

# VPS scaling example

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1. Environment preparation
2. How to run
3. Expected results

## 1. Environment preparation

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This example implements the video scaling function based on the video processing module `VPS`, and users can preview the screen through the monitor.

- **Environment preparation:**
- Connect the development board and the monitor via an HDMI cable
- Power on the development board and log in through the command line
- Prepare images (NV12) and video files (H264) as input

## 2. How to run

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The sample code is provided in source code form. You need to use the `make` command to compile and run it. The steps are as follows:

```
sunrise@ubuntu:~$ cd /app/cdev_demo/vps
sunrise@ubuntu:/app/cdev_demo/vps$ sudo make
sunrise@ubuntu:/app/cdev_demo/vps$ sudo ./vps -m 1 -i stream.h264 -o output.yuv
--iheight 1080 --iwidth 1920 --oheight 720 --owidth 1280
```

### Parameter configuration:

- -i: file path to be operated
- -iheight: input height
- -iwidth: input width
- -m: input mode, 1: video stream; 2: NV12 image
- -o: output path
- -oheight: output height
- -width: output width
- -skip: (optional) for video stream input, skip the number of frames at the beginning

## 3. Expected results

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After the program runs correctly, the processed image file `output.yuv` will be saved in the current directory. The running log is as follows:

```
sunrise@ubuntu:/app/cdev_demo/vps$ sudo ./vps -m 1 -i stream.h264 -o output.yuv  
--iheight 1080 --iwidth 1920 --oheight 720 --owidth 1280
```

```
... omission ...
```

```
2000/01/01 18:57:31.330 !INFO [CamInitVseParam][0231]Setting VSE channel-0:  
input_width:1920, input_height:1080, dst_w:1280, dst_h:720
```

```
... omission ...
```