Release Notes

SiRFprima
Video Codec SDK (for WinCE)

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INTRODUCTION

This document serves as the release notes for the SiRFprima™ Video Codec Software Development Kit (SDK) on the WinCE platform. Please refer to *CSM-00416: SiRFprima Video Codec SDK API User Guide* for details on how to use the video codec.

FEATURES

The video codec SDK supports the MPEG-2 ES stream. The H.264 decoder supports both raw NAL and AnnexB formatted bit streams. While decoding the raw NAL unit format, the decoder accepts one NAL unit each time.

The SiRFprima Video Codec SDK includes libraries which provide video codec APIs for application development. The APIs support the following features:

- Video Encoding
  - MPEG-4 SP@L3
  - H.264 BP@L3
- Video Decoding
  - H.264 BP@L3, FMO currently not supported.
  - MPEG-4 ASP@L5, GMC not supported.
  - MPEG-2 MP@ML
  - WMV V9 SP@ML

PACKAGE LIST

This package includes the H.264 decoder, MPEG-2 decoder, MPEG-4 decoder, WMV decoder, H.264 encoder, MPEG-4 encoder and JPEG codecs.

```
SiRFprimaVideoCodecSDK\
    Common\                         … common directory for all codecs
    Include\                        … common header files for all codecs
    Documents\                      … SDK document directory
    H264dec\                        … H.264 decoder SDK
    H264enc\                        … H.264 encoder SDK
    …
```

Each codec contains a directory structured in the following manner.

```
H264dec\
    Build\                          … build environment
    Document\                       … codec corresponding documents
    Include\                        … header files
    Release\                        … library and binary files
    Test\                           … test and sample code
```

NOTES AND RESTRICTIONS

In this package only Windows CE 6.0 is supported. Before testing any samples, make sure that the video codec is enabled in the SiRFprima WinCE6.0 BSP/CSP.

The video codec SDK provides several macros to check the return code: CODEC_STAT_OK checks if the return status is correct or not, CODEC_STAT_RECOV_ERROR means there are recoverable errors such as a bit stream error but the decoder can continue decoding. CODEC_STAT_FAT_ERROR means there is a fatal error such as out of memory or hardware fault and the decoder can not continue functioning.

The video codec SDK manages the decoded frame buffer by itself. Note that the frame buffer for output is read-only because the frame data will be used for decoding. For MPEG-4 and MPEG-2, the decoder might have a one frame delay as input while WMV and H.264 does not have any frame delay.

Each codec binary file is built as a standard Windows CE DLL and supports both EVC and Visual Studio 2005. It is recommended to put all the codec DLLs in *windows* directory if they are not packaged together with the OS image.

Please refer to the corresponding *readme.txt* in each codec directory for corresponding notes specific to each codec.

The profiles, levels and restrictions for each codec supported can be found in *CSM-00416: SiRFprima Video Codec SDK API User Guide*.

WORLDWIDE SALES OFFICES

North America
Corporate HQ
(1) (408) 467-0410
Sales@sirf.com

Europe
United Kingdom
(44) (1344) 668390
SalesUK@sirf.com

Germany
(49) (81) 529932-90
SalesGermany@sirf.com

Belgium
(32) (496) 152969
SalesBelgium@sirf.com

Asia Pacific
China
(86) (21) 5854-7153
SalesChina@sirf.com

Taiwan
(886) (2) 8174-8966
SalesTaiwan@sirf.com

Japan
(81) (44) 829-2186
SalesJapan@sirf.com

India
(91) (80) 41966000
SalesIndia@sirf.com

South Korea
(82) (2) 3424-3150
SalesKorea@sirf.com