Development of Remote Monitoring Camera with HD Resolution Working on Raspberry PI

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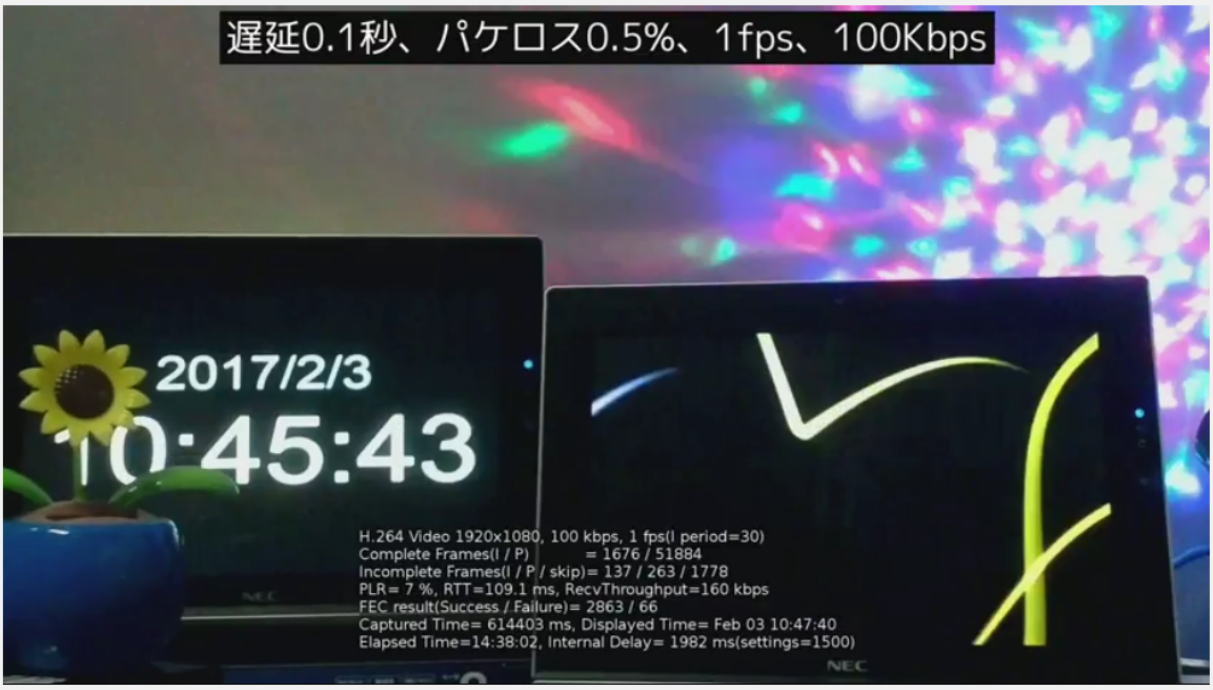
In this study, we introduce a new video streaming tool working on Raspberry Pi (RP). The RP is a series of small single-board computers developed in the United Kingdom by the RP Foundation to promote the teaching of basic computer science in schools and in developing countries. The original model became far more popular than anticipated, selling outside of its target market for uses such as robotics. According to the RP Foundation, over 5 million RPs have been sold before February 2015, making it the best-selling British computer.
The RP is recently arrestive in terms of the IoT (Internet of Things) devices with low cost and programable environment on a Debian-based operating system (OS), Raspbian. For global, regional and local observations of the Earth, light-weight sensors are preferable. No external power let (using solar power device), low cost network like MVNO (but low and unstable bandwidth), small power consumption, low cost in price and other factors are required for the IoT sensor devices.
We implement an original video streaming tool workins on the RP using its own H.264 hardware encode modeule onboard. We include our techniques in the HpFP, a data transfer protocol developed by CLEALINC technology and NICT (National Institute of Information and Communication Techology), such as Path MTU search, pace control, etc. There are wide variety of applications of the RP video streaming system; real-time drone operation, remote water level indicator, volcano monitoring, remote seismograph, thermometer. We demonstrate the low cost but high specification video streaming in the talk.

YouTube JP 検索



月ローバー映像伝送実験（H.264エンコード／画質HD）

NICT サイエンスクラウド

チャンネル登録 1

7 人が視聴中

追加 共有 その他 0 0

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