Universal Serial Bus Device Class Definition for Video Devices: Identifiers

Revision 1.1

June 1, 2005

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Revision History

Version	Date	Description
1.0	December 9th, 2003	Initial release
1.1	June 1st, 2005	Add Frame Based and Stream Based Payload Identifiers (RR0056)

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1 Introduction

1.1 Purpose

This document lists the identifiers' values USB Video Device Class companion documents published after revision 1.0 of the base specification. Its purpose is to centralize the collection of identifiers and allow extensions to the class specification without requiring updates to the base class document.

1.2 Related Documents

USB Device Class Definition for Video Devices, www.usb.org

2 Video Device Class Codes

2.1 Video Class-Specific VC Interface Descriptor Subtypes

Table 2-1 Video Class-Specific VC Interface Descriptor Subtypes

Descriptor Subtype	Value
VC_DESCRIPTOR_UNDEFINED	0x00
VC_HEADER	0x01
VC_INPUT_TERMINAL	0x02
VC_OUTPUT_TERMINAL	0x03
VC_SELECTOR_UNIT	0x04
VC_PROCESSING_UNIT	0x05
VC_EXTENSION_UNIT	0x06

2.2 Video Class-Specific VS Interface Descriptor Subtypes

Table 2-2 Video Class-Specific VS Interface Descriptor Subtypes

Descriptor Subtype	Value
VS_ UNDEFINED	0x00
VS_INPUT_HEADER	0x01
VS_OUTPUT_HEADER	0x02
VS_STILL_IMAGE_FRAME	0x03
VS_FORMAT_UNCOMPRESSED	0x04
VS_FRAME_UNCOMPRESSED	0x05
VS_FORMAT_MJPEG	0x06
VS_FRAME_MJPEG	0x07
Reserved	0x08
Reserved	0x09
VS_FORMAT_MPEG2TS	0x0A
Reserved	0x0B

VS_FORMAT_DV	0x0C
VS_COLORFORMAT	0x0D
Reserved	0x0E
Reserved	0x0F
VS_FORMAT_FRAME_BASED	0x10
VS_FRAME_FRAME_BASED	0x11
VS_FORMAT_STREAM_BASED	0x12

3 Terminal Types

3.1 USB Terminal Types

These Terminal types describe Terminals that handle signals carried over the USB, through isochronous or bulk pipes. These Terminal types are valid for both Input and Output Terminals.

Table 3-1 USB Terminal Types

Terminal Type	Code	I/O	Description
TT_VENDOR_SPECIFIC	0x0100	I/O	A Terminal dealing with a signal carried over a vendor-specific interface. The vendor-specific interface descriptor must contain a field that references the Terminal.
TT_STREAMING	0x0101	I/O	A Terminal dealing with a signal carried over an endpoint in a VideoStreaming interface. The VideoStreaming interface descriptor points to the associated Terminal through the **bTerminalLink** field.

3.2 Input Terminal Types

These Terminal Types describe Terminals that are designed to capture video. They either are physically part of the video function or can be assumed to be connected to it in normal operation. These Terminal Types are valid only for Input Terminals

Table 3-2 Input Terminal Types

Terminal Type	Code	I/O	Description
ITT_ VENDOR_SPECIFIC	0x0200	I	Vendor-Specific Input Terminal.
ITT_CAMERA	0x0201	I	Camera sensor. To be used only in Camera Terminal descriptors.
ITT_MEDIA_TRANSPORT_INPUT	0x0202	I	Sequential media. To be used only in Media Transport Terminal Descriptors.

3.3 Output Terminal Types

These Terminal types describe Terminals that are designed to render video. They are either physically part of the video function or can be assumed to be connected to it in normal operation. These Terminal types are only valid for Output Terminals.

Table 3-3 Output Terminal Types

Terminal Type	Code	I/O	Description
OTT_ VENDOR_SPECIFIC	0x0300	O	Vendor-Specific Output Terminal.
OTT_DISPLAY	0x0301	O	Generic display (LCD, CRT, etc.).
OTT_MEDIA_TRANSPORT_OUTPUT	0x0302	O	Sequential media . To be used only in Media Transport Terminal Descriptors.

3.4 External Terminal Types

These Terminal types describe external resources and connections that do not fit under the categories of Input or Output Terminals because they do not necessarily translate video signals to or from the user of the computer. Most of them may be either Input or Output Terminals.

Table 3-4 External Terminal Types

Terminal type	Code	I/O	Description
EXTERNAL_ VENDOR_SPECIFIC	0x0400	I/O	Vendor-Specific External Terminal.
COMPOSITE_CONNECTOR	0x0401	I/O	Composite video connector.
SVIDEO_CONNECTOR	0x0402	I/O	S-video connector.
COMPONENT_CONNECTOR	0x0403	I/O	Component video connector.