Command Catalog

Reference manual

For HDX W12/W14/W18

R5905447/02
24/10/2013

BARCO

Visibly yours

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1. INTRODUCTION

1.1 About this document

What is the purpose of this document?

This document is applicable for the Barco device mentioned on the front page of this document and can thus not be used on any other equipment.

It explains how the communication with the device is accomplished. In order to be able to communicate with this Barco device, the Barco protocol, which is explained in detail in the following chapter, must be strictly followed.

Audience & prerequisites

This document is intended for software programmers and system integrators who want to be able to control a Barco device from their own application. This document expects a basic knowledge of binary math, networking technology and programming.

2. THE BARCO PROTOCOL

Overview

- The Barco protocol explained
- Ethernet communication
- RS232/RS422/USB-B communication
- The command representation in this manual

2.1 The Barco protocol explained

Usage

The Barco protocol is used for the serial communication with a Barco device. This can be done by the following ways:

- Ethernet
- RS232
- RS422
- USB-B

Structure

Each command is built up from a start byte, device address, request/response, checksum and stop byte (image 2-1).

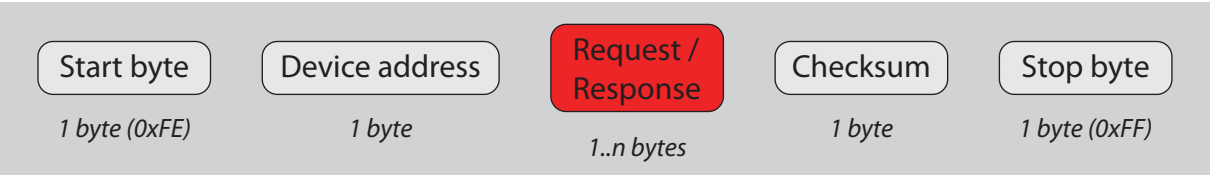

Image 2-1
Command structure

- **Start byte**: used to let the receiver know that a command will follow.
- **Device address**: when multiple devices (maximum 256) are connected on the same physical connection, the device address is used to specify the device (only for RS232 connections). In case of an Ethernet connection, this should be set to 0.
- **Request/Response**: the actual command bytes.
- **Checksum**: used to detect if any errors occurred during transmission or reception of the command.
- **Stop byte**: used to let the receiver know that the end of a command has been reached.

How is the checksum calculated?

The checksum calculation is based on modular arithmetic:

`Checksum` **=** **(**`Device address` **+** `Request/Response`**) modulo** `0x100 (or 256)`

Bytes conversion

Some bytes cannot be used in a command. If they do appear in the **request/response** or **checksum**, they must be converted. The table below gives an overview.

Byte	After conversion
0x80	0x80 0x00
0xFE	0x80 0x7E
0xFF	0x80 0x7F

When a byte sequence from the after conversion column is received, that sequence must be converted to the corresponding byte.

Characters and character strings

Each character is sent as a byte, using the ANSI encoding method.

Character strings can be formatted in two ways:

- **C-style format**
  An array of one or more characters which is terminated by a NULL character (`0x00`). The position of the NULL character determines the length of the string.
  Example: 'f' 'o' 'o' ' ' 'b' 'a' 'r' 0x00
- **Pascal-style format**
  An array of one or more characters which is started (the first byte) with the length of the string. Therefore, Pascal-style strings are limited to 255 characters.
  Example: 0x07 'f' 'o' 'o' ' ' 'b' 'a' 'r'

ANSI

American National Standards Institute

Data words

A data word is a value which consists of multiple bytes. Data words are formatted in **big endian**.

How to calculate the value of a data word?

Example of a 4-byte value: `0x01 0x20 0x50 0x30`

= (`0x01` * 256^3) + (`0x20` * 256^2) + (`0x50` * 256^1) + (`0x30` * 256^0)

= (1 * 16777216) + (32 * 65536) + (80 * 256) + (48 * 1)

= 16777216 + 2097152 + 20480 + 48

= 18894896

msb

The **m**ost **s**ignificant **b**yte, is the byte with the greatest weight (value).

lsb

The **l**ess **s**ignificant **b**yte, is the byte with the smallest weight (value).

Big endian

When the first byte of a data word is the **msb** and the last byte is the **lsb**, the data word is in **big endian**.

Negative values

The **two's complement** (**2-complement**) system is used for the representation of negative values.

Acknowledgement (ACK and NACK)

If a command is received, the receiver will check the validity and correctness of the command before processing it. If the command is understood, the receiver will first acknowledge the command before doing the actual processing of the command. An **ACK** (AC-Knowledge) is sent when these conditions are met:

- The command format is correct
- The command and its parameters are valid
- The checksum is correct

When these conditions are not met, a **NACK** (Not ACKnowledge) is sent.

	ACK	NACK
Byte 1	`0x00`	`0x00`
Byte 2	`0x06`	`0x15`

When the sender receives a NACK message, it is up the sender to decide what should happen next: retry sending the command or discard the command.

Acknowledgements are not used in multicast communication.

Sending and receiving a command

A command which is sent to the device will consist of a request. A command which is received by the client will consist of a response.

Requests must be sent in the Barco protocol format: each request needs to be structured in the correct way before it is sent to the device. Responses are also sent in the Barco protocol format.

Keep in mind that:

- For Ethernet communication, the **Device address** must be set to 0.
- A correct **Checksum** must be generated for the command.

After a request has been sent to the device, the acknowledgement of the request must be read first. After the request has been acknowledged, the response from the device (if applicable) can be expected.

Example 1: The client wants to know the type of the device. It sends the following command: *projector type, read*. The device will acknowledge (ACK) the request and then send the response which contains the device type.

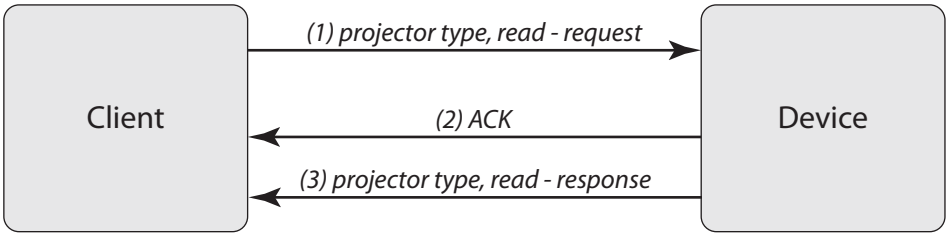

Image 2-2
Example 1

Example 2: The client sends an unknown command. The device doesn't recognize the command and sends a NACK.

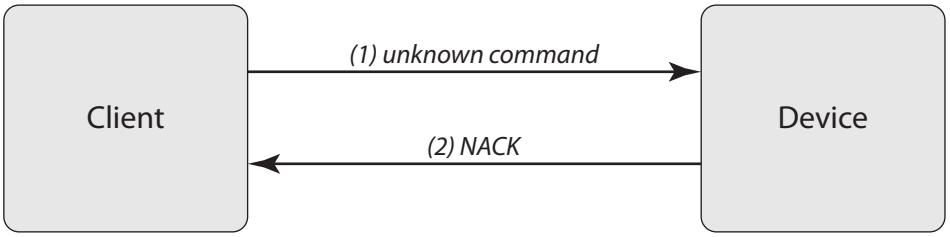

Image 2-3
Example 2

How to handle failing communication?

When a sender fails to send a command, or a receiver fails to return the expected response (ACK, NACK or response), some steps must be followed to handle this failing communication.

There are 2 possible failures:

- **Communication link problems:** if the sending of the commands itself doesn't work, it will be because the communication is broken (e.g. the receiver is disconnected from the network).
- **Answer back problems:** when commands can be sent out but no response is sent back, it means that the communication link is OK but the receiver is unable to answer back.

Each type of failure needs another way of handling.

Handling communication link problems

As communication link problems will most likely have a physical reason (cable disconnected, hub down, device down, …), the user must be notified and must be asked for his feedback. In most cases there will be a user intervention needed to correct this problem (connect the cable, reboot the hub, restart the device, …).

The actual implementation of this should be described in the specifications of the application.

Handling answer back problems

Answer back problems should be addressed in another way. When a receiver fails to answer back it might be that it is currently too busy to answer back. The application software should implement some simple mechanisms to avoid problems when this occurs:

1. **Timeout waiting**: the application should wait for a limited amount of time for an answer (e.g. max 10 seconds). This ensures that the application can react when a command doesn't get answered in time.
2. **Retry waiting**: if the timeout expires, one can retry waiting for the answer. By doing this, the user has the opportunity to cancel the action. If needed, the retry can even be repeated several times.
3. **Retry sending**: when a command does not get answered after the timout waiting and retry waiting, the command is considered to be lost in action and the application should send the command again.

This mechanism follows the sequence of the steps: first the timeout waiting is used, then the retry waiting and finally the retry sending. If all of these steps fail, there might be a major problem with the receiver. In this case the user should be notified of these problems so that he can check the status of the receiver.

2.2 Ethernet communication

Introduction

The communication follows a client/server model where the device is the server. This means that the device responds on requests that are sent by a client. The device will not send out messages on its own initiative.

The communication is *blocking* which means that when a request is sent to the device, no other requests can be sent until the device has responded on the first request. The communication blocks for each request.

The connector used for the Ethernet ports are of rugged Neutrik EtherCon RJ45 type, which is compatible with standard RJ45 cable connector. Straight (most common) as well as cross linked network cables can be used.

10/100 Base-T — RJ45 port	
Pin	**Description**
1	TXD+
2	TXD-
3	RXD+
4	—
5	—
6	RXD-
7	—
8	—

Making connection with the device

The device is listening on TCP port 0xAAA0 (43680) for incoming connections. The IP address can be retrieved using the local user interface or on the OSD menu of the device.

Device discovery

It is possible to discover all the devices on the network using a UDP broadcast. A UDP broadcast only works on IP networks and requires a special socket connection: the datagram connection.

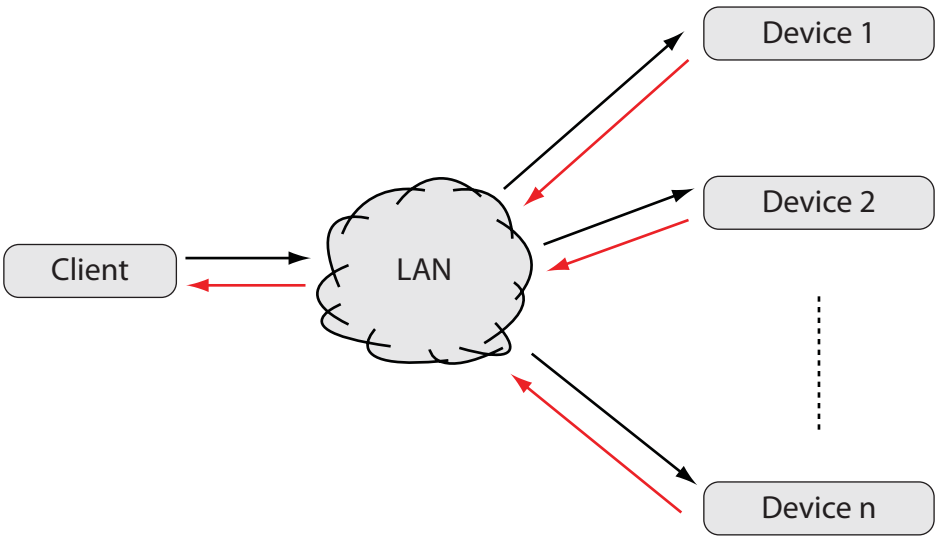

Image 2-4

To discover the devices, send a datagram packet to the broadcast address `255.255.255.255` on port `0xA001`.

The packet should contain 1 byte: `0x3F`, which represents the character '?'.

All the devices that support UDP broadcast discovery, will answer on the request by sending an array of (C-language) strings on the same socket. Each string represents a key-value pair with specific information about the device that has been discovered.

Typically, the following strings will be returned:

- **hostname=value**; the hostname of the device
- **ip-address=value**; the IP address of the device
- **mac-address=value**; the MAC address of the NIC on the device
- **type=value**; the device type (not for DP90/DP100 projectors)

Remarks:

- The broadcast does not follow the typical Barco protocol formatting: the request is just one byte (not marked up as Barco protocol command) and the devices answer back without sending an ACK and without formatting their response in the Barco protocol format.
- The size of the array is undetermined, but in most cases it will contain 4 strings. However, this is open to future expansion, so more strings can be added later.
- The strings normally appear in this order: *hostname, ip-address, mac-address* and *type*, but this cannot be guaranteed.

The used broadcast is a limited broadcast. This means that the broadcast message is transmitted to all NIC's which are on the same IP segment as the client. This type of broadcast is not forwarded by routers so it will not detect devices which are on another segment.

NIC

Network **I**nterface **C**ard

2.3 RS232/RS422/USB-B communication

RS232

An Electronic Industries Association (EIA) serial digital interface standard specifying the characteristics of the communication path between two devices using either D-SUB 9 pins or D-SUB 25 pins connectors. This standard is used for relatively short-range communications and does not specify balanced control lines. RS-232 is a serial control standard with a set number of conductors, data rate, word length and type of connector to be used. The standard specifies component connection standards with regard to computer interface. It is also called RS-232-C, which is the third version of the RS-232 standard, and is functionally identical to the CCITT V.24 standard. Logical '0' is > + 3V, Logical '1' is < -3V. The range between -3V and +3V is the transition zone.

RS422

An EIA serial digital interface standard that specifies the electrical characteristics of balanced (differential) voltage, digital interface circuits. This standard is usable over longer distances than RS-232. This signal governs the asynchronous transmission of computer data at speeds of up to 920,000 bits per second. It is also used as the serial port standard for Macintosh computers. When the difference between the 2 lines is < - 0.2V that equals with a logical '0'. When the difference is > +0.2V that equals to a logical '1'..

Settings

Baud rate: Defines the speed of the data transfer. The baud rate can be set using the local user interface on the device. Consult the user manual of the device for more detailed information.

Data bits: Eight (8) data bits are used for each character of the data transfer.

Parity: There is no parity bit used to perform error checking.

Stop bit: One (1) stop bit is used to define the end of a character.

Hardware

RS232/422 input (Sub-D) port	
Pin	**Description**
1	DCD : Data Carrier Detect
2	RXD- : Receive Data
3	TXD- : Transmitted Data
4	DTR : Data Terminal Ready [RS232]
	TXD+ : Transmitted Data [RS422]

RS232/422 input (Sub-D) port	
Pin	**Description**
5	GND : Ground
6	DSR : Data Set Ready [RS232] RXD+ : Received Data [RS422]
7	— (not connected) —
8	CTS : Clear To Send
9	RI : Ring Indicator

2.4 The command representation in this manual

About the command representation in this manual

- **Title**: The title of a command is built up from its function (e.g. **network settings**), followed by its type (e.g. **read**).
- **Description**: A general description of the command is given in the *About this command* section.
- **Request/Response** table: Each row in the request/response table represents a datafield. A datafield contains 1 or more values.
  a) **Pos**: The position of the datafield. When the size of the datafield is greater than 1, the datafield will take more than 1 position.
  b) **Size**: The number of values the datafield **must** contain. This can be different from the total number of available values, dependent on the value groups.
  c) **Name**: The name of the datafield.
  d) **Description**: The description of the datafield.
  e) **Content**: The value(s) of the datafield. This column consists of the **value** itself, and a **value description**. Every value is displayed in a separate row. A datafield can have different value groups.
  Different value groups can be distinguished as follows:
  - If consecutive rows have different background colors, the values belong to another group.
  - If they have the same background color, the values belong to the same group.

  Only 1 value group per datafield may be choosen to be used in the command. All the values of a value group must appear together and in the same order.

Example: the datafield below contains 2 IP addresses. Only 1 of the 2 IP-addresses may be choosen in the command. The values of the IP-addresses must stay in the same order.

Pos	Size	Name	Description	Content	
0-3	4	IP-address	This is the IP-address datafield.	192	IP-address 1, value 1 (dec)
				168	IP-address 1, value 2 (dec)
				1	IP-address 1, value 3 (dec)
				1	IP-address 1, value 4 (dec)
				192	IP-address 2, value 1 (dec)
				168	IP-address 2, value 2 (dec)
				1	IP-address 2, value 3 (dec)
				2	IP-address 2, value 4 (dec)

Table 2-5
Example

3. COMMANDS

3.1 3D dark time adjustment, read

About this command

This command reads the 3D dark time adjustment.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D dark time adjustment		0x02	

Response

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D dark time adjustment		0x02	
2-3	2	dark time adjustment	dark time in uS as WORD		MSB (hex)
					LSB (hex)

3.2 3D dark time adjustment, write

About this command

This command writes the 3D dark time adjustment.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Write 3D dark time adjustment		0x82	
2-3	2	dark time adjustment	dark time in uS as WORD		MSB (hex)
					LSB (hex)

3.3 3D field dominance, read

About this command

This command reads the 3D field dominance for the current input. Only used with frame sequential 3D.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D field dominance		0x05	

Response

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	

Pos	Size	Name	Description	Content	
1	1	Read 3D field dominance		0x05	
2	1	3D field dominance		0x00	Left - Right (hex)
				0x01	Right - Left (hex)

3.4 3D field dominance, write

About this command

This command writes the 3D field dominance for the current input. Only used with frame sequential 3D.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Write 3D field dominance		0x85	
2	1	3D field dominance		0x00	Left - Right (hex)
				0x01	Right - Left (hex)

3.5 3D L/R Output Reference Delay, read

About this command

This command reads the 3D L/R output reference delay.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D L/R Output Reference Delay		0x03	

Response

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D L/R Output Reference Delay		0x03	
2-3	2	L/R output reference delay	2-complement number,		MSB (hex)
			with units to be uS.		LSB (hex)

About datafield 4 (L/R output reference delay)

Time data shall be represented as a 2-complement number, with units to be microseconds.

Ex. 0x0190 = 400us (positive delay); 0xFE70 = - 400us (negative delay)

3.6 3D L/R Output Reference Delay, write

About this command

This command writes the 3D L/R output reference delay.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	

Pos	Size	Name	Description	Content	
1	1	Write 3D L/R Output Reference Delay		0x83	
2-3	2	L/R output reference delay	2-complement number, with units to be uS.		MSB (hex)
					LSB (hex)

About datafield 2 (L/R output reference delay)

Time data shall be represented as a 2-complement number, with units to be microseconds.

Ex. 0x0190 = 400us (positive delay); 0xFE70 = - 400us (negative delay)

3.7 3D mode, read

About this command

This command reads the 3D mode for the current input.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D mode		0x01	

Response

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D mode		0x01	
2	1	3D mode		0x00	Frame Sequential - Single Channel (hex)
				0x01	Frame Sequential - Dual Channel (hex)
				0x02	Frame Packing (FHD3D) (hex)
				0x03	Side-by-Side (Half) (hex)
				0x04	Top-and-Bottom (Half) (hex)
				0x06	SENSIO(R) HI_FI 3D (hex)
				0x07	Line Altering (3G) (hex)

3.8 3D mode, write

About this command

This command writes the 3D mode for the current input.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Write 3D mode		0x81	

Pos	Size	Name	Description	Content	
2	1	3D mode		0x00	Frame Sequential - Single Channel (hex)
				0x01	Frame Sequential - Dual Channel (hex)
				0x02	Frame Packing (FHD3D) (hex)
				0x03	Side-by-Side (Half) (hex)
				0x04	Top-and-Bottom (Half) (hex)
				0x06	SENSIO(R) HI_FI 3D (hex)
				0x07	Line Altering (3G) (hex)

3.9 3D status, read

About this command

This command reads the 3D status for the current input.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D status		0x00	

Response

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D status		0x00	
2	1	3D status		0x00	Off (hex)
				0x01	On (hex)

3.10 3D status, write

About this command

This command writes the 3D status for the current input.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Write 3D status		0x80	
2	1	3D status		0x00	Off (hex)
				0x01	On (hex)

3.11 3D Sync Loop status, read

About this command

This command reads the 3D Sync Loop status for the current input.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D Sync Loop status		0x07	

Response

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Read 3D Sync Loop status		0x07	
2	1	3D Sync Loop status		0x00	Off (hex)
				0x01	On (hex)

3.12 3D Sync Loop status, write

About this command

This command writes the 3D Sync Loop status for the current input.

Request

Pos	Size	Name	Description	Content	
0	1	3D		0x3d	
1	1	Write 3D Sync Loop status		0x87	
2	1	3D Sync Loop status		0x00	Off (hex)
				0x01	On (hex)

3.13 brightness possible, read

About this command

This command checks if brightness adjustment is possible.

Request

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj brightness	value known as "adj brightness"	0x02	brightness (hex)

Response

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj brightness	value known as "adj brightness"	0x02	brightness (hex)
2	1	possible	adjustment is possible or not	0x00	not possible (hex)
				0x01	possible (hex)

3.14 clear test pattern, write

About this command

This command clears the test pattern.

Request

Pos	Size	Name	Description	Content	
0	1	test pattern	byte value known as test pattern	0x41	test pattern (hex)
1	1	test pattern write	byte value known as "test pattern write"	0xc4	test pattern write (hex)
2	1	clear	clear	0x00	clear (hex)

3.15 contrast possible, read

About this command

This command checks if contrast adjustment is possible.

Request

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj contrast	value known as "adj contrast"	0x01	contrast (hex)

Response

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj contrast	value known as "adj contrast"	0x01	contrast (hex)
2	1	possible	adjustment is possible or not	0x00	not possible (hex)
				0x01	possible (hex)

3.16 decrement blanking bottom, write

About this command

This command decrements the blanking bottom by one.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj blanking bottom	byte value known as "adj blanking bottom"	0x4d	adj blanking bottom (hex)

3.17 decrement blanking left, write

About this command

This command decrements the blanking left by one.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj blanking left	byte value known as "adj blanking left"	0x4e	adj blanking left (hex)

3.18 decrement blanking right, write

About this command

This command decrements the blanking right by one.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj blanking right	byte value known as "adj blanking right"	0x4f	adj blanking right (hex)

3.19 decrement blanking top, write

About this command

This command decrements the blanking top by one.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj blanking top	byte value known as "adj blanking top"	0x4c	adj blanking top (hex)

3.20 decrement brightness, write

About this command

This command decrements the brightness by one.

Request

Pos	Size	Name	Description	Content	
0	1	decrement brightness	decrement brightness	0x04	dec brightness (hex)

3.21 decrement color balance blue green ratio, write

About this command

This command decrements the color balance blue green ratio by one.

range 0 -> 200.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj color balance blue green	byte value known as "adj color balance blue green"	0x44	adj color balance blue green (hex)

3.22 decrement color balance red green ratio, write

About this command

This command decrements the color balance red green ratio by one.

range 0 -> 200.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj color balance red green	byte value known as "adj color balance red green"	0x43	adj color balance red green (hex)

3.23 decrement contrast, write

About this command

This command decrements the contrast by one.

Request

Pos	Size	Name	Description	Content	
0	1	decrement contrast	decrement contrast	0x02	decrement contrast (hex)

3.24 decrement dimming value, write

About this command

This command decrements the dimming value by one.

The higher the value the brighter the light output.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj dimming	byte value known as " adj dimming"	0x0d	adj dimming (hex)

3.25 decrement gamma, write

About this command

This command decrements the gamma by one.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj gamma	byte value known as "adj input gamma"	0x70	adj gamma (hex)

3.26 decrement input black balance , write

About this command

This command decrements the input black balance by one.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj input black balance	byte value known as "adj input black balance"	0x6e	adj input black balance (hex)

3.27 decrement input white balance , write

About this command

This command decrements the input white balance by one.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj input white balance	byte value known as "adj input white balance"	0x6f	adj input white balance (hex)

3.28 decrement phase, write

About this command

This command decrements the phase by one.

Request

Pos	Size	Name	Description	Content	
0	1	decrement phase	decrement phase	0x0C	dec phase (hex)

3.29 decrement saturation, write

About this command

This command decrements the saturation by one.

Request

Pos	Size	Name	Description	Content	
0	1	decrement saturation	decrement saturation	0x06	dec saturation (hex)

3.30 decrement sharpness, write

About this command

This command decrements the sharpness by one.

Request

Pos	Size	Name	Description	Content	
0	1	decrement sharpness	decrement sharpness	0x0A	dec sharpness (hex)

3.31 decrement shutter, write

About this command

This command closes the shutter.

Request

Pos	Size	Name	Description	Content	
0	1	dec adj	byte value known as " dec adj"	0x23	dec adj (hex)
1	1	adj shutter	byte value known as " adj shutter"	0x42	adj shutter (hex)
2	1	value	value should be 0x00 in order to be valid.	0x00	value (hex)

3.32 decrement tint, write

About this command

This command decrements the tint by one.

Request

Pos	Size	Name	Description	Content	
0	1	decrement tint	decrement tint	0x08	dec tint (hex)

3.33 freeze, write

About this command

This command freezes the active window.

Request

Pos	Size	Name	Description	Content	
0	1	max adj	byte value known as "max adj"	0x27	max adj (hex)
1	1	adj freeze	byte value known as "adj freeze"	0x23	adj freeze (hex)

3.34 function read electronic convergence, read

About this command

This command reads the electronic convergence.

Request

Pos	Size	Name	Description	Content	
0	1	function	byte value known as "function"	0x82	function (hex)
1-4	4	read electronic convergence	DWORD value known as "read electronic convergence"	0x00	BYTE 0 (hex)
				0x00	BYTE 1 (hex)
				0x00	BYTE 2 (hex)
				0x4b	BYTE 3 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	function	byte value known as "function"	0x82	function (hex)

Pos	Size	Name	Description	Content	
1-4	4	read electronic convergence	DWORD value known as "read electronic convergence"	0x00	BYTE 0 (hex)
				0x00	BYTE 1 (hex)
				0x00	BYTE 2 (hex)
				0x4b	BYTE 3 (hex)
5	1	horizontal	horizontal convergence	bit 7	reserved (bit)
				bit 6	reserved (bit)
				bit 5	shift blue (MSBit) (bit)
				bit 4	shift blue (LSBit) (bit)
				bit 3	shift green (MSBit) (bit)
				bit 2	shift green (LSBit) (bit)
				bit 1	shift red (MSBit) (bit)
				bit 0	shift red (LSBit) (bit)
6	1	vertical	vertical convergence	bit 7	reserved (bit)
				bit 6	reserved (bit)
				bit 5	shift blue (MSBit) (bit)
				bit 4	shift blue (LSBit) (bit)
				bit 3	shift green (MSBit) (bit)
				bit 2	shift green (LSBit) (bit)
				bit 1	shift red (MSBit) (bit)
				bit 0	shift red (LSBit) (bit)

About datafield 4 (horizontal)

all shift values have a 2 bit size

MSBit Most Significant Bit

LSBit Least Significant Bit

About datafield 5 (vertical)

all shift values have a 2 bit size

MSBit Most Significant Bit

LSBit Least Significant Bit

3.35 function read input balance pattern status, read

About this command

This command reads the status of the special pattern used for input balance adjustment.

Request

Pos	Size	Name	Description	Content	
0	1	function	byte value known as "function"	0x82	function (hex)
1-4	4	read input balance pattern status	DWORD value known as "read input balance pattern status"	0x00	BYTE 0 (hex)
				0x00	BYTE 1 (hex)
				0x00	BYTE 2 (hex)
				0x51	BYTE 3 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	function	byte value known as "function"	0x82	function (hex)

Pos	Size	Name	Description	Content	
1-4	4	read input balance pattern status	DWORD value known as "read input balance pattern status"	0x00	BYTE 0 (hex)
				0x00	BYTE 1 (hex)
				0x00	BYTE 2 (hex)
				0x51	BYTE 3 (hex)
5	1	status	input balance test pattern status	0x00	off (hex)
				0x01	on (hex)

3.36 function write electronic convergence , write

About this command

This command sets the electronic convergence.

Request

Pos	Size	Name	Description	Content	
0	1	function	byte value known as "function"	0x82	function (hex)
1-4	4	write electronic convergence	DWORD value known as "write electronic convergence"	0x00	BYTE 0 (hex)
				0x00	BYTE 1 (hex)
				0x00	BYTE 2 (hex)
				0x4c	BYTE 3 (hex)
5	1	horizontal	horizontal convergence	bit 7	reserved (bit)
				bit 6	reserved (bit)
				bit 5	shift blue (MSBit) (bit)
				bit 4	shift blue (LSBit) (bit)
				bit 3	shift green (MSBit) (bit)
				bit 2	shift green (LSBit) (bit)
				bit 1	shift red (MSBit) (bit)
				bit 0	shift red (LSBit) (bit)
6	1	vertical	vertical convergence	bit 7	reserved (bit)
				bit 6	reserved (bit)
				bit 5	shift blue (MSBit) (bit)
				bit 4	shift blue (LSBit) (bit)
				bit 3	shift green (MSBit) (bit)
				bit 2	shift green (LSBit) (bit)
				bit 1	shift red (MSBit) (bit)
				bit 0	shift red (LSBit) (bit)

About datafield 2 (horizontal)

all shift values have a 2 bit size

MSBit Most Significant Bit

LSBit Least Significant Bit

About datafield 3 (vertical)

all shift values have a 2 bit size

MSBit Most Significant Bit

LSBit Least Significant Bit

3.37 get aspect ratio file, read

About this command

This command gets the aspect ratio file value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio file	byte value known as "aspect ratio file"	0xc0	aspect ratio file (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio file	byte value known as "aspect ratio file"	0xc0	aspect ratio file (hex)
NA	NA	aspect ratio string	aspect ratio as C-language string		aspect ratio string (string)

About datafield 6 (aspect ratio string)

"4:3" or "16:9" or "5:4" or "2.35" or "1.88" or "1.85" or "1.78" or "16:10" or "1.67" or "Custom"

3.38 get aspect ratio height, read

About this command

This command gets the aspect ratio height value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio height	byte value known as "aspect ratio height"	0xc2	aspect ratio height (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio height	byte value known as "aspect ratio height"	0xc2	aspect ratio height (hex)
3-6	4	aspect ratio height	aspect ratio height as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.39 get aspect ratio width, read

About this command

This command gets the aspect ratio width value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio width	byte value known as "aspect ratio width"	0xc1	aspect ratio width (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio width	byte value known as "aspect ratio width"	0xc1	aspect ratio width (hex)
3-6	4	aspect ratio width	aspect ratio width as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.40 get baudrate, read

About this command

This command gets the baudrate.

Request

Pos	Size	Name	Description	Content	
0	1	baudrate	byte value known as "baudrate"	0x75	baudrate (hex)

Response

Pos	Size	Name	Description	Content	
0	1	baudrate	byte value known as "baudrate"	0x75	baudrate (hex)
NA	NA	baudrate	baudrate as C-string		baudrate (string)

3.41 get blanking bottom, read

About this command

This command gets the blanking bottom value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking bottom	byte value known as "adj blanking bottom"	0x4d	adj blanking bottom (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking bottom	byte value known as "adj blanking bottom"	0x4d	adj blanking bottom (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.42 get blanking left, read

About this command

This command gets the blanking left value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking left	byte value known as "adj blanking left"	0x4e	adj blanking left (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking left	byte value known as "adj blanking left"	0x4e	adj blanking left (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.43 get blanking right, read

About this command

This command gets the blanking right value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking right	byte value known as "adj blanking right"	0x4f	adj blanking right (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking right	byte value known as "adj blanking right"	0x4f	adj blanking right (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.44 get blanking top, read

About this command

This command gets the blanking top value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking top	byte value known as "adj blanking top"	0x4c	adj blanking top (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj blanking top	byte value known as "adj blanking top"	0x4c	adj blanking top (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.45 get brightness, read

About this command

This command gets the brightness value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj brightness	byte value known as "adj brightness"	0x02	adj brightness (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj brightness	byte value known as "adj brightness"	0x02	adj brightness (hex)
2	1	value	brightness value range 0->255		brightness value (hex)

3.46 get clamp delay, read

About this command

This command gets the clamp delay value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj clamp delay	byte value known as "adj clamp delay"	0x67	adj clamp delay (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj clamp delay	byte value known as "adj clamp delay"	0x67	adj clamp delay (hex)
2	1	value	clamp delay value range 0->255		clamp delay value (hex)

3.47 get clamp width, read

About this command

This command gets the clamp width value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj clamp width	byte value known as "adj clamp width"	0x68	adj clamp width (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj clamp width	byte value known as "adj clamp width"	0x68	adj clamp width (hex)
2	1	value	clamp width value range 0->255		clamp width value (hex)

3.48 get color balance blue green ratio, read

About this command

This command gets the color balance blue green ratio of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj color balance blue green	byte value known as "adj color balance blue green"	0x44	adj color balance blue green (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj color balance blue green	byte value known as "adj color balance blue green"	0x44	adj color balance blue green (hex)
2	1	blue green ratio	color balance blue green ratio multiplied by 100 range 0 -> 200		blue green ratio (hex)

3.49 get color balance red green ratio, read

About this command

This command gets the color balance red green ratio of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj color balance red green	byte value known as "adj color balance red green"	0x43	adj color balance red green (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj color balance red green	byte value known as "adj color balance red green"	0x43	adj color balance red green (hex)
2	1	red green ratio	color balance red green ratio multiplied by 100 range 0 -> 200		red green ratio (hex)

3.50 get color temperature, read

About this command

This command gets the color temperature of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj color balance	byte value known as "adj color balance"	0x45	adj color balance (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj color temperature	byte value known as "adj color temperature"	0x45	
NA	NA	color temperature	color temperature expressed as C-String		color temperature (string)

About datafield 4 (color temperature)

possible color temperature strings are:

"custom"

"projector-white"

"3200"

"5400"

"6500"

"9300"

3.51 get common address, read

About this command

This command gets the common address.

Request

Pos	Size	Name	Description	Content	
0	1	common address	byte value known as "common address"	0x6c	common address (hex)

Response

Pos	Size	Name	Description	Content	
0	1	common address	byte value known as "common address"	0x6c	common address (hex)
1	1	address	address		address (hex)

3.52 get contrast, read

About this command

This command gets the contrast value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj contrast	byte value known as "adj contrast"	0x01	adj contrast (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj contrast	byte value known as "adj contrast"	0x01	adj contrast (hex)
2	1	value	contrast value range 0->255		contrast value (hex)

3.53 get contrast enhancement, read

About this command

This command gets the contrast enhancement value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj contrast enh	byte value known as "adj contrast enhancement"	0x86	adj contrast enh (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj contrast enh	byte value known as "adj contrast enhancement"	0x86	adj contrast enh (hex)
2	1	value	contrast enhancement value	0x00	low contrast (hex)
				0x01	high contrast (hex)
				0x02	mid contrast or undetermined (hex)

Pos	Size	Name	Description	Content	
3-6	4	contrast plate position	for mid contrast or undetermined; contrast plate position as DWORD range 0x0000..0xffff		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.54 get dimming, read

About this command

This command gets the dimming value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj dimming	byte value known as "adj dimming"	0x0d	adj dimming (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj dimming	byte value known as "adj dimming"	0x0d	adj dimming (hex)
2	1	value	dimming value range 255 -> 0 the higher the value the brighter the light output		dimming value (hex)

3.55 get ext contrast, read

About this command

This command gets the ext contrast value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj contrast	byte value known as "adj contrast"	0X01	adj contrast (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj contrast	byte value known as "adj contrast"	0X01	adj contrast (hex)
2-5	4	actual value	actual value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
6-9	4	minimum value	minimum value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

Pos	Size	Name	Description	Content	
10-13	4	maximum value	maximum value		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
14-17	4	step value	step value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.56 get ext contrast enhancement , read

About this command

This command gets the extended contrast enhancement value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj contrast enhancement	byte value known as "adj contrast enhancement"	0x86	adj contrast enhancement (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj contrast enhancement	byte value known as "adj contrast enhancement"	0x86	adj contrast enhancement (hex)
2-5	4	actual value	actual value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
6-9	4	minimum value	minimum value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
10-13	4	maximum value	maximum value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
14-17	4	step value	step value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.57 get ext gamma, read

About this command

This command gets the extended gamma value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)
2-5	4	actual value	actual value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
6-9	4	minimum value	minimum value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
10-13	4	maximum value	maximum value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
14-17	4	step value	step value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.58 get ext phase, read

About this command

This command gets the ext phase value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj phase	byte value known as "adj phase"	0x06	adj phase (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj phase	byte value known as "adj phase"	0x06	adj phase (hex)
2-5	4	actual value	actual value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

Pos	Size	Name	Description	Content	
6-9	4	minimum value	minimum value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
10-13	4	maximum value	maximum value		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
14-17	4	step value	step value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.59 get ext sharpness, read

About this command

This command gets the ext sharpness value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj sharpness	byte value known as "adj sharpness"	0x05	adj sharpness (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj ext	byte value known as "get adj ext"	0x2b	get adj ext (hex)
1	1	adj sharpness	byte value known as "adj sharpness"	0x05	adj sharpness (hex)
2-5	4	actual value	actual value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
6-9	4	minimum value	minimum value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
10-13	4	maximum value	maximum value		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)
14-17	4	step value	step value as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.60 get freeze status, read

About this command

This command gets the freeze status.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj freeze	byte value known as "adj freeze"	0x23	adj freeze (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj freeze	byte value known as "adj freeze"	0x23	adj freeze (hex)
2	1	stutus	freeze status	0x00	unfrozen (hex)
				0x01	frozen (hex)

3.61 get gamma, read

About this command

This command gets the gamma value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)
2	1	value	gamma value range 0->7		gamma value (hex)

3.62 get gamma (text value), read

About this command

This command gets the gamma value as C-String.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)
2	1	extension	extension to ask for C-String	0x01	extension (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)

Pos	Size	Name	Description	Content	
2	1	extension	extension to ask for C-String	0x01	extension (hex)
NA	NA	value	gamma value as C-String.		value (string)

3.63 get input black balance, read

About this command

This command gets the input black balance value of the active source.

This is applicable for the specified color.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj input black balance	byte value known as "adj input black balance"	0x6e	adj input black balance (hex)
2	1	color	color specification	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj input black balance	byte value known as "adj input black balance"	0x6e	adj input black balance (hex)
2	1	color	color specification	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)
3	1	balance	balance value as byte range -127 -> 127		balance (hex)

3.64 get input white balance, read

About this command

This command gets the input white balance value of the active source.

This is applicable for the specified color.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj input white balance	byte value known as "adj input white balance"	0x6f	adj input white balance (hex)
2	1	color	color specification	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj input white balance	byte value known as "adj input white balance"	0x6f	adj input white balance (hex)
2	1	color	color specification	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)
3	1	balance	balance value as byte range -127 -> 127		balance (hex)

3.65 get intensity, read

About this command

This command gets the intensity value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj intensity	byte value known as "adj intensity"	0xa4	adj intensity (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj intensity	byte value known as "adj intensity"	0xa4	adj intensity (hex)
2	1	value	intensity value range 0->255		intensity value (hex)

3.66 get ir hold off configuration, read

About this command

This command gets the ir hold off configuration value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj ir hold off configuration	byte value known as "adj ir hold off configuration"	0x92	adj ir hold off configuration (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj ir hold off configuration	byte value known as "adj ir hold off configuration"	0x92	adj ir hold off configuration (hex)
2	1	manual	manual status	0x00	auto (hex)
				0x01	manual (hex)

Pos	Size	Name	Description	Content	
3-6	4	holdoff	holdoff in seconds as DWORD		MSB (hex)
			only needed in case of manual		BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.67 get lamp status, read

About this command

This command gets the status of the lamp, on or off.

Request

Pos	Size	Name	Description	Content	
0	1	read projector status	byte value known as "read projector status"	0x67	read projector status (hex)
1	1	mask for lamp status	mask for lamp status	0x40	mask for lamp status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	read projector status	byte value known as "read projector status"	0x67	read projector status (hex)
1	1	lamp status	lamp status	0x40	on (hex)
				0x00	off (hex)

3.68 get lamp status, read

About this command

This command gets the status of the lamp, on or off.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	byte value known as "lamp"	0x76	lamp (hex)
1	1	read lamp status	byte value known as "read lamp status"	0x9a	read lamp status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	lamp	byte value known as "lamp"	0x76	lamp (hex)
1	1	read lamp status	byte value known as "read lamp status"	0x9a	read lamp status (hex)
2	1	lamp status value	lamp status value	0x00	off (hex)
				0x01	on (hex)

3.69 get layout, read

About this command

This command gets the active layout file name.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj layout	byte value known as "adj layout"	0x90	adj layout (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj layout	byte value known as "adj layout"	0x90	adj layout (hex)
NA	NA	layout file name	layout file name as C-string		layout file name (string)

3.70 get lcd backlight level, read

About this command

This command reads the lcd backlight level.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	lcd blacklight level	byte value known as "lcd backlight level"	0xa5	lcd backlight level (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	lcd blacklight level	byte value known as "lcd backlight level"	0xa5	lcd backlight level (hex)
2	1	level	backlight level range 0->255		level (hex)

3.71 get lcd time out, read

About this command

This command gets the lcd time out value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj lcd time out	byte value known as "adj lcd time out"	0xa3	adj lcd time out (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj lcd time out	byte value known as "adj lcd time out"	0xa3	adj lcd time out (hex)
2	1	value	lcd time out value in seconds range 0->255		lcd time out value (hex)

3.72 get lock, read

About this command

This command gets the lock mode.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj lock	byte value known as "adj lock"	0x99	adj lock (hex)
2	1	manual locking	optional manual locking mode can be sent in order to get the vertical refresh reate	0xfd	manual locking mode (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj lock	byte value known as "adj lock"	0x99	adj lock (hex)
2	1	lock mode	lock mode	0x00	Free run at 60Hz (hex)
				0x01	Lock to input 1 (hex)
				0x02	Lock to input 2 (hex)
				0x03	Lock to input 4 (hex)
				0x04	Lock to input 4 (hex)
				0xfd	manual lock (hex)
				0xfe	lock to PIP (hex)
				0xff	lock to Main window (hex)
3-6	4	vertical refresh rate	In case of manual locking, the vertical refresh rate can also be specified as DWORD and represented in 1/10000 Hz. (e.g. 00 09 22 20 = 598560 = 59,856Hz)		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.73 get no signal color logo, read

About this command

This command gets the blanking color value and logo status, used when no signal is connected.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj no signal color	byte value known as "adj no signal color"	0x7b	adj no signal color (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj no signal color	byte value known as "adj no signal color"	0x7b	adj no signal color (hex)
2	1	value	no signal logo status	0x00	off (hex)
				0x01	on (hex)
3	1	red value	red value range 0->255		red value (hex)

Pos	Size	Name	Description	Content	
4	1	green value	green value range 0->255		green value (hex)
5	1	blue value	blue value range 0->255		blue value (hex)

3.74 get no signal shutdown delay, read

About this command

This command gets the no signal shutdown delay, expressed in number of seconds.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj no signal shutdown	byte value known as "adj no signal shutdown"	0x9a	adj no signal shutdown (hex)
2	1	delay	byte value known as "no signal shutdown delay"	0x02	delay (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj no signal shutdown	byte value known as "adj no signal shutdown"	0x9a	adj no signal shutdown (hex)
2	1	delay	byte value known as "no signal shutdown delay"	0x02	delay (hex)
3	1	delay	byte value known as "no signal shutdown delay"	0x02	delay (hex)
4-7	4	delay value	delay in number of seconds as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.75 get no signal shutdown status, read

About this command

This command gets the no signal shutdown value."Enabled" or "Disabled".

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj no signal shutdown	byte value known as "adj no signal shutdown"	0x9a	adj no signal shutdown (hex)
2	1	status	byte value known as "no signal shutdown status"	0x01	status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj no signal shutdown	byte value known as "adj no signal shutdown"	0x9a	adj no signal shutdown (hex)
2	1	status	byte value known as "no signal shutdown status"	0x01	status (hex)
3	1	value	status value	0x00	Disabled (hex)
				0x01	Enabled (hex)

3.76 get output window native resolution status, read

About this command

This command gets the output window native resolution status.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	native resolution	native resolution	0x16	native resolution (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	native resolution	native resolution	0x16	native resolution (hex)
3	1	value	value as WORD in big endian (MSB LSB)	0	Off (dec)
				1	On (dec)

3.77 get output window parameters, read

About this command

This command gets the output window parameters.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	from index	from index specification as BYTE	0	X-Offset (dec)
				2	Y-Offset (dec)
				4	Width (dec)
				6	Height (dec)
3	1	to index	to index specification as BYTE	0	X-Offset (dec)
				2	Y-Offset (dec)
				4	Width (dec)
				6	Height (dec)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	from index	from index specification as BYTE	0	X-Offset (dec)
				2	Y-Offset (dec)
				4	Width (dec)
				6	Height (dec)
3	1	to index	to index specification as BYTE	0	X-Offset (dec)
				2	Y-Offset (dec)
				4	Width (dec)
				6	Height (dec)
4	1	window parameter	window parameter		MSB (hex)
					LSB (hex)

About datafield 8 (window parameter)

- all window parameters are expressed as WORD in big endian (MSB LSB)
- the minimum number of parameters is 1
- the maximum number of parameters depends on the specified from and to index

3.78 get output window status, read

About this command

This command gets the output window status.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	status	status	0x40	status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	status	status	0x40	status (hex)
3	1	value	value as WORD in big endian (MSB LSB)	0	Off (dec)
				1	On (dec)

3.79 get P7 TCGD blue X, read

About this command

This command gets the P7 TCGD blue X value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD blue X	byte value known as "P7 TCGD blue X"	0x07	P7 TCGD blue X (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD blue X	byte value known as "P7 TCGD blue X"	0x07	P7 TCGD blue X (hex)
4-5	2	value	P7 TCGD blue X value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.80 get P7 TCGD blue Y, read

About this command

This command gets the P7 TCGD blue Y value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD blue Y	byte value known as "P7 TCGD blue Y"	0x08	P7 TCGD blue Y (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD blue Y	byte value known as "P7 TCGD blue Y"	0x08	P7 TCGD blue Y (hex)
4-5	2	value	P7 TCGD blue Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.81 get P7 TCGD cyan X, read

About this command

This command gets the P7 TCGD cyan X value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD cyan X	byte value known as "P7 TCGD cyan X"	0x0d	P7 TCGD cyan X (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD cyan X	byte value known as "P7 TCGD cyan X"	0x0d	P7 TCGD cyan X (hex)
4-5	2	value	P7 TCGD cyan X value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.82 get P7 TCGD cyan Y, read

About this command

This command gets the P7 TCGD cyan Y value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD cyan Y	byte value known as "P7 TCGD cyan Y"	0x0e	P7 TCGD cyan Y (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD cyan Y	byte value known as "P7 TCGD cyan Y"	0x0e	P7 TCGD cyan Y (hex)
4-5	2	value	P7 TCGD cyan Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.83 get P7 TCGD green Y, read

About this command

This command gets the P7 TCGD green Y value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD green Y	byte value known as "P7 TCGD green Y"	0x05	P7 TCGD green Y (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD green Y	byte value known as "P7 TCGD green Y"	0x05	P7 TCGD green Y (hex)
4-5	2	value	P7 TCGD green Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.84 get P7 TCGD magenta X, read

About this command

This command gets the P7 TCGD magenta X value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD magenta X	byte value known as "P7 TCGD magenta X"	0x0a	P7 TCGD magenta X (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)

Pos	Size	Name	Description	Content	
3	1	P7 TCGD magenta X	byte value known as "P7 TCGD magenta X"	0x0a	P7 TCGD magenta X (hex)
4-5	2	value	P7 TCGD magenta X value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.85 get P7 TCGD magenta Y, read

About this command

This command gets the P7 TCGD magenta Y value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD magenta Y	byte value known as "P7 TCGD magenta Y"	0x0b	P7 TCGD magenta Y (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD magenta Y	byte value known as "P7 TCGD magenta Y"	0x0b	P7 TCGD magenta Y (hex)
4-5	2	value	P7 TCGD magenta Y value as WORD		MSB (hex)
					LSB (hex)

3.86 get P7 TCGD red X, read

About this command

This command gets the P7 TCGD red X value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD red X	byte value known as "P7 TCGD red X"	0x01	P7 TCGD red X (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)

Pos	Size	Name	Description	Content	
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD red X	byte value known as "P7 TCGD red X"	0x01	P7 TCGD red X (hex)
4-5	2	value	P7 TCGD red X value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.87 get P7 TCGD red Y, read

About this command

This command gets the P7 TCGD red Y value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD red Y	byte value known as "P7 TCGD red Y"	0x02	P7 TCGD red Y (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD red Y	byte value known as "P7 TCGD red Y"	0x02	P7 TCGD red Y (hex)
4-5	2	value	P7 TCGD red Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.88 get P7 TCGD selection, read

About this command

This command gets the P7 TCGD selection.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD all	byte value known as "P7 TCGD all"	0x00	all (hex)
4	1	selection	request P7 selection	0x01	selection (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD all	byte value known as "P7 TCGD all"	0x00	all (hex)
4	1	selection	request P7 selection	0x01	selection (hex)
NA	NA	file name	name of file with the actual P7 TCGD values. name as C-string		file name (string)

3.89 get P7 TCGD white X, read

About this command

This command gets the P7 TCGD white X value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD white X	byte value known as "P7 TCGD white X"	0x13	P7 TCGD white X (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD white X	byte value known as "P7 TCGD white X"	0x13	P7 TCGD white X (hex)
4-5	2	value	P7 TCGD white X value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.90 get P7 TCGD white Y, read

About this command

This command gets the P7 TCGD white Y value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)

Pos	Size	Name	Description	Content	
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD white Y	byte value known as "P7 TCGD white Y"	0x14	P7 TCGD white Y (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD white Y	byte value known as "P7 TCGD white Y"	0x14	P7 TCGD white Y (hex)
4-5	2	value	P7 TCGD white Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.91 get P7 TCGD yellow X, read

About this command

This command gets the P7 TCGD yellow X value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD yellow X	byte value known as "P7 TCGD yellow X"	0x10	P7 TCGD yellow X (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD yellow X	byte value known as "P7 TCGD yellow X"	0x10	P7 TCGD yellow X (hex)
4-5	2	value	P7 TCGD yellow X value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.92 get P7 TCGD yellow Y, read

About this command

This command gets the P7 TCGD yellow Y value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD yellow Y	byte value known as "P7 TCGD yellow Y"	0x11	P7 TCGD yellow Y (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD yellow Y	byte value known as "P7 TCGD yellow Y"	0x11	P7 TCGD yellow Y (hex)
4-5	2	value	P7 TCGD yellow Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 8 (value)

Word value = floating point value * 10000

3.93 get phase, read

About this command

This command gets the phase value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj phase	byte value known as "adj phase"	0x06	adj phase (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj phase	byte value known as "adj phase"	0x06	adj phase (hex)
2	1	value	phase value range 0->63		phase value (hex)

3.94 get projector address, read

About this command

This command gets the projector address.

Request

Pos	Size	Name	Description	Content	
0	1	projector address	byte value known as "projector address"	0x6d	projector address (hex)

Response

Pos	Size	Name	Description	Content	
0	1	projector address	byte value known as "projector address"	0x6d	projector address (hex)
1	1	address	address		address (hex)

3.95 get same lens settings status, read

About this command

This command gets the same lens settings status.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj same lens settings	byte value known as "adj same lens settings"	0xa0	adj same lens settings (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj same lens settings	byte value known as "adj same lens settings"	0xa0	adj same lens settings (hex)
2	1	status	same lens settings status	0x00	layout specific (hex)
				0x01	same for all layouts (hex)

3.96 get saturation, read

About this command

This command gets the saturation value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj saturation	byte value known as "adj saturation"	0x03	adj saturation (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj saturation	byte value known as "adj saturation"	0x03	adj saturation (hex)
2	1	value	saturation value range 0->255		saturation value (hex)

3.97 get scan/orientation configuration , read

About this command

This command gets the scan/orientation configuration.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj scan	byte value known as "adj scan"	0x24	adj scan (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj scan	byte value known as "adj scan"	0x24	adj scan (hex)
2	1	orientation	Upper nibble (bit 7 -> bit 4)	0x40	Front-Table (hex)
			Orientation configuration	0x80	Front-Ceiling (hex)
			0x40 = Front/Table	0x00	Rear-Table (hex)
			0x80 = Front/Ceiling	0xc0	Rear-Ceiling (hex)
			0x00 = Rear/Table	0x01	Auto-Front (hex)
			0xC0 = Rear/Ceiling	0x02	Auto-Rear (hex)
			Lower nibble (bit 3 -> bit 0)		
			Auto configuration		
			0x01 = auto front		
			0x02 = auto rear		

3.98 get sharpness, read

About this command

This command gets the sharpness value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj sharpness	byte value known as "adj sharpness"	0x05	adj sharpness (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj sharpness	byte value known as "adj sharpness"	0x05	adj sharpness (hex)
2	1	value	sharpness value range 0->31		sharpness value (hex)

3.99 get shutter status, read

About this command

This command gets the shutter status.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj shutter	byte value known as "adj shutter"	0x42	adj shutter (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj shutter	byte value known as "adj shutter"	0x42	adj shutter (hex)
2	1	status	status value	0x00	closed (hex)
				0x01	open (hex)
				0x02	in between (hex)

3.100 get soft edge black level, read

About this command

This command gets the soft edge black level value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge black level	byte value known as "adj soft edge black level"	0x84	adj soft edge black level (hex)
2	1	color	color	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge black level	byte value known as "adj soft edge black level"	0x84	adj soft edge black level (hex)
2	1	color	color	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)
3	1	value	soft edge black level value range 0->255		black level value (hex)

3.101 get soft edge size black level bottom, read

About this command

This command gets the soft edge size black level bottom value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level bottom	byte value known as "soft edge size black level bottom"	0x05	soft edge size black level bottom (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level bottom	byte value known as "soft edge size black level bottom"	0x05	soft edge size black level bottom (hex)
3-4	2	soft edge size black level bottom	soft edge size black level bottom as WORD range depending on the native resolution of the projector.		MSB (hex)
					LSB (hex)

3.102 get soft edge size black level left, read

About this command

This command gets the soft edge size black level left value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level left	byte value known as "soft edge size black level left"	0x06	soft edge size black level left (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level left	byte value known as "soft edge size black level left"	0x06	soft edge size black level left (hex)
3-4	2	soft edge size black level black level left	soft edge size black level left as WORD range depending on the native resolution of the projector.		MSB (hex)
					LSB (hex)

3.103 get soft edge size black level right, read

About this command

This command gets the soft edge size black level right value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level right	byte value known as "soft edge size black level right"	0x07	soft edge size black level right (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level right	byte value known as "soft edge size black level right"	0x07	soft edge size black level right (hex)
3-4	2	soft edge size black level right	soft edge size black level right as WORD range depending on the native resolution of the projector.		MSB (hex)
					LSB (hex)

3.104 get soft edge size black level top, read

About this command

This command gets the soft edge size black level top value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level top	byte value known as "soft edge size black level top"	0x04	soft edge size black level top (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level top	byte value known as "soft edge size black level top"	0x04	soft edge size black level top (hex)
3-4	2	soft edge size black level top	soft edge size black level top as WORD range depending on the native resolution of the projector.		MSB (hex)
					LSB (hex)

3.105 get soft edge size bottom, read

About this command

This command sets the soft edge size bottom value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size bottom	byte value known as "soft edge size bottom"	0x01	soft edge size bottom (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size bottom	byte value known as "soft edge size bottom"	0x01	soft edge size bottom (hex)
3-4	2	soft edge size bottom	soft edge size bottom as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.106 get soft edge size left, read

About this command

This command gets the soft edge size left value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size left	byte value known as "soft edge size left"	0x02	soft edge size left (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size left	byte value known as "soft edge size left"	0x02	soft edge size left (hex)
3-4	2	soft edge size left	soft edge size left as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.107 get soft edge size right, read

About this command

This command gets the soft edge size right value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size right	byte value known as "soft edge size right"	0x03	soft edge size right (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size right	byte value known as "soft edge size right"	0x03	soft edge size right (hex)
3-4	2	soft edge size right	soft edge size right as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.108 get soft edge size top, read

About this command

This command gets the soft edge size top value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size top	byte value known as "soft edge size top"	0x00	soft edge size top (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size top	byte value known as "soft edge size top"	0x00	soft edge size top (hex)
3-4	2	soft edge size top	soft edge size top as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.109 get soft edge status, read

About this command

This command gets the soft edge status.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj soft edge status	byte value known as "adj soft edge status"	0x82	adj soft edge status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj soft edge status	byte value known as "adj soft edge status"	0x82	adj soft edge status (hex)
2	1	status	soft edge status bit 0 = soft edge/scenergix enabled bit 1 = white level alignment lines enabled bit 2 = black level alignment lines enabled bit 3 = data doubling enabled		soft edge status (hex)

3.110 get source, read

About this command

This command gets the source selection for the active window.

Request

Pos	Size	Name	Description	Content	
0	1	get source	get source selection	0x32	get source (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get source	get source selection	0x32	get source (hex)
1	1	source selection	source selection	0x01	input 1 (hex)
				0x02	input 2 (hex)
				0x03	input 3 (hex)
				0x04	input 4 (hex)

3.111 get source extended, read

About this command

This command gets the source extended value.

Request

Pos	Size	Name	Description	Content	
0	1	get source extended	get source extended	0x34	get source ext (hex)

Pos	Size	Name	Description	Content	
1	1	from index	from index index = 0 => return active source selection (input 1 = 0x01 -> input 4 = 0x04) index = 1 => return module mode index = 2 => return module type index = 3 => return module configuration 1 index = 4 => return module configuration 2 index = 5 => return module configuration 3		from index (hex)
2	1	to index	to index index = 0 => return active source selection (input 1 = 0x01 -> input 4 = 0x04) index = 1 => return module mode index = 2 => return module type index = 3 => return module configuration 1 index = 4 => return module configuration 2 index = 5 => return module configuration 3		to index (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get source extended	get source extended	0x34	get source ext (hex)
1	1	from index	from index index = 0 => return active source selection (input 1 = 0x01 -> input 4 = 0x04) index = 1 => return module mode index = 2 => return module type index = 3 => return module configuration 1 index = 4 => return module configuration 2 index = 5 => return module configuration 3		from index (hex)

Pos	Size	Name	Description	Content	
2	1	to index	to index index = 0 => return active source selection (input 1 = 0x01 -> input 4 = 0x04) index = 1 => return module mode index = 2 => return module type index = 3 => return module configuration 1 index = 4 => return module configuration 2 index = 5 => return module configuration 3		to index (hex)
3	1	response data	- number of bytes depends on the from and to index: at least one and at most 6 bytes will be returned. - content depends on module type		response data (hex)

About datafield 6 (response data)

module types

0x00 = No modul

0x01 = DVI/RGB analog

0x02 = SDI

0x03 = 5-Cable

0x04 = HDMI / DP

module modes

DVI/RGB analog

0x00 = dvi mode

0x01 = rgb analog hs-vs/cs

0x02 = yuv analog hs-vs/cs

0x03 =dual link DVI

SDI

0x00 = Input 1 (SD, HD or 3G)

0x01 = Input 2 (SD, HD or 3G)

0x02 = Input 1 priority over input 2 (SD, HD or 3G)

0x03 = Input 2 priority over input1 (SD, HD or 3G)

0x04 = DUAL HDSDI (uses both inputs)

0x05 = 2xHD (3D only - uses both inputs)

HDMI / DP

0x00 = HDMI

0x01 = Display Port

5-Cable:

0x00 = RGB HS/VS

0x01 = RGB CV: RGB with composite video on HS BNC

0x02 = RGB SOG: RGB with composite sync on G (G/Y/VIDEO BNC)

0x03 = YUV HS/VS

0x04 = YUV CV: YUV with composite video on HS BNC

0x05 = YUV SOY: RGB with composite sync on Y (G/Y/VIDEO BNC)

0x06 = CVBS: composite video on G/Y/VIDEO BNC

0x07 = S-VIDEO: separate video with Y on G/Y/VIDEO BNC and Cr on V/Cr BNC

Auto configuration is provided via the next modes:

0x08 = RGB AUTO: to do auto configuration between modes 0, 1 and 2

0x09 = YUV AUTO: to do auto configuration between modes 3, 4 and 5

0x0a = CVBS/S-VIDEO AUTO: to do auto configuration between modes 6 and 7

module configurations 1

SDI

0x00 = 4:2:2 YCbCr 10b

0x01 = 4:4:4 YCbCr 10b

0x02 = 4:4:4 RGB 10b

0x03 = 4:4:4 YCbCr 12b

0x04 = 4:4:4 RGB 12b

0x05 = 4:2:2 YCbCr 12b

module configurations 2

SDI

0x00 = Dual: Normal

0x01 = Dual: Swap links

module configurations 3

SDI

0x00 = 3G: Dual HD

0x01 = 3G: Direct mapping

0x02 = 3G-B: 2xHD (3D-only)

3.112 get text on, read

About this command

This command gets the text on status.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj text on	byte value known as "adj text on"	0x93	adj text on (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj text on	byte value known as "adj text on"	0x93	adj text on (hex)
2	1	text on status	text on status	0x00	off (hex)
				0x01	on (hex)

3.113 get tint, read

About this command

This command gets the tint value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj tint	byte value known as "adj tint"	0x04	adj tint (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	value known as "get adj"	0x21	get adj (hex)
1	1	adj tint	byte value known as "adj tint"	0x04	adj tint (hex)
2	1	value	tint value range 0->128		tint value (hex)

3.114 get warp axis position, read

About this command

This command gets the warp axis position. This is the center used for the rotation command. Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp axis position	byte value known as "warp axis position"	0x30	warp axis position (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp axis position	byte value known as "warp axis position"	0x30	warp axis position (hex)
3-6	4	axis position X value	X value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)
7-10	4	axis position Y value	Y value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.115 get warp file, read

About this command

This command gets the active warp file.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)

Pos	Size	Name	Description	Content	
2	1	warp file	byte value known as "warp file"	0x80	warp file (hex)
3	1	action parameter	optional action parameter. If this parameter is omitted, the active file is returned. Otherwise a file list of warp files is returned in xml format.	0x01	get a filelist of warp files in xlm format (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp file	byte value known as "warp file"	0x80	warp file (hex)
3	1	action parameter	optional action parameter. If this parameter is omitted, the active file is returned. Otherwise a file list of warp files is returned in xml format.	0x01	get a filelist of warp files in xlm format (hex)
NA	NA	file name	active warp file name as C-string if optional parameter is omitted.		file name (string)
NA	NA	file list	file list in xml format as C-string if optional parameter is 0x01.		file list (string)

3.116 get warp grid size, read

About this command

This command gets the warp grid size value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp grid size	byte value known as "warp grid size"	0x18	warp grid size (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp grid size	byte value known as "warp grid size"	0x18	warp grid size (hex)
3	1	ver number of grid lines	vertical numbers of grid lines only 2, 3, 5, 9, 17 and 33 are valid numbers		ver number of grid lines (hex)
4	1	hor number of grid lines	horizontal number of grid lines only 2, 3, 5, 9, 17 and 33 are valid numbers		hor number of grid lines (hex)

3.117 get warp hierarchic keystone in X direction, read

About this command

This command gets the hierarchic warp keystone value in X direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic keystone in X direction	byte value known as "warp hierarchic keystone in X direction"	0x53	warp hierarchic keystone in X direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic keystone in X direction	byte value known as "warp hierarchic keystone in X direction"	0x53	warp hierarchic keystone in X direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	keystone in X direction	keystone in X direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.118 get warp hierarchic keystone in Y direction, read

About this command

This command gets the hierarchic warp keystone value in Y direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic keystone in Y direction	byte value known as "warp hierarchic keystone in Y direction"	0x54	warp hierarchic keystone in Y direction (hex)

Pos	Size	Name	Description	Content	
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic keystone in Y direction	byte value known as "warp hierarchic keystone in Y direction"	0x54	warp hierarchic keystone in Y direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	keystone in Y direction	keystone in Y direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.119 get warp hierarchic linearity in X direction, read

About this command

This command gets the hierarchic warp linearity value in X direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic linearity in X direction	byte value known as "warp hierarchic linearity in X direction"	0x51	warp hierarchic linearity in X direction (hex)

Pos	Size	Name	Description	Content	
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic linearity in X direction	byte value known as "warp hierarchic linearity in X direction"	0x51	warp hierarchic linearity in X direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	linearity in X direction	linearity in X direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.120 get warp hierarchic linearity in Y direction, read

About this command

This command gets the hierarchic warp linearity value in Y direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic linearity in Y direction	byte value known as "warp hierarchic linearity in Y direction"	0x52	warp hierarchic linearity in Y direction (hex)

Pos	Size	Name	Description	Content	
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic linearity in Y direction	byte value known as "warp hierarchic linearity in Y direction"	0x52	warp hierarchic linearity in Y direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	linearity in Y direction	linearity in Y direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.121 get warp hierarchic point shift, read

About this command

This command gets the hierarchic warp point shift value.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic point shift horizontal	byte value known as "warp hierarchic point shift"	0x50	warp hierarchic point shift (hex)

Pos	Size	Name	Description	Content	
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4	1	X position	X position of the pixel to shift		X position (0 - 32) (hex)
5	1	Y position	Y position of the pixel to shift		Y position (0 - 32) (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic point shift horizontal	byte value known as "warp hierarchic point shift"	0x50	warp hierarchic point shift (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4	1	X position	X position of the pixel to shift		X position (0 - 32) (hex)
5	1	Y position	Y position of the pixel to shift		Y position (0 - 32) (hex)
6-9	4	X shift value	X shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)
10-13	4	Y shift value	Y shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.122 get warp keystone horizontal. Deprecated from version 1.6, read

About this command

This command gets the warp keystone horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp keystone horizontal	byte value known as "warp keystone horizontal"	0x02	warp keystone horizontal (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp keystone horizontal	byte value known as "warp keystone horizontal"	0x02	warp keystone horizontal (hex)
3-6	4	keystone value	keystone value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.123 get warp keystone vertical. Deprecated from version 1.6, read

About this command

This command gets the warp keystone vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp keystone vertical	byte value known as "warp keystone vertical"	0x01	warp keystone vertical (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp keystone vertical	byte value known as "warp keystone vertical"	0x01	warp keystone vertical (hex)
3-6	4	keystone value	keystone value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.124 get warp line shift horizontal. Deprecated from version 1.6, read

About this command

This command gets the warp line shift horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp line shift horizontal	byte value known as "warp line shift horizontal"	0x16	warp line shift horizontal (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp line shift horizontal	byte value known as "warp line shift horizontal"	0x16	warp line shift horizontal (hex)
3-6	4	line shift value	line shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.125 get warp line shift vertical. Deprecated from version 1.6, read

About this command

This command gets the warp line shift vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp line shift vertical	byte value known as "warp line shift vertical"	0x15	warp line shift vertical (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp line shift vertical	byte value known as "warp line shift vertical"	0x15	warp line shift vertical (hex)
3-6	4	line shift value	line shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.126 get warp linearity horizontal. Deprecated from version 1.6, read

About this command

This command gets the warp linearity horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp linearity horizontal	byte value known as "warp linearity horizontal"	0x0f	warp linearity horizontal (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp linearity horizontal	byte value known as "warp linearity horizontal"	0x0f	warp linearity horizontal (hex)
3-6	4	linearity value	linearity value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE2 (hex)
					BYTE 3 (hex)

3.127 get warp linearity vertical. Deprecated from version 1.6, read

About this command

This command gets the warp linearity vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp linearity vertical	byte value known as "warp linearity vertical"	0x10	warp linearity vertical (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp linearity vertical	byte value known as "warp linearity vertical"	0x10	warp linearity vertical (hex)
3-6	4	linearity value	linearity value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.128 get warp pin barrel horizontal. Deprecated from version 1.6, read

About this command

This command gets the warp pin barrel horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp pin barrel horizontal	byte value known as "warp pin barrel horizontal"	0x0e	warp pin barrel horizontal (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp pin barrel horizontal	byte value known as "warp pin barrel horizontal"	0x0e	warp pin barrel horizontal (hex)
3-6	4	barrel value	barrel value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.129 get warp pin barrel vertical. Deprecated from version 1.6, read

About this command

This command gets the warp pin barrel vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp pin barrel vertical	byte value known as "warp pin barrel vertical"	0x0d	warp pin barrel vertical (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp pin barrel vertical	byte value known as "warp pin barrel vertical"	0x0d	warp pin barrel vertical (hex)
3-6	4	barrel value	barrel value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.130 get warp point shift. Deprecated from version 1.6, read

About this command

This command gets the warp point shift value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp point shift	byte value known as "warp point shift"	0x17	warp point shift (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp point shift	byte value known as "warp point shift"	0x17	warp point shift (hex)
3-6	4	X shift value	X shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)
7-10	4	Y shift value	Y shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.131 get warp rotation, read

About this command

This command gets the warp rotation value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp rotation	byte value known as "warp rotation"	0x03	warp rotation (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp rotation	byte value known as "warp rotation"	0x03	warp rotation (hex)
3-6	4	angle value	angle value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.132 get warp scale horizontal., read

About this command

This command gets the warp scale horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp scale horizontal	byte value known as "warp scale horizontal"	0x12	warp scale horizontal (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp scale horizontal	byte value known as "warp scale horizontal"	0x12	warp scale horizontal (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	scale value	scale value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.133 get warp scale vertical., read

About this command

This command gets the warp scale vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp scale vertical	byte value known as "warp scale vertical"	0x11	warp scale vertical (hex)

Pos	Size	Name	Description	Content	
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp scale vertical	byte value known as "warp scale vertical"	0x11	warp scale vertical (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	scale value	scale value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.134 get warp shift horizontal, read

About this command

This command gets the warp shift horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp shift horizontal	byte value known as "warp shift horizontal"	0x14	warp shift horizontal (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)

Pos	Size	Name	Description	Content	
2	1	warp shift horizontal	byte value known as "warp shift horizontal"	0x14	warp shift horizontal (hex)
3-6	4	line shift value	line shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.135 get warp shift vertical, read

About this command

This command gets the warp shift vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp shift vertical	byte value known as "warp shift vertical"	0x13	warp shift vertical (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp shift vertical	byte value known as "warp shift vertical"	0x13	warp shift vertical (hex)
3-6	4	line shift value	line shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.136 get warp status, read

About this command

This command gets the warp status value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp status	byte value known as "warp status"	0x00	warp status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp status	byte value known as "warp status"	0x00	warp status (hex)

Pos	Size	Name	Description	Content	
3	1	status value	status value	0x00	off (hex)
				0x01	on (with commands) (hex)
				0x02	on (with files) (hex)
				0xff	no warp available (hex)
4-5	2	optional warp enable command fields	2 byte bit field is added when status = 0x01	move points	deprecated from version 1.6 (bit)
				shift grid line	deprecated from version 1.6 (bit)
				lin-earity	deprecated from version 1.6 (bit)
				pin-cush-ion barrel	deprecated from version 1.6 (bit)
				key-stone	deprecated from version 1.6 (bit)
				scale	
				shift	
				rotate	
				Hier-archic points	
				unused	
				unused	
				unused	
				unused	
				unused	
				unused	
				four corner	deprecated from version 1.6 (bit)

3.137 get warp X1. Deprecated from version 1.6, read

About this command

This command gets the warp X1 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X1	byte value known as "warp X1"	0x05	warp X1 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X1	byte value known as "warp X1"	0x05	warp X1 (hex)

Pos	Size	Name	Description	Content	
3-6	4	X1 value	X1 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.138 get warp X2. Deprecated from version 1.6, read

About this command

This command gets the warp X2 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X2	byte value known as "warp X2"	0x07	warp X2 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X2	byte value known as "warp X2"	0x07	warp X2 (hex)
3-6	4	X2 value	X2 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.139 get warp X3. Deprecated from version 1.6, read

About this command

This command gets the warp X3 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X3	byte value known as "warp X3"	0x09	warp X3 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X3	byte value known as "warp X3"	0x09	warp X3 (hex)
3-6	4	X3 value	X3 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.140 get warp X4. Deprecated from version 1.6, read

About this command

This command gets the warp X4 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X4	byte value known as "warp X4"	0x0b	warp X4 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X4	byte value known as "warp X4"	0x0b	warp X4 (hex)
3-6	4	X4 value	X4 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.141 get warp Y1. Deprecated from version 1.6, read

About this command

This command gets the warp Y1 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y1	byte value known as "warp Y1"	0x06	warp Y1 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y1	byte value known as "warp Y1"	0x06	warp Y1 (hex)
3-6	4	Y1 value	Y1 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.142 get warp Y2. Deprecated from version 1.6, read

About this command

This command gets the warp Y2 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y2	byte value known as "warp Y2"	0x08	warp Y2 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y2	byte value known as "warp Y2"	0x08	warp Y2 (hex)
3-6	4	Y2 value	Y2 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.143 get warp Y3. Deprecated from version 1.6, read

About this command

This command gets the warp Y3 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y3	byte value known as "warp Y3"	0x0a	warp Y3 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y3	byte value known as "warp Y3"	0x0a	warp Y3 (hex)
3-6	4	Y3 value	Y3 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.144 get warp Y4. Deprecated from version 1.6, read

About this command

This command gets the warp Y4 value.

Request

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y4	byte value known as "warp Y4"	0x0c	warp Y4 (hex)

Response

Pos	Size	Name	Description	Content	
0	1	get adj	byte value known as "get adj"	0x21	get adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y4	byte value known as "warp Y4"	0x0c	warp Y4 (hex)
3-6	4	Y4 value	Y4 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.145 get window selection, read

About this command

This command gets the window selected for adjustments.

Request

Pos	Size	Name	Description	Content	
0	1	window	byte value known as "window"	0x8f	window (hex)
1	1	get window selection	byte value known as "get window selection"	0x08	get window selection (hex)

Response

Pos	Size	Name	Description	Content	
0	1	window	byte value known as "window"	0x8f	window (hex)
1	1	get window selection	byte value known as "get window selection"	0x08	get window selection (hex)
2	1	selection	window selection	0x00	Main (hex)
				0x01	PIP (hex)

3.146 increment blanking bottom, write

About this command

This command increments the blanking bottom by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj blanking bottom	byte value known as "adj blanking bottom"	0x4d	adj blanking bottom (hex)

3.147 increment blanking left, write

About this command

This command increments the blanking left by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj blanking left	byte value known as "adj blanking left"	0x4e	adj blanking left (hex)

3.148 increment blanking right, write

About this command

This command increments the blanking right by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj blanking right	byte value known as "adj blanking right"	0x4f	adj blanking right (hex)

3.149 increment blanking top, write

About this command

This command increments the blanking top by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj blanking top	byte value known as "adj blanking top"	0x45	adj blanking top (hex)

3.150 increment brightness, write

About this command

This command increments the brightness by one.

Request

Pos	Size	Name	Description	Content	
0	1	increment brightness	increment brightness	0x03	inc brightness (hex)

3.151 increment color balance blue green, write

About this command

This command increments the color balance blue green by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj color balance blue green	byte value known as "adj color balance blue green"	0x44	adj color balance blue green (hex)

3.152 increment color balance red green, write

About this command

This command increments the color balance red green by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj color balance red green	byte value known as "adj color balance red green"	0x43	adj color balance red green (hex)

3.153 increment contrast, write

About this command

This command increments the contrast by one.

Request

Pos	Size	Name	Description	Content	
0	1	increment contrast	increment contrast	0x01	increment contrast (hex)

3.154 increment dimming value, write

About this command

This command increments the dimming value by one.

The higher the value the brighter the light output.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj dimming	byte value known as "adj dimming"	0x0d	adj dimming (hex)

3.155 increment gamma, write

About this command

This command increments the gamma by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)

3.156 increment input black balance, write

About this command

This command increments the input black balance by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj input black balance	byte value known as "adj input black balance"	0x6e	adj input black balance (hex)

3.157 increment input white balance, write

About this command

This command increments the input white balance by one.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj input white balance	byte value known as "adj input white balance"	0x6f	adj input white balance (hex)

3.158 increment phase, write

About this command

This command increments the phase by one.

Request

Pos	Size	Name	Description	Content	
0	1	increment phase	increment phase	0x0B	inc phase (hex)

3.159 increment saturation, write

About this command

This command increments the saturation by one.

Request

Pos	Size	Name	Description	Content	
0	1	increment saturation	increment saturation	0x05	inc saturation (hex)

3.160 increment sharpness, write

About this command

This command increments the sharpness by one.

Request

Pos	Size	Name	Description	Content	
0	1	increment sharpness	increment sharpness	0x09	inc sharpness (hex)

3.161 increment shutter, write

About this command

This command opens the shutter.

Request

Pos	Size	Name	Description	Content	
0	1	inc adj	byte value known as "inc adj"	0x22	inc adj (hex)
1	1	adj shutter	byte value known as "adj shutter"	0x42	adj shutter (hex)
2	1	value	value should be 0x00 in order to be valid.	0x00	value (hex)

3.162 increment tint, write

About this command

This command increments the tint by one.

Request

Pos	Size	Name	Description	Content	
0	1	increment tint	increment tint	0x07	increment tint (hex)

3.163 input format horizontal total possible, read

About this command

This command checks if input format horizontal total adjustment is possible.

Request

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj input format	value known as "adj input format"	0x8e	input format (hex)

Response

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj input format	value known as "adj input format"	0x8e	input format (hex)
2	1	possible	adjustment is possible or not	0x00	not possible (hex)
				0x01	possible (hex)

3.164 phase possible, read

About this command

This command checks if phase adjustment is possible.

Request

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj phase	value known as "adj phase"	0x06	phase (hex)

Response

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj phase	value known as "adj phase"	0x06	phase (hex)
2	1	possible	adjustment is possible or not	0x00	not possible (hex)
				0x01	possible (hex)

3.165 read auto picture alignment configuration, read

About this command

This command reads the auto picture alignment configuration.

Request

Pos	Size	Name	Description	Content	
0	1	file	byte value known as "file"	0xbd	file (hex)
1	1	read auto picture alignment	byte value known as "read auto picture alignment"	0x88	read auto picture alignment (hex)

Response

Pos	Size	Name	Description	Content	
0	1	file	byte value known as "file"	0xbd	file (hex)
1	1	read auto picture alignment	byte value known as "read auto picture alignment"	0x88	read auto picture alignment (hex)
2	1	configuration	configuration	0x00	at file load (hex)
				0x01	off (hex)
				0x02	always (hex)

3.166 read barscale position, read

About this command

This command reads the barscale position.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read barscale position	byte value known as "read barscale position"	0x02	read barscale position (hex)

Response

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read barscale position	byte value known as "read barscale position"	0x02	read barscale position (hex)

Pos	Size	Name	Description	Content	
2	1	position	position value	0x11	Top Left (hex)
				0x12	Top Mid (hex)
				0x13	Top Right (hex)
				0x21	Mid Left (hex)
				0x22	Mid Mid (hex)
				0x23	Mid Right (hex)
				0x31	Bottom Left (hex)
				0x32	Bottom Mid (hex)
				0x33	Bottom Right (hex)

3.167 read customer id, read

About this command

This command reads the customer id.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read customer id	byte value known as "read customer id"	0x01	read customer id (hex)

Response

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read customer id	byte value known as "read customer id"	0x01	read customer id (hex)
NA	NA	customer ID	customer ID as C-string		customer ID (string)

3.168 read date time, read

About this command

This command reads date and time.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read date time	byte value known as "read date time"	0x05	read date time (hex)

Response

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read date time	byte value known as "read date time"	0x05	read date time (hex)
NA	NA	date and time	date and time as C-string in following format: YYYY.MM.DD-hh:mm		date and time (string)

About datafield 4 (date and time)

YYYY 4-digit for the Year

MM 2-digit for the Month

DD 2-digit for the Day

hh 2-digiti for the Hour

mm 2-digit for the Minutes

3.169 read DMX address, read

About this command

This command reads the DMX address.

Request

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	read DMX address	byte value known as "read DMX address"	0x40	read DMX address (hex)

Response

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	read DMX address	byte value known as "read DMX address"	0x40	read DMX address (hex)
2-3	2	DMX address	DMX address as WORD		MSB (hex)
			range 1 -> 512		LSB (hex)

3.170 read DMX mode, read

About this command

This command reads the DMX mode.

Request

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	read DMX mode	byte value known as "read DMX mode"	0x42	read DMX mode (hex)

Response

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	read DMX mode	byte value known as "read DMX mode"	0x42	read DMX mode (hex)
2	1	mode	DMX mode	0x00	full (hex)
				0x01	basic (hex)
				0x02	extended (hex)

3.171 read DMX universe, read

About this command

This command reads the DMX universe applicable to Art-Net.

Request

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	read DMX universe	byte value known as "read DMX universe"	0x45	read DMX universe (hex)

Response

Pos	Size	Name	Description	Content	
0	1	dmx	byte value known as Dmx	0x57	dmx (hex)
1	1	read DMX universe	byte value known as "read DMX universe"	0x45	read DMX universe (hex)
2-3	2	universe value	universe value as a WORD		MSB (hex)
					LSB (hex)

About datafield 4 (universe value)

current implementation takes only LSB value into account

3.172 read gateway configuration, read

About this command

This command reads the gateway configuration.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read gateway configuration	read gateway configuration	0x0b	read gateway configuration (hex)

Response

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read gateway configuration	read gateway configuration	0x0b	read gateway configuration (hex)
2	1	config	gateway configuration	0x00	wired (hex)
				0x01	wireless (hex)

3.173 read global software version, read

About this command

This command reads the global software version.

Request

Pos	Size	Name	Description	Content	
0	1	read version	byte value known as "read version"	0x60	read version (hex)

Response

Pos	Size	Name	Description	Content	
0	1	read version	byte value known as "read version"	0x60	read version (hex)
NA	NA	version	global version as Pascal language string		version (string)

3.174 read image load method, read

About this command

This command reads the image load method.

Request

Pos	Size	Name	Description	Content	
0	1	file	byte value known as "file"	0xbd	file (hex)
1	1	read image load method	read image load method	0x05	read image load method (hex)

Response

Pos	Size	Name	Description	Content	
0	1	file	byte value known as "file"	0xbd	file (hex)
1	1	read image load method	read image load method	0x05	read image load method (hex)
2	1	load method value	load method value	0x00	manual (hex)
				0x01	auto (hex)
				0x02	custom only (hex)

3.175 read infrared ports, read

About this command

This command reads the infrared ports.

Request

Pos	Size	Name	Description	Content	
0	1	read ir ports	byte value known as "read ir ports"	0x6f	read ir ports (hex)

Response

Pos	Size	Name	Description	Content	
0	1	read ir ports	byte value known as "read ir ports"	0x6f	read ir ports (hex)
1	1	ir ports status	ir ports status as byte value	bit 7	reserved (bit)
				bit 6	reserved (bit)
				bit 5	reserved (bit)
				bit 4	reserved (bit)
				bit 3	side receiver (bit)
				bit 2	reserved (bit)
				bit 1	rear receiver (bit)
				bit 0	front receiver (bit)

About datafield 2 (ir ports status)

bit value 0 = disabled

bit value 1 = enabled

3.176 read lamp CLO status, read

About this command

This command reads the lamp CLO (Contstant Light Output) status.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	read lamp clo status	byte value known as "read lamp clo status"	0x96	read lamp clo status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	read lamp clo status	byte value known as "read lamp clo status"	0x96	read lamp clo status (hex)
2	1	status	status	0x00	off (hex)
				0x01	on (hex)

3.177 read lamp CLO target lumens, read

About this command

This command reads the lamp CLO (Constant Light Output) target lumens.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	read lamp clo value	read lamp clo value	0x9e	read lamp clo value (hex)

Response

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	read lamp clo value	read lamp clo value	0x9e	read lamp clo value (hex)
2-5	4	lumens	lumens as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.178 read lamp runtime, read

About this command

This command reads the lamp runtime.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	read lamp runtime	read lamp runtime	0x90	read lamp runtime (hex)

Response

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	read lamp runtime	read lamp runtime	0x90	read lamp runtime (hex)

Pos	Size	Name	Description	Content	
2-5	4	runtime	runtime in seconds as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.179 read language, read

About this command

This command reads the language selection.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read language	byte value known as "read language"	0x04	read language (hex)

Response

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read language	byte value known as "read language"	0x04	read language (hex)
NA	NA	language	language two-letter code as C-string	"en"	English (string)
				"fr"	French (string)
				"de"	Deutch (string)
				"es"	Spanish (string)
				"pt"	Portuguese (string)
				"nl"	Dutch (string)
				"zh"	Chinese (string)
				"ja"	Japanese (string)
				"ko"	Korean (string)

3.180 read menu position, read

About this command

This command reads the menu position.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read menu position	byte value known as "read menu position"	0x03	read menu position (hex)

Response

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	read menu position	byte value known as "read menu position"	0x03	read menu position (hex)

Pos	Size	Name	Description	Content	
2	1	position	position value	0x11	Top Left (hex)
				0x12	Top Mid (hex)
				0x13	Top Right (hex)
				0x21	Mid Left (hex)
				0x22	Mid Mid (hex)
				0x23	Mid Right (hex)
				0x31	Bottom Left (hex)
				0x32	Bottom Mid (hex)
				0x33	Bottom Right (hex)

3.181 read network configuration, read

About this command

This command reads the network configuration.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read network configuration	read network configuration	0x01	read network configuration (hex)

Response

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read network configuration	read network configuration	0x01	read network configuration (hex)
2	1	mode	address assignment mode	0x00	manual (hex)
				0x01	DHCP (hex)
3-6	4	IP address	IP address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
7-10	4	subnet mask	subnet mask		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
11-14	4	default gateway	default gateway		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
15-20	6	MAC address	MAC address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
					fifth octet (hex)
					sixth octet (hex)

3.182 read panel size, read

About this command

This command reads the DMD panel size.

Request

Pos	Size	Name	Description	Content	
0	1	panel	byte value known as "panel"	0xf0	panel (hex)
1	1	read panel size	byte value known as "read panel size"	0x01	read panel size (hex)

Response

Pos	Size	Name	Description	Content	
0	1	panel	byte value known as "panel"	0xf0	panel (hex)
1	1	read panel size	byte value known as "read panel size"	0x01	read panel size (hex)
2-3	2	X-value	X-value as WORD		MSB (hex)
					LSB (hex)
4-5	2	Y-value	Y-value as WORD		MSB (hex)
					LSB (hex)

3.183 read projector runtime, read

About this command

This command reads the projector runtime in seconds.

Request

Pos	Size	Name	Description	Content	
0	1	read projector rt	byte value known as "read projector runtime"	0x62	read projector rt (hex)

Response

Pos	Size	Name	Description	Content	
0	1	read projector rt	byte value known as "read projector runtime"	0x62	read projector rt (hex)
1-4	4		runtime in seconds as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.184 read projector serial number, read

About this command

This command reads the projector serial number.

Request

Pos	Size	Name	Description	Content	
0	1	read projector sn	byte value known as "read projector sn"	0x61	read projector sn (hex)

Response

Pos	Size	Name	Description	Content	
0	1	read projector sn	byte value known as "read projector sn"	0x61	read projector sn (hex)
NA	NA	serial number	serial number as a Pascal language string		serial number (string)

3.185 read projector status, read

About this command

This command reads the projector status.

Request

Pos	Size	Name	Description	Content	
0	1	read projector status	byte value known as "read projector status"	0x67	read projector status (hex)
1	1	projector status mask	optional: status mask in order to get only the info of interest.	bit 7	reserved (bit)
				bit 6	lamp on (bit)
				bit 5	reserved (bit)
				bit 4	reserved (bit)
				bit 3	reserved (bit)
				bit 2	reserved (bit)
				bit 1	text on (bit)
				bit 0	projector on (bit)

Response

Pos	Size	Name	Description	Content	
0	1	read projector status	byte value known as "read projector status"	0x67	read projector status (hex)
1	1	projector status	The return data consists of one data byte containing the projector status.	bit 7	reserved (bit)
				bit 6	lamp on (bit)
				bit 5	reserved (bit)
				bit 4	reserved (bit)
				bit 3	reserved (bit)
				bit 2	reserved (bit)
				bit 1	text on (bit)
				bit 0	projector on (bit)

3.186 read wifi configuration, read

About this command

This command reads the wifi configuration.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi configuration	read wifi configuration	0x06	read wifi configuration (hex)

Response

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi configuration	read wifi configuration	0x06	read wifi configuration (hex)
2	1	mode	address assignment mode	0x00	manual (hex)
				0x01	DHCP (hex)
3-6	4	IP address	IP address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
7-10	4	subnet mask	subnet mask		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
11-14	4	default gateway	default gateway		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
15-20	6	MAC address	MAC address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
					fifth octet (hex)
					sixth octet (hex)

3.187 read wifi key Mgmt, read

About this command

This command reads the wifi key Mgmt.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi key Mgmt	read wifi key Mgmt	0x08	read wifi key Mgmt (hex)

Response

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi key Mgmt	read wifi key Mgmt	0x08	read wifi key Mgmt (hex)
2	1	security mode	security mode	0x00	no encryption (hex)
			WPA/WPA2 (auto detected) PSK (Pre Shared Key) TKIP/EAS (auto detected)	0x01	WPA/WPA2 (hex)
NA	NA	PSK	PSK as C-string		PSK (string)

About datafield 5 (PSK)

Only applicable if security mode is activated.

3.188 read wifi scan, read

About this command

This command reads the wifi scan result.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi scan	read wifi scan	0x09	read wifi scan (hex)

Response

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi scan	read wifi scan	0x09	read wifi scan (hex)
NA	NA	scan result	list of Access Points		scan result (xml)

About datafield 4 (scan result)

```
<?xml version="1.0"?>
<scan>
    <status>
        <bssid>00:11:e0:03:00:01</bssid>
        <ssid>DPSYS</ssid>
        <id>0</id>
        <pairwise_cipher>CCMP</pairwise_cipher>
        <group_cipher>TKIP</group_cipher>
        <key_mgmt>WPA2-PSK</key_mgmt>
        <wpa_state>COMPLETED</wpa_state>
        <ip_address>192.168.0.196</ip_address>
    </status>
    <accesspoints>
        <accesspoint bssid="a4:18:75:78:ab:5e">
            <freq>5280</freq>
            <beacon_int>0</beacon_int>
            <capabilities>0x0001</capabilities>
            <qual>42</qual>
            <noise>178</noise>
            <level>183</level>
            <tsf>0000000000000000</tsf>
            <ie>000b426172636f204775657374010158</ie>
            <flags></flags>
            <ssid>Barco Guest</ssid>
        </accesspoint>
    </accesspoints>
</scan>
```

3.189 read wifi SSID, read

About this command

This command reads the wifi SSID of the AP (Access Point) to connect to.

The projector itself is not an AP.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi SSID	read wifi SSID	0x07	read SSID (hex)

Response

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi SSID	read wifi SSID	0x07	read SSID (hex)
NA	NA	SSID	SSID as a C-string		SSID (string)

3.190 read wifi status, read

About this command

This command reads the wifi status.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi status	read wifi status	0x0a	read wifi status (hex)

Response

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	read wifi status	read wifi status	0x0a	read wifi status (hex)
2	1	status	status	0x00	off (hex)
			On = infrastructure mode	0x01	on (hex)

About datafield 4 (status)

"Infrastructure" mode, meaning no ad hoc/point to point connection supported

3.191 RS interface selection , read

About this command

This command reads the RS interface selection.

Request

Pos	Size	Name	Description	Content	
0	1	RS interface selection	byte value known as "RS interface selection"	0x74	RS interface selection (hex)

Response

Pos	Size	Name	Description	Content	
0	1	rs interface selection	byte value known as "rs interface selection"	0x74	rs interface selection (hex)
1	1	selection	RS interface selection	0x00	RS485 (hex)
				0x01	RS232 (hex)

3.192 RS interface selection , write

About this command

This command writes the RS interface selection.

Request

Pos	Size	Name	Description	Content	
0	1	RS interface selection	byte value known as "RS interface selection"	0x74	RS interface selection (hex)
1	1	selection	RS interface selection	0x00	RS485 (hex)
				0x01	RS232 (hex)

3.193 saturation possible, read

About this command

This command checks if saturation adjustment is possible.

Request

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj saturation	value known as "adj saturation"	0x03	saturation (hex)

Response

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj saturation	value known as "adj saturation"	0x03	saturation (hex)
2	1	possible	adjustment is possible or not	0x00	not possible (hex)
				0x01	possible (hex)

3.194 save current adjustments to a file, write

About this command

This command saves current adjustments to a file.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	save current distortion	byte value known as "save current distortion"	0x81	save current distortion (hex)
NA	NA	file name	active warp file name as C-string. .txt extension will automaticaly be appended.		file name (string)
NA	1	number of grid columns	optional parameter to specify number of grid columns.		grid columns. Valid values are 2, 3, 5, 9, 17, 33 (hex)
NA	1	number of grid rows	optional parameter to specify number of grid rows.		grid rows. Valid values are 2, 3, 5, 9, 17, 33 (hex)

3.195 save custom settings, write

About this command

This command saves the custom settings.

Request

Pos	Size	Name	Description	Content	
0	1	function	byte value known as "function"	0x82	function (hex)
1-4	4	part one	DWORD value known as "save custom settings part one"	0x00	BYTE 0 (hex)
				0x00	BYTE 1 (hex)
				0x00	BYTE 2 (hex)
				0x4a	BYTE 3 (hex)

Pos	Size	Name	Description	Content	
5-8	4	part two	DWORD value known as "save custom settings part two"	0x00	BYTE 0 (hex)
				0x03	BYTE 1 (hex)
				0x00	BYTE 2 (hex)
				0x03	BYTE 3 (hex)

3.196 save image settings, write

About this command

This command saves the image settings to the corresponding file.

Request

Pos	Size	Name	Description	Content	
0	1	file	byte value known as "file"	0xbd	file (hex)
1	1	save image settings	byte value known as "save image settings to file"	0x86	save image settings (hex)

3.197 select main window as prefix, write

About this command

This command selects the main window as prefix for a window adjustment command.

prefix applicable for next commands:

- get/set output window commands

- select input slot.

Request

Pos	Size	Name	Description	Content	
0	1	window	byte value known as "window"	0x8f	window (hex)
1	1	select window	byte value known as "select window"	0x88	select window (hex)
2	1	main window	byte value known as "main window"	0x00	main window (hex)

3.198 select PIP window as prefix, write

About this command

This command selects the PIP window as prefix for a window adjustment command.

prefix applicable for next commands:

- get/set output window commands

- select input slot.

Request

Pos	Size	Name	Description	Content	
0	1	window	byte value known as "window"	0x8f	window (hex)
1	1	select window	byte value known as "select window"	0x88	select window (hex)
2	1	PIP window	byte value known as "PIP window"	0x01	PIP window (hex)

3.199 select source 1 as prefix, write

About this command

This command selects the source 1 as prefix for a source adjustment command.

Request

Pos	Size	Name	Description	Content	
0	1	set source	byte value known as "set source"	0x31	set source (hex)
1	1	input 1	byte value known as "input 1"	0x01	input 1 (hex)

3.200 select source 2 as prefix, write

About this command

This command selects the source 2 as prefix for a source adjustment command.

Request

Pos	Size	Name	Description	Content	
0	1	set source	byte value known as "set source"	0x31	set source (hex)
1	1	input 2	byte value known as "input 2"	0x02	input 2 (hex)

3.201 select source 3 as prefix, write

About this command

This command selects the source 3 as prefix for a source adjustment command.

Request

Pos	Size	Name	Description	Content	
0	1	set source	byte value known as "set source"	0x31	set source (hex)
1	1	input 3	byte value known as "input 3"	0x03	input 3 (hex)

3.202 select source 4 as prefix, write

About this command

This command selects the source 4 as prefix for a source adjustment command.

Request

Pos	Size	Name	Description	Content	
0	1	set source	byte value known as "set source"	0x31	set source (hex)
1	1	input 4	byte value known as "input 4"	0x04	input 4 (hex)

3.203 select window, write

About this command

This command selects the window for subsequent adjustments.

Request

Pos	Size	Name	Description	Content	
0	1	window	byte value known as "window"	0x8f	window (hex)
1	1	select window	byte value known as "select window"	0x88	select window (hex)
2	1	selection	window selection	0x00	Main (hex)
				0x01	PIP (hex)

3.204 set aspect ratio file, write

About this command

This command sets the aspect ratio file value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio file	byte value known as "aspect ratio file"	0xc0	aspect ratio file (hex)
NA	NA	aspect ratio string	aspect ratio as C-language string		aspect ratio string (string)

About datafield 3 (aspect ratio string)

"4:3" or "16:9" or "5:4" or "2.35" or "1.88" or "1.85" or "1.78" or "16:10" or "1.67" or "Custom"

3.205 set aspect ratio height, write

About this command

This command sets the aspect ratio height value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio height	byte value known as "aspect ratio height"	0xc2	aspect ratio height (hex)
3-6	4	aspect ratio height	aspect ratio height as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.206 set aspect ratio width, write

About this command

This command sets the aspect ratio width value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj aspect ratio	byte value known as "adj aspect ratio"	0x0b	adj aspect ratio (hex)
2	1	aspect ratio width	byte value known as "aspect ratio width"	0xc1	aspect ratio width (hex)
3-6	4	aspect ratio width	aspect ratio width as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.207 set blanking bottom, write

About this command

This command sets the blanking bottom value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj blanking bottom	byte value known as "adj blanking bottom"	0x4d	adj blanking bottom (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.208 set blanking left, write

About this command

This command sets the blanking left value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj blanking left	byte value known as "adj blanking left"	0x4e	adj blanking left (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.209 set blanking right, write

About this command

This command sets the blanking right value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj blanking right	byte value known as "adj blanking right"	0x4f	adj blanking right (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.210 set blanking top , write

About this command

This command sets the blanking top value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj blanking top	byte value known as "adj blanking top"	0x4c	adj blanking top (hex)
2-3	2	value	blanking value expressed as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.211 set brightness, write

About this command

This command sets the brightness value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj brightness	byte value known as "adj brightness"	0x02	adj brightness (hex)
2	1	value	brightness value range 0->255		brightness value (hex)

3.212 set clamp delay , write

About this command

This command sets the clamp delay value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj clamp delay	byte value known as "adj clamp delay"	0x67	adj clamp delay (hex)
2	1	value	clamp delay value range 0->255		clamp delay value (hex)

3.213 set clamp width, write

About this command

This command sets the clamp width value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj clamp width	byte value known as "adj clamp width"	0x68	adj clamp width (hex)
2	1	value	clamp width value range 0->255		clamp width value (hex)

3.214 set color balance blue green ratio, write

About this command

This command sets the color balance blue green ratio of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj color balance blue green	byte value known as "adj color balance blue green"	0x44	adj color balance BG (hex)
2	1	blue green ratio	color balance blue green ratio multiplied by 100 range 0 -> 200		blue green ratio (hex)

3.215 set color balance red green ratio, write

About this command

This command sets the color balance red green ratio of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj color balance red green	byte value known as "adj color balance red green"	0x43	adj color balance RG (hex)
2	1	red green ratio	color balance red green ratio multiplied by 100 range 0 -> 200		red green ratio (hex)

3.216 set color temperature, write

About this command

This command sets the color temperature of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj color temperature	byte value known as "adj color temperature"	0x45	
NA	NA	color temperature	wanted color temperature expressed as byte or C-String	0x00	custom (hex)
				0x01	projector-white (hex)
				0x32	3200 K (hex)
				0x54	5400 K (hex)
				0x65	6500 K (hex)
				0x93	9300 K (hex)
					color temperature (string)

About datafield 2 (color temperature)

possible color temperature strings are:

"custom"

"projector-white"

"3200"

"5400"

"6500"

"9300"

3.217 set contrast, write

About this command

This command sets the contrast value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj contrast	byte value known as "adj contrast"	0x01	adj contrast (hex)
2	1	value	contrast value range 0->255		contrast value (hex)

3.218 set contrast enhancement, write

About this command

This command sets the contrast enhancement value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj contrast enh	byte value known as "adj contrast enhancement"	0x86	adj contrast enh (hex)
2	1	value	contrast enhancement value	0x00	low contrast (hex)
				0x01	high contrast (hex)
				0x02	mid contrast or undetermined (hex)

Pos	Size	Name	Description	Content	
3-6	4	contrast plate position	for mid contrast or undetermined; contrast plate position as DWORD range 0x0000..0xffff		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.219 set dimming, write

About this command

This command sets the dimming value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj dimming	byte value known as "adj dimming"	0x0d	adj dimming (hex)
2	1	value	dimming value range 255 -> 0 the higher the value the brighter the light output		dimming value (hex)

3.220 set gamma, write

About this command

This command sets the gamma value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj gamma	byte value known as "adj gamma"	0x70	adj gamma (hex)
2	1	value	gamma value range 0->7		gamma value (hex)

3.221 set input black balance, write

About this command

This command sets the input black balance value of the active source.

This is applicable for the specified color.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj input black balance	byte value known as "adj input black balance"	0x6e	adj inp black bal (hex)
2	1	color	color specification	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)
3	1	balance	balance value as byte range -127 -> 127		balance (hex)

3.222 set input white balance, write

About this command

This command sets the input white balance value of the active source.

This is applicable for the specified color.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj input white balance	byte value known as "adj input white balance"	0x6f	adj inp white bal (hex)
2	1	color	color specification	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)
3	1	balance	balance value as byte range -127 -> 127		balance (hex)

3.223 set intensity, write

About this command

This command sets the intensity value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj intensity	byte value known as "adj intensity"	0xa4	adj intensity (hex)
2	1	value	intensity value range 0->255		intensity value (hex)

3.224 set lamp status, write

About this command

This command sets the status of the lamp, on or off.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	byte value known as "lamp"	0x76	lamp (hex)
1	1	write lamp status	byte value known as "write lamp status"	0x1a	write lamp status (hex)
2	1	lamp status value	lamp status value	0x00	off (hex)
				0x01	on (hex)

3.225 set layout , write

About this command

This command sets the layout.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj layout	byte value known as "adj layout"	0x90	adj layout (hex)
NA	NA	layout file name	layout file name as C-string		layout file name (string)

3.226 set lcd backlight level, write

About this command

This command sets the lcd backlight level.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	lcd blacklight level	byte value known as "lcd backlight level"	0xa5	lcd backlight level (hex)
2	1	level	backlight level range 0->255		level (hex)

3.227 set lcd time out, write

About this command

This command sets the lcd time out value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj lcd time out	byte value known as "adj lcd time out"	0xa3	adj lcd time out (hex)
2	1	value	lcd time out value in seconds range 0->255		lcd time out value (hex)

3.228 set lens focus, write

About this command

This command sets the lens focus.

Request

Pos	Size	Name	Description	Content	
0	1	lens	byte value known as "lens"	0xf4	lens (hex)
1	1	write focus	byte value known as "write focus"	0x83	write focus (hex)
2	1	direction	direction	0x00	near (hex)
				0x01	far (hex)

3.229 set lens shift, write

About this command

This command sets the lens shift.

Request

Pos	Size	Name	Description	Content	
0	1	lens	byte value known as "lens"	0xf4	lens (hex)
1	1	write shift	byte value known as "write shift"	0x82	write shift (hex)
2	1	direction	direction	0x00	up (hex)
				0x01	down (hex)
				0x02	left (hex)
				0x03	right (hex)

3.230 set lens zoom, write

About this command

This command sets the lens zoom.

Request

Pos	Size	Name	Description	Content	
0	1	lens	byte value known as "lens"	0xf4	lens (hex)
1	1	write zoom	byte value known as "write zoom"	0x82	write zoom (hex)
2	1	direction	direction	0x00	in (hex)
				0x01	out (hex)

3.231 set lock, write

About this command

This command sets the lock mode.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj lock	byte value known as "adj lock"	0x99	adj lock (hex)
2	1	lock mode	lock mode	0x00	Free run at 60Hz (hex)
				0x01	Lock to input 1 (hex)
				0x02	Lock to input 2 (hex)
				0x03	Lock to input 4 (hex)
				0x04	Lock to input 4 (hex)
				0xfd	manual lock (hex)
				0xfe	lock to PIP (hex)
				0xff	lock to Main window (hex)

Pos	Size	Name	Description	Content	
3-6	4	vertical refresh rate	In case of manual locking, the vertical refresh rate can also be specified as DWORD and represented in 1/10000 Hz. (e.g. 00 09 22 20 = 598560 = 59,856Hz)		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.232 set no signal color logo, write

About this command

This command sets the blanking color value and logo status, used when no signal is connected.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj no signal color	byte value known as "adj no signal color"	0x7b	adj no signal color (hex)
2	1	value	no signal logo status	0x00	off (hex)
				0x01	on (hex)
3	1	red value	red value range 0->255		red value (hex)
4	1	green value	green value range 0->255		green value (hex)
5	1	blue value	blue value range 0->255		blue value (hex)

3.233 set no signal shutdown delay, write

About this command

This command sets the no signal shutdown delay, expressed in number of seconds.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj no signal shutdown	byte value known as "adj no signal shutdown"	0x9a	adj no signal shutdown (hex)
2	1	delay	byte value known as "no signal shutdown delay"	0x02	delay (hex)
3-6	4	delay value	delay in number of seconds as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.234 set no signal shutdown status, write

About this command

This command sets the no signal shutdown status. "Enabled" or "Disabled".

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj no signal shutdown	byte value known as "adj no signal shutdown"	0x9a	adj no signal shutdown (hex)
2	1	status	byte value known as "no signal shutdown status"	0x01	status (hex)
3	1	value	status value	0x00	Disabled (hex)
				0x01	Enabled (hex)

3.235 set output window in native resolution, write

About this command

This command sets the output window in native resolution of the input signal.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	native resolution	native resolution	0x16	native resolution (hex)
3	1	value	value as WORD in big endian (MSB LSB)	0	Off (dec)
				1	On (dec)

3.236 set output window parameters, write

About this command

This command sets the output window parameters.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	from index	from index specification as BYTE	0	X-Offset (dec)
				2	Y-Offset (dec)
				4	Width (dec)
				6	Height (dec)
3	1	window parameter	window parameter		MSB (hex)
					LSB (hex)

About datafield 3 (window parameter)

- all window parameters are expressed as WORD in big endian (MSB LSB)

- the minimum number of parameters is 1

- the maximum number of parameters depends on the specified from index

0 => max 4

2 => max 3

4 => max 2

6 => max 1

3.237 set output window status, write

About this command

This command sets the output window status.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	output window	byte value known as "adj output window"	0x8d	adj window (hex)
2	1	status	status	0x40	status (hex)
3	1	value	value as WORD in big endian (MSB LSB)	0	Off (dec)
				1	On (dec)

3.238 set P7 TCGD blue X, write

About this command

This command sets the P7 TCGD blue X value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD blue X	byte value known as "P7 TCGD blue X"	0x07	P7 TCGD blue X (hex)
4-5	2	value	P7 TCGD blue X value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.239 set P7 TCGD blue Y, write

About this command

This command sets the P7 TCGD blue Y value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD blue Y	byte value known as "P7 TCGD blue Y"	0x08	P7 TCGD blue Y (hex)

Pos	Size	Name	Description	Content	
4-5	2	value	P7 TCGD blue Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.240 set P7 TCGD cyan X, write

About this command

This command sets the P7 TCGD cyan X value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD cyan X	byte value known as "P7 TCGD cyan X"	0x0d	P7 TCGD cyan X (hex)
4-5	2	value	P7 TCGD cyan X value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.241 set P7 TCGD cyan Y, write

About this command

This command sets the P7 TCGD cyan Y value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD cyan Y	byte value known as "P7 TCGD cyan Y"	0x0e	P7 TCGD cyan Y (hex)
4-5	2	value	P7 TCGD cyan Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.242 set P7 TCGD green X, write

About this command

This command sets the P7 TCGD green X value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD green X	byte value known as "P7 TCGD green X"	0x04	P7 TCGD green X (hex)
4-5	2	value	P7 TCGD green X value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.243 set P7 TCGD green Y, write

About this command

This command sets the P7 TCGD green Y value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD green Y	byte value known as "P7 TCGD green Y"	0x05	P7 TCGD green Y (hex)
4-5	2	value	P7 TCGD green Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.244 set P7 TCGD magenta X, write

About this command

This command sets the P7 TCGD magenta X value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD magenta X	byte value known as "P7 TCGD magenta X"	0x0a	P7 TCGD magenta X (hex)
4-5	2	value	P7 TCGD magenta X value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.245 set P7 TCGD magenta Y, write

About this command

This command sets the P7 TCGD magenta Y value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD magenta Y	byte value known as "P7 TCGD magenta Y"	0x0b	P7 TCGD magenta Y (hex)
4-5	2	value	P7 TCGD magenta Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.246 set P7 TCGD red X , write

About this command

This command sets the P7 TCGD red X value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD red X	byte value known as "P7 TCGD red X"	0x01	P7 TCGD red X (hex)
4-5	2	value	P7 TCGD Red X value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.247 set P7 TCGD red Y, write

About this command

This command sets the P7 TCGD red Y value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD red Y	byte value known as "P7 TCGD red Y"	0x02	P7 TCGD red Y (hex)
4-5	2	value	P7 TCGD Red Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.248 set P7 TCGD selection, write

About this command

This command sets the P7 TCGD selection.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD all	byte value known as "P7 TCGD all"	0x00	all (hex)
NA	NA	file name	name of file with the wanted P7 TCGD values. name as C-string		file name (string)

3.249 set P7 TCGD white X, write

About this command

This command sets the P7 TCGD white X value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD white X	byte value known as "P7 TCGD white X"	0x13	P7 TCGD white X (hex)
4-5	2	value	P7 TCGD white X value as WORD		MSB (hex)
					LSB (hex)

3.250 set P7 TCGD white Y, write

About this command

This command sets the P7 TCGD white Y value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD white Y	byte value known as "P7 TCGD white Y"	0x14	P7 TCGD white Y (hex)
4-5	2	value	P7 TCGD white Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.251 set P7 TCGD yellow X, write

About this command

This command sets the P7 TCGD yellow X value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD yellow X	byte value known as "P7 TCGD yellow X"	0x10	P7 TCGD yellow X (hex)
4-5	2	value	P7 TCGD yellow X value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.252 set P7 TCGD yellow Y, write

About this command

This command sets the P7 TCGD yellow Y value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj P7	byte value known as "adj P7"	0x97	adj P7 (hex)
2	1	P7 TCGD	byte value known as "P7 TCGD"	0x00	P7 TCGD (hex)
3	1	P7 TCGD yellow Y	byte value known as "P7 TCGD yellow Y"	0x11	P7 TCGD yellow Y (hex)
4-5	2	value	P7 TCGD yellow Y value as WORD		MSB (hex)
					LSB (hex)

About datafield 4 (value)

Word value = floating point value * 10000

3.253 set phase, write

About this command

This command sets the phase value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj phase	byte value known as "adj phase"	0x06	adj phase (hex)
2	1	value	phase value range 0->63		phase value (hex)

3.254 set same lens settings status, write

About this command

This command sets the same lens settings status.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj same lens settings	byte value known as "adj same lens settings"	0xa2	adj same lens settings (hex)
2	1	status	same lens settings status	0x00	layout specific (hex)
				0x01	same for all layouts (hex)

3.255 set saturation, write

About this command

This command sets the saturation value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj saturation	byte value known as "adj saturation"	0x03	adj saturation (hex)
2	1	value	saturation value range 0->255		saturation value (hex)

3.256 set scan/orientation configuration, write

About this command

This command sets the scan/orientation configuration.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj scan	byte value known as "adj scan"	0x24	adj scan (hex)
2	1	orientation	orientation	0x40	Front-Table (hex)
				0x80	Front-Ceiling (hex)
				0x00	Rear-Table (hex)
				0xc0	Rear-Ceiling (hex)
				0x01	Auto-Front (hex)
				0x02	Auto-Rear (hex)

3.257 set sharpness, write

About this command

This command sets the sharpness value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj sharpness	byte value known as "adj sharpness"	0x05	adj sharpness (hex)
2	1	value	sharpness value range 0->31		sharpness value (hex)

3.258 set shutter position, write

About this command

This command opens or closes the shutter of the projector.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj shutter	byte value known as "adj shutter"	0x42	adj shutter (hex)
2	1	shutter position	shutter position	0x00	close (hex)
				0x01	open (hex)

3.259 set soft edge black level, write

About this command

This command sets the soft edge black level value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge black level	byte value known as "adj soft edge black level"	0x84	adj soft edge black level (hex)
2	1	color	color	0x00	red (hex)
				0x01	green (hex)
				0x02	blue (hex)
3	1	value	soft edge black level value range 0->255		black level value (hex)

3.260 set soft edge size black level bottom, write

About this command

This command sets the soft edge size black level bottom value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)

Pos	Size	Name	Description	Content	
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level bottom	byte value known as "soft edge size black level bottom"	0x05	soft edge size black level bottom (hex)
3-4	2	soft edge size black level bottom	soft edge size black level bottom as WORD range depending on the native resolution of the projector.		MSB (hex) LSB (hex)

3.261 set soft edge size black level left, write

About this command

This command sets the soft edge size black level left value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level left	byte value known as "soft edge size black level left"	0x06	soft edge size black level left (hex)
3-4	2	soft edge size black level left	soft edge size black level left as WORD range depending on the native resolution of the projector.		MSB (hex) LSB (hex)

3.262 set soft edge size black level right, write

About this command

This command sets the soft edge size black level right value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level right	byte value known as "soft edge size black level right"	0x07	soft edge size black level right (hex)
3-4	2	soft edge size black level right	soft edge size black level right as WORD range depending on the native resolution of the projector.		MSB (hex) LSB (hex)

3.263 set soft edge size black level top, write

About this command

This command sets the soft edge size black level top value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size black level top	byte value known as "soft edge size black level top"	0x04	soft edge size black level top (hex)
3-4	2	soft edge size black level top	soft edge size black level top as WORD range depending on the native resolution of the projector.		MSB (hex)
					LSB (hex)

3.264 set soft edge size bottom, write

About this command

This command sets the soft edge size bottom value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size bottom	byte value known as "soft edge size bottom"	0x01	soft edge size bottom (hex)
3-4	2	soft edge size bottom	soft edge size bottom as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.265 set soft edge size left, write

About this command

This command sets the soft edge size left value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size left	byte value known as "soft edge size left"	0x02	soft edge size left (hex)
3-4	2	soft edge size left	soft edge size left as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.266 set soft edge size right , write

About this command

This command sets the soft edge size right value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size right	byte value known as "soft edge size right"	0x03	soft edge size right (hex)
3-4	2	soft edge size right	soft edge size right as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.267 set soft edge size top , write

About this command

This command sets the soft edge size top value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge size	byte value known as "adj soft edge size"	0x83	adj soft edge size (hex)
2	1	soft edge size top	byte value known as "soft edge size top"	0x00	soft edge size top (hex)
3-4	2	soft edge size top	soft edge size top as WORD		MSB (hex)
			range depending on the native resolution of the projector.		LSB (hex)

3.268 set soft edge status, write

About this command

This command sets the soft edge status.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj soft edge status	byte value known as "adj soft edge status"	0x82	adj soft edge status (hex)
2	1	status	soft edge status bit 0 = soft edge/scenergix enabled bit 1 = white level alignment lines enabled bit 2 = black level alignment lines enabled bit 3 = data doubling enabled		soft edge status (hex)

3.269 set source , write

About this command

This command sets the source selection for the active window.

Request

Pos	Size	Name	Description	Content	
0	1	set source	set source selection	0x31	set source (hex)
1	1	source selection	source selection	0x01	input 1 (hex)
				0x02	input 2 (hex)
				0x03	input 3 (hex)
				0x04	input 4 (hex)

3.270 set source extended, write

About this command

This command sets the source extended data without changing the source selection.

For source selection, use the command: "set source, write".

Request

Pos	Size	Name	Description	Content	
0	1	set source	set source extended	0x33	set source extended (hex)
1	1	input module indication	input module indication	0x01	input 1 (hex)
				0x02	input 2 (hex)
				0x03	input 3 (hex)
				0x04	input 4 (hex)
2	1	mode	module mode depends on module type		module mode (hex)
3	1	configuration part one	optional and only for SDI module		configuration part one (hex)
4	1	configuration part two	optional and only for SDI module		configuration part two (hex)
5	1	configuration part three	optional and only for SDI module		configuration part three (hex)

About datafield 2 (mode)

module modes

DVI/RGB analog

0x00 = dvi mode

0x01 = rgb analog hs-vs/cs

0x02 = yuv analog hs-vs/cs

0x03 = dual link DVI

0x04 = auto

SDI

0x00 = Input 1 (SD, HD or 3G)

0x01 = Input 2 (SD, HD or 3G)

0x02 = Input 1 priority over input 2 (SD, HD or 3G)

0x03 = Input 2 priority over input1 (SD, HD or 3G)

0x04 = DUAL HDSDI (uses both inputs)

0x05 = 2xHD (3D only - uses both inputs)

HDMI / DP

0x00 = HDMI

0x01 = Display Port

5-Cable:

0x00 = RGB HS/VS

0x01 = RGB CV: RGB with composite video on HS BNC

0x02 = RGB SOG: RGB with composite sync on G (G/Y/VIDEO BNC)

0x03 = YUV HS/VS

0x04 = YUV CV: YUV with composite video on HS BNC

0x05 = YUV SOY: RGB with composite sync on Y (G/Y/VIDEO BNC)

0x06 = CVBS: composite video on G/Y/VIDEO BNC

0x07 = S-VIDEO: separate video with Y on G/Y/VIDEO BNC and Cr on V/Cr BNC

Auto configuration is provided via the next modes:

0x08 = RGB AUTO: to do auto configuration between modes 0, 1 and 2

0x09 = YUV AUTO: to do auto configuration between modes 3, 4 and 5

0x0a = CVBS/S-VIDEO AUTO: to do auto configuration between modes 6 and 7

About datafield 3 (configuration part one)

module configurations 1

SDI

0x00 = 4:2:2 YCbCr 10b

0x01 = 4:4:4 YCbCr 10b

0x02 = 4:4:4 RGB 10b

0x03 = 4:4:4 YCbCr 12b

0x04 = 4:4:4 RGB 12b

0x05 = 4:2:2 YCbCr 12b

DVI

0x00 = AUTO RGB (if mode is AUTO use RGB for analog sources)

0x01 = AUTO YUV (if mode is AUTO use YUV for analog sources)

About datafield 4 (configuration part two)

module configurations 2

SDI

0x00 = Dual: Normal

0x01 = Dual: Swap links

About datafield 5 (configuration part three)

module configurations 3

SDI

0x00 = 3G: Dual HD

0x01 = 3G: Direct mapping

0x02 = 3G-B: 2xHD (3D-only)

3.271 set test pattern by name, write

About this command

This command sets the specified test pattern.

Request

Pos	Size	Name	Description	Content	
0	1	test pattern	byte value known as "test pattern"	0x41	test pattern (hex)
1	1	test pattern by name	byte value known as "test pattern by name"	0xc0	test pattern by name (hex)
NA	NA	pattern name	pattern name as a C-language string To exit the pattern, use an empty C-language string.		pattern name (string)

About datafield 2 (pattern name)

valid test pattern names are:

"checkerboard"

"color bars"

"focus"

"full screen black"

"full screen blue"

"full screen green"

"full screen red"

"full screen white"

"hatch"

"outline"

"scenergix"

"convergence"

""

3.272 set test pattern convergence, write

About this command

This command sets the convergence test pattern.

Request

Pos	Size	Name	Description	Content	
0	1	test pattern	byte value known as "test pattern"	0x41	test pattern (hex)
1	1	test pattern convergence	byte value known as "test pattern convergence"	0x21	test pattern convergence (hex)

3.273 set test pattern convergence green blue, write

About this command

This command sets the convergence test pattern with green blue.

Request

Pos	Size	Name	Description	Content	
0	1	test pattern	byte value known as "test pattern"	0x41	test pattern (hex)
1	1	test pattern convergence	byte value known as "test pattern convergence"	0x21	test pattern convergence (hex)
2	1	convergence green blue	byte value known as "convergence green blue"	0x07	convergence green blue (hex)

3.274 set test pattern convergence red blue, write

About this command

This command sets the convergence test pattern with red blue.

Request

Pos	Size	Name	Description	Content	
0	1	test pattern	byte value known as "test pattern"	0x41	test pattern (hex)
1	1	test pattern convergence	byte value known as "test pattern convergence"	0x21	test pattern convergence (hex)
2	1	convergence red blue	byte value known as "convergence red blue"	0x08	convergence red blue (hex)

3.275 set test pattern convergence red green blue, write

About this command

This command sets the convergence test pattern with red green blue.

Request

Pos	Size	Name	Description	Content	
0	1	test pattern	byte value known as "test pattern"	0x41	test pattern (hex)
1	1	test pattern convergence	byte value known as "test pattern convergence"	0x21	test pattern convergence (hex)
2	1	convergence red green blue	byte value known as "convergence red green blue"	0x20	convergence red green blue (hex)

3.276 set tint, write

About this command

This command sets the tint value of the active source.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj tint	byte value known as "adj tint"	0x04	adj tint (hex)
2	1	value	tint value range 0->128		tint value (hex)

3.277 set warp axis position, write

About this command

This command sets the warp axis position. This is the center used for the rotation command. Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp axis position	byte value known as "warp axis position"	0x30	warp axis position (hex)

Pos	Size	Name	Description	Content	
3-6	4	axis position X value	X value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)
7-10	4	axis position Y value	Y value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.278 set warp file, write

About this command

This command sets the wanted warp file.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp file	byte value known as "warp file"	0x80	warp file (hex)
NA	NA	file name	warp file name as C-string		file name (string)

3.279 set warp grid size, write

About this command

This command sets the warp grid size value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp grid size	byte value known as "warp grid size"	0x18	warp grid size (hex)
3	1	ver number of grid lines	vertical numbers of grid lines only 2, 3, 5, 9, 17 and 33 are valid numbers		ver number of grid lines (hex)
4	1	hor number of grid lines	horizontal number of grid lines only 2, 3, 5, 9, 17 and 33 are valid numbers		hor number of grid lines (hex)

3.280 set warp hierarchic keystone in X direction, write

About this command

This command sets the hierarchic warp keystone value in X direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic keystone in X direction	byte value known as "warp hierarchic keystone in X direction"	0x53	warp hierarchic keystone in X direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	keystone in X direction	keystone in X direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.281 set warp hierarchic keystone in Y direction, write

About this command

This command sets the hierarchic warp keystone value in Y direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic keystone in Y direction	byte value known as "warp hierarchic keystone in Y direction"	0x54	warp hierarchic keystone in Y direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	keystone in Y direction	keystone in Y direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.282 set warp hierarchic linearity in X direction, write

About this command

This command sets the hierarchic warp linearity value in X direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic linearity in X direction	byte value known as "warp hierarchic linearity in X direction"	0x51	warp hierarchic linearity in X direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	linearity in X direction	linearity in X direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.283 set warp hierarchic linearity in Y direction, write

About this command

This command sets the hierarchic warp linearity value in Y direction.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic linearity in Y direction	byte value known as "warp hierarchic linearity in Y direction"	0x52	warp hierarchic linearity in Y direction (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Pos	Size	Name	Description	Content	
4-7	4	linearity in Y direction	linearity in Y direction value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.284 set warp hierarchic point shift, write

About this command

This command sets the hierarchic warp point shift value.

Valid from v1.6.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp hierarchic point shift horizontal	byte value known as "warp hierarchic point shift"	0x50	warp hierarchic point shift (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4	1	X position	X position of the pixel to shift		X position (0 - 32) (hex)
5	1	Y position	Y position of the pixel to shift		Y position (0 - 32) (hex)
6-9	4	X shift value	X shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)
10-13	4	Y shift value	Y shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.285 set warp keystone horizontal. Deprecated from version 1.6, write

About this command

This command sets the warp keystone horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)

Pos	Size	Name	Description	Content	
2	1	warp keystone horizontal	byte value known as "warp keystone horizontal"	0x02	warp keystone horizontal (hex)
3-6	4	keystone value	keystone value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.286 set warp keystone vertical. Deprecated from version 1.6, write

About this command

This command sets the warp keystone vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp keystone vertical	byte value known as "warp keystone vertical"	0x01	warp keystone vertical (hex)
3-6	4	keystone value	keystone value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.287 set warp line shift horizontal. Deprecated from version 1.6, write

About this command

This command sets the warp line shift horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp line shift horizontal	byte value known as "warp line shift horizontal"	0x16	warp line shift horizontal (hex)
3	1	line position	position of the line to shift		line position (hex)
4-7	4	line shift value	line shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.288 set warp line shift vertical. Deprecated from version 1.6, write

About this command

This command sets the warp line shift vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp line shift vertical	byte value known as "warp line shift vertical"	0x15	warp line shift vertical (hex)
3	1	line position	position of the line to shift		line position (hex)
4-7	4	line shift value	line shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.289 set warp linearity horizontal. Deprecated from version 1.6, write

About this command

This command sets the warp linearity horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp linearity horizontal	byte value known as "warp linearity horizontal"	0x0f	warp linearity horizontal (hex)
3-6	4	linearity value	linearity value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE2 (hex)
					BYTE 3 (hex)

3.290 set warp linearity vertical. Deprecated from version 1.6, write

About this command

This command sets the warp linearity vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp linearity vertical	byte value known as "warp linearity vertical"	0x10	warp linearity vertical (hex)
3-6	4	linearity value	linearity value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.291 set warp pin barrel horizontal. Deprecated from version 1.6, write

About this command

This command sets the warp pin barrel horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp pin barrel horizontal	byte value known as "warp pin barrel horizontal"	0x0e	warp pin barrel horizontal (hex)
3-6	4	barrel value	barrel value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.292 set warp pin barrel vertical. Deprecated from version 1.6, write

About this command

This command sets the warp pin barrel vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp pin barrel vertical	byte value known as "warp pin barrel vertical"	0x0d	warp pin barrel vertical (hex)
3-6	4	barrel value	barrel value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.293 set warp point shift. Deprecated from version 1.6, write

About this command

This command sets the warp point shift value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp point shift horizontal	byte value known as "warp point shift"	0x17	warp point shift (hex)
3	1	X position	X position of the pixel to shift		X position (hex)
4	1	Y position	Y position of the pixel to shift		Y position (hex)

Pos	Size	Name	Description	Content	
5-8	4	X shift value	X shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)
9-12	4	Y shift value	Y shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.294 set warp rotation, write

About this command

This command sets the warp rotation value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp rotation	byte value known as "warp rotation"	0x03	warp rotation (hex)
3-6	4	angle value	angle value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.295 set warp scale horizontal, write

About this command

This command sets the warp scale horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp scale horizontal	byte value known as "warp scale horizontal"	0x12	warp scale horizontal (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)

Pos	Size	Name	Description	Content	
4-7	4	scale value	scale value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.296 set warp scale vertical , write

About this command

This command sets the warp scale vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp scale vertical	byte value known as "warp scale vertical"	0x11	warp scale vertical (hex)
3	1	warp area	warp area. optional field added from version 1.6. If omitted in the request, it does not appear in the response. The default area is "all area" in this case.	0x00	all area (hex)
				0x01	right area (hex)
				0x02	bottom area (hex)
				0x03	top area (hex)
				0x04	left area (hex)
				0x05	left top area (hex)
				0x06	right top area (hex)
				0x07	left bottom area (hex)
				0x08	right bottom area (hex)
4-7	4	scale value	scale value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.297 set warp shift horizontal, write

About this command

This command sets the warp shift horizontal value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp shift horizontal	byte value known as "warp shift horizontal"	0x14	warp shift horizontal (hex)
3-6	4	line shift value	line shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.298 set warp shift vertical, write

About this command

This command sets the warp shift vertical value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp shift vertical	byte value known as "warp shift vertical"	0x13	warp shift vertical (hex)
3-6	4	shift value	shift value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.299 set warp status, write

About this command

This command sets the warp status value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp status	byte value known as "warp status"	0x00	warp status (hex)
3	1	status value	status value	0x00	off (hex)
				0x01	on, manual mode (hex)
				0x02	on, file mode (hex)
4-5	2	optional warp enable command fields	2 byte bit field is added when status = 0x01	move points	deprecated from version 1.6 (bit)
				shift grid line	deprecated from version 1.6 (bit)
				lin-earity	deprecated from version 1.6 (bit)
				pin-cush-ion barrel	deprecated from version 1.6 (bit)
				key-stone	deprecated from version 1.6 (bit)
				scale	
				shift	
				rotate	
				Hier-archic points	
				unused	
				unused	
				unused	
				unused	

Pos	Size	Name	Description	Content	
				unused	
				unused	
				four corner	deprecated from version 1.6 (bit)

3.300 set warp X1. Deprecated from version 1.6, write

About this command

This command sets the warp X1 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X1	byte value known as "warp X1"	0x05	warp X1 (hex)
3-6	4	X1 value	X1 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.301 set warp X2. Deprecated from version 1.6, write

About this command

This command sets the warp X2 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X2	byte value known as "warp X2"	0x07	warp X2 (hex)
3-6	4	X2 value	X2 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.302 set warp X3. Deprecated from version 1.6, write

About this command

This command sets the warp X3 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X3	byte value known as "warp X3"	0x09	warp X3 (hex)

Pos	Size	Name	Description	Content	
3-6	4	X3 value	X3 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.303 set warp X4. Deprecated from version 1.6, write

About this command

This command sets the warp X4 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp X4	byte value known as "warp X4"	0x0b	warp X4 (hex)
3-6	4	X4 value	X4 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.304 set warp Y1. Deprecated from version 1.6, write

About this command

This command sets the warp Y1 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y1	byte value known as "warp Y1"	0x06	warp Y1 (hex)
3-6	4	Y1 value	Y1 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.305 set warp Y2. Deprecated from version 1.6, write

About this command

This command sets the warp Y2 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y2	byte value known as "warp Y2"	0x08	warp Y2 (hex)

Pos	Size	Name	Description	Content	
3-6	4	Y2 value	Y2 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.306 set warp Y3. Deprecated from version 1.6, write

About this command

This command sets the warp Y3 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y3	byte value known as "warp Y3"	0x0a	warp Y3 (hex)
3-6	4	Y3 value	Y3 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.307 set warp Y4. Deprecated from version 1.6, write

About this command

This command sets the warp Y4 value.

Request

Pos	Size	Name	Description	Content	
0	1	set adj	byte value known as "set adj"	0x20	set adj (hex)
1	1	adj warp	byte value known as "adj warp"	0xa1	adj warp (hex)
2	1	warp Y4	byte value known as "warp Y4"	0x0c	warp Y4 (hex)
3-6	4	Y4 value	Y4 value as float (IEE-754 4bytes)		BYTE 0 (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					BYTE 3 (hex)

3.308 sharpness possible, read

About this command

This command checks if sharpness adjustment is possible.

Request

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj sharpness	value known as "adj sharpness"	0x05	sharpness (hex)

Response

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj sharpness	value known as "adj sharpness"	0x05	sharpness (hex)
2	1	possible	adjustment is possible or not	0x00	not possible (hex)
				0x01	possible (hex)

3.309 text off, write

About this command

This command sets the text off.

Request

Pos	Size	Name	Description	Content	
0	1	text off	byte value known as "text off"	0x0e	text off (hex)

3.310 text on, write

About this command

This command sets the text on.

Request

Pos	Size	Name	Description	Content	
0	1	text on	byte value known as "text on"	0x0d	text on (hex)

3.311 tint possible, read

About this command

This command checks if tint adjustment is possible.

Request

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj tint	value known as "adj tint"	0x04	tint (hex)

Response

Pos	Size	Name	Description	Content	
0	1	adj possible	value known as "adj possible"	0x29	adj possible (hex)
1	1	adj tint	value known as "adj tint"	0x04	tint (hex)
2	1	possible	adjustment is possible or not	0x00	not possible (hex)
				0x01	possible (hex)

3.312 unfreeze, write

About this command

This command unfreezes the active window.

Request

Pos	Size	Name	Description	Content	
0	1	min adj	byte value known as "min adj"	0x26	min adj (hex)
1	1	adj freeze	byte value known as "adj freeze"	0x23	adj freeze (hex)

3.313 warp file delete, write

About this command

This command deletes a warp file.

Request

Pos	Size	Name	Description	Content	
0	1			0xbd	
1	1			0xc6	
NA	NA	filename	C-language string starting with "$HDXWARP/"		filename (string)

3.314 warp file rename, write

About this command

This command renames a warp file.

Request

Pos	Size	Name	Description	Content	
0	1			0xbd	
1	1			0xc4	
NA	NA	old filename	C-language string starting with "$HDXWARP/"		old filename (string)
NA	NA	new filename	C-language string starting with "$HDXWARP/"		new filename (string)

3.315 write auto picture alignment configuration, write

About this command

This command writes the auto picture alignment configuration.

Request

Pos	Size	Name	Description	Content	
0	1	file	byte value known as "file"	0xbd	file (hex)
1	1	write auto picture alignment	byte value known as "write auto picture alignment"	0x87	write auto picture alignment (hex)
2	1	configuration	configuration	0x00	at file load (hex)
				0x01	off (hex)
				0x02	always (hex)

3.316 write barscale position, write

About this command

This command writes the barscale position.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	write barscale position	byte value known as "write barscale position"	0x82	write barscale position (hex)
2	1	position	position value	0x11	Top Left (hex)
				0x12	Top Mid (hex)
				0x13	Top Right (hex)
				0x21	Mid Left (hex)
				0x22	Mid Mid (hex)
				0x23	Mid Right (hex)
				0x31	Bottom Left (hex)
				0x32	Bottom Mid (hex)
				0x33	Bottom Right (hex)

3.317 write customer id, write

About this command

This command writes the customer id.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	write customer id	byte value known as "write customer id"	0x81	write customer id (hex)
NA	NA	customer ID	customer ID as C-string		customer ID (string)

About datafield 2 (customer ID)

maximum 15 characters as net data (terminating "\0" not included)

3.318 write DMX address, write

About this command

This command writes the DMX address.

Request

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	write DMX address	byte value known as "write DMX address"	0x41	write DMX address (hex)
2-3	2	DMX address	DMX address as WORD		MSB (hex)
			range 1 -> 512		LSB (hex)

3.319 write DMX mode, write

About this command

This command writes the DMX mode.

Request

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	write DMX mode	byte value known as "write DMX mode"	0x43	write DMX mode (hex)
2	1	mode	DMX mode	0x00	full (hex)
				0x01	basic (hex)
				0x02	extended (hex)

3.320 write DMX universe, write

About this command

This command writes the DMX universe applicable to Art-Net.

Request

Pos	Size	Name	Description	Content	
0	1	DMX	byte value known as "DMX"	0x57	DMX (hex)
1	1	write DMX universe	byte value known as "write DMX universe"	0x45	write DMX universe (hex)
2-3	2	universe value	universe value as a WORD		MSB (hex)
					LSB (hex)

About datafield 2 (universe value)

current implementation takes only LSB value into account

3.321 write gateway configuration, write

About this command

This command writes the gateway configuration.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	write gateway configuration	write gateway configuration	0x8b	write gateway configuration (hex)
2	1	config	gateway configuration	0x00	wired (hex)
				0x01	wireless (hex)

3.322 write infrared ports status, write

About this command

This command writes the infrared ports status, enabled or disabled.

Request

Pos	Size	Name	Description	Content	
0	1	write ir ports	byte value known as "write ir ports"	0x6e	write ir ports (hex)
1	1	ir ports status	ir ports status as byte value	bit 7	reserved (bit)
				bit 6	reserved (bit)
				bit 5	reserved (bit)
				bit 4	reserved (bit)
				bit 3	side receiver (bit)
				bit 2	reserved (bit)
				bit 1	rear receiver (bit)
				bit 0	front receiver (bit)

About datafield 1 (ir ports status)

bit value 0 = disabled

bit value 1 = enabled

3.323 write lamp CLO status, write

About this command

This command writes the lamp CLO (Contstant Light Output) status.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	write lamp clo status	byte value known as "write lamp clo status"	0x16	write lamp clo status (hex)
2	1	status	status	0x00	off (hex)
				0x01	on (hex)

3.324 write lamp CLO target lumens, write

About this command

This command writes the lamp CLO (Constant Light Output) target lumens.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	write lamp clo value	write lamp clo value	0x1e	write lamp clo value (hex)
2-5	4	lumens	lumens as DWORD		MSB (hex)
					BYTE 1 (hex)
					BYTE 2 (hex)
					LSB (hex)

3.325 write lamp status, write

About this command

This command writes the lamp status.

Request

Pos	Size	Name	Description	Content	
0	1	lamp	value known as "lamp"	0x76	lamp (hex)
1	1	write lamp status	write lamp status	0x1a	write lamp status (hex)
2	1	status	status	0x00	off (hex)
				0x01	on (hex)

3.326 write language, write

About this command

This command writes the language selection.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	write language	byte value known as "write language"	0x84	write language (hex)
NA	NA	language	language two-letter code as C-string	"en"	English (string)
				"fr"	French (string)
				"de"	Deutch (string)
				"es"	Spanish (string)
				"pt"	Portuguese (string)
				"nl"	Dutch (string)
				"zh"	Chinese (string)
				"ja"	Japanese (string)
				"ko"	Korean (string)

3.327 write menu position, write

About this command

This command writes the menu position.

Request

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	write menu position	byte value known as "write menu position"	0x83	write menu position (hex)

Response

Pos	Size	Name	Description	Content	
0	1	projector info	byte value known as "projector info"	0xf5	projector info (hex)
1	1	write menu position	byte value known as "write menu position"	0x83	write menu position (hex)

Pos	Size	Name	Description	Content	
2	1	position	position value	0x11	Top Left (hex)
				0x12	Top Mid (hex)
				0x13	Top Right (hex)
				0x21	Mid Left (hex)
				0x22	Mid Mid (hex)
				0x23	Mid Right (hex)
				0x31	Bottom Left (hex)
				0x32	Bottom Mid (hex)
				0x33	Bottom Right (hex)

3.328 write network configuration, write

About this command

This command writes the network configuration.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	write network configuration	write network configuration	0x81	write network configuration (hex)
2	1	mode	address assignment mode	0x00	manual (hex)
				0x01	DHCP (hex)
3-6	4	IP address	IP address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
7-10	4	subnet mask	subnet mask		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
11-14	4	default gateway	default gateway		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
15-20	6	MAC address	MAC address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
					fifth octet (hex)
					sixth octet (hex)

3.329 write projector off, write

About this command

This command sets the projector off. (off = stand by)

When the lamp is off, the projector is switched off.

When the lamp is on, the lamp is switched off and the projector is switched off.

Request

Pos	Size	Name	Description	Content	
0	1	write projector off	byte value known as "write projector off"	0x66	write projector off (hex)

3.330 write projector on, write

About this command

This command sets the projector on.

When the lamp is off, the projector is switched on. The lamp remains off.

Use the "set lamp status" command to switch on the lamp.

When the lamp is on there is no change.

Request

Pos	Size	Name	Description	Content	
0	1	write projector on	byte value known as "write projector on"	0x65	write projector on (hex)

3.331 write wifi configuration, write

About this command

This command writes the wifi configuration.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	write wifi configuration	write wifi configuration	0x86	write wifi configuration (hex)
2	1	mode	address assignment mode	0x00	manual (hex)
				0x01	DHCP (hex)
3-6	4	IP address	IP address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
7-10	4	subnet mask	subnet mask		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
11-14	4	default gateway	default gateway		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)

Pos	Size	Name	Description	Content	
15-20	6	MAC address	MAC address		first octet (hex)
					second octet (hex)
					third octet (hex)
					fourth octet (hex)
					fifth octet (hex)
					sixth octet (hex)

3.332 write wifi key mgmt, write

About this command

This command writes the wifi key mgmt.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	write wifi key mgmt	write wifi key mgmt	0x88	write wifi key mgmt (hex)
2	1	security mode	security mode	0x00	no encryption (hex)
			WPA/WPA2 (auto detected) PSK (Pre Shared Key) TKIP/EAS (auto detected)	0x01	WPA/WPA2 (hex)
NA	NA	PSK	PSK as C-string		PSK (string)

About datafield 3 (PSK)

Only applicable if security mode is activated.

3.333 write wifi scan, write

About this command

This command triggers a scan for Access Points.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	write wifi scan	write wifi scan	0x89	write wifi scan (hex)

3.334 write wifi SSID , write

About this command

This command writes the wifi SSID of the AP (Access Point) to connect to.

The projector itself is not an AP.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	write wifi SSID configuration	write wifi SSID configuration	0x87	write wifi SSID configuration (hex)
NA	NA	SSID	SSID as a C-string		SSID (string)

3.335 write wifi status, write

About this command

This command writes the wifi status.

Request

Pos	Size	Name	Description	Content	
0	1	network	value known as "network"	0x11	network (hex)
1	1	write wifi status	write wifi status	0x8a	write wifi status (hex)
2	1	status	status	0x00	off (hex)
			On = infrastructure mode	0x01	on (hex)

About datafield 2 (status)

"Infrastructure" mode, meaning no ad hoc/point to point connection supported

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