MPP Development Reference

v0.1

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Class VpuCodecContext_t

use MppApi of rk_mpi.h instead

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3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 4

Module Documentation

4.1 vpu interface

Classes

- struct TIME_STAMP
- struct VPU_GENERIC
- struct VPUMemLinear_t

  information about memory
- struct VPU_FRAME

  information about frame
- struct storeMeta
- struct VideoPacket_t

  information about packet
- struct DecoderOut_t
- struct ParserOut_t
- struct EncInputStream_t
- struct EncoderOut_t
- struct DecoderFormat_t
- struct EncParameter_t
- struct EXtraCfg_t
- struct VpuCodecContext_t

  function interface
- struct vpu_display_mem_pool

Macros

- #define VPU_API_NOPTS_VALUE (0x8000000000000000LL)
- #define VPU_OUTPUT_FORMAT_TYPE_MASK (0x0000ffff)
- #define VPU_OUTPUT_FORMAT_ARGB8888 (0x00000000)
- #define VPU_OUTPUT_FORMAT_ABGR8888 (0x00000001)
- #define VPU_OUTPUT_FORMAT_RGB888 (0x00000002)
- #define VPU_OUTPUT_FORMAT_RGB565 (0x00000003)
- #define VPU_OUTPUT_FORMAT_RGB555 (0x00000004)
- #define VPU_OUTPUT_FORMAT_YUV420_SEMIPLANAR (0x00000005)
- #define VPU_OUTPUT_FORMAT_YUV420_PLANAR (0x00000006)

- #define VPU_OUTPUT_FORMAT_YUV422 (0x00000007)
- #define VPU_OUTPUT_FORMAT_YUV444 (0x00000008)
- #define VPU_OUTPUT_FORMAT_YCH420 (0x00000009)
- #define VPU_OUTPUT_FORMAT_BIT_MASK (0x000f0000)
- #define VPU_OUTPUT_FORMAT_BIT_8 (0x00000000)
- #define VPU_OUTPUT_FORMAT_BIT_10 (0x00010000)
- #define VPU_OUTPUT_FORMAT_BIT_12 (0x00020000)
- #define VPU_OUTPUT_FORMAT_BIT_14 (0x00030000)
- #define VPU_OUTPUT_FORMAT_BIT_16 (0x00040000)
- #define vpu_display_mem_pool_FIELDS

  vpu_mem api

Enumerations

- enum EncInputPictureType {
  ENC_INPUT_YUV420_PLANAR = 0, ENC_INPUT_YUV420_SEMIPLANAR = 1, ENC_INPUT_YUV422_I↩
  NTERLEAVED_YUYV = 2, ENC_INPUT_YUV422_INTERLEAVED_UYVY = 3,
  ENC_INPUT_RGB565 = 4, ENC_INPUT_BGR565 = 5, ENC_INPUT_RGB555 = 6, ENC_INPUT_BGR555 = 7,
  ENC_INPUT_RGB444 = 8, ENC_INPUT_BGR444 = 9, ENC_INPUT_RGB888 = 10, ENC_INPUT_BGR888 = 11,
  ENC_INPUT_RGB101010 = 12, ENC_INPUT_BGR101010 = 13 }
- enum OMX_RK_VIDEO_CODINGTYPE {
  OMX_RK_VIDEO_CodingUnused, OMX_RK_VIDEO_CodingAutoDetect, OMX_RK_VIDEO_CodingMPE↩
  G2, OMX_RK_VIDEO_CodingH263,
  OMX_RK_VIDEO_CodingMPEG4, OMX_RK_VIDEO_CodingWMV, OMX_RK_VIDEO_CodingRV, OMX_↩
  RK_VIDEO_CodingAVC,
  OMX_RK_VIDEO_CodingMJPEG, OMX_RK_VIDEO_CodingVP8, OMX_RK_VIDEO_CodingVP9, OMX_↩
  RK_VIDEO_CodingVC1 = 0x01000000,
  OMX_RK_VIDEO_CodingFLV1, OMX_RK_VIDEO_CodingDIVX3 , OMX_RK_VIDEO_CodingHEVC, OM↩
  X_RK_VIDEO_CodingAVS,
  OMX_RK_VIDEO_CodingKhronosExtensions = 0x6F000000, OMX_RK_VIDEO_CodingVendorStartUnused = 0x7F000000 }

  all codec type

Functions

- RK_S32 VPUMemJudgeIommu (void)

  vpu memory handle interface
- vpu_display_mem_pool * open_vpu_memory_pool ()

  vpu memory allocator and manager interface

4.1.1 Detailed Description

Author

Rockchips

Version

v1.0

Date

2016-09-27

4.1.2 Macro Definition Documentation

4.1.2.1 VPU_API_NOPTS_VALUE

```
#define VPU_API_NOPTS_VALUE (0x8000000000000000LL)
```

init value

4.1.2.2 VPU_OUTPUT_FORMAT_ABGR8888

```
#define VPU_OUTPUT_FORMAT_ABGR8888 (0x00000001)
```

init value

4.1.2.3 VPU_OUTPUT_FORMAT_ARGB8888

```
#define VPU_OUTPUT_FORMAT_ARGB8888 (0x00000000)
```

init value

4.1.2.4 VPU_OUTPUT_FORMAT_BIT_10

```
#define VPU_OUTPUT_FORMAT_BIT_10 (0x00010000)
```

init value

4.1.2.5 VPU_OUTPUT_FORMAT_BIT_12

```
#define VPU_OUTPUT_FORMAT_BIT_12 (0x00020000)
```

init value

4.1.2.6 VPU_OUTPUT_FORMAT_BIT_14

```
#define VPU_OUTPUT_FORMAT_BIT_14 (0x00030000)
```

init value

4.1.2.7 VPU_OUTPUT_FORMAT_BIT_16

```
#define VPU_OUTPUT_FORMAT_BIT_16 (0x00040000)
```

init value

4.1.2.8 VPU_OUTPUT_FORMAT_BIT_8

```
#define VPU_OUTPUT_FORMAT_BIT_8 (0x00000000)
```

init value

4.1.2.9 VPU_OUTPUT_FORMAT_BIT_MASK

```
#define VPU_OUTPUT_FORMAT_BIT_MASK (0x000f0000)
```

init value

4.1.2.10 VPU_OUTPUT_FORMAT_RGB555

```
#define VPU_OUTPUT_FORMAT_RGB555 (0x00000004)
```

init value

4.1.2.11 VPU_OUTPUT_FORMAT_RGB565

```
#define VPU_OUTPUT_FORMAT_RGB565 (0x00000003)
```

init value

4.1.2.12 VPU_OUTPUT_FORMAT_RGB888

```
#define VPU_OUTPUT_FORMAT_RGB888 (0x00000002)
```

init value

4.1.2.13 VPU_OUTPUT_FORMAT_TYPE_MASK

```
#define VPU_OUTPUT_FORMAT_TYPE_MASK (0x0000ffff)
```

init value

4.1.2.14 VPU_OUTPUT_FORMAT_YCH420

```
#define VPU_OUTPUT_FORMAT_YCH420 (0x00000009)
```

init value

4.1.2.15 VPU_OUTPUT_FORMAT_YUV420_PLANAR

```
#define VPU_OUTPUT_FORMAT_YUV420_PLANAR (0x00000006)
```

init value

4.1.2.16 VPU_OUTPUT_FORMAT_YUV420_SEMIPLANAR

```
#define VPU_OUTPUT_FORMAT_YUV420_SEMIPLANAR (0x00000005)
```

init value

4.1.2.17 VPU_OUTPUT_FORMAT_YUV422

```
#define VPU_OUTPUT_FORMAT_YUV422 (0x00000007)
```

init value

4.1.2.18 VPU_OUTPUT_FORMAT_YUV444

```
#define VPU_OUTPUT_FORMAT_YUV444 (0x00000008)
```

init value

4.1.3 Enumeration Type Documentation

4.1.3.1 EncInputPictureType

```
enum EncInputPictureType
```

Enumerator

ENC_INPUT_YUV420_PLANAR	YYYY... UUUU... VVVV
ENC_INPUT_YUV420_SEMIPLANAR	YYYY... UVUVUV...
ENC_INPUT_YUV422_INTERLEAVED_YUYV	YUYVYUYV...
ENC_INPUT_YUV422_INTERLEAVED_UYVY	UYVYUYVY...
ENC_INPUT_RGB565	16-bit RGB
ENC_INPUT_BGR565	16-bit RGB
ENC_INPUT_RGB555	15-bit RGB
ENC_INPUT_BGR555	15-bit RGB
ENC_INPUT_RGB444	12-bit RGB
ENC_INPUT_BGR444	12-bit RGB
ENC_INPUT_RGB888	24-bit RGB
ENC_INPUT_BGR888	24-bit RGB
ENC_INPUT_RGB101010	30-bit RGB
ENC_INPUT_BGR101010	30-bit RGB

4.1.3.2 OMX_RK_VIDEO_CODINGTYPE

```
enum OMX_RK_VIDEO_CODINGTYPE
```

all codec type

Enumeration used to define the possible video compression codings.

Note

This essentially refers to file extensions. If the coding is being used to specify the ENCODE type, then additional work must be done to configure the exact flavor of the compression to be used. For decode cases where the user application can not differentiate between MPEG-4 and H.264 bit streams, it is up to the codec to handle this.

Enumerator

OMX_RK_VIDEO_CodingUnused	Value when coding is N/A.
OMX_RK_VIDEO_CodingAutoDetect	Autodetection of coding type.
OMX_RK_VIDEO_CodingMPEG2	AKA: H.262
OMX_RK_VIDEO_CodingH263	H.263
OMX_RK_VIDEO_CodingMPEG4	MPEG-4
OMX_RK_VIDEO_CodingWMV	Windows Media Video (WMV1,WMV2,WMV3)
OMX_RK_VIDEO_CodingRV	all versions of Real Video
OMX_RK_VIDEO_CodingAVC	H.264/AVC
OMX_RK_VIDEO_CodingMJPEG	Motion JPEG.
OMX_RK_VIDEO_CodingVP8	VP8
OMX_RK_VIDEO_CodingVP9	VP9
OMX_RK_VIDEO_CodingVC1	Windows Media Video (WMV1,WMV2,WMV3)
OMX_RK_VIDEO_CodingFLV1	Sorenson H.263
OMX_RK_VIDEO_CodingDIVX3	DIVX3
OMX_RK_VIDEO_CodingHEVC	H.265/HEVC
OMX_RK_VIDEO_CodingAVS	AVS+
OMX_RK_VIDEO_CodingKhronosExtensions	Reserved region for introducing Khronos Standard Extensions
OMX_RK_VIDEO_CodingVendorStartUnused	Reserved region for introducing Vendor Extensions

Chapter 5

Class Documentation

5.1 asicData_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/encasiccontroller.h

5.2 Avs_DecCtx_t Struct Reference

Public Attributes

- struct avsd_memory_t * mem
  resotre slice data to decoder
- struct avsd_video_ctx_t * p_vid
  use in libavs.so

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.3 AvsdBitstream_t Struct Reference

Public Attributes

- RK_U32 offset
  start from the offset byte

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.4 AvsdCurCtx_t Struct Reference

Public Attributes

- struct avsd_nalu_t * cur_nalu
  current nalu

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.5 AvsdCurStream_t Struct Reference

Public Attributes

- RK_U8 * p_start
  store read nalu data

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.6 AvsdHalCtx_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_avsd_api.h

5.7 AvsdInputCtx_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.8 AvsdMemory_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.9 AvsdNalu_t Struct Reference

Public Attributes

- RK_U8 eof
  end of frame stream

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.10 AvsdOutframe_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.11 AvsdVideoCtx_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/avs/avsd_parse.h

5.12 BitputCtx_t Struct Reference

Public Attributes

- RK_U32 buflen
  max buf length, 64bit uint
- RK_U32 index
  current uint position
- RK_U64 * pbuf
  outpacket data
- RK_U64 bvalue
  buffer value, 64 bit
- RK_U8 bitpos
  bit pos in 64bit
- RK_U32 size
  data size,except header

The documentation for this struct was generated from the following file:

- mpp/base/inc/mpp_bitput.h

5.13 BitReadCtx_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/base/inc/mpp_bitread.h

5.14 H265d_REGS_t::cabac_error_ctu Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h265d/hal_h265d_reg.h

5.15 Components Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.16 ControlApi Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/encoder_codec_api.h

5.17 ControllerCfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/encoder_codec_api.h

5.18 CurrentFameInf_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.19 DBParams Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.20 Dec_BaseAdd_ch8pix_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.21 Dec_BaseAdd_Ref4_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.22 Dec_control_reg0 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.23 Dec_control_reg1 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.24 Dec_control_reg2 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.25 Dec_control_reg3 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.26 Dec_Debug_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.27 Dec_Error_concealment_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.28 Dec_fuse_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.29 Dec_Interrupt_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.30 Dec_Refpicbuff_control_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.31 Dec_Refpicbuff_info1_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.32 Dec_Refpicbuff_info2_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.33 Dec_Refpicbuff_info3_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.34 Dec_Syn_configinfo_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.35 Dec_Synthesis_config_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.36 DecInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.37 DecoderFormat_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.38 DecoderOut_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.39 DecPpInterface Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.40 Device_config_reg1 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.41 Device_config_reg2 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.42 Device_config_reg3 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.43 drm_agp_binding_t Struct Reference

```
#include <drm.h>
```

Public Attributes

- unsigned long handle
- unsigned long offset

5.43.1 Detailed Description

DRM_IOCTL_AGP_BIND and DRM_IOCTL_AGP_UNBIND ioctls argument type.

See also

drmAgpBind() and drmAgpUnbind().

5.43.2 Member Data Documentation

5.43.2.1 handle

```
unsigned long drm_agp_binding_t::handle
```

From drm_agp_buffer

5.43.2.2 offset

```
unsigned long drm_agp_binding_t::offset
```

In bytes – will round to page boundary

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.44 drm_agp_buffer_t Struct Reference

```
#include <drm.h>
```

Public Attributes

- unsigned long size
- unsigned long handle
- unsigned long type
- unsigned long physical

5.44.1 Detailed Description

DRM_IOCTL_AGP_ALLOC and DRM_IOCTL_AGP_FREE ioctls argument type.

See also

drmAgpAlloc() and drmAgpFree().

5.44.2 Member Data Documentation

5.44.2.1 handle

```
unsigned long drm_agp_buffer_t::handle
```

Used for binding / unbinding

5.44.2.2 physical

```
unsigned long drm_agp_buffer_t::physical
```

Physical used by i810

5.44.2.3 size

```
unsigned long drm_agp_buffer_t::size
```

In bytes – will round to page boundary

5.44.2.4 type

```
unsigned long drm_agp_buffer_t::type
```

Type of memory to allocate

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.45 drm_agp_info_t Struct Reference

```
#include <drm.h>
```

5.45.1 Detailed Description

DRM_IOCTL_AGP_INFO ioctl argument type.

See also

drmAgpVersionMajor(), drmAgpVersionMinor(), drmAgpGetMode(), drmAgpBase(), drmAgpSize(), drmAgpMemoryUsed(), drmAgpMemoryAvail(), drmAgpVendorId() and drmAgpDeviceId().

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.46 drm_agp_mode_t Struct Reference

`#include <drm.h>`

Public Attributes

- unsigned long mode

5.46.1 Detailed Description

DRM_IOCTL_AGP_ENABLE ioctl argument type.

See also

drmAgpEnable().

5.46.2 Member Data Documentation

5.46.2.1 mode

`unsigned long drm_agp_mode_t::mode`

AGP mode

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.47 drm_auth_t Struct Reference

`#include <drm.h>`

5.47.1 Detailed Description

DRM_IOCTL_GET_MAGIC and DRM_IOCTL_AUTH_MAGIC ioctl argument type.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.48 drm_block_t Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.49 drm_buf_desc_t Struct Reference

`#include <drm.h>`

Public Types

- enum {
  _DRM_PAGE_ALIGN = 0x01, _DRM_AGP_BUFFER = 0x02, _DRM_SG_BUFFER = 0x04, _DRM_FB_B↩
  UFFER = 0x08,
  _DRM_PCI_BUFFER_RO = 0x10 }

Public Attributes

- int count
- int size
- int low_mark
- int high_mark
- unsigned long agp_start

5.49.1 Detailed Description

DRM_IOCTL_ADD_BUFS and DRM_IOCTL_MARK_BUFS ioctl argument type.

See also

drmAddBufs().

5.49.2 Member Enumeration Documentation

5.49.2.1 anonymous enum

`anonymous enum`

Enumerator

_DRM_PAGE_ALIGN	Align on page boundaries for DMA
_DRM_AGP_BUFFER	Buffer is in AGP space
_DRM_SG_BUFFER	Scatter/gather memory buffer
_DRM_FB_BUFFER	Buffer is in frame buffer
_DRM_PCI_BUFFER_RO	Map PCI DMA buffer read-only

5.49.3 Member Data Documentation

5.49.3.1 agp_start

```
unsigned long drm_buf_desc_t::agp_start
```

Start address of where the AGP buffers are in the AGP aperture

5.49.3.2 count

```
int drm_buf_desc_t::count
```

Number of buffers of this size

5.49.3.3 high_mark

```
int drm_buf_desc_t::high_mark
```

High water mark

5.49.3.4 low_mark

```
int drm_buf_desc_t::low_mark
```

Low water mark

5.49.3.5 size

```
int drm_buf_desc_t::size
```

Size in bytes

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.50 drm_buf_free_t Struct Reference

`#include <drm.h>`

5.50.1 Detailed Description

DRM_IOCTL_FREE_BUFS ioctl argument type.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.51 drm_buf_info_t Struct Reference

`#include <drm.h>`

Public Attributes

- int count

5.51.1 Detailed Description

DRM_IOCTL_INFO_BUFS ioctl argument type.

5.51.2 Member Data Documentation

5.51.2.1 count

`int drm_buf_info_t::count`

Entries in list

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.52 drm_buf_map_t Struct Reference

`#include <drm.h>`

Public Attributes

- int count
- void * virtual
- struct drm_buf_pub * list

5.52.1 Detailed Description

DRM_IOCTL_MAP_BUFS ioctl argument type.

5.52.2 Member Data Documentation

5.52.2.1 count

```
int drm_buf_map_t::count
```

Length of the buffer list

5.52.2.2 list

```
struct drm_buf_pub* drm_buf_map_t::list
```

Buffer information

5.52.2.3 virtual

```
void* drm_buf_map_t::virtual
```

Mmap'd area in user-virtual

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.53 drm_buf_pub_t Struct Reference

```
#include <drm.h>
```

Public Attributes

- int idx
- int total
- int used
- void * address

5.53.1 Detailed Description

Buffer information

See also

drm_buf_map.

5.53.2 Member Data Documentation

5.53.2.1 address

```
void* drm_buf_pub_t::address
```

Address of buffer

5.53.2.2 idx

```
int drm_buf_pub_t::idx
```

Index into the master buffer list

5.53.2.3 total

```
int drm_buf_pub_t::total
```

Buffer size

5.53.2.4 used

```
int drm_buf_pub_t::used
```

Amount of buffer in use (for DMA)

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.54 drm_client_t Struct Reference

```
#include <drm.h>
```

Public Attributes

- int idx
- int auth
- unsigned long pid
- unsigned long uid
- unsigned long magic
- unsigned long iocs

5.54.1 Detailed Description

DRM_IOCTL_GET_CLIENT ioctl argument type.

5.54.2 Member Data Documentation

5.54.2.1 auth

```
int drm_client_t::auth
```

Is client authenticated?

5.54.2.2 idx

```
int drm_client_t::idx
```

Which client desired?

5.54.2.3 iocs

```
unsigned long drm_client_t::iocs
```

Ioctl count

5.54.2.4 magic

```
unsigned long drm_client_t::magic
```

Magic

5.54.2.5 pid

```
unsigned long drm_client_t::pid
```

Process ID

5.54.2.6 uid

```
unsigned long drm_client_t::uid
```

User ID

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.55 drm_clip_rect_t Struct Reference

```
#include <drm.h>
```

5.55.1 Detailed Description

Cliprect.

Warning

: If you change this structure, make sure you change XF86DRIClipRectRec in the server as well

Note

KW: Actually it's illegal to change either for backwards-compatibility reasons.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.56 drm_control_t Struct Reference

```
#include <drm.h>
```

5.56.1 Detailed Description

DRM_IOCTL_CONTROL ioctl argument type.

See also

drmCtlInstHandler() and drmCtlUninstHandler().

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.57 drm_ctx_priv_map_t Struct Reference

Public Attributes

- unsigned int ctx_id
- void * handle

5.57.1 Member Data Documentation

5.57.1.1 ctx_id

```
unsigned int drm_ctx_priv_map_t::ctx_id
```

Context requesting private mapping

5.57.1.2 handle

```
void* drm_ctx_priv_map_t::handle
```

Handle of map

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.58 drm_ctx_res_t Struct Reference

```
#include <drm.h>
```

5.58.1 Detailed Description

DRM_IOCTL_RES_CTX ioctl argument type.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.59 drm_ctx_t Struct Reference

```
#include <drm.h>
```

5.59.1 Detailed Description

DRM_IOCTL_ADD_CTX ioctl argument type.

See also

drmCreateContext() and drmDestroyContext().

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.60 drm_dma_t Struct Reference

`#include <drm.h>`

Public Attributes

- int context
- int send_count
- int * send_indices
- int * send_sizes
- enum drm_dma_flags flags
- int request_count
- int request_size
- int * request_indices
- int granted_count

5.60.1 Detailed Description

DRM_IOCTL_DMA ioctl argument type.

Indices here refer to the offset into the buffer list in drm_buf_get.

See also

drmDMA().

5.60.2 Member Data Documentation

5.60.2.1 context

`int drm_dma_t::context`

Context handle

5.60.2.2 flags

```
enum drm_dma_flags drm_dma_t::flags
```

Flags

5.60.2.3 granted_count

```
int drm_dma_t::granted_count
```

Number of buffers granted

5.60.2.4 request_count

```
int drm_dma_t::request_count
```

Number of buffers requested

5.60.2.5 request_indices

```
int* drm_dma_t::request_indices
```

Buffer information

5.60.2.6 request_size

```
int drm_dma_t::request_size
```

Desired size for buffers

5.60.2.7 send_count

```
int drm_dma_t::send_count
```

Number of buffers to send

5.60.2.8 send_indices

```
int* drm_dma_t::send_indices
```

List of handles to buffers

5.60.2.9 send_sizes

```
int* drm_dma_t::send_sizes
```

Lengths of data to send

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.61 drm_draw_t Struct Reference

```
#include <drm.h>
```

5.61.1 Detailed Description

DRM_IOCTL_ADD_DRAW and DRM_IOCTL_RM_DRAW ioctl argument type.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.62 drm_drawable_info_t Struct Reference

```
#include <drm.h>
```

5.62.1 Detailed Description

Drawable information.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.63 drm_event Struct Reference

```
#include <drm.h>
```

5.63.1 Detailed Description

Header for events written back to userspace on the drm fd. The type defines the type of event, the length specifies the total length of the event (including the header), and user_data is typically a 64 bit value passed with the ioctl that triggered the event. A read on the drm fd will always only return complete events, that is, if for example the read buffer is 100 bytes, and there are two 64 byte events pending, only one will be returned.

Event types 0 - 0x7fffffff are generic drm events, 0x80000000 and up are chipset specific.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.64 drm_event_vblank Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.65 drm_gem_close Struct Reference

```
#include <drm.h>
```

Public Attributes

- __u32 handle

5.65.1 Detailed Description

DRM_IOCTL_GEM_CLOSE ioctl argument type

5.65.2 Member Data Documentation

5.65.2.1 handle

```
__u32 drm_gem_close::handle
```

Handle of the object to be closed.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.66 drm_gem_flink Struct Reference

`#include <drm.h>`

Public Attributes

- __u32 handle
- __u32 name

5.66.1 Detailed Description

DRM_IOCTL_GEM_FLINK ioctl argument type

5.66.2 Member Data Documentation

5.66.2.1 handle

`__u32 drm_gem_flink::handle`

Handle for the object being named

5.66.2.2 name

`__u32 drm_gem_flink::name`

Returned global name

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.67 drm_gem_open Struct Reference

`#include <drm.h>`

Public Attributes

- __u32 name
- __u32 handle
- __u64 size

5.67.1 Detailed Description

DRM_IOCTL_GEM_OPEN ioctl argument type

5.67.2 Member Data Documentation

5.67.2.1 handle

```
__u32 drm_gem_open::handle
```

Returned handle for the object

5.67.2.2 name

```
__u32 drm_gem_open::name
```

Name of object being opened

5.67.2.3 size

```
__u64 drm_gem_open::size
```

Returned size of the object

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.68 drm_get_cap Struct Reference

```
#include <drm.h>
```

5.68.1 Detailed Description

DRM_IOCTL_GET_CAP ioctl argument type

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.69 drm_hw_lock_t Struct Reference

```
#include <drm.h>
```

Public Attributes

- __volatile__ unsigned int lock
- char padding [60]

5.69.1 Detailed Description

Hardware lock.

The lock structure is a simple cache-line aligned integer. To avoid processor bus contention on a multiprocessor system, there should not be any other data stored in the same cache line.

5.69.2 Member Data Documentation

5.69.2.1 lock

```
__volatile__ unsigned int drm_hw_lock_t::lock
```

lock variable

5.69.2.2 padding

```
char drm_hw_lock_t::padding[60]
```

Pad to cache line

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.70 drm_irq_busid_t Struct Reference

```
#include <drm.h>
```

Public Attributes

- int irq
- int busnum
- int devnum
- int funcnum

5.70.1 Detailed Description

DRM_IOCTL_IRQ_BUSID ioctl argument type.

See also

drmGetInterruptFromBusID().

5.70.2 Member Data Documentation

5.70.2.1 busnum

```
int drm_irq_busid_t::busnum
```

bus number

5.70.2.2 devnum

```
int drm_irq_busid_t::devnum
```

device number

5.70.2.3 funcnum

```
int drm_irq_busid_t::funcnum
```

function number

5.70.2.4 irq

```
int drm_irq_busid_t::irq
```

IRQ number

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.71 drm_list_t Struct Reference

Public Attributes

- int count

5.71.1 Member Data Documentation

5.71.1.1 count

```
int drm_list_t::count
```

Length of user-space structures

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.72 drm_lock_t Struct Reference

`#include <drm.h>`

5.72.1 Detailed Description

DRM_IOCTL_LOCK, DRM_IOCTL_UNLOCK and DRM_IOCTL_FINISH ioctl argument type.

See also

drmGetLock() and drmUnlock().

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.73 drm_map_t Struct Reference

`#include <drm.h>`

Public Attributes

- unsigned long offset
- unsigned long size
- enum drm_map_type type
- enum drm_map_flags flags
- void * handle
- int mtrr

5.73.1 Detailed Description

DRM_IOCTL_GET_MAP, DRM_IOCTL_ADD_MAP and DRM_IOCTL_RM_MAP ioctls argument type.

See also

drmAddMap().

5.73.2 Member Data Documentation

5.73.2.1 flags

`enum drm_map_flags drm_map_t::flags`

Flags

5.73.2.2 handle

```
void* drm_map_t::handle
```

User-space: "Handle" to pass to mmap() Kernel-space: kernel-virtual address

5.73.2.3 mtrr

```
int drm_map_t::mtrr
```

MTRR slot used

5.73.2.4 offset

```
unsigned long drm_map_t::offset
```

Requested physical address (0 for SAREA)

5.73.2.5 size

```
unsigned long drm_map_t::size
```

Requested physical size (bytes)

5.73.2.6 type

```
enum drm_map_type drm_map_t::type
```

Type of memory to map

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.74 drm_mode_atomic Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.75 drm_mode_card_res Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.76 drm_mode_connector_set_property Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.77 drm_mode_create_blob Struct Reference

`#include <drm_mode.h>`

Public Attributes

- __u64 data
- __u32 length
- __u32 blob_id

5.77.1 Detailed Description

Create a new 'blob' data property, copying length bytes from data pointer, and returning new blob ID.

5.77.2 Member Data Documentation

5.77.2.1 blob_id

`__u32 drm_mode_create_blob::blob_id`

Return: new property ID.

5.77.2.2 data

`__u64 drm_mode_create_blob::data`

Pointer to data to copy.

5.77.2.3 length

`__u32 drm_mode_create_blob::length`

Length of data to copy.

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.78 drm_mode_create_dumb Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.79 drm_mode_crtc Struct Reference

Public Attributes

- __u32 crtc_id
- __u32 fb_id
- __u32 y

5.79.1 Member Data Documentation

5.79.1.1 crtc_id

```
__u32 drm_mode_crtc::crtc_id
```

Id

5.79.1.2 fb_id

```
__u32 drm_mode_crtc::fb_id
```

Id of framebuffer

5.79.1.3 y

```
__u32 drm_mode_crtc::y
```

Position on the frameuffer

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.80 drm_mode_crtc_lut Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.81 drm_mode_crtc_page_flip Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.82 drm_mode_cursor Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.83 drm_mode_cursor2 Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.84 drm_mode_destroy_blob Struct Reference

```
#include <drm_mode.h>
```

5.84.1 Detailed Description

Destroy a user-created blob property.

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.85 drm_mode_destroy_dumb Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.86 drm_mode_fb_cmd Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.87 drm_mode_fb_cmd2 Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.88 drm_mode_fb_dirty_cmd Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.89 drm_mode_get_blob Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.90 drm_mode_get_connector Struct Reference

Public Attributes

- __u32 encoder_id
- __u32 connector_id
- __u32 mm_height

5.90.1 Member Data Documentation

5.90.1.1 connector_id

```
__u32 drm_mode_get_connector::connector_id
```

Id

5.90.1.2 encoder_id

```
__u32 drm_mode_get_connector::encoder_id
```

Current Encoder

5.90.1.3 mm_height

```
__u32 drm_mode_get_connector::mm_height
```

HxW in millimeters

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.91 drm_mode_get_encoder Struct Reference

Public Attributes

- __u32 crtc_id

5.91.1 Member Data Documentation

5.91.1.1 crtc_id

```
__u32 drm_mode_get_encoder::crtc_id
```

Id of crtc

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.92 drm_mode_get_plane Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.93 drm_mode_get_plane_res Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.94 drm_mode_get_property Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.95 drm_mode_map_dumb Struct Reference

Public Attributes

- __u32 handle
- __u64 offset

5.95.1 Member Data Documentation

5.95.1.1 handle

```
__u32 drm_mode_map_dumb::handle
```

Handle for the object being mapped.

5.95.1.2 offset

```
__u64 drm_mode_map_dumb::offset
```

Fake offset to use for subsequent mmap call

This is a fixed-size type for 32/64 compatibility.

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.96 drm_mode_mode_cmd Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.97 drm_mode_modeinfo Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.98 drm_mode_obj_get_properties Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.99 drm_mode_obj_set_property Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.100 drm_mode_property_enum Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.101 drm_mode_set_plane Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm_mode.h

5.102 drm_modeset_ctl Struct Reference

`#include <drm.h>`

5.102.1 Detailed Description

DRM_IOCTL_MODESET_CTL ioctl argument type

See also

drmModesetCtl().

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.103 drm_prime_handle Struct Reference

Public Attributes

- __u32 flags
- __s32 fd

5.103.1 Member Data Documentation

5.103.1.1 fd

```
__s32 drm_prime_handle::fd
```

Returned dmabuf file descriptor

5.103.1.2 flags

```
__u32 drm_prime_handle::flags
```

Flags.. only applicable for handle->fd

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.104 drm_scatter_gather_t Struct Reference

```
#include <drm.h>
```

Public Attributes

- unsigned long size
- unsigned long handle

5.104.1 Detailed Description

DRM_IOCTL_SG_ALLOC ioctl argument type.

5.104.2 Member Data Documentation

5.104.2.1 handle

```
unsigned long drm_scatter_gather_t::handle
```

Used for mapping / unmapping

5.104.2.2 size

```
unsigned long drm_scatter_gather_t::size
```

In bytes – will round to page boundary

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.105 drm_set_client_cap Struct Reference

```
#include <drm.h>
```

5.105.1 Detailed Description

DRM_IOCTL_SET_CLIENT_CAP ioctl argument type

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.106 drm_set_version_t Struct Reference

```
#include <drm.h>
```

5.106.1 Detailed Description

DRM_IOCTL_SET_VERSION ioctl argument type.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.107 drm_stats_t Struct Reference

```
#include <drm.h>
```

5.107.1 Detailed Description

DRM_IOCTL_GET_STATS ioctl argument type.

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.108 drm_tex_region_t Struct Reference

`#include <drm.h>`

5.108.1 Detailed Description

Texture region,

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.109 drm_unique_t Struct Reference

`#include <drm.h>`

Public Attributes

- size_t unique_len
- char * unique

5.109.1 Detailed Description

DRM_IOCTL_GET_UNIQUE ioctl argument type.

See also

drmGetBusid() and drmSetBusId().

5.109.2 Member Data Documentation

5.109.2.1 unique

`char* drm_unique_t::unique`

Unique name for driver instantiation

5.109.2.2 unique_len

`size_t drm_unique_t::unique_len`

Length of unique

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.110 drm_update_draw_t Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.111 drm_version_t Struct Reference

`#include <drm.h>`

Public Attributes

- int version_major
- int version_minor
- int version_patchlevel
- size_t name_len
- char * name
- size_t date_len
- char * date
- size_t desc_len
- char * desc

5.111.1 Detailed Description

DRM_IOCTL_VERSION ioctl argument type.

See also

drmGetVersion().

5.111.2 Member Data Documentation

5.111.2.1 date

`char* drm_version_t::date`

User-space buffer to hold date

5.111.2.2 date_len

`size_t drm_version_t::date_len`

Length of date buffer

5.111.2.3 desc

```
char* drm_version_t::desc
```

User-space buffer to hold desc

5.111.2.4 desc_len

```
size_t drm_version_t::desc_len
```

Length of desc buffer

5.111.2.5 name

```
char* drm_version_t::name
```

Name of driver

5.111.2.6 name_len

```
size_t drm_version_t::name_len
```

Length of name buffer

5.111.2.7 version_major

```
int drm_version_t::version_major
```

Major version

5.111.2.8 version_minor

```
int drm_version_t::version_minor
```

Minor version

5.111.2.9 version_patchlevel

```
int drm_version_t::version_patchlevel
```

Patch level

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.112 drm_wait_vblank_reply Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.113 drm_wait_vblank_request Struct Reference

The documentation for this struct was generated from the following file:

- osal/linux/drm.h

5.114 drm_wait_vblank_t Union Reference

`#include <drm.h>`

5.114.1 Detailed Description

DRM_IOCTL_WAIT_VBLANK ioctl argument type.

See also

drmWaitVBlank().

The documentation for this union was generated from the following file:

- osal/linux/drm.h

5.115 DXVA2_ConfigPictureDecode Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/dxva_syntax.h

5.116 DXVA2_DecodeBufferDesc Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/dxva_syntax.h

5.117 DXVA_PicEntry_M2V Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.118 DXVA_PicEntry_VP8 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/vp8d_syntax.h

5.119 DXVA_PicParams_VP8 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/vp8d_syntax.h

5.120 DXVA_segmentation_VP8 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/vp8d_syntax.h

5.121 DXVA_segmentation_VP9 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/vp9d_syntax.h

5.122 EncInputStream_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.123 EncoderOut_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.124 EncParameter_t Struct Reference

Public Attributes

- RK_S32 rc_mode
- RK_S32 bitRate

5.124.1 Member Data Documentation

5.124.1.1 bitRate

```
RK_S32 EncParameter_t::bitRate
```

target bitrate

5.124.1.2 rc_mode

```
RK_S32 EncParameter_t::rc_mode
```

0 - CQP mode; 1 - CBR mode;

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.125 EncTask Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/mpp_controller.h

5.126 EXtraCfg_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.127 FifoCtx_t Struct Reference

Public Attributes

- RK_U32 buflen

  max buf length, 64bit uint
- RK_U32 index

  current uint position
- RK_U64 * pbuf

  outpacket data
- RK_U64 bvalue

  buffer value, 64 bit
- RK_U8 bitpos

  bit pos in 64bit
- RK_U32 size

  data size,except header
- LogCtx_t * logctx

  for debug
- FILE * fp_data

  for fpga

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_fifo.h

5.128 FrameInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.129 h263d_dxva2_picture_context_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h263d_syntax.h

5.130 H264_DecCtx_t Struct Reference

Public Attributes

- struct h264_dpb_mark_t * dpb_mark
  for write out, MAX_DPB_SIZE
- struct h264_dpb_info_t * dpb_info
  16
- struct h264_refpic_info_t * refpic_info_p
  32
- struct h264_refpic_info_t * refpic_info_b [2]
  [2][32]
- struct h264d_cur_ctx_t * p_Cur
  current parameters, use in read nalu
- struct h264d_video_ctx_t * p_Vid
  parameters for video decoder
- RK_U32 spt_decode_mtds
  support decoder methods
- NALU_STATUS nalu_ret
  current nalu state
- SLICE_STATUS next_state
  RKV_SLICE_STATUS.
- struct h264d_logctx_t logctx
  debug log file
- struct log_ctx_t logctxbuf [LOG_MAX]
  add
- MppBufSlots frame_slots
  corresponding to dpb_mark

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.131 H264_DecMem_t Struct Reference

Public Attributes

- struct h264_dpb_mark_t dpb_mark [MAX_MARK_SIZE]
  for fpga register check, dpb mark
- struct h264_dpb_info_t dpb_info [MAX_DPB_SIZE]
  16
- struct h264_refpic_info_t refpic_info_p [MAX_REF_SIZE]
  32
- struct h264_refpic_info_t refpic_info_b [2][MAX_REF_SIZE]
  [2][32]

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.132 H264_DpbBuf_t Struct Reference

Public Attributes

- struct h264_frame_store_t ** fs_ilref
  inter-layer reference (for multi-layered codecs)

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.133 H264_DpbInfo_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.134 H264_DpbMark_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.135 H264_DRPM_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.136 H264_FrameStore_t Struct Reference

Public Attributes

- RK_S32 is_used
  0=empty; 1=top; 2=bottom; 3=both fields (or frame)
- RK_S32 is_reference
  0=not used for ref; 1=top used; 2=bottom used; 3=both fields (or frame) used
- RK_S32 is_long_term
  0=not used for ref; 1=top used; 2=bottom used; 3=both fields (or frame) used
- RK_S32 is_orig_reference
  original marking by nal_ref_idc: 0=not used for ref; 1=top used; 2=bottom used; 3=both fields (or frame) used

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.137 H264_HRD_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.138 H264_mvcVUI_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.139 H264_Nalu_t Struct Reference

Public Attributes

- RK_S32 startcodeprefix_len
  4 for parameter sets and first slice in picture, 3 for everything else (suggested)
- RK_U32 sodb_len
  Length of the NAL unit (Excluding the start code, which does not belong to the NALU)
- RK_S32 forbidden_bit
  should be always FALSE
- Nalu_type nalu_type
  NALU_TYPE_xxxx.
- NalRefIdc_type nal_reference_idc
  NALU_PRIORITY_xxxx.
- RK_U8 * sodb_buf
  Data of the NAL unit (Excluding the start code, which does not belong to the NALU)
- RK_U16 lost_packets
  true, if packet loss is detected, used in RTPNALU
- RK_S32 svc_extension_flag
  should be always 0, for MVC
- RK_S32 non_idr_flag
  0 = current is IDR
- RK_S32 priority_id
  a lower value of priority_id specifies a higher priority
- RK_S32 view_id
  view identifier for the NAL unit
- RK_S32 temporal_id
  temporal identifier for the NAL unit
- RK_S32 anchor_pic_flag
  anchor access unit
- RK_S32 inter_view_flag
  inter-view prediction enable
- RK_S32 reserved_one_bit
  shall be equal to 1
- RK_U8 ualu_header_bytes
  for rbsp start

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.140 H264_NaluMvcExt_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.141 H264_OldSlice_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.142 H264_PPS_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.143 H264_RefPicInfo_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.144 H264_SEI_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.145 H264_SLICE_t Struct Reference

Public Attributes

- RK_S32 nal_reference_idc
  nal_reference_idc from NAL unit
- RK_U32 start_mb_nr
  MUST be set by NAL even in case of ei_flag == 1.
- RK_S32 slice_type
  slice type
- RK_S32 num_ref_idx_active [2]
  number of available list references

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.146 H264_SPS_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.147 H264_StorePic_t Struct Reference

Public Attributes

- struct h264_store_pic_t * top_field
  for mb aff, if frame for referencing the top field
- struct h264_store_pic_t * bottom_field
  for mb aff, if frame for referencing the bottom field
- struct h264_store_pic_t * frame
  for mb aff, if field for referencing the combined frame
- struct h264_drpm_t * dec_ref_pic_marking_buffer
  stores the memory management control operations

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.148 H264_subSPS_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.149 H264_VUI_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.150 H264dCurCtx_t Struct Reference

Public Attributes

- struct bitread_ctx_t bitctx
  for control bit_read
- struct h264d_video_ctx_t * p_Vid
  parameters for video decoder
- RK_S64 curr_dts
  malloc buffer for current slice

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.151 H264dCurStream_t Struct Reference

Public Attributes

- RK_U32 nalu_offset
  The offset of the input stream.
- RK_U32 nalu_max_size
  Cur Unit Buffer size.
- RK_U8 * nalu_buf
  store read nalu data
- RK_U8 * head_buf
  store header data, sps/pps/slice header

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.152 H264dDxvaCtx_t Struct Reference

Public Attributes

- struct _DXVA_Slice_H264_Long * slice_long
  MAX_SLICES.

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.153 H264dErrCtx_t Struct Reference

Public Attributes

- RK_U32 cur_err_flag
  current decoded picture error
- RK_U32 dpb_err_flag
  dpb storage had error

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.154 H264dHalCtx_t Struct Reference

Public Attributes

- DXVA_Slice_H264_Short * slice_short
  MAX_SLICES.
- DXVA_Slice_H264_Long * slice_long
  MAX_SLICES.
- H264dLogCtx_t logctx
  debug log file
- void * priv
  add

5.154.1 Member Data Documentation

5.154.1.1 priv

```
void* H264dHalCtx_t::priv
```

add

resert data for extent

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_global.h

5.155 H264dInputCtx_t Struct Reference

Public Attributes

- struct h264d_cur_ctx_t * p_Cur
  current parameters, use in read nalu
- struct h264d_video_ctx_t * p_Vid
  parameters for video decoder
- ParserCfg init
  input data
- RK_U32 mvc_disable
  output data
- RK_U32 task_eos
  have extradata
- RK_S32 pps_num
  write stream

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.156 H264dLogCtx_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_log.h

5.157 H264dRkvErrDump_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_rkv_reg.h

5.158 H264dRkvPkt_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_rkv_pkt.h

5.159 H264dRkvRegs_t Struct Reference

Classes

- struct swreg_strmd_error_e
- struct swreg_sw_rps_base

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_rkv_reg.h

5.160 H264dSyntax_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.161 H264dVdpuDpbInfo_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_vdpu_pkt.h

5.162 H264dVdpuPriv_t Struct Reference

Public Attributes

- H264dVdpuRefPicInfo_t refinfo [3][32]
  listP listB0 list1

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_vdpu_pkt.h

5.163 H264dVdpuRefPicInfo_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_vdpu_pkt.h

5.164 H264dVdpuRegs_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_vdpu_pkt.h

5.165 H264dVideoCtx_t Struct Reference

Public Attributes

- struct h264_sps_t spsSet [MAXSPS]
  MAXSPS, all sps storage.
- struct h264_subsps_t subspsSet [MAXSPS]
  MAXSPS, all subpps storage.
- struct h264_pps_t ppsSet [MAXPPS]
  MAXPPS, all pps storage.
- struct h264_dec_ctx_t * p_Dec
  H264_DecCtx_t.
- struct h264d_input_ctx_t * p_Inp
  H264_InputParameters.
- struct h264d_cur_ctx_t * p_Cur
  H264_CurParameters.
- struct h264_store_pic_t * dec_pic
  current decoder picture
- struct h264_store_pic_t * no_ref_pic
  no reference picture
- struct h264_dpb_mark_t * active_dpb_mark [MAX_NUM_DPB_LAYERS]

acitve_dpb_memory

- RK_S32 * qmatrix [12]

  scanlist pointer
- RK_S32 width_cr

  width chroma
- RK_S32 height_cr

  height chroma
- RK_S32 type

  for control running
- RK_S32 active_mvc_sps_flag

  for error tolerance

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.166 h264e_control_extra_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264e_syntax.h

5.167 h264e_control_extra_info_cfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264e_syntax.h

5.168 h264e_feedback Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264e_syntax.h

5.169 h264e_hal_context Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e.h

5.170 h264e_hal_param Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e.h

5.171 h264e_hal_pps Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e.h

5.172 h264e_hal_ref_param Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e.h

5.173 h264e_hal_rkv_buffers Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.174 h264e_hal_rkv_coveragetest_cfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.175 h264e_hal_rkv_csp_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.176 h264e_hal_rkv_dbg_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.177 h264e_hal_rkv_dpb_ctx Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.178 h264e_hal_rkv_dump_files Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.179 h264e_hal_rkv_extra_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.180 h264e_hal_rkv_frame Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.181 h264e_hal_rkv_hrd Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.182 h264e_hal_rkv_nal Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.183 h264e_hal_rkv_roi_cfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.184 h264e_hal_rkv_stream Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.185 h264e_hal_rkv_weight Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.186 h264e_hal_sps Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e.h

5.187 h264e_hal_vpu_buffers Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_vpu.h

5.188 h264e_hal_vpu_csp_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_vpu.h

5.189 h264e_hal_vpu_dump_files Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_vpu.h

5.190 h264e_hal_vpu_extra_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_vpu.h

5.191 h264e_hal_vpu_stream Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_vpu.h

5.192 h264e_hal_vui_param Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e.h

5.193 h264e_osd_cfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.194 h264e_osd_pos Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264e_syntax.h

5.195 h264e_rkv_ioctl_extra_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.196 h264e_rkv_ioctl_extra_info_elem Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.197 h264e_rkv_ioctl_input Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.198 h264e_rkv_ioctl_output Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.199 h264e_rkv_ioctl_output_elem Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.200 h264e_rkv_ioctl_reg_info Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.201 h264e_rkv_reg_set Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_rkv.h

5.202 h264e_syntax Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264e_syntax.h

5.203 h264e_vpu_reg_set Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkenc/h264e/hal_h264e_vpu.h

5.204 H264eContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264e_codec.h

5.205 H264ECtx Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.206 H264EncApiVersion Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.207 H264EncBuild Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.208 H264EncCodingCtrl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.209 H264EncColorConversion Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.210 H264EncConfig Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.211 H264EncIn Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.212 H264EncOut Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.213 H264EncPreProcessingCfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.214 H264EncRateCtrl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/h264encapi.h

5.215 h264QpCtrl_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264RateControl.h

5.216 h264RateControl_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264RateControl.h

5.217 h264VirtualBuffer_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264RateControl.h

5.218 h265d_dxva2_picture_context_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h265d_syntax.h

5.219 H265d_REGS_t Struct Reference

Classes

- struct cabac_error_ctu
- struct sao_ctu_position
- struct swreg_id
- struct swreg_int
- struct swreg_pic
- struct swreg_sysctrl

Public Attributes

- struct H265d_REGS_t::swreg_int sw_interrupt
- struct H265d_REGS_t::swreg_sysctrl sw_sysctrl
- RK_U32 sw_strm_rlc_base
- RK_U32 sw_stream_len
- RK_U32 sw_cabactbl_base
- RK_U32 sw_rlcwrite_base
- RK_U32 sw_pps_base
- RK_U32 sw_rps_base
- RK_U32 cabac_error_en
- RK_U32 cabac_error_status

5.219.1 Member Data Documentation

5.219.1.1 cabac_error_en

```
RK_U32 H265d_REGS_t::cabac_error_en
```

- zrh add

5.219.1.2 cabac_error_status

```
RK_U32 H265d_REGS_t::cabac_error_status
```

- zrh add

5.219.1.3 sw_cabactbl_base

```
RK_U32 H265d_REGS_t::sw_cabactbl_base
```

- zrh: do nothing in C Model

5.219.1.4 sw_interrupt

```
struct H265d_REGS_t::swreg_int H265d_REGS_t::sw_interrupt
```

- zrh: do nothing in C Model

5.219.1.5 sw_pps_base

```
RK_U32 H265d_REGS_t::sw_pps_base
```

- zrh: do nothing in C Model

5.219.1.6 sw_rlcwrite_base

```
RK_U32 H265d_REGS_t::sw_rlcwrite_base
```

- zrh: do nothing in C Model

5.219.1.7 sw_rps_base

```
RK_U32 H265d_REGS_t::sw_rps_base
```

- zrh: do nothing in C Model

5.219.1.8 sw_stream_len

```
RK_U32 H265d_REGS_t::sw_stream_len
```

- zrh: do nothing in C Model

5.219.1.9 sw_strm_rlc_base

```
RK_U32 H265d_REGS_t::sw_strm_rlc_base
```

- zrh: do nothing in C Model

5.219.1.10 sw_sysctrl

```
struct H265d_REGS_t::swreg_sysctrl H265d_REGS_t::sw_sysctrl
```

- zrh: do nothing in C Model

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h265d/hal_h265d_reg.h

5.220 H265dContext_t Struct Reference

Public Attributes

- RK_S32 width
- RK_S32 coded_width
- RK_U32 pix_fmt
- MppRational_t sample_aspect_ratio
- enum MppColorSpace colorspace
- enum MppColorRange color_range

5.220.1 Member Data Documentation

5.220.1.1 coded_width

```
RK_S32 H265dContext_t::coded_width
```

codec decoder width & height

5.220.1.2 color_range

```
enum MppColorRange H265dContext_t::color_range
```

MPEG vs JPEG YUV range.

- decoding: Set by rkcodec

5.220.1.3 colorspace

```
enum MppColorSpace H265dContext_t::colorspace
```

YUV colorspace type.

- decoding: Set by rkcodec

5.220.1.4 pix_fmt

```
RK_U32 H265dContext_t::pix_fmt
```

Pixel format

5.220.1.5 sample_aspect_ratio

```
MppRational_t H265dContext_t::sample_aspect_ratio
```

sample aspect ratio (0 if unknown) That is the width of a pixel divided by the height of the pixel. Numerator and denominator must be relatively prime and smaller than 256 for some video standards.

- decoding: Set by rkcodec.

5.220.1.6 width

```
RK_S32 H265dContext_t::width
```

for rk log printf display width & height

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_codec.h

5.221 HalDecTask Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_task.h

5.222 HalDecTaskFlag Union Reference

The documentation for this union was generated from the following file:

- mpp/hal/inc/hal_task.h

5.223 HalEncTask Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_task.h

5.224 HalRegDrv_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_regdrv.h

5.225 HalRegDrvCtx_t Struct Reference

Public Attributes

- RK_U32 reg_size

  hard regs count
- RK_U32 emt_size

  last reg syntax
- void * log

  for debug

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_regdrv.h

5.226 HalTaskInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_task.h

5.227 HEVCContext Struct Reference

Public Attributes

- SliceHeader sh

  candidate references for the current frame
- RK_S32 temporal_id

  temporal_id_plus1 - 1
- RK_S32 slice_idx

  number of the slice being currently decoded
- RK_S32 eos

  current packet contains an EOS/EOB NAL
- RK_U8 * checksum_buf
- RK_U16 seq_decode
- RK_U8 is_nalff

  as a format defined in 14496-15
- RK_S32 nal_length_size

  Number of bytes used for nal length (1, 2 or 4)
- RK_S32 sei_frame_packing_present
- RK_U8 slice_initialized
- RK_U8 sps_list_of_updated [MAX_SPS_COUNT]

  zrh add
- RK_U8 pps_list_of_updated [MAX_PPS_COUNT]

  zrh add

5.227.1 Member Data Documentation

5.227.1.1 checksum_buf

```
RK_U8* HEVCContext::checksum_buf
```

used on BE to byteswap the lines for checksumming

5.227.1.2 is_nalff

```
RK_U8 HEVCContext::is_nalff
```

as a format defined in 14496-15

this flag is != 0 if bitstream is encapsulated

5.227.1.3 sei_frame_packing_present

```
RK_S32 HEVCContext::sei_frame_packing_present
```

frame packing arrangement variables

5.227.1.4 seq_decode

```
RK_U16 HEVCContext::seq_decode
```

Sequence counters for decoded and output frames, so that old frames are output first after a POC reset

5.227.1.5 slice_initialized

```
RK_U8 HEVCContext::slice_initialized
```

1 if the independent slice segment header was successfully parsed

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.228 HEVCFrame Struct Reference

Public Attributes

- RK_U16 sequence
- RK_U8 flags

5.228.1 Member Data Documentation

5.228.1.1 flags

```
RK_U8 HEVCFrame::flags
```

A combination of HEVC_FRAME_FLAG_∗

5.228.1.2 sequence

```
RK_U16 HEVCFrame::sequence
```

A sequence counter, so that old frames are output first after a POC reset

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.229 HEVCLocalContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.230 HEVCNAL Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.231 HEVCPPS Struct Reference

Public Attributes

- RK_S32 num_ref_idx_l0_default_active

  num_ref_idx_l0_default_active_minus1 + 1
- RK_S32 num_ref_idx_l1_default_active

  num_ref_idx_l1_default_active_minus1 + 1
- RK_S32 num_tile_columns

  num_tile_columns_minus1 + 1
- RK_S32 num_tile_rows

  num_tile_rows_minus1 + 1
- RK_S32 beta_offset

  *beta_offset_div2 * 2*
- RK_S32 tc_offset

  *tc_offset_div2 * 2*
- RK_S32 log2_parallel_merge_level

  log2_parallel_merge_level_minus2 + 2
- RK_U32 * column_width

  ColumnWidth.
- RK_U32 * row_height

  RowHeight.

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.232 HEVCSPS Struct Reference

Public Attributes

- RK_U8 separate_colour_plane_flag

  output (i.e. cropped) values
- RK_S32 bit_depth_chroma
- RK_S32 max_transform_hierarchy_depth_intra

  coded frame dimension in various units

5.232.1 Member Data Documentation

5.232.1.1 bit_depth_chroma

```
RK_S32 HEVCSPS::bit_depth_chroma
```

- zrh add

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.233 HEVCVPS Struct Reference

Public Attributes

- RK_S32 vps_max_sub_layers
  vps_max_temporal_layers_minus1 + 1
- RK_S32 vps_num_layer_sets
  vps_num_layer_sets_minus1 + 1
- RK_S32 vps_num_ticks_poc_diff_one
  vps_num_ticks_poc_diff_one_minus1 + 1

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.234 HEVCWindow Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.235 HuffmanTables Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.236 ID_reg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.237 ImageData Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.238 InputParams Struct Reference

Public Attributes

- RK_U32 iDecFrmNum
  set the max decode frame numbers
- char infile_name [FILE_NAME_SIZE]
  H.264 input bitstrream.
- char cmp_path_dir [FILE_NAME_SIZE]
  golen
- char cfgfile_name [FILE_NAME_SIZE]
  input configure file
- char out_path_dir [FILE_NAME_SIZE]
  output

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_rwfile.h

5.239 IOCallbackCtx Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_task.h

5.240 IOInterruptCB Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_task.h

5.241 ion_allocation_data Struct Reference

`#include <ion.h>`

5.241.1 Detailed Description

DOC: Ion Userspace API

create a client by opening /dev/ion most operations handled via following ioctls struct ion_allocation_data - metadata passed from userspace for allocations : size of the allocation : required alignment of the allocation : flags passed to heap : pointer that will be populated with a cookie to use to refer to this allocation

Provided by userspace as an argument to the ioctl

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.242 ion_buffer_info Struct Reference

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.243 ion_cacheop_data Struct Reference

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.244 ion_client_info Struct Reference

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.245 ion_custom_data Struct Reference

`#include <ion.h>`

5.245.1 Detailed Description

struct ion_custom_data - metadata passed to/from userspace for a custom ioctl : the custom ioctl function to call

- : additional data to pass to the custom ioctl, typically a user pointer to a predefined structure

This works just like the regular cmd and arg fields of an ioctl.

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.246 ion_fd_data Struct Reference

`#include <ion.h>`

5.246.1 Detailed Description

struct ion_fd_data - metadata passed to/from userspace for a handle/fd pair : a handle : a file descriptor representing that handle

For ION_IOC_SHARE or ION_IOC_MAP userspace populates the handle field with the handle returned from ion alloc, and the kernel returns the file descriptor to share or map in the fd field. For ION_IOC_IMPORT, userspace provides the file descriptor and the kernel returns the handle.

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.247 ion_flush_data Struct Reference

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.248 ion_handle_data Struct Reference

`#include <ion.h>`

5.248.1 Detailed Description

struct ion_handle_data - a handle passed to/from the kernel : a handle

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.249 ion_heap_info Struct Reference

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.250 ion_phys_data Struct Reference

no available in new ion-kernel

`#include <ion.h>`

5.250.1 Detailed Description

no available in new ion-kernel

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.251 ion_share_obj_data Struct Reference

The documentation for this struct was generated from the following file:

- osal/allocator/ion.h

5.252 JpegAsicBuffers Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.253 JpegDecImageInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.254 JpegeFeedback Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpege_syntax.h

5.255 JpegeSyntax Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpege_syntax.h

5.256 JpegHalContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/jpegd/hal_jpegd_reg.h

5.257 JpegParserContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/jpeg/jpegd_parser.h

5.258 JpegRegSet Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/jpegd/hal_jpegd_reg.h

5.259 JpegSyntaxParam Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.260 linReg_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264RateControl.h

5.261 list_head Struct Reference

The documentation for this struct was generated from the following file:

- osal/inc/mpp_list.h

5.262 LogCtx_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_log.h

5.263 LogEnv_t Struct Reference

Public Attributes

- char * outpath
  files

The documentation for this struct was generated from the following file:

- mpp/common/h264d_log.h

5.264 LogEnvStr_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_log.h

5.265 LogFlag_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_log.h

5.266 LongTermRPS Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.267 LPDXVA_Deblock_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.268 LPDXVA_DeblockIndexAB_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.269 LPDXVA_FilmGrainChar_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.270 LPDXVA_MBctrl_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.271 LPDXVA_PicEntry_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.272 LPDXVA_PicEntry_HEVC Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h265d_syntax.h

5.273 LPDXVA_PicEntry_Vpx Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/vp9d_syntax.h

5.274 LPDXVA_PicParams_H263 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h263d_syntax.h

5.275 LPDXVA_PicParams_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.276 LPDXVA_PicParams_H264_MVC Struct Reference

Public Attributes

- RK_U16 ViewIDList [16]
  add in Rock-Chip RKVDEC IP

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.277 LPDXVA_PicParams_HEVC Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h265d_syntax.h

5.278 LPDXVA_PicParams_MPEG4_PART2 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/mpg4d_syntax.h

5.279 LPDXVA_PicParams_VP9 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/vp9d_syntax.h

5.280 LPDXVA_Qmatrix_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.281 LPDXVA_Qmatrix_HEVC Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h265d_syntax.h

5.282 LPDXVA_QmatrixData Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/mpg4d_syntax.h

5.283 LPDXVA_Slice_H264_Long Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.284 LPDXVA_Slice_H264_Short Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.285 LPDXVA_Slice_HEVC_Short Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h265d_syntax.h

5.286 LPDXVA_Slice_VPx_Short Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/vp9d_syntax.h

5.287 LPDXVA_Status_H264 Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/h264d_syntax.h

5.288 M2VDCombMem Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.289 M2VDContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_codec.h

5.290 M2VDDxvaGop Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.291 M2VDDxvaParam Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.292 M2VDDxvaPic Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.293 M2VDDxvaPicCodeExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.294 M2VDDxvaPicDispExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.295 M2VDDxvaSeq Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.296 M2VDDxvaSeqDispExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.297 M2VDDxvaSeqExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/m2vd_syntax.h

5.298 M2VDFrameHead Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.299 M2VDHalContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.300 M2VDHeadGop Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.301 M2VDHeadPic Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.302 M2VDHeadPicCodeExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.303 M2VDHeadPicDispExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.304 M2VDHeadSeq Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.305 M2VDHeadSeqDispExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.306 M2VDHeadSeqExt Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.307 M2VDParserContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/m2v/m2vd_parser.h

5.308 M2VDRegSet Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/m2vd/hal_m2vd_reg.h

5.309 madTable_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264Mad.h

5.310 mpeg4d_dxva2_picture_context_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/mpg4d_syntax.h

5.311 MpiImpl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/mpi_impl.h

5.312 MppAllocatorApi Struct Reference

The documentation for this struct was generated from the following file:

- osal/inc/mpp_allocator.h

5.313 MppAllocatorImpl Struct Reference

The documentation for this struct was generated from the following file:

- osal/mpp_allocator_impl.h

5.314 MppApi Struct Reference

The documentation for this struct was generated from the following file:

- inc/rk_mpi.h

5.315 MppBufferGroupImpl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/base/inc/mpp_buffer_impl.h

5.316 MppBufferImpl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/base/inc/mpp_buffer_impl.h

5.317 MppBufferInfo Struct Reference

The documentation for this struct was generated from the following file:

- inc/mpp_buffer.h

5.318 MppDec Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/mpp_dec.h

5.319 MppDecCfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/mpp_dec.h

5.320 MppEnc Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/mpp_enc.h

5.321 MppEncConfig Struct Reference

The documentation for this struct was generated from the following file:

- inc/rk_mpi.h

5.322 MppFrameImpl Struct Reference

Public Attributes

- MppFrameColorSpace colorspace

5.322.1 Member Data Documentation

5.322.1.1 colorspace

```
MppFrameColorSpace MppFrameImpl::colorspace
```

YUV colorspace type. It must be accessed using av_frame_get_colorspace() and av_frame_set_colorspace().

- encoding: Set by user
- decoding: Set by libavcodec

The documentation for this struct was generated from the following file:

- mpp/base/inc/mpp_frame_impl.h

5.323 MppHalApi Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/mpp_hal.h

5.324 MppHalCfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/mpp_hal.h

5.325 MppPacketImpl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/base/inc/mpp_packet_impl.h

5.326 MppRational_t Struct Reference

Public Attributes

- RK_S32 num
  numerator
- RK_S32 den
  denominator

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_codec.h

5.327 MppSyntax Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/inc/hal_task.h

5.328 MppTaskImpl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/base/inc/mpp_task_impl.h

5.329 MVC_scalability_info_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.330 MVC_scalable_nesting_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h264/h264d_global.h

5.331 OpenHevc_Frame Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/test/openHevcWrapper.h

5.332 OpenHevc_Frame_cpy Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/test/openHevcWrapper.h

5.333 OpenHevc_FrameInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/test/openHevcWrapper.h

5.334 OpenHevc_Rational Struct Reference

Public Attributes

- int num
  numerator
- int den
  denominator

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/test/openHevcWrapper.h

5.335 OptionInfo Struct Reference

The documentation for this struct was generated from the following file:

- utils/utils.h

5.336 os_allocator Struct Reference

The documentation for this struct was generated from the following file:

- osal/os_allocator.h

5.337 ParserApi Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/parser_api.h

5.338 ParserCfg Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/inc/parser_api.h

5.339 ParserOut_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.340 PostProcessInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.341 pps_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264PictureParameterSet.h

5.342 preProcess_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/encpreprocess.h

5.343 prob_context Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9data.h

5.344 pthread_once_t Struct Reference

The documentation for this struct was generated from the following file:

- osal/window/pthread/inc/pthread.h

5.345 PTL Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.346 PTLCommon Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.347 ptw32_cleanup_t Struct Reference

The documentation for this struct was generated from the following file:

- osal/window/pthread/inc/pthread.h

5.348 ptw32_handle_t Struct Reference

The documentation for this struct was generated from the following file:

- osal/window/pthread/inc/pthread.h

5.349 QuantTables Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.350 REF_PIC_DEC_INFO Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.351 RefInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_parser.h

5.352 RefPicList Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.353 RefPicListTab Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.354 regValues_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/encasiccontroller.h

5.355 rk_list Class Reference

The documentation for this class was generated from the following file:

- mpp/legacy/rk_list.h

5.356 H265d_REGS_t::sao_ctu_position Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h265d/hal_h265d_reg.h

5.357 ScalingList Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.358 ScanInfo Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.359 sched_param Struct Reference

The documentation for this struct was generated from the following file:

- osal/window/pthread/inc/sched.h

5.360 sei_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264Sei.h

5.361 ShortTermRPS Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.362 slice_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264Slice.h

5.363 SliceHeader Struct Reference

Public Attributes

- RK_U32 pps_id

  address (in raster order) of the first block in the current slice segment
- RK_U32 slice_segment_addr

  address (in raster order) of the first block in the current slice
- RK_U8 colour_plane_id

  RPS coded in the slice header itself is stored here.
- RK_U8 disable_deblocking_filter_flag

  slice_header_disable_deblocking_filter_flag
- RK_S32 beta_offset

  *beta_offset_div2 * 2*
- RK_S32 tc_offset

  *tc_offset_div2 * 2*
- RK_U32 max_num_merge_cand

  5 - 5_minus_max_num_merge_cand

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.364 SplitContext_t Struct Reference

Public Attributes

- RK_U32 state

  contains the last few bytes in MSB order
- RK_S32 overread

  the number of bytes which where irreversibly read from the next frame
- RK_S32 overread_index

  the index into ParseContext.buffer of the overread bytes
- RK_U64 state64

  contains the last 8 bytes in MSB order
- RK_S64 offset

  byte offset from starting packet start
- RK_S32 key_frame

5.364.1 Member Data Documentation

5.364.1.1 key_frame

```
RK_S32 SplitContext_t::key_frame
```

Set by parser to 1 for key frames and 0 for non-key frames. It is initialized to -1, so if the parser doesn't set this flag, old-style fallback using AV_PICTURE_TYPE_I picture type as key frames will be used.

The documentation for this struct was generated from the following files:

- mpp/codec/dec/h265/h265d_codec.h
- mpp/codec/dec/vp9/vp9d_codec.h

5.365 sps_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264SequenceParameterSet.h

5.366 storeMeta Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.367 stream_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/enccommon.h

5.368 StreamStorage Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.369 H265d_REGS_t::swreg_id Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h265d/hal_h265d_reg.h

5.370 H265d_REGS_t::swreg_int Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h265d/hal_h265d_reg.h

5.371 H265d_REGS_t::swreg_pic Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h265d/hal_h265d_reg.h

5.372 H264dRkvRegs_t::swreg_strmd_error_e Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_rkv_reg.h

5.373 H264dRkvRegs_t::swreg_sw_rps_base Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h264d/hal_h264d_rkv_reg.h

5.374 H265d_REGS_t::swreg_sysctrl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/h265d/hal_h265d_reg.h

5.375 TIME_STAMP Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.376 timespec Struct Reference

The documentation for this struct was generated from the following file:

- osal/window/pthread/inc/pthread.h

5.377 timeStamp_s Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264Sei.h

5.378 VideoPacket_t Struct Reference

information about packet

```
#include <vpu_api.h>
```

Public Attributes

- RK_S64 pts
- RK_S64 dts

5.378.1 Detailed Description

information about packet

5.378.2 Member Data Documentation

5.378.2.1 dts

`RK_S64 VideoPacket_t::dts`

with unit of us

5.378.2.2 pts

`RK_S64 VideoPacket_t::pts`

with unit of us

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.379 VlcTable Struct Reference

The documentation for this struct was generated from the following file:

- mpp/common/jpegd_syntax.h

5.380 VP8DContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp8/vp8d_codec.h

5.381 VP8DHalContext_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/vp8d/hal_vp8d_reg.h

5.382 VP8DParserContext_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp8/vp8d_parser.h

5.383 VP8DRegSet_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/vp8d/hal_vp8d_reg.h

5.384 vp8EntropyProbs_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp8/vp8d_parser.h

5.385 VP8Frame Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp8/vp8d_parser.h

5.386 VP9_REGS Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/rkdec/vp9d/hal_vp9d_reg.h

5.387 VP9Block Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_parser.h

5.388 Vp9CodecContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_codec.h

5.389 VP9Context Struct Reference

Public Attributes

- RK_S32 eos
  current packet contains an EOS/EOB NAL

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_parser.h

5.390 VP9Filter Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_parser.h

5.391 VP9Frame Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_parser.h

5.392 VP9mvrefPair Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_parser.h

5.393 VP9ParseContext Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vp9d_codec.h

5.394 vpBoolCoder_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp8/vp8d_parser.h

5.395 vpu_display_mem_pool Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.396 vpu_display_mem_pool_impl Struct Reference

The documentation for this struct was generated from the following file:

- mpp/legacy/vpu_mem_legacy.h

5.397 VPU_FRAME Struct Reference

information about frame

```
#include <vpu_api.h>
```

Public Attributes

- RK_U32 FrameBusAddr [2]
  0: Y address; 1: UV address;
- RK_U32 FrameWidth
  buffer horizontal stride
- RK_U32 FrameHeight
  buffer vertical stride
- RK_U32 OutputWidth
  deprecated
- RK_U32 OutputHeight
  deprecated
- RK_U32 DisplayWidth
  valid width for display
- RK_U32 DisplayHeight
  valid height for display
- RK_U32 FrameType
  frame; top_field_first; bot_field_first
- RK_U32 ErrorInfo
  error information

5.397.1 Detailed Description

information about frame

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.398 VPU_GENERIC Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.399 VpuApiLegacy Class Reference

The documentation for this class was generated from the following file:

- mpp/legacy/vpu_api_legacy.h

5.400 VpuCodecContext_t Struct Reference

function interface

```
#include <vpu_api.h>
```

Public Attributes

- RK_S32(∗ init)(struct VpuCodecContext ∗ctx, RK_U8 ∗extraData, RK_U32 extra_size)
  Allocate and initialize an VpuCodecContext.
- RK_S32(∗ decode)(struct VpuCodecContext ∗ctx, VideoPacket_t ∗pkt, DecoderOut_t ∗aDecOut)
  decode stream
- RK_S32(∗ encode)(struct VpuCodecContext ∗ctx, EncInputStream_t ∗aEncInStrm, EncoderOut_t ∗aEnc↩ Out)
  encode picture
- RK_S32(∗ flush)(struct VpuCodecContext ∗ctx)
- RK_S32(∗ decode_sendstream)(struct VpuCodecContext ∗ctx, VideoPacket_t ∗pkt)

5.400.1 Detailed Description

function interface

Deprecated use MppApi of rk_mpi.h instead

5.400.2 Member Data Documentation

5.400.2.1 decode

```
RK_S32(* VpuCodecContext_t::decode) (struct VpuCodecContext *ctx, VideoPacket_t *pkt, Decoder↩
Out_t *aDecOut)
```

decode stream

Parameters

ctx	The context of vpu api
pkt[in]	input stream
aDecOut[out]	output picture

Returns

0 for decode success, others for failure.

5.400.2.2 decode_sendstream

```
RK_S32(* VpuCodecContext_t::decode_sendstream) (struct VpuCodecContext *ctx, VideoPacket_t *pkt)
```

seperate the decode function to two function

5.400.2.3 encode

```
RK_S32(* VpuCodecContext_t::encode) (struct VpuCodecContext *ctx, EncInputStream_t *aEncInStrm, EncoderOut_t *aEncOut)
```

encode picture

Parameters

ctx	
aEncInStrm	
aEncOut	

Returns

0 for encode success, others for failure.

5.400.2.4 flush

```
RK_S32(* VpuCodecContext_t::flush) (struct VpuCodecContext *ctx)
```

flush codec while do fast forward playing.

Returns

0 for flush success, others for failure.

5.400.2.5 init

```
RK_S32(* VpuCodecContext_t::init) (struct VpuCodecContext *ctx, RK_U8 *extraData, RK_U32 extra_size)
```

Allocate and initialize an VpuCodecContext.

Parameters

ctx	The context of vpu api, allocated in this function.
extraData	The extra data of codec, some codecs need / can use extradata like Huffman tables, also live VC1 codec can use extradata to initialize itself.
extra_size	The size of extra data.

Returns

0 for init success, others for failure.

Note

check whether ctx has been allocated success after you do init.

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.401 VpuH263dRegSet_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/h263d/hal_h263d_reg.h

5.402 VPUHwDecConfig_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu.h

5.403 VPUHwEncConfig_t Struct Reference

The documentation for this struct was generated from the following file:

- inc/vpu.h

5.404 VPUMemLinear_t Struct Reference

information about memory

```
#include <vpu_api.h>
```

5.404.1 Detailed Description

information about memory

The documentation for this struct was generated from the following file:

- inc/vpu_api.h

5.405 VpuMpg4dRegSet_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/hal/vpu/mpg4d/hal_mpg4d_reg.h

5.406 Vpxmv Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vpx_rac.h

5.407 VpxRangeCoder Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/vp9/vpx_rac.h

5.408 VUI Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/dec/h265/h265d_parser.h

5.409 vui_t Struct Reference

The documentation for this struct was generated from the following file:

- mpp/codec/enc/h264/include/H264SequenceParameterSet.h

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