

CMPC RDK On GoldenCreek for Debian 8.1 Referenced Porting Guide

Version 1.0

Septemper 25, 2015



Disclaimer and Legal Information

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS OTHERWISE AGREED IN WRITING BY INTEL, THE INTEL PRODUCTS ARE NOT DESIGNED NOR INTENDED FOR ANY APPLICATION IN WHICH THE FAILURE OF THE INTEL PRODUCT COULD CREATE A SITUATION WHERE PERSONAL INJURY OR DEATH MAY OCCUR.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or go to: http://www.intel.com/#/en_US_01

This document is Intel Confidential and must be recorded in an Intel Confidential Information Transmittal Record.



Revision History

Versio	Date	Contributor	Comments
0.6	2014-01-09	Zhu Kaiyue	Draft
1.0	2015-09-25	Fan Tengfei	Updated RDK base on Debain 8.1

Definitions

Term	Definition
CMPC	Classmate PC
ISV	Independent Software Vendor
PDT	Product Development Team
PRD	Product Requirements Document
SAS	Software Architecture Specification
SFS	Software Functional Specification
HLD	High Level Design



Table of Contents

1	Purpose	5
2	Scope	5
3	Environment Setup	5
	3.1 Development Environment	5
	3.2 Source code	5
	3.3 Dependencies	5
4	RDK Package Porting	6
	4.1 Build && Install	7
	4.1.1 Build && Install RDK Drivers	7
	4.1.2 Build && Install RDK Application	7



1 Purpose

This documentation keens on how to port RDK in the CMPC Debian 8.1 OpenSource Kits, to a Debian 8.1 compliant OS distro. Hopefully the following discussion could help developers do porting work with minimum effort.

If your development environment is NOT Debian 8.1 compliant, then please check "Dependency" section.

2 Scope

The documentation shows the package porting work step by step. It covers the image porting environment setup, dependency and the feature list to be verified.

3 Environment Setup

3.1 Development Environment

This package is developed on Debian 8.1 image. So it could be ported to any Linux distribution which is complaint with Debian 8.1.

The development environment we use is as followings:

Linux OS	Debian 8.1
Kernel Version	3.16.0-4-amd64
Hardware Platform	Golden Creek

3.2 Dependencies

The function key package depends on the following components:

INTEL EMPG SW Release Team

Dependency	Deb Package	Description
git	git	tool for download RDK

execute "apt-get update" using root authority after edited the /etc/apt/sources.list
\$ su
cp /etc/apt/sources.list /etc/apt/sources.list.backup
echo 'deb http://ftp.debian.org/debian/ jessie main' > /etc/apt/sources.list
echo 'deb-src http://ftp.debian.org/debian jessie main' >> /etc/apt/sources.list

- 2. Using "apt-get install <package-name>" with root authority to install packages you want.
- 3. apt-get install linux-headers-\$(uname -r)

3.3 Get Source code

apt-get update

git clone https://github.com/empglinux/rdk.git # cd rdk # git checkout gc-debian8.1

3.4 Source code

If this package you get is source code:

rdk-drivers // all rdk used drivers, including accel, acld, iscm etc...

sensord // sensord daemon application source



4 RDK Package Porting

4.1 Build && Install

4.1.1 Build && Install RDK Drivers

\$ su root # cd rdk-drivers/ # make

(above command will compile the driver codes and install them to the system.)

4.1.2 Compile sensord under sensord directory

#cd sensord/ #make #make install #reboot

(note: by using command 'make deb' will generate deb package, users can also use the generated deb package to install sensord daemon application.)

INTEL EMPG SW Release Team