DSST-Tracker

Performance Report

2017-11-07

OPEN AI LAB

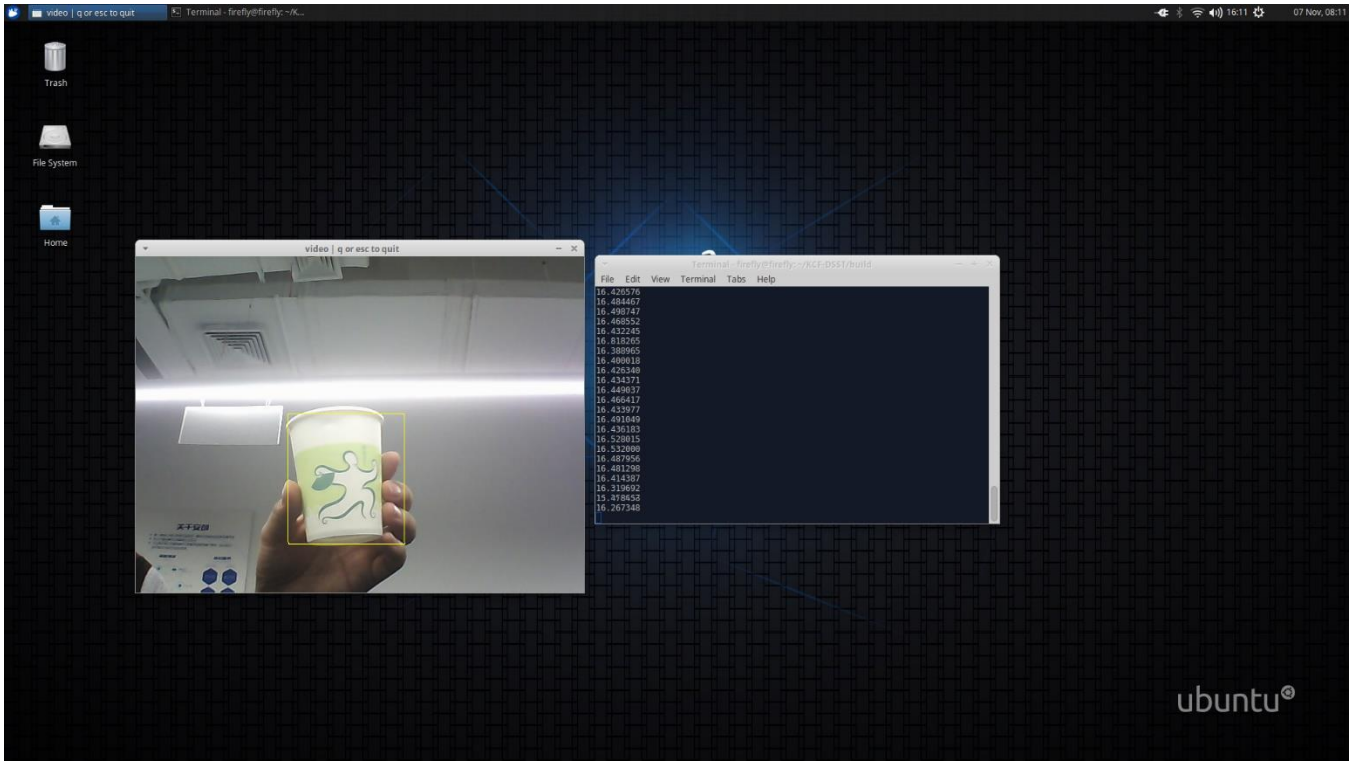
Revision Record

Date	Rev	Change Description	Author
2017-11-07	0.1.0	Initial version	乐毅

catalog

1 Purpose

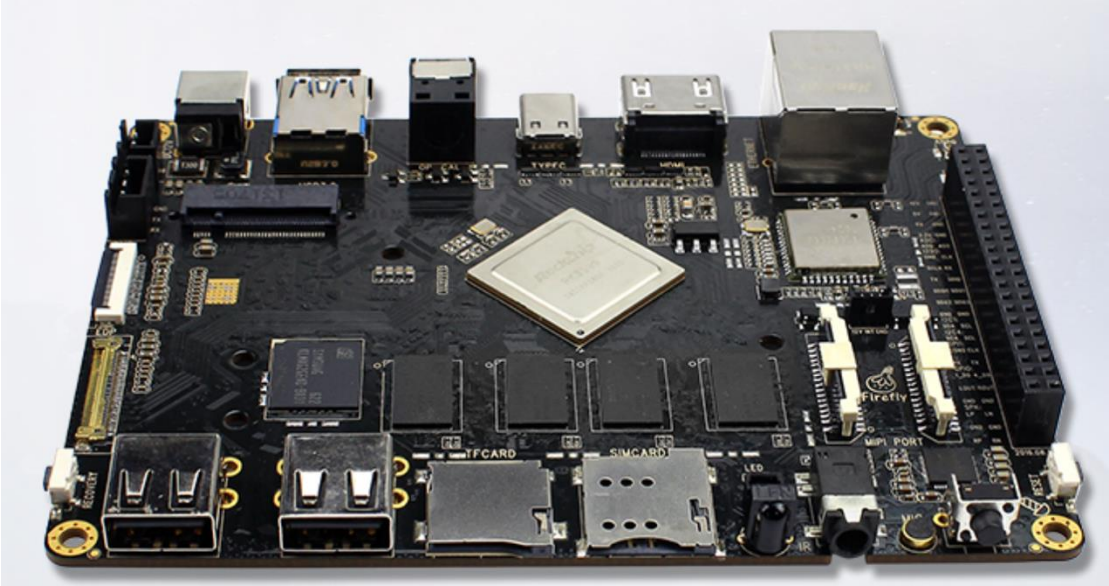
DSST-Tracker is a visual tracker app released by OPEN AI Lab. This Report is DSST-Tracker algorithm performance report on RK3399.



2 Test Environment

2.1 Hardware SoC : Rockchip RK3399

- GPU: Mali T864 (800MHz)
- CPU: Dual-core Cortex-A72 up to 2.0GHz (real frequency is 1.8GHz); Quad-core Cortex-A53 up to 1.5GHz (real frequency is 1.4GHz)
- Camera:1080P USB Camera



2.2 Software Environment: Ubuntu 16.04

- Operating System : Ubuntu 16.04 SMP
- OpenCV: 2.4.13.4
- DSTracker Demo app

3 Performance

The result of DSST-Tracker running on RK3399 as following picture:

3.1 Multi-CPU performance

Multi-CPU scheduled by Linux kernel without any CPU binding. The input video is 480P(640x480), format is YUYV(YUV422), the CPU performance as following table.

	DSST-Tracker
MultiCPU Linux	60ms/frame

3.2 Single CPU performance

3.2.1 Single A72 CPU performance

	DSST-Tracker
On CPU5 A72@1.80GHZ 480P	70ms/frame

3.2.2 Single A53 CPU performance

	DSST-Tracker
On CPU1 A53@1.42GHz 480P	125ms/frame