

Tx1 Deployment

Jetpack 3.0 Flash Tx1

- L4T 24.2.1
- Following packages are not needed:
 - Host Ubuntu - all packages
 - Target - Jetson TX1
 - Cuda samples
 - PerfLot
 - VisionWorks Pack

Extract Tx1Cam package

Extract the content of the package into your HOME folder. The package contains:

- `gst_1.9.1` - Unmodified and pre-compiled GStreamer version 1.9.1 (without sources)
- `kernel_tx1_6cam` - Modified Kernel to support G2 Camera
- `work` - Gstreamer Plugin for G2 post-processing and sample scripts for GStreamer
- `install_kernel` - script to install Kernel modules

Install Kernel

- execute `sudo install_kernel`
- `sudo gedit /etc/modules` put `galileo2` before `nvhost_vi`
- `reboot`

After the reboot you should see `/dev/video0`, `/dev/video1` etc. in your file system

Install Software

- install following packages via `apt-get`
 - `libtiff5`
 - `libtiffxx5`
 - `v4l-utils`

Test Cameras

Set the executable flag for scripts and binaries:

```
chmod +x /home/ubuntu/gst_1.9.1/out/bin/gst-inspect.1.0
chmod +x /home/ubuntu/gst_1.9.1/out/bin/gst-launch.1.0
chmod +x /home/ubuntu/work/video
chmod +x /home/ubuntu/work/videoWall
```

Single Camera

Execute `cd /home/ubuntu/work` and `./video 0` to see a stream of `/dev/video0`
Execute `cd /home/ubuntu/work` and `./video 1` to see a stream of `/dev/video1`

The following Keyboard inputs can be used when RxCudaSink Window is in Focus (You have to click on the Title-Bar to get the windows Focus, clicking on the image stream does not work!)

W / S - Increase or Decrease Gain
E / D - Increase or Decrease Exposure time

Multi Camera

Execute `cd /home/ubuntu/work` and `./videoWall` to get a stream from all cameras at once