EURESYS™
Excellence in vision

GENERAL REMARKS

To use the sample application, you need first to mount the acquisition device. A script is provided with the sample programs package to mount the board. Please refer to the product documentation for more information on this operation.

The sample programs are using the information set in the corresponding **config.xml** file to configure the board.

In order to compile the demonstration programs, you need the **Libxml2** development libraries to be installed on your system.

RAW2TIFF

Description

The sample program converts a raw image to a standard RGB24 tiff file.

Usage

> **raw2tiff** mount_point videoinput filename tiff_file

Arguments

mount_point: path where the Virtual File System of the board has been mounted (string type)

videoinput: video source number which holds the raw image (integer type)

filename: name of the file that should be converted (integer type)

tiff_file: path and name of the destination tiff file (string type)

Comment

The executable version provided can be used directly on your system without any additional installation.

When the PC has been booted, the VFS data folder of the video sources is empty. It will only be filled with raw images once the element named **Idle** is replaced by **Active** in the corresponding **config.xml** file. Please refer to the documentation for further explanation on the **config.xml** usage.

Example of command line

> raw2tiff /mnt/u4_0 1 0 /home/user/mytiff.tif

RAW2STREAM

Description

The sample program writes YUV420 planar images acquired continuously from a defined video source to the standard output (std::cout) of the calling shell.

Usage

> **raw2stream** mount_point videoinput

Arguments

mount_point: path where the Virtual File System of the board has been mounted (string type)

videoinput: video source number which holds the raw image (integer type)

Comment

The executable version provided can be used directly on your system without any additional installation.

The standard output (std::cout) of the calling shell can be redirected to the standard input (std::in) of another application using the pipe command. In the same way, the superior symbol (**>**) can be used to redirect the standard output (std::cout) of the calling shell to a file.

Examples of command line

> raw2stream /mnt/u4_0 1 | ffplay –f rawvideo –s 704x576 –

where the **ffplay** application is part of the **ffmpeg** (**libavcodec**) package.

or

> raw2stream /mnt/u4_0 0 > /home/user/myfile.yuv

ENCODED2STREAM

Description

The sample program writes an H.264 compressed video stream acquired continuously from a defined video source to the standard output (std::cout) of the calling shell.

Usage

> **encoded2stream** mount_point videoinput

Arguments

mount_point: path where the Virtual File System of the board has been mounted (string type)

videoinput: video source number which holds the raw image (integer type)

Comment

The executable version provided can be used directly on your system without any additional installation.

The standard output (std::cout) of the calling shell can be redirected to the standard input (std::in) of another application using the pipe command. In the same way, the superior symbol (**>**) can be used to redirect the standard output (std::cout) of the calling shell to a file.

Examples of command line

> encoded2stream /mnt/u4_0 1 | ffplay –f h264 –

where the **ffplay** application is part of the **ffmpeg** (**libavcodec**) package.

or

> encoded2stream /mnt/u4_0 2 | vlc file/h264:///dev/stdin –

where the **VLC** application is part of the **VLC** package.

or

> encoded2stream /mnt/u4_0 0 > /home/user/myfile.h264

AUDIO2STREAM

Description

The sample program streams audio data continuously from a defined source to the standard output (std::cout) of the calling shell. The application uses the value set in the **config.xml** file corresponding to the selected audio source.

Usage

> **audio2stream** mount_point audioinput

Arguments

mount_point: path where the Virtual File System of the board has been mounted (string type)

audioinput: audio source number which holds the audio signal (integer type)

Comment

The executable version provided can be used directly on your system without any additional installation.

The standard output (std::cout) of the calling shell can be redirected to the standard input (std::in) of another application using the pipe command. In the same way, the superior symbol (**>**) can be used to redirect the standard output (std::cout) of the calling shell to a file.

Example of command line

> audio2stream /mnt/u4_0 0 > /home/user/myfile.raw

RAWVIDEODISPLAY

Description

The sample program shows how to acquire and display a raw video stream. A composite video source is expected to be connected on **VID0**.

Comment

The **SDL** library has to be installed on your system to use and compile this program.

Depending on the shell terminal used to launch the application, it might not have access to the video subsystem. To enable this access, execute in a terminal with root privileges the following command:

> xhost +local:

ENCODEDVIDEODISPLAY

Description

The sample program shows how to acquire and display an H.264 compressed video stream. It requires the **ffdshow** codec to be installed, in order to decompress the video data. A composite video source is expected to be connected on **VID0**.

Comment

The **SDL** development library and the **libavcodec** development package have to be installed on your system to use and compile this program.

Depending on the shell terminal used to launch the application, it might not have access to the video subsystem. To enable this access, execute in a terminal with root privileges the following command:

> xhost +local: