

YUV Tools

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1. AVCapture app

1.1 Overview

AVCaptureDemo app is used to capture YUV file.

Current implement feature is capture [nv12 format](#) yuv file on [mac](#).

You can implement other format by modifying the source code. For source code, please refer to [CiscoInternalGithub](#) for more detail.

(<https://sqbu-github.cisco.com/huashi/AVCaptureTool>)

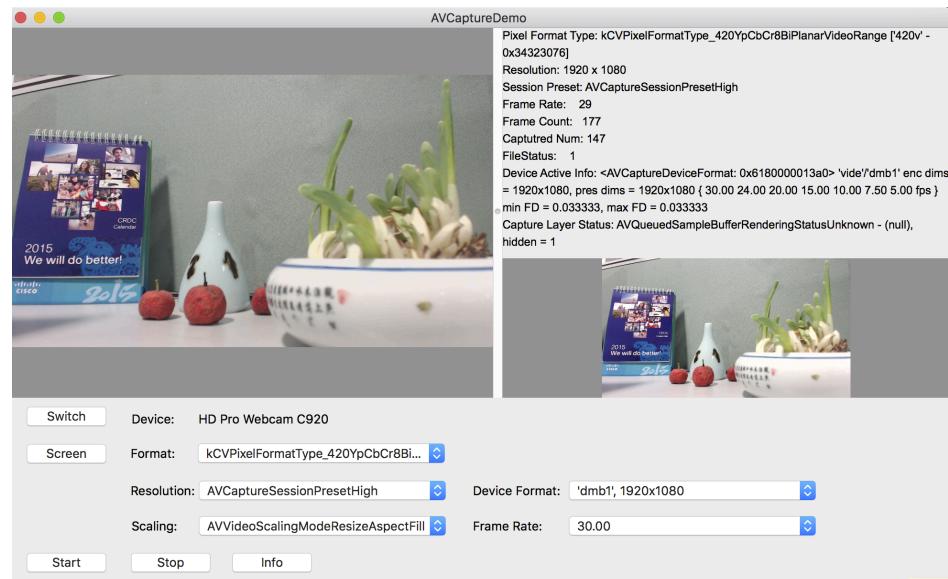


Figure 1.1

1.2 Capture NV12 YUV file

Step 1. Refer to Figure 1.2

Select “kCVPixelFormatType_420YpCbCr8BiPlanarVideoRange” format;

Step 2. Refer to Figure 1.3

Select device format for capture resolution, “yuvs” “dmb1” etc. has different output fps due to hard ware capability .

Step 3. Refer to Figure 1.4;

Select output fps;

Step 4. Refer to Figure 1.5;

Click [start](#) button to start capture nv12 files;

Click [stop](#) if the capture num is match what you want display as “Captured Num: xxx”

Note:

► The output nv12 file will be located under ~ /Desktop with name format like: “TestYUV_PicWxPicH_nv12.yuv”;

► Please rename this file based on capture content. Other wise, will be [overwrite](#) by next time when you capture with the [same resolution](#).

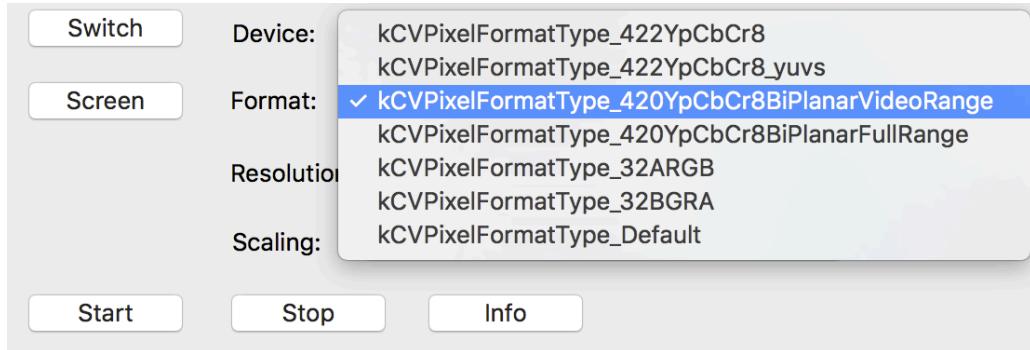


Figure 1.2

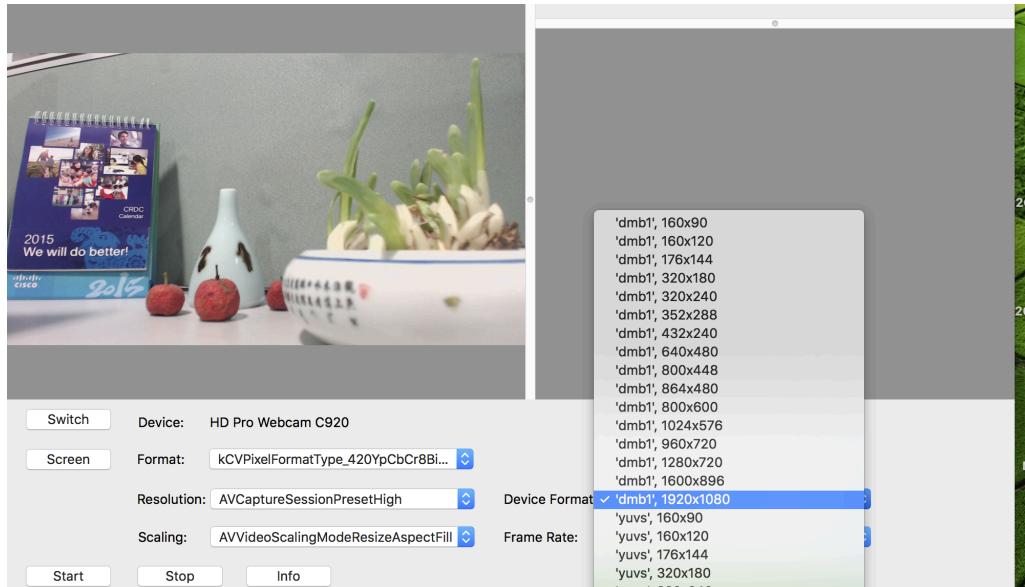


Figure 1.3

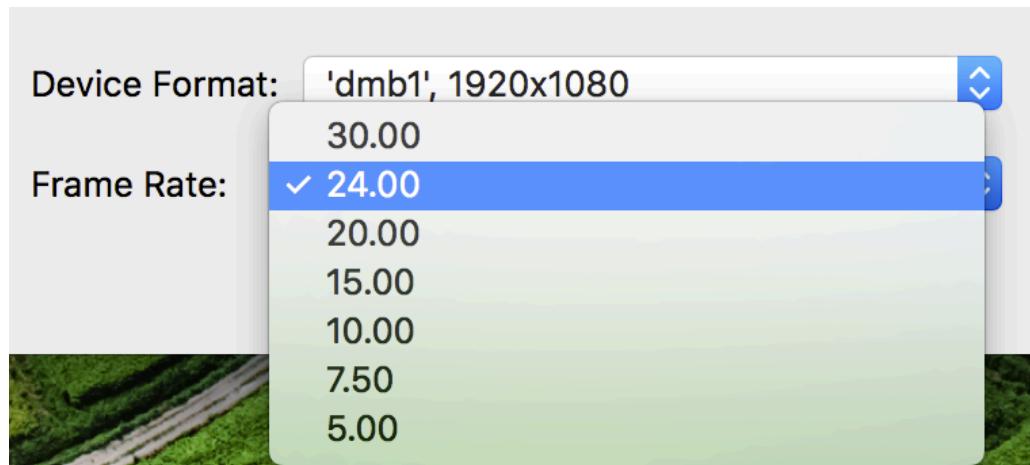


Figure 1.4

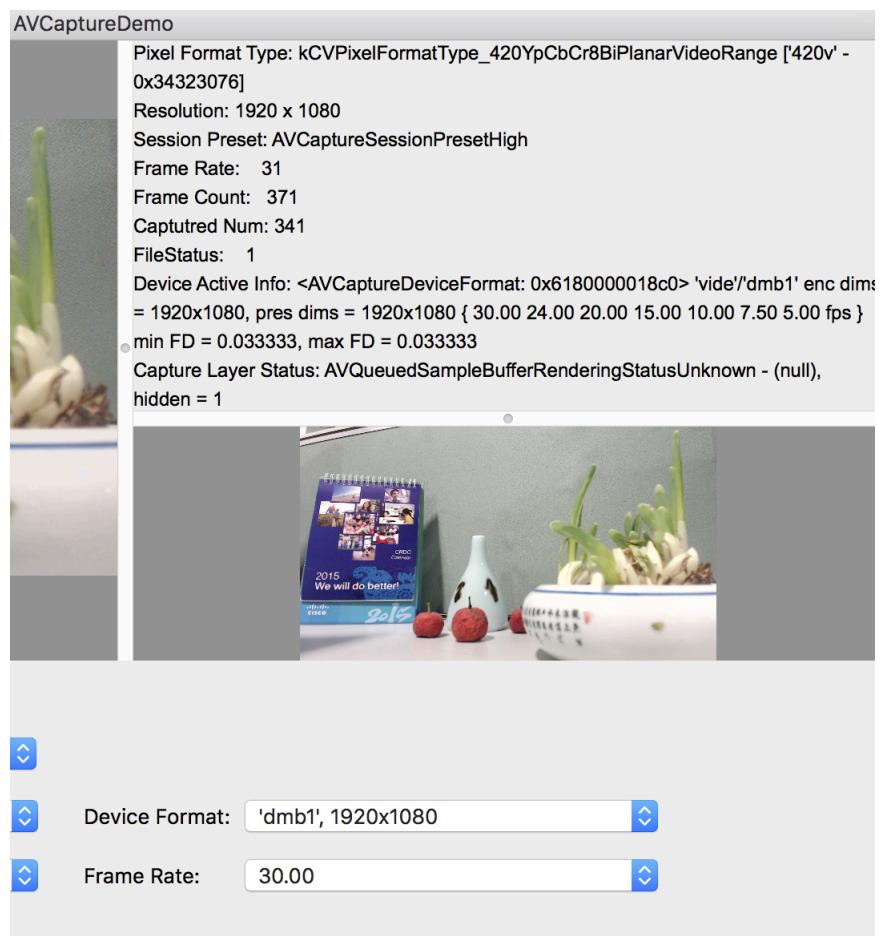


Figure 1.5

2. NV12 To YUV420 Tool

2.1 Overview

Script *run_NV12ToYUV420.sh*

- ↳ Transform nv12 file to YUV420 format.
- ↳ Upload to ftp server if using **upload** or **pipeline** option
- ↳ For how to use, please refer to below link:
https://sqbu-github.cisco.com/huashi/AVCaptureTool/blob/master/run_NV12ToYUV420.sh

YUVTool source code:

- ↳ Transform raw video data files' format among rgb/YUV420/NV12 etc.
- ↳ NV12 to YUV420 is one of tool's feature
- ↳ You can add/modify feature by changing source code
- ↳ More detail, please refer to below link:
<https://sqbu-github.cisco.com/huashi/AVCaptureTool/tree/master/YUVTool>

2.2 AVCapture and then transform

As nv12 files captured by **AVCaptureDemo** app is located under `~/Desktop`, and script's default nv12 is the same with it.

You can run below command to transform to YUV420 format:

```
./run_NV12ToYUV420.sh Camera transform //transform only for ~/Desktop/*nv12*.yuv  
./run_NV12ToYUV420.sh Camera transform //transform and upload to ftp server
```