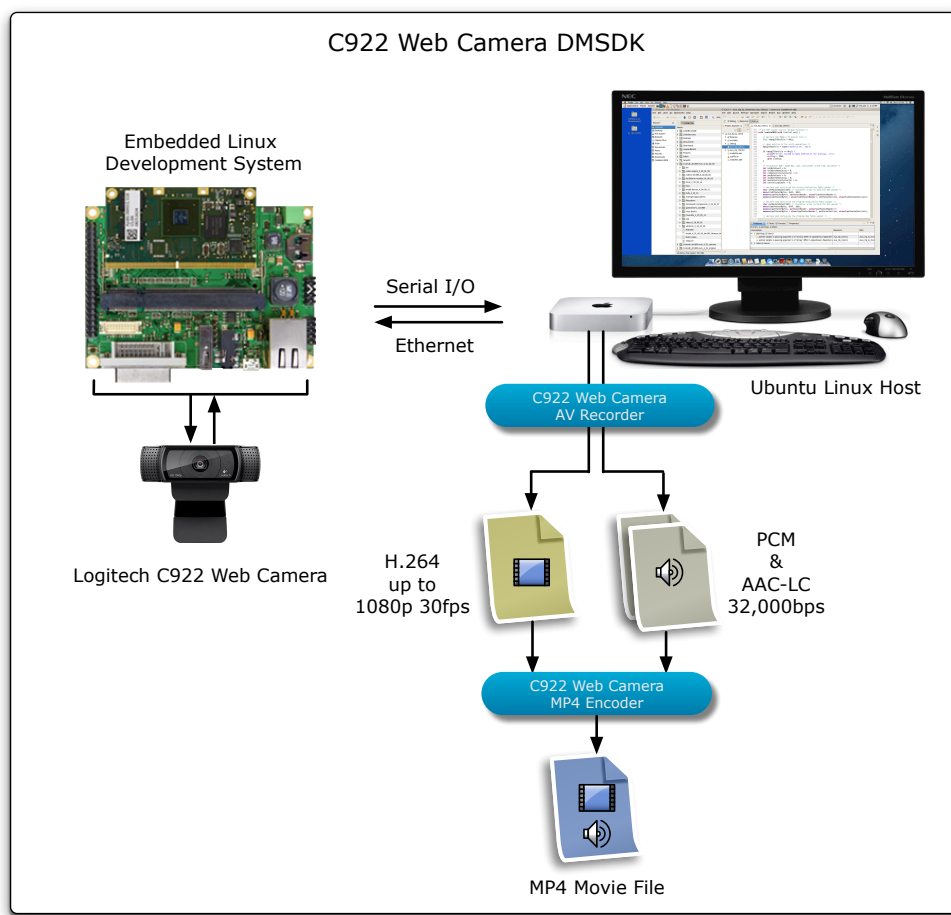# Cimarron Systems

C922 Web Camera Digital Media Software Development Kit

DMSDK Components

Cimarron Systems Digital Media Software Development Kit (DMSDK) for the Logitech C922 Web Camera includes:

- C922 WEB CAMERA AV RECORDER APPLICATION: As shown in the figure, the application records the camera's H.264 video at 1920 x 1080p, 30 fps simultaneously with its 16-bit PCM stereo audio at 32 ksps which can then be converted to AAC-LC. The application is implemented in well-commented C99-compliant 'C' source code for the Open Embedded Angstrom Linux Kernel through the UVC (USB Video Classes) and ALSA (Advanced Linux Sound Architecture) subsystem drivers but will compile for other compatible kernels.

C922 Web Camera DMSDK.

- C922 WEB CAMERA MP4 ENCODER APPLICATION: As shown in the figure above, the application encodes the C922 Web Camera H.264 encoded video and PCM-to-AAC-LC encoded audio into a canonical MP4 movie. The application is implemented in well-commented C99-compliant 'C' source code which will compile with most desktop and embedded system compilers without modification.
- USB UVC / ALSA TOOLS: A set of tools used to set up and explore both the Embedded Linux USB UVC and ALSA APIs.
- SOFTWARE DEVELOPMENT GUIDE: The C922 Web Camera DMSDK includes a software development guide which addresses: a) set up of the development environment; b) set up of the DMSDK web camera applications on the Eclipse Kepler IDE; c) operational description of the DMSDK web camera applications; and d) usage description of the USB UVC and ALSA tools.

Development Environment

The C922 Web Camera DMSDK was developed using an iMX6 Apalis COM (computer-on-module) / Ixora Carrier Board from Toradex running the Angstrom Linux Kernel v4.1.41 on an NXP / Freescale iMX6 Quad Core Platform, an Ubuntu Linux 16.04 running on a local host computer, and a USB-connected Logitech C922 Web Camera. Additionally, the C922 Web Camera AV Recorder and C922 Web Camera MP4 Encoder applications were developed using the Eclipse Kepler IDE. Any equivalent Embedded Linux development system can be used for your project without modification; however, if you have development environment questions, please contact Cimarron Systems.

System Requirements

Prerequisites for installation of the C922 Web Camera DMSDK:

1. An instance of Ubuntu Linux 16.04 LTS (or later).
2. A development system running a recent Linux Kernel.
3. A connected Logitech C922 Web Camera.

For more information regarding this and other Cimarron Systems products, please contact us using the contact information below.

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Revision History:

Date	Version	Notes
8/15/2018	version 1.0	Initial version.