

IN3916 Control commands

IMPORTANT: When formatting commands sent from a control system or computer, enclose commands in parentheses "(" and ")". When entering custom commands into Scheduled Tasks in the projector's web interface, enclose commands in less than/greater than symbols "<" and ">" instead.

Serial Communication Configuration

Visit our website for additional RS-232 settings and information.

To control this projector via RS-232, connect a null modem cable and set the control system serial port settings to match the following communication configuration.

RS-232 Port Settings	
Setting	Value
Bits per second	115,200
Data bits	8
Parity	None
Stop bits	1
Flow control	None
Emulation	VT100



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Network Communication Configuration

For network control, you can access the projector through Port 23 (Telnet).

We use the same control codes on serial as we do over the network. InFocus network control uses the Telnet packet structure.

Command Format

All commands consist of 3 alpha characters followed by a request, all enclosed in parentheses. The request can be a read request (indicated by a "?") or a write request (indicated by 1 to 4 ASCII digits).

A read request example:

(AAA?) where
 (starts the command
 AAA denotes the command
 ? Denotes the read request
) ends the command

A read command returns the range and the current setting, for example:

Read Command Examples		
Function	Command	Response
Brightness	(BRT?)	(0-100, 50)
Volume	(VOL?)	(0-100, 50)
Lamp Hours	(LMP?)	(0-32766, 42)

A write request example:

(AAA####) where
 (starts the command
 AAA denotes the command
 #### denotes the value to be written
 (leading zeros not necessary)
) ends the command

Some commands have ranges, while others are absolute. If a number greater than the maximum range is received, it is automatically set to the maximum number for that function. If a command is received that is not understood, a "?" is returned. With absolute settings, "0" is off, 1-9999 is on. The one exception is the Power command, where 0 is off and 1 is on.

To assure the projector can process a command, wait 3 seconds before entering the next command.

Write Command Examples		
Function	Command	Response
Brightness	(BRT100)	Sets brightness to 100

Power	(PWR0)	Turns power off
Power	(PWR1)	Turns power on

Error Conditions

Not all commands are supported for all projectors. If an unsupported command is issued, the command will be ignored. If a command is received that is not understood, a '?' character will be returned indicating the command was not understood.

Limitations

The projector cannot respond to commands coming in at a high-rate. Therefore, a delay must occur between commands to ensure that the command gets properly executed. To assure the projector can process a command, wait 3 seconds before entering the next command.

The Step column refers to increasing or decreasing the menu bar position since the On-screen Display is not an exact match of values. For example, Step 2 changes the data by 2 through the CLI (Command Line Interface). The menu bar is up (or down) by 1.

Function	Command	Read/Write	Min	Max	Default	Step
3D Control 0: Off 1: External Sync 2: DLP Link	TDI	RW	0	2	0	1
3D Sync Invert 0: Disable; 1: Enable	SYN	RW	0	1	0	1
AC Power On 0: Disable; 1: Enable	APO	RW	0	1	0	1
Always-On Functions 0: Off 1: Network 2: DisplayLink 4: Monitor Out 8: 5-Volt DC 16: 5-microphone input	SPS	RW	0	31	0	1
Aspect Ratio 0: Auto 1: Native 2: 4:3 3: 16:9 4: Letterbox 5: Panorama 6: 16:10	ARZ	RW	0	6	0	1
Auto Image 1: Enable	AIM	W	n/a	1	1	1
Auto Off Time 0: Never 1: 5 minutes 2: 10 minutes 3: 15 minutes 4: 20 minutes 5: 25 minutes 6: 30 minutes	AOT	RW	0	6	6	1
Auto Source 0: Disable; 1: Enable	ASC	RW	0	1	1	1
Blank Screen 0: Disable; 1: Enable	BLK	RW	0	1	0	1

Blank Screen Style 0: Blue screen 1: Timer 2: Test patterns 3: Black screen 4: White screen 5: Factory logo 6: Snapshot	BSS	RW	0	6	0	1
Brightness	BRT	RW	0	100	50	1
BrilliantColor 0: Normal; 1: Bright	BCL	RW	0	1	1	1
Ceiling 0: Off; 1: On; 2: Auto	CEL	RW	0	2	2	1
Closed Captions (Non-Muted) 0: Off; 1: CC1; 2: CC2	CLC	RW	0	2	0	1
Closed Captions (Muted) 0: Off; 1: CC1; 2: CC2	CLM	RW	0	2	1	1
Color	CLR	RW	0	100	50	1
Color Space 0: RGB 1: REC709 2: REC601 3: RGB Video 4: Auto	CSM	RW	0	4	4	1
Color Temperature 0: Warmest 1: Warm 2: Cool 4: Bright	TMP	RW	0	4	Source specific	1
Contrast	CON	RW	0	100	50	1
Current Source 0: LAN 1: VGA 1 2: VGA 2 3: USB Display 4: HDMI 5: Composite 6: LitePort	SRC	RW	0	6	1	1
Custom Key 0: Blank Screen 1: Mute 3: Aspect ratio 4: Source 5: Auto image 6: Freeze screen 8: Source info 10: Projector info 14: Overscan 15: AV mute 16: Closed captions 17: SplitScreen	EFK	RW	0	17	8	1
Detect Film 0: Disable; 1: Enable	TTO	RW	0	1	1	1
Digital Zoom	DZM	RW	0	100	100	5
Disable Snapshots 1: Disabled (Flash needed to enable)	DCP	RW	0	1	0	1

USB Display Source Enable: 1	USS	W		1		
Error Condition 0: No error 1: Lamp not lit after 5 attempts 3: Lamp went out unexpectedly 4: Fan failure 5: Over-temperature 6: Low voltage ?= Query	ERR	R	0	6	0	1
Factory Reset 1: Reset	RST	W	n/a	1	1	1
Force Wide 0: Disable; 1: Enable	FWM	RW	0	1	1	1
Freeze Screen 0: Disable; 1: Enable	FRZ	RW	0	1	0	1
Gamma 2: Video 3: Film 5: Bright 7: CRT	GTB	RW	0	7	Source specific	1
Glow Ring 0: Disable; 1: Enable	GLO	RW	0	1	1	1
Help 0: Disable; 1: Enable	HLP	RW	0	1	0	1
Help Customization	HLC	RW	0	1	0	1
Horizontal Position	HPS	RW	0	100	50	1
Horizontal Shift	DSH	RW	0	100	50	1
Internal Sound Enable 0: Disable; 1: Enable	INT	RW	0	1	1	1
Key Click 0: Disable; 1: Enable	KCL	RW	0	1	1	1
Keypad Enable 0: Disable; 1: Enable	KPE	RW	0	1	1	1
Lamp High Power Hours ?=Query	LMO	R	0	n/a		1
Lamp Low Power Hours ?=Query	LME	R	0	n/a		1
Lamp Resets (Total Number) ?=Query	LMR	R	0	n/a		1
Lamp Total Hours ?=Query	LMP	R	0	n/a		1
Lamp Life ?=Query	LIF	R	n/a	4000		
Lamp Low Power 0: Disable; 1: Enable	IPM	RW	0	1	0	1

Language 0: English 1: French 2: German 3: Italian 5: Korean 6: Norwegian 7: Portuguese 8: Russian 9: Simp Chinese 10: Spanish 11: Trad Chinese 12: Swedish 13: Dutch 14: Polish 15: Turkish 16: Danish 17: Finnish	LAN	RW	0	17	0 (9 for China models)	1
LiteBoard Click Speed 0: Fastest 1: Fast 2: Medium 3: Slower 4: Slowest	PBS	RW	0	4	2	1
LiteBoard Enable 0: Disable; 1: Enable	PBE	RW	0	1	1	1
LiteBoard Information	PBI	W	n/a	1	1	1
LiteBoard Info - Connected Wands ?=Query	PBL	R	0	1	n/a	
LiteBoard info - AP Version ?=Query	PBJ	R	n/a	n/a	string	
LiteBoard Info - Wand Version ?=Query	PBV	R	n/a	n/a	string	
LiteBoard Info - Link Channel ?=Query	PBR	R	n/a	n/a	string	
LiteBoard Link Channel	PBC	RW	0	29	0 (auto)	1
LiteBoard M Button 0: Auto/Normal/Draw 1: Alt-Tab 2: Alt-Esc 3: Command-Tab 4: Left Mouse 5: Right Mouse 6: Middle Mouse 7: Double Click 8: PowerPoint Annotate	PBA	RW	0	8	0	1
LiteBoard Motion 0: Auto 1: Normal 2: Draw 3: Stable 4: Press to move	PBM	RW	0	4	0	1
LiteBoard Motion Toggle	PBT	W	1	1	n/a	
LiteBoard Undo Button 0: Ctrl+Z Windows/Linux 1: Cmd+Z Mac 2: Backspace 3: Delete 4: Escape	LUB	RW	0	4	0	1

LitePort Source Command 0: Disable; 1: Enable	PPS	RW	0	1	0	1
Magnify Controls 0: Disable; 1: Enable	MGC	RW	0	1	1	1
Magnify Horizontal Position	MGH	RW	0	100	50	5
Magnify Level	MGL	RW	0	100	50	5
Magnify Vertical Position	MGV	RW	0	100	50	5
Map Source Audio n Values SA0 = LAN SA1 = VGA1 SA2 = VGA2 SA3 = USB Display SA4 = HDMI SA5 = Composite SA6 = LitePort x Values 0: Off 1: Audio1+ MIC 2: Audio2+ MIC 3: Audio 1 4: Audio 2 5: MIC 6: USB + MIC 7: USB 8: HDMI + MIC 9: HDMI	Sanx	RW	0	9	Source specific	1
Menu Enable 0: Clear; 1: Display	MNU	RW	0	1	0	1
Menu Lockout 1: Basic Picture 2: Adv Picture 4: Setup Menu 8: Status & Service 15: All Menus	MNL	RW	0	15	0	1
Menu Navigation 0: Menu Key 1: Up Key 2: Down Key 3: Select Key 4: Left Key 5: Right Key	NAV	W	0	5	n/a	1
Menu Offset	OFF	RW	0	100	0	10
Menu Transparency 0: Opaque; 90: 90% transparency	TOE	RW	0	90	0	5
Microphone Volume	MIC	RW	0	100	50	1
Mute 0: Disable; 1: Enable	MTE	RW	0	1	0	1
Network Default Gateway	GTX	RW	string	n/a		
Network DHCP 0: Disable; 1: Enable	DHP	RW	0	1	1	1

Network Factory Reset 1: Reset	NFR	W		1		
Network IP Address	IPX	RW	string	n/a		
Network MAC Address ?=Query	MAD	R	string	n/a		
Network Restart 1: Restart	NTR	W		1		1
Network Subnet Mask	NMX	RW	string	n/a		
Noise Reduction	NRL	RW	0	100	50	1
Overscan 0: Off; 1: Zoom; 2: Crop	OVS	RW	0	2	0	1
Phase	MSS	RW	0	100	50	1
PIN Change PCG"default,new"	PCG	RW	string	n/a		
PIN Entry Menu = m Source = i Select = s Up = u Down = d Default = misud	PET	RW	string	n/a		
PIN Protect Disable: 0; Enable: 1	PIV	RW	0	1	0	1
Power 0: Turn On; 1: Turn Off	PWR	RW	0	1	0	1
Power Sounds Disable: 0; Enable: 1	ACE	RW	0	1	1	1
Power-Up Source 0: LAN 1: VGA1 2: VGA2 3: USB Display 4: HDMI 5: Composite 6: LitePort	DSC	RW	0	6	1	1
Presets 2: User 5: Presentation 7: Video 8: ISF Day 9: ISF Night 10: Bright 11: Whiteboard 12: Blackboard 13: Beige wall	PST	RW	0	13	Source specific	1
Prevent PC Screen Saver 0: Disable; 1: Enable	NND	RW	0	1	1	1
Projector Brand ?=Query	BRD	R	string			
Projector Firmware Version ?=Query	FVS	R	string			
Projector High Power Hours ?=Query	LTO	R	0	n/a		

Projector Info menu 1: Display	PRI	W		1		1
Projector Low Power Hours ?=Query	LTE	R	0	n/a		
Projector Model Name ?=Query	MDL	R	string			
Projector Native Resolution ?=Query	NRS	R	string			
Projector Serial Number ?=Query	USN	R	string			
Projector Total Hours ?=Query	LMT	R	0	n/a		
Rear Project 0: Disable; 1: Enable	REA	RW	0	1	0	1
Reset Lamp Hours 1: reset	LRT	RW	1	1	n/a	1
Save User Preset 1: Save	US1	W		1		1
Screen Save Time 0: never 1: 5 minutes 2: 10 minutes 3: 15 minutes 4: 20 minutes 5: 25 minutes 6: 30 minutes	SSV	RW	0	6	0	1
Search Screen 0: Factory logo 1: Blue 2: Snapshot 3: Black 4: White	DSU	RW	0	4	0	1
Serial Port Baud Rate 0: 2400 1: 4800 2: 9600 3: 14400 4: 19200 5: 38400 6: 57600 7: 115200 8: 1200	BR1	RW	0	8	7	1
Serial Port Echo 0: Disable; 1: Enable	EC1	RW	0	1	0	1
Set Black Level 1: Set	BLC	W		1		1
Sharpness 0: Max 1: High 2: Normal 3: Low 4: Minimum	SHP	RW	0	4	2	1
Show Messages 0: Disable; 1: Enable	DMG	RW	0	1	0	1
Show Network Messages 0: Disable; 1: Enable	DNG	RW	0	1	1	1

Sleep Timer 0: Off 1: 2 hours 2: 4 hours 3: 6 hours	SLT	RW	0	3	0	1
Source 1-4 Commands SR1 = Source Key 1 SR2 = Source Key 2	SRn	RW			SR1=VGA1 SR2=VGA2 SR3=HDMI	
Source Advance Computer	CAD+	W	n/a	n/a	+	
Source Advance Video	VAD+	W	n/a	n/a	+	
Source Enable 0: Disable; 1: Enable n= 0: LAN 1: VGA 1 2: VGA 2 3: USB Display 4: HDMI 5: Composite 6: LitePort	CEn	RW	0	1	1	1
Source Info menu 1: Display	ABT	W		1		1
Source Info - Active Source name ?=Query	QAS	R	string			
Source Info - Aspect Ratio ?=Query	QAR	R	string			
Source Info - Color Space ?=Query	QCS	R	string			
Source Info - Horz Refresh ?=Query	QHR	R	string			
Source Info - Pixel Clock	QPC	R	string			
Source Info - Resolution ?=Query	RES	R	string			
Source Info - Signal Format ?=Query	QSF	R	string			
Source Info - Sync Type ?=Query	QST	R	string			
Source Info - Vert Refresh ?=Query	QVR	R	string			
Source Name (0-9) *=Factory Names	SNn	RW	string			
Sync Threshold	STH	RW	0	100	50	5
System State 1: Off 2: Start Up 3: PIN 4: Search 7: Source Displayed 9: Blank Screen 12: Cool Down 13: ScreenSave 17: Flash Update 18: Error	SYS	R	1	18	7	1

Take Snapshot 1: Capture	CAP	W		1		1
Test Pattern Select	TPS	RW	0	21	9	1
Tint	TNT	RW	0	100	50	1
Tracking	MTS	RW	0	100	50	1
USB Audio Enable 0: Disable; 1: Enable	USA	RW	0	1	1	1
Vertical Keystone	DKV	RW	0	100	50	1
Vertical Position	VPS	RW	0	100	50	1
Vertical Shift	DSV	RW	0	100	50	1
Video Standard 0: Auto 1: NTSC 2: PAL 5: SECAM	VSU	RW	0	5	0	1
Volume	VOL	RW	0	100	50	1
Wireless LAN Enable	WLN	RW	0	1	1	1
Wireless SSID Name	SID	RW	string	32 char. ASC II	"LiteShow"	
White Peaking	WPK	RW	0	100	100	10
Dynamic Messaging (max: 53 characters) Escape codes: \c - Initialize (box mode) \d - Initialize (ticker bottom mode) \u - Initialize (ticker top mode) \e - Solid background \f - Transparent background \1 - Small font size \2 - Large font size \n - New line \a - Beep \tnnn - Timer \b - Start blink \s - Stop blink \" - Print a double quote character \' - Print a single quote character \ - Print a backslash character Example: PRN"This is line1\nThis is line 2"	PRN	RW	string	n/a	n/a	
Red Gain Green Gain Blue Gain	RCG GCG BCG	RW	0	100	50	1
Red Offset Green Offset Blue Offset	RCO GCO BCO	RW	0	100	50	1

*Under some conditions, this setting or command will return an error when used with CLI/CLX. Some examples:

- Writing to Brightness will fail unless the projector is displaying a source.
- Writing to Serial Number will fail unless the Service Password has been entered.
- Writing to Motorized Lens Shift will fail unless Lens Adjust Enable is on.

For details, see the CLI/CLX Prefix section for the specific setting or command.



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