

# Aravis 应用工业相机

Aravis 是一个开源的工业相机操作软件,支持 GigE Vision 和 USB3 Vision 相机,由于其开源属性,可以在 linux 和嵌入式系统中使用。本手册讲述安装使用步骤。

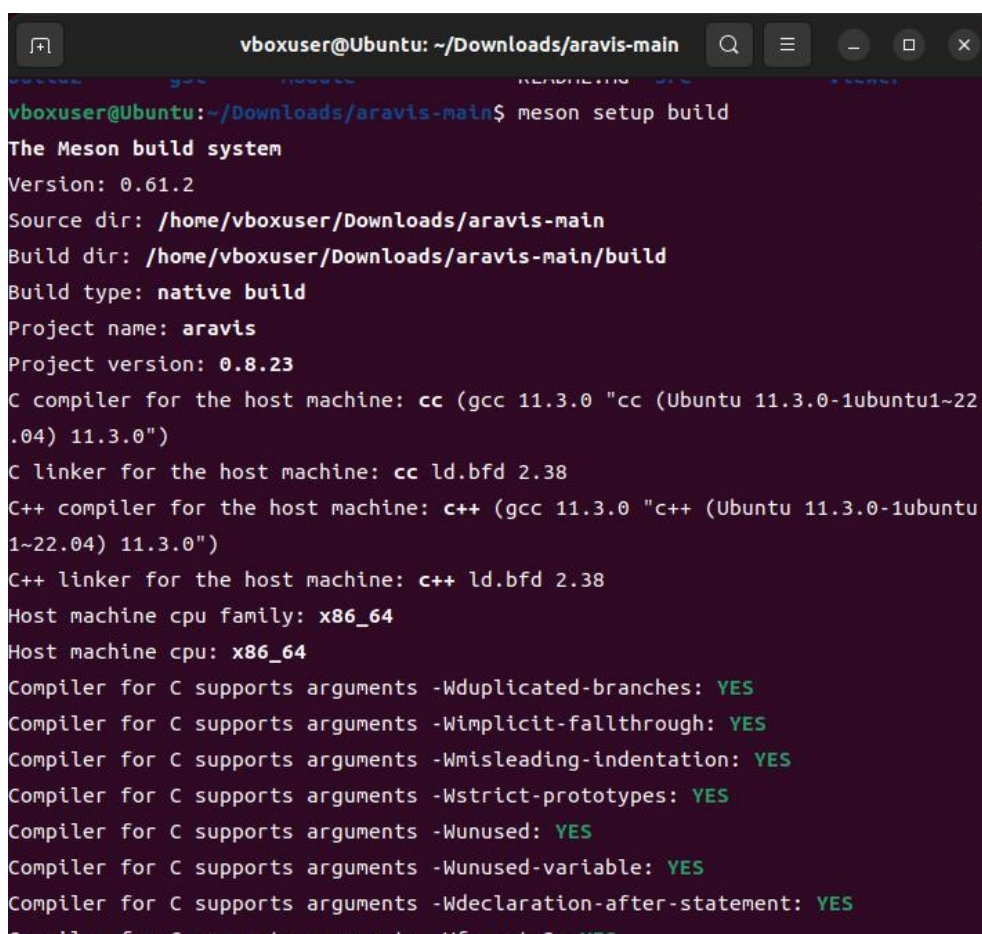
## 1. Aravis 安装

### 1.1. 安装 meson。

```
sudo apt-get install python3-pip (安装 python3 的 pip)  
pip3 install meson
```

### 1.2. 建立 build。

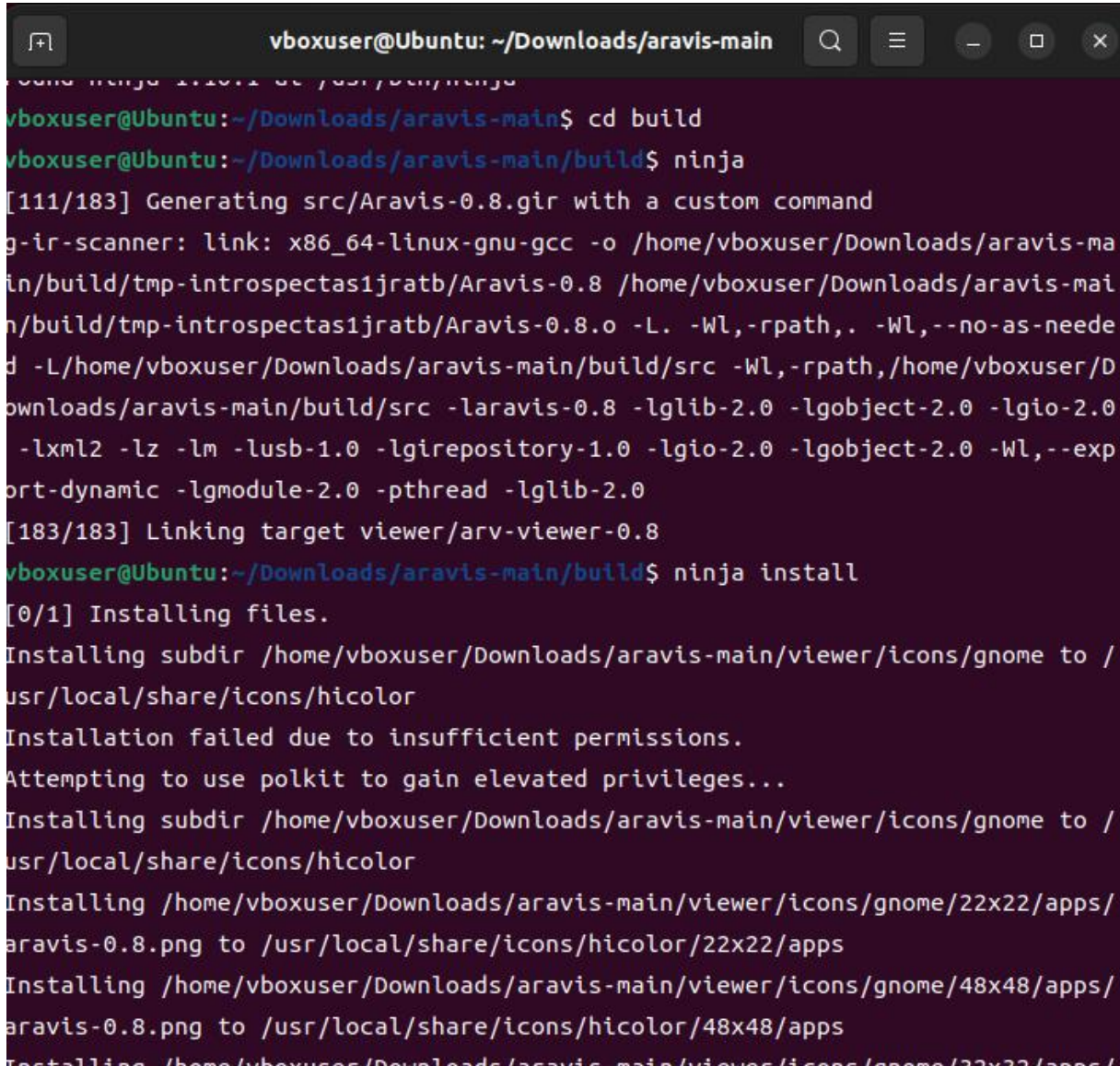
```
meson setup build  
cd build
```



```
vboxuser@Ubuntu: ~/Downloads/aravis-main  
vboxuser@Ubuntu:~/Downloads/aravis-main$ meson setup build  
The Meson build system  
Version: 0.61.2  
Source dir: /home/vboxuser/Downloads/aravis-main  
Build dir: /home/vboxuser/Downloads/aravis-main/build  
Build type: native build  
Project name: aravis  
Project version: 0.8.23  
C compiler for the host machine: cc (gcc 11.3.0 "cc (Ubuntu 11.3.0-1ubuntu1~22.04) 11.3.0")  
C linker for the host machine: cc ld.bfd 2.38  
C++ compiler for the host machine: c++ (gcc 11.3.0 "c++ (Ubuntu 11.3.0-1ubuntu1~22.04) 11.3.0")  
C++ linker for the host machine: c++ ld.bfd 2.38  
Host machine cpu family: x86_64  
Host machine cpu: x86_64  
Compiler for C supports arguments -Wduplicated-branches: YES  
Compiler for C supports arguments -Wimplicit-fallthrough: YES  
Compiler for C supports arguments -Wmisleading-indentation: YES  
Compiler for C supports arguments -Wstrict-prototypes: YES  
Compiler for C supports arguments -Wunused: YES  
Compiler for C supports arguments -Wunused-variable: YES  
Compiler for C supports arguments -Wdeclaration-after-statement: YES  
Compiler for C supports arguments -Wformat: YES
```

## 1.3. 安装 Aravis

```
ninja
ninja install
```



```
vboxuser@Ubuntu: ~/Downloads/aravis-main
vboxuser@Ubuntu:~/Downloads/aravis-main$ cd build
vboxuser@Ubuntu:~/Downloads/aravis-main/build$ ninja
[111/183] Generating src/Aravis-0.8.gir with a custom command
g-ir-scanner: link: x86_64-linux-gnu-gcc -o /home/vboxuser/Downloads/aravis-main/build/tmp-introspectas1jratb/Aravis-0.8 /home/vboxuser/Downloads/aravis-main/build/tmp-introspectas1jratb/Aravis-0.8.o -L. -Wl,-rpath,. -Wl,--no-as-needed -L/home/vboxuser/Downloads/aravis-main/build/src -Wl,-rpath,/home/vboxuser/Downloads/aravis-main/build/src -laravis-0.8 -lglib-2.0 -lgobject-2.0 -lgio-2.0 -lxml2 -lz -lm -lusb-1.0 -lgirepository-1.0 -lgio-2.0 -lgobject-2.0 -Wl,--export-dynamic -lgmodule-2.0 -pthread -lglib-2.0
[183/183] Linking target viewer/arv-viewer-0.8
vboxuser@Ubuntu:~/Downloads/aravis-main/build$ ninja install
[0/1] Installing files.
Installing subdir /home/vboxuser/Downloads/aravis-main/viewer/icons/gnome to /usr/local/share/icons/hicolor
Installation failed due to insufficient permissions.
Attempting to use polkit to gain elevated privileges...
Installing subdir /home/vboxuser/Downloads/aravis-main/viewer/icons/gnome to /usr/local/share/icons/hicolor
Installing /home/vboxuser/Downloads/aravis-main/viewer/icons/gnome/22x22/apps/aravis-0.8.png to /usr/local/share/icons/hicolor/22x22/apps
Installing /home/vboxuser/Downloads/aravis-main/viewer/icons/gnome/48x48/apps/aravis-0.8.png to /usr/local/share/icons/hicolor/48x48/apps
Installing /home/vboxuser/Downloads/aravis-main/viewer/icons/gnome/22x22/apps/
```

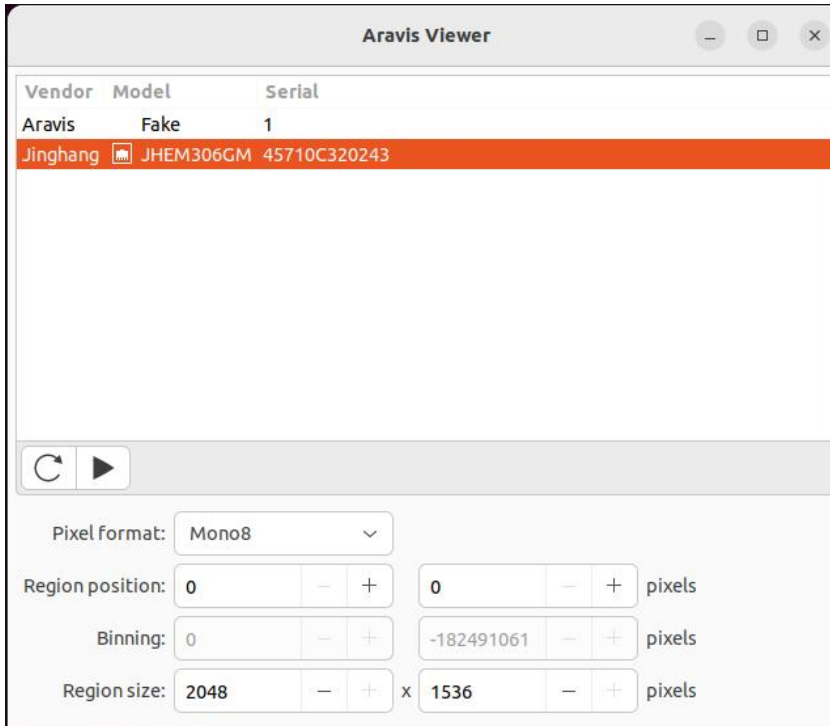
## 1.4. 安装依赖

```
sudo apt install libgstreamer-plugins-base1.0-dev
sudo apt install libgstreamer-plugins-good1.0-dev
sudo apt install libgstreamer-plugins-bad1.0-dev (显示 bayer 格式图像需要)
```

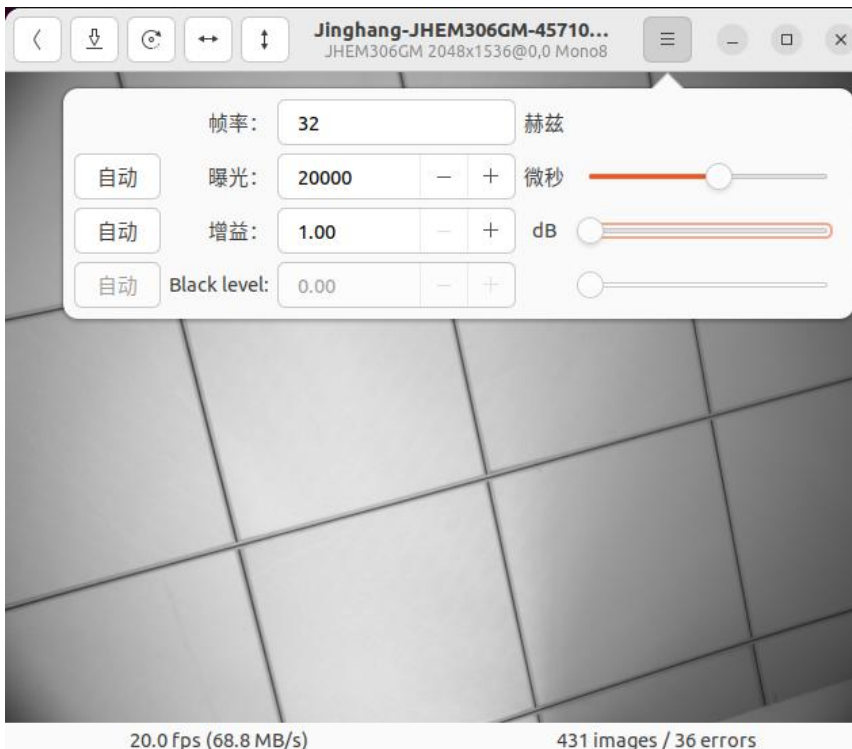
## 2.运行 Aravis

arv-viewer-0.8

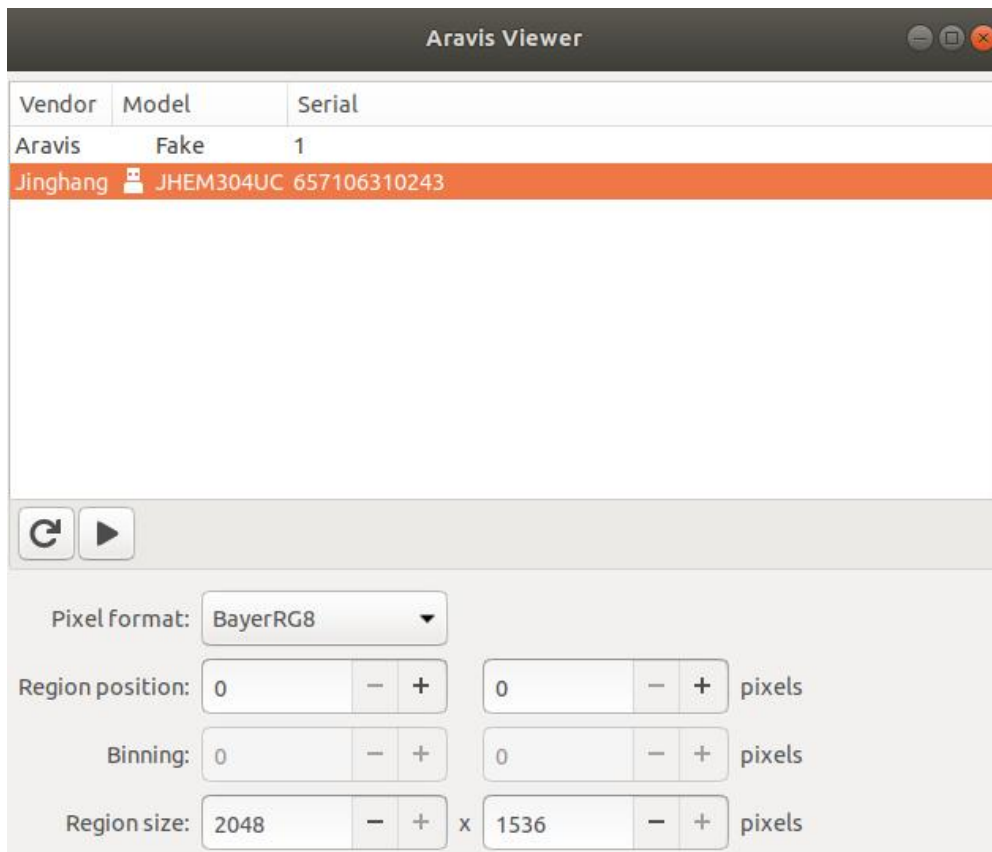
枚举 GigEVision 千兆网相机



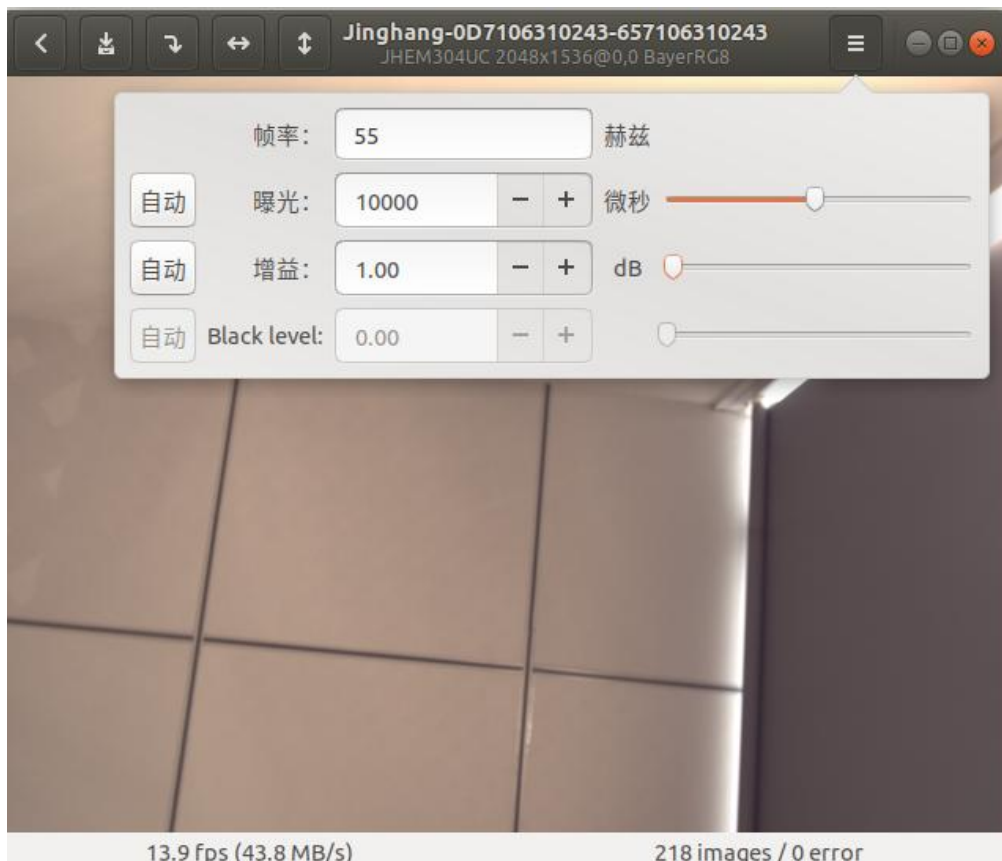
千兆网口相机获取实时图像：



枚举 USB3Vision 相机:



USB 相机获取实时图像:



Tel: 0755-21505130 Website: <http://www.jinghangtech.com>



[参考资料]

<https://github.com/AravisProject/aravis> Aravis 下载

<https://aravisproject.github.io/aravis/building.html> Aravis 安装

<https://mesonbuild.com/Getting-meson.html> Meson 安装