

opendivx

COLLABORATORS

	<i>TITLE :</i> opendivx		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		July 31, 2024	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	opendivx	1
1.1	opendivx.doc	1
1.2	opendivx.library/DIVX_Decode68k	1
1.3	opendivx.library/DIVX_DecodePPC	2
1.4	opendivx.library/DIVX_Encode68k	3
1.5	opendivx.library/DIVX_EncodePPC	4

Chapter 1

opendivx

1.1 opendivx.doc

```
DIVX_Decode68k ()
DIVX_DecodePPC ()
DIVX_Encode68k ()
DIVX_EncodePPC ()
```

1.2 opendivx.library/DIVX_Decode68k

NAME

DIVX_Decode68k -- Decode a OpenDivx using an 68k Function

SYNOPSIS

```
result = DIVX_Decode68k(handle, dec_opt, param1, param2)
D0                      d0          D1          A0          A1
```

FUNCTION

This function decodes a frame of a OpenDivx. It also can be used to initialize or quit the replay, or to set the postprocessing level. If called on a 68k machine, this function is 68k, if called on a PowerPC machine it contextswitches over to the PowerPC, using WarpOS.

On the first call, dec_opt should be DEC_OPT_INIT, and param1 a pointer to a correctly filled DEC_PARAM structure. On the second call dec_opt should be DEC_OPT_SETPP, and param1 should be a DEC_SET structure with postproc_level set to 0.

On a DEC_OPT_DECODE_RGB or a DEC_OPT_DECODE_YUV call param1 should be a correctly initialized DEC_FRAME structure. bitstream is the input buffer here, bmp the output buffer. In case of YUV-Decoding, the bmp parameter needs to be a char **, with three elements: The pointer to the Y-array, to the U-array, and the V-array.

A DEC_OPT_RELEASE operation with param1 and param2 both 0 terminates the Decoding.

Once DEC_OPT_DECODE_RGB is implemented 16/24/32 Bit will be possible (RGB16/RGB24/ARGB32 formats), but currently only YUV-Output is supported.

INPUTS

handle - currently ignored, for future use, put 0 in there for now
 dec_opt - the function you want to perform
 param1 - the parameter structure, according to the function
 param2 - for future use, currently set to 0

RESULTS

rtncode - DEC_OK if no error occurred.
 DEC_MEMORY indicates that not enough memory was present to perform the operation. DEC_BAD_FORMAT indicates that this was no OpenDivx file. DEC_OPERATION_UNIMPLEMENTED indicates that you try to replay with yuv2rgb conversion (DEC_OPT_DECODE_RGB), currently only DEC_OPT_DECODE_YUV is implemented. ↔

SEE ALSO

1.3 opendivx.library/DIVX_DecodePPC

NAME

DIVX_DecodePPC -- Decode a OpenDivx using a PPC Function

SYNOPSIS

```
result = DIVX_Decode68k(handle, dec_opt, param1, param2)
r3                r3        r4        r5        r6
```

FUNCTION

This function decodes a frame of a OpenDivx. It also can be used to initialize or quit the replay, or to set the postprocessing level. If called on a 68k machine, this function is PPC. It requires a PowerPC to be called. It does not use any contextswitches, but is completely PPC Native (WarpOS).

On the first call, dec_opt should be DEC_OPT_INIT, and param1 a pointer to a correctly filled DEC_PARAM structure. On the second call dec_opt should be DEC_OPT_SETPP, and param1 should be a DEC_SET structure with postproc_level set to 0.

On a DEC_OPT_DECODE_RGB or a DEC_OPT_DECODE_YUV call param1 should be a correctly initialized DEC_FRAME structure. bitstream is the input buffer here, bmp the output buffer. In case of YUV-Decoding, the bmap parameter needs to be a char **, with three elements: The pointer to the Y-array, to the U-array, and the V-array.

A DEC_OPT_RELEASE operation with param1 and param2 both 0 terminates the Decoding.

Once DEC_OPT_DECODE_RGB is implemented 16/24/32 Bit will be possible (RGB16/RGB24/ARGB32 formats), but currently only YUV-Output is supported.

INPUTS

handle - currently ignored, for future use, put 0 in there for now
 dec_opt - the function you want to perform
 param1 - the parameter structure, according to the function
 param2 - for future use, currently set to 0

RESULTS

rtncode - DEC_OK if no error occurred.
 DEC_MEMORY indicates that not enough memory was present to perform the operation. DEC_BAD_FORMAT indicates that this was no OpenDivx file.
 DEC_OPERATION_UNIMPLEMENTED indicates that you try to replay with yuv2rgb conversion (DEC_OPT_DECODE_RGB), currently only DEC_OPT_DECODE_YUV is implemented.

SEE ALSO

1.4 opendivx.library/DIVX_Encode68k

NAME

DIVX_Encode68k -- Encode a OpenDivx using an 68k Function

SYNOPSIS

```
result = DIVX_Encode68k(handle, dec_opt, param1, param2)
D0                                d0      D1      A0      A1
```

FUNCTION

This function encodes a frame of a OpenDivx. It also can be used to initialize or quit the Encoding. If called on a 68k machine, this function is 68k, if called on a PowerPC machine it contextswitches over to the PowerPC, using WarpOS.

On ENC_OPT_INIT (which requires to be the first call of the encoder) you have to provide a correctly initialized ENC_PARAM structure, on ENC_OPT_WRITE or ENC_OPT_KEY you can encode a frame, and need to provide a ENC_FRAME structure, where bmp is a 24 Bit image, and bitstream is the buffer for the encoded Bitstream. The structures are passed into param1. In param2 you get a ENC_RESULT returned, which tells you if the encoded frame was a keyframe or not (note, that ENC_OPT_WRITE and ENC_OPT_KEY currently make no difference).

INPUTS

handle - currently ignored, for future use, put 0 in there for now
 dec_opt - the function you want to perform
 param1 - the parameter structure, according to the function
 param2 - for future use, currently set to 0

RESULTS

rtncode - DEC_OK if no error occurred.
 DEC_MEMORY indicates that not enough memory was present to perform the operation. DEC_BAD_FORMAT indicates a format error.

SEE ALSO

1.5 opendivx.library/DIVX_EncodePPC

NAME

DIVX_EncodePPC -- Encode a OpenDivx using an 68k Function

SYNOPSIS

```
result = DIVX_EncodePPC(handle, dec_opt, param1, param2)
r3      r3      r4      r5      r6
```

FUNCTION

This function encodes a frame of a OpenDivx. It also can be used to initialize or quit the Encoding. This function is PPC, using WarpOS. It is a complete PPC Native function without contextswitches.

On ENC_OPT_INIT (which requires to be the first call of the encoder) you have to provide a correctly initialized ENC_PARAM structure, on ENC_OPT_WRITE or ENC_OPT_KEY you can encode a frame, and need to provide a ENC_FRAME structure, where bmp is a 24 Bit image, and bitstream is the buffer for the encoded Bitstream. The structures are passed into param1. In param2 you get a ENC_RESULT returned, which tells you if the encoded frame was a keyframe or not (note, that ENC_OPT_WRITE and ENC_OPT_KEY currently make no difference).

INPUTS

handle - currently ignored, for future use, put 0 in there for now
 dec_opt - the function you want to perform
 param1 - the parameter structure, according to the function
 param2 - for future use, currently set to 0

RESULTS

rtnCode - DEC_OK if no error occurred.
 DEC_MEMORY indicates that not enough memory was present to perform the operation. DEC_BAD_FORMAT indicates a format error.

SEE ALSO