. For hardware setup, Connect XDS 510 USB emulator to the JTAG connector on DM6437 board. Switch on the power supply for board.
2. Open CCS 3.3 setup. Import EVMDM6437_XDS510USB configuration. Click on "Save & Quit" button and exit the setup.
3. Open CCS3.3. This will open "CCStudio: Parallel Debug Manager" window. Connect C64PLUS and open the CCS window.
4. Open
`<root>\packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\resizer\bios_resz_st_downscale_example.pjt`. Compile this project using Debug->Build.
5. Load the generated .out file at path
`<root>\packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\bin\Debug` or
`<root>\packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\bin\Release` folder and execute it.
6. Now, the output image from Resizer can be viewed in CCS image viewer. To view the image, go to View->Graph->Image as shown in Figure 2.
7. The Graph Property Dialog will be displayed as shown in Figure 3. In Graph Property Dialog window enter all configuration values as shown in Figure 6. Configure it with ycharoutput, cbcharoutput and crcharoutput. Configure lines per display as 240 and pixel per line as 320. Also select YUV ratio as 4:2:2 and image origin as Top-left.

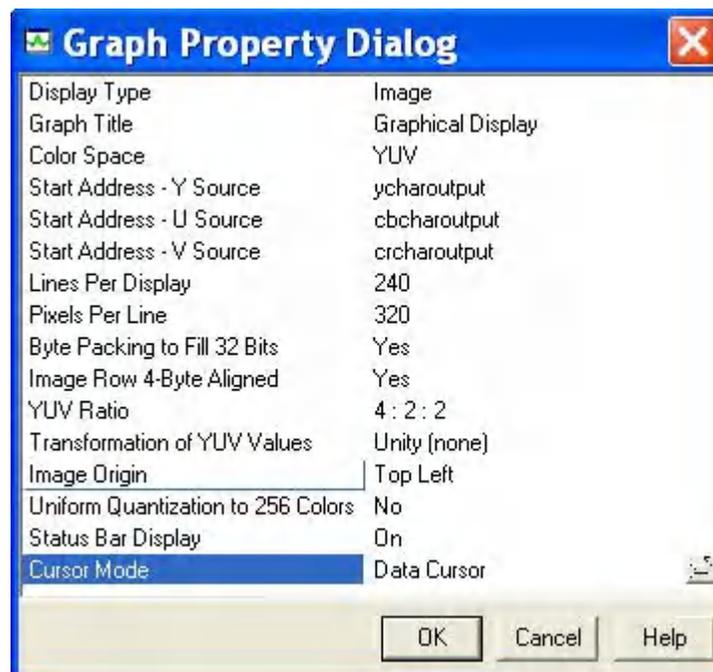


Figure 6. Graph Property Dialog settings for down scaling application

8. Press OK to view the Resizer output image.
9. The output image should be as below.

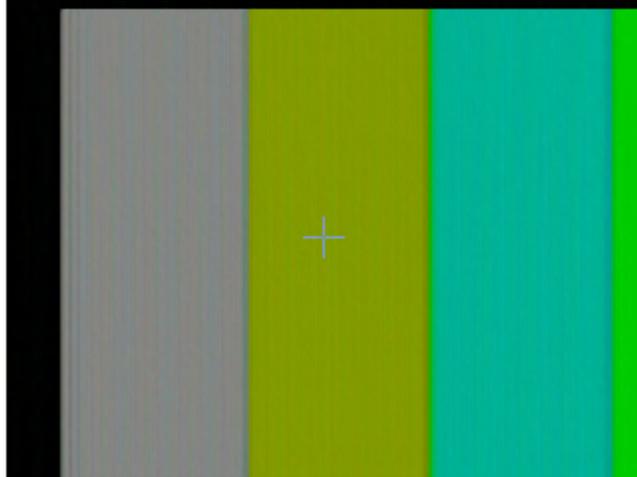


Figure 7. Output image for Resizer downscale example

10. After completion of this application execution, "Test successful" message will be printed on DSP/BIOS -> Message Log.

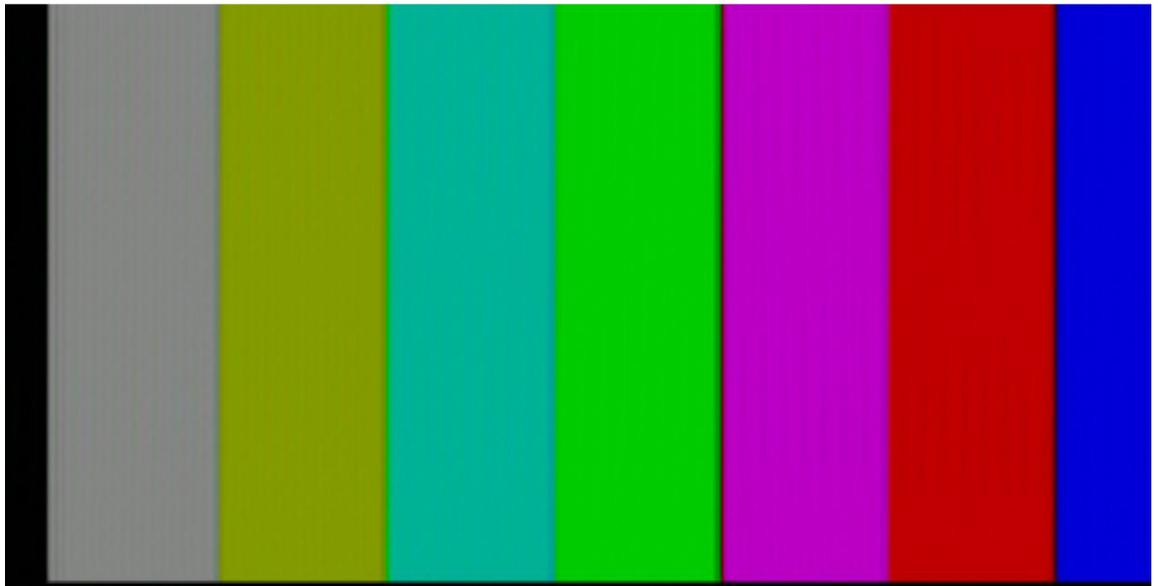


Figure 8. Input image used in Resizer multipass example

Resizer Multipass Example:

(The input image size is 1280x640, as shown above in Figure 8)

1. For hardware setup, Connect XDS 510 USB emulator to the JTAG connector on DM6437 board. Switch on the power supply for board.
2. Open CCS 3.3 setup. Import EVMDM6437_XDS510USB configuration. Click on "Save & Quit" button and exit the setup.
3. Open CCS3.3. This will open "CCStudio: Parallel Debug Manager" window. Connect C64PLUS and open the CCS window.
4. Open
`<root> \packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\resizer\bios_resz_st_multipass_example.pjt`. Compile this project using Debug->Build.
5. Load the generated .out file at path
`<root> \packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\bin\Debug` or
`<root> \packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\bin\Release` folder and execute it.
6. Now, the output image from Resizer can be viewed in CCS image viewer. To view the image, go to View->Graph->Image as shown in Figure 2.
7. The Graph Property Dialog will be displayed as shown in Figure 3. In Graph Property Dialog window enter all configuration values as shown in Figure 9. Configure it with ycharoutput, cbcharoutput and crcharoutput. Configure lines per display as 64 and pixel per line as 128. Also select YUV ratio as 4:2:2 and image origin as Top-left.

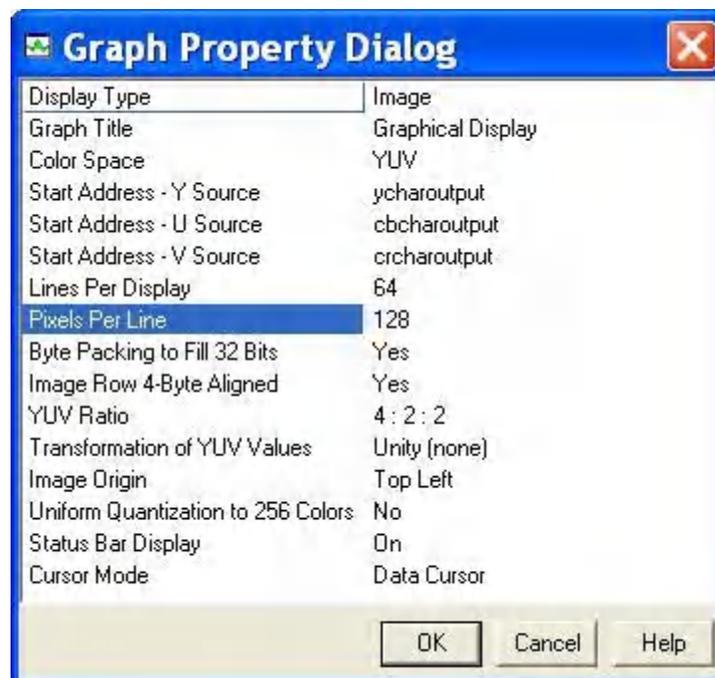
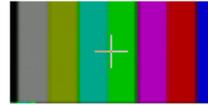


Figure 9. Graph Property Dialog settings for multipass application

8. Press OK to view the Resizer output image.

9. The output image should be as below.



63, 31) RGB:(0 189 0) 0x801c6538 / 0x801c8538 / 0x801c9538 Image

Figure 10. Output image for resizer multipass example

10. After completion of this application execution, "Test successful" message will be printed on DSP/BIOS -> Message Log.