Brio





Brio

External Control Protocol Reference Manual 020-101757-05

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Contents

Getting Connected	
Ethernet Connectivity	7
Command Syntax	8
Command Responses	8
Command Summary	9
Command Descriptions	12
General Commands	12
SetInfoVisibility	12
Verbose	12
Meeting Commands	12
GetAddressBook	12
StartMeeting	
EndMeeting	
AcceptMeeting	
StartPresenting	13
AcceptPresenter	
IsMultisiteMeetingInProgress	14
GetMeetingStatus	
GetPendingMeetingRequest	14
AddMeetingGuests	
RemoveMeetingGuests	
Security Commands	
StartSecurity	15
EndSecurity	16
StartSecureSession	16
Source Commands	16
GetSources	16
GetSourceStatus	16
SetSourceVisible	17
SetSourceAudioOn	
RotateSources	
SwapSources	
DisconnectSource	18
MoveSourceToPositionOne	18
MoveSourceToPositionTwo	18
MoveDviToPositionOne	18
MoveDviToPositionTwo	19
ToggleSourceVisibility	19
ToggleAudio	19
System Commands	
SetDuplicatePrimary	20
SetPrimaryOutput	20



Restart	20
Shutdown	20
ToggleAutoShow	
SetAutoShow	21
SetAutoAcceptMeetingRequests	21
Whiteboard/Annotation Commands	21
StartWhiteboard	21
EndWhiteboard	
ClearWhiteboard	
StartAnnotation	22
EndAnnotation	22
ndex	23



Getting Connected

Brio uses an ASCII based command system for external control. Connectivity is available via an Ethernet (RJ-45) connection, using a human readable (ASCII) command/response set.

Each command sent to the external controller must be terminated with a carriage return character, and the commands and arguments must be separated by a space character. All commands are case insensitive. All responses from the external controller will be terminated with a '>' character.

Ethernet Connectivity

Brio can be controlled remotely by sending the ASCII commands listed in this document by first opening a TCP socket connection to port 11135 on Brio.



Command Syntax

Note the following syntax conventions:

- Some commands display their last argument as *Argument x ~ XX*. These commands allow the last argument field to be repeated, allowing multiples of the last argument to be specified with a single command.
- Some commands display argument(s) with an asterisk. These arguments are optional; however no further arguments may be entered in the command.
- String argument spaces must be replaced with the three character ASCII string, %20, to create a valid command, since a space is used as the return value delimiter.
- When used as part of a response, the '>' character will be replaced with the four character ASCII string > since this character is used as a response terminator.
- Commands sent from the client must be terminated with a carriage return character. The external controller response will be terminated with two carriage returns and a > character.

Command Responses

Note the following command response conventions:

- A response is returned for every command sent to Brio.
- If multiple values are returned in a single response, the return value delimiter is an ASCII space character.
- Argument values containing a space will be converted to the three character ASCII string, %20.
- The first response argument is always the result code for the command, which lets you know if a command was successfully processed.

The table below displays the various responses that can be returned by Brio.

Response	Description
Success	Command was successfully processed.
Empty	Data requested is not available.
InvalidCommand	Invalid command specified.
InvalidArgCount	Missing required minimum number of arguments.
InvalidArgValue	One or more arguments were invalid.
Execution	An execution error occurred while processing the command.



Command Summary

The following commands are available when using an Ethernet connection to Brio.

Туре	Command		Description	Page Reference
General	SetInfoVisibility		Sets the visibility of the Brio Information pop up on one or more of the Brio's outputs.	12
General	SetInfoVisibility		Turns verbose mode on or off for the current	12
	Sets the visibility of Information pop up more of the Brio's	on one or	session.	
	Command: SetInfo	Visibility		
	Argument 1: [Text] that should display Valid values are Pri Secondary, Both, a	the Brio Info. mary,		
	Response 1: [Boole code (True/False).			
	Example	SetInfoVisibilit	y Primary	
	Response	Success True>		
	Verbose			
Meeting	AcceptMeeting		Accepts or declines a meeting request.	13
Meeting	AcceptPresenter		Accepts incoming request to be a presenter.	13
Meeting	AddMeetingGuests		Starts a meeting with specified Brios or invites specified Brios to an existing meeting.	15
Meeting	EndMeeting		Ends a meeting.	13
Meeting	GetAddressBook		Gets a listing of all Brios in the address book.	12
Meeting	GetMeetingStatus		Gets detailed information about a meeting.	14
Meeting	GetPendingMeetingRequest		Gets the most recent meeting request sent to the specified Brio.	14
Meeting	IsMultisiteMeetingI	nProgress	Queries if a multisite meeting is currently in progress.	16
Meeting	RemoveMeetingGuests		Removes specified Brios from a meeting.	15
Meeting	StartMeeting		Starts a meeting with specified Brios.	12
Meeting	StartPresenting		Sends a request to be a presenter.	13
Security	EndSecurity		Ends the current security session.	16
Security	StartSecureSession		Starts a security session with an autogenerated password that does not expire.	16

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Туре	Command	Description	Page Reference
Security	StartSecurity	Starts a security session for the specified duration.	15
Source	DisconnectSource	Disconnects the specified source.	18
Source	GetSources	Gets all sources.	16
Source	GetSourceStatus	Gets detailed information about a source.	16
Source	MoveDviToPositionOne	Moves a DVI source to position one.	18
Source	MoveDviToPositionTwo	Moves a DVI source to position two.	19
Source	MoveSourceToPositionOne	Moves specified source to the first position in the source list.	17
Source	MoveSourceToPositionTwo	Moves specified source to the second position in the source list.	18
Source	RotateSources	Moves source 1 to be the last position on the source list.	17
Source	SetSourceAudioOn	Sets the audio on or off for the specified source.	17
Source	SetSourceVisible	Turns automatic display of connecting source on or off.	17
Source	SwapSources	Swaps the position of two specified sources.	17
Source	ToggleAudio	Toggles audio on/off for the specified source.	19
Source	ToggleSourceVisibility	Toggles visibility (show/hide) for the specified source.	19
System	Restart	Restarts Brio.	20
System	SetAutoAcceptMeetingRequests	Turns automatic acceptance of meeting requests on or off.	21
System	SetAutoShow	Turns automatic display of connecting source on or off	21
System	SetDuplicatePrimary	Duplicates source #1.	20
System	SetPrimaryOutput	Sets primary output.	20
System	Shutdown	Shuts down Brio.	20
System	ToggleAutoShow	Turns Auto-show on or off.	21
Whiteboard /Annotation	ClearWhiteboard	Clears the whiteboard.	22
Whiteboard /Annotation	EndAnnotation	Ends annotation.	22
Whiteboard /Annotation	EndWhiteboard	Ends whiteboard.	22
Whiteboard /Annotation	StartAnnotation	Starts annotation.	21



Туре	Command	Description	Page Reference
Whiteboard /Annotation	StartWhiteboard	Starts whiteboard.	21



Command Descriptions

This section describes the details for each command. The commands are grouped by type.

General Commands

SetInfoVisibility

Sets the visibility of the Brio Information pop up on one or more of the Brio's outputs.

Command: SetInfoVisibility

Argument 1: [Text] The output that should display the Brio Info. Valid values are Primary, Secondary,

Both, and None.

Response 1: [Boolean] Success code (True/False).

Example	SetInfoVisibility Primary
Response	Success True>

Verbose

Turns verbose mode on or off for the current session. When on, the response from all commands will be modified to include the name of the command sent, the command result, and the return value(s) (if any). The return value format in verbose mode is:

command commandResult: [returnValues] >

Command: Verbose

Argument 1: [Text] (True/On/False/Off)

Example Description	Shows the output for GetMeetingStatus when the Verbose command is set to on.
Command	Verbose on
Response 1	verbose Success: >
Next Command	GetMeetingStatus
Response 2	GetMeetingStatus Success: HostPresenting 2 Brio72 HostPresenting Brio73 Guest >

Meeting Commands

This section describes the commands related to meetings.

GetAddressBook

Returns a brief listing of all Brios in the address book.

Command: GetAddressBook No arguments required.

Response 1: [Number] Number of Brios found.

Response 2: [Text] Brio Name



Response X: [Loop] Response 2 loops for each Brio in the response.		
Example Description	Gets a listing of all Brios in the address book. Two Brios will be returned:	
	- Name: Site1	
	- Name: Site8	
Example	GetAddressBook	
Response	Success 2 Site1 Site8 >	

StartMeeting

Starts a meeting with the specified Brios. If a meeting is already in progress, a Meeting in Progress message is sent.

Command: StartMeeting

Argument 1-XX: [Text] The name of the Brio to be invited to the meeting.



Brio names are case sensitive.

Response 1: [Text] Command result code.

Example Description	Starts a meeting with site1 and site2.
Example	StartMeeting site1 site2
Response	Success >

EndMeeting

Ends a meeting.

Command: EndMeeting No arguments required.

Response 1: [Text] Command result code.

Example	EndMeeting
Response	Success >

AcceptMeeting

Accepts or declines a meeting request based on the passed parameter (true/false)

Command: AcceptMeeting

Argument 1: [Boolean] Specifies whether to accept or decline a meeting (true or false).

Response 1: [Text] Command result code.

Example	AcceptMeeting true
Response	Success >

StartPresenting

Sends a request to take presentation responsibilities.

Command: StartPresenting



No arguments required.

Response 1: [Text] Command result code.

Example	StartPresenting
Response	Success >

AcceptPresenter

Accepts or declines a request to become a presenter based on the passed parameter (true/false)

Command: AcceptPresenter

Argument 1: [Boolean] Specifies whether to accept or decline request (true or false).

Response 1: [Text] Command result code.

Example	AcceptPresenter true
Response	Success >

IsMultisiteMeetingInProgress

Queries if a multisite meeting is currently in progress.

Command: IsMultisiteMeetingInProgress

No arguments required.

Example	IsMultisiteMeetingInProgress
Response	Success True>

GetMeetingStatus

Queries the status of a multisite meeting and displays the Brio's current meeting role (HostPresenting, HostViewing, Guest, Presenter, or None), the number of Brios in the meeting, and the name and role of all Brios in the meeting.

Command: GetMeetingStatus

No arguments required.

Response 1: [Text] Current Role. Possible values are: HostPresenting, HostViewing, Guest, Presenter,

or None.

Response 2: [Number] Count of Brios in the meeting. Could be 0..n

Response 3: [Text] Brio Name. Spaces will be replaced with %20.

Response 4: [Text] Brio Role. Same possible values as Response 1.

Response X: [Loop] Responses 3-4 loops for each Brio in the response.

Example	GetMeetingStatus
Response	Success Guest 2 BrioName1 HostPresenting BrioName2 Guest >

${\tt GetPendingMeetingRequest}$

Returns the most recent meeting request sent to the Brio.

Command: GetPendingMeetingRequest

No arguments required.



Response 1: [Text] The type of request that is pending. Possible values are: None, Invitation, GuestRequestingToPresent, or HostRequestingGuestToPresent.

Response 2: [Text] If Response 1 is Invitation, GuestRequestingToPresent, or

HostRequestingGuestToPresent, this response contains the name of the Brio that sent the request. Spaces will be replaced with %20.

Example	GetPendingMeetingRequest
Response	Success GuestRequestingToPresent BrioName2 >

AddMeetingGuests

Adds the specified Brios to the current meeting.

If the Brio is not in a meeting, then it starts a meeting as the Host and invites the specified guests.

If the Brio is in a meeting and is the Host, then it invites the specified Brios to the existing meeting.

If the Brio is a Guest in a meeting, then this command returns an Execution error.

Command: AddMeetingGuests

Argument 1-XX: [Text] The name of the Brio to be invited to the meeting.

Example	AddMeetingGuests BrioName2 BrioName3
Response	Success >

RemoveMeetingGuests

Removes the specified Brios from the current meeting. If the Brio is not in a meeting or if the Brio is not a Host in a meeting, this command returns an Execution error.

Command: RemoveMeetingGuests

Argument 1-XX: [Text] The name of the Brio to be removed from the meeting.

Example	RemoveMeetingGuests BrioName3
Response	Success >

Security Commands

This section describes the commands related to security.

StartSecurity

Starts a security session for a specified duration.

Command: StartSecurity

Argument 1: [Text] Password of the security session



Passwords are case sensitive.

Argument 2: [Number] Duration of security session in minutes (maximum value is 1440).

Example Description	Starts security session with password "CantGuessIt" for the
	duration of 30 minutes.
Example	StartSecurity CantGuessIt 30



EndSecurity

Ends the current security session.

Command: EndSecurity No arguments required.

Response 1: [Text] Command result code.

Example	EndSecurity
Response	Success >

StartSecureSession

Starts a security session with an auto-generated password that does not expire.

Command: StartSecureSession

No arguments required.

Example Description	Starts a security session with an auto-generated password that does not expire.
Example	StartSecureSession
Response	Success tjekaw >

Source Commands

This section describes the commands related to sources.

GetSources

Gets all sources

Command: GetSources No arguments required.

Response 1: [Number] Number of sources in the system being returned.

Response 2: [Number] Source position

Response 3: [Text] Source Name

Response X: [Loop] Responses 2-3 loops for each Brio in the response.

Example	GetSources
Response	Success 2 1 InputA 2 iPadJD >

GetSourceStatus

Gets detailed information about a source.

Command: GetSourceStatus

Argument 1: [Number] Source number.

Response 1: [Text] Source name. Response 2: [Text] Source type.



Response 3: [Boolean] Specifies whether audio is enabled on the source (true or false).

Response 4: [Boolean] Specifies whether the source is connected (true or false).

Response 5: [Boolean] Specifies whether the source is visible (true or false).

Response 6: [Number] Identifies the source number.

Response 7: [Boolean] Specifies if the source supports audio (true or false).

Response 8: [Boolean] Specifies if the source supports being disconnected (true or false).

Example Description	Gets status for source number 2.	
Example	GetSourceStatus 2	
Response	Success InputOne DVI False True True 2 True False >	

SetSourceVisible

Sets the visibility for the specified source on or off depending on the parameter passed.

Command: SetSourceVisible

Argument 1: [Number] SourceNumber

Argument 2: [Boolean] Specifies if the source is visible (true or false).

Response 1: [Text] Command result code.

Example	SetSourceVisible 3 true
Response	Success >

SetSourceAudioOn

Sets the audio on or off for the specified source depending on the parameter passed.

Command: SetSourceAudioOn

Argument 1: [Number] SourceNumber

Argument 2: [Boolean] Specifies if audio is on (true or false).

Response 1: [Text] Command result code.

Example	SetSourceAudioOn 3 true
Response	Success >

RotateSources

Moves source 1 to be the last position on the source list.

Command: RotateSources No arguments required.

Response 1: [Text] Command result code.

Example	RotateSources
Response	Success >

SwapSources

Swaps the position of two specified sources. Sources will swap both position and visibility status. If source 3 is hidden and source 1 is not, then swapping sources 1 and 3 will cause source 1 to move to position 3 and become hidden, and source 3 will move to position 1 and become visible.

Command: SwapSources



Argument 1:	[Number] 1	The first	source	position	to swap.
-------------	------------	-----------	--------	----------	----------

Argument 2: [Number] The second source position to swap.

Example	SwapSources 1 3
Response	Success >

DisconnectSource

Disconnects the specified source.

Command: DisconnectSource

Argument 1: [Number] SourceNumber

Response 1: [Text] Command result code.

Example	DisconnectSource 3
Response	Success >

MoveSourceToPositionOne

Moves the specified source to the top of the source list.

Command: MoveSourceToPositionOne

Argument 1: [Number] Source number of the source to be moved.

Argument 2: [Boolean] True/False. True moves the source and makes it the only visible source. False

moves the source but does not change the visibility of any source.

Example Description	Moves the source located at position 3 to position 1 and does not change the visibility of any source.
Example	MoveSourceToPositionOne 3 False
Response	Success >

MoveSourceToPositionTwo

Moves the specified source to position two the source list.

Command: MoveSourceToPositionTwo

Argument 1: [Number] Source number of the source to be moved.

Argument 2: [Boolean] True/False. True moves the source and makes it the only visible source. False

moves the source but does not change the visibility of any source.

Example Description	Moves the source located at position 3 to position 2 and does not change the visibility of any source.
Example	MoveSourceToPositionTwo 3 False
Response	Success >

MoveDviToPositionOne

Moves a DVI source to position one in the source list.

Command: MoveDviToPositionOne
Argument 1: [Text] DVI type: A or B.



Argument 2: [Boolean] True/False. True moves the source and makes it the only visible source. False moves the source but does not change the visibility of any source.

Response 1: [Text] Command result code.

Example Description	Moves DVI source B to position one and does not change the
	visibility of any source.
Example	MoveDviToPositionOne B False
Response	Success >

MoveDviToPositionTwo

Moves a DVI source to position two in the source list.

Command: MoveDviToPositionTwo
Argument 1: [Text] DVI type: A or B.

Argument 2: [Boolean] True/False. True moves the source and makes it the only visible source. False

moves the source but does not change the visibility of any source.

Response 1: [Text] Command result code.

Example Description	Moves DVI source B to position two and does not change the visibility of any source.
Example	MoveDviToPositionTwo B False
Response	Success >

ToggleSourceVisibility

Toggles visibility of the specified source number on or off.

Command: ToggleSourceVisibility

Argument 1: [Number] Source number of the source.

Response 1: [Text] Command result code.

Example Description	Toggles visibility of source 3.
Example	ToggleSourceVisibility 3
Response	Success >

ToggleAudio

Toggles audio on or off for the specified source.

Command: ToggleAudio

Argument 1: [Number] Source number

Example Description	Toggles audio for source 3.
Example	ToggleAudio 3
Response	Success >

System Commands

This section describes the commands related to the system.

SetDuplicatePrimary

Turns duplication of source #1 on both outputs on or off depending on the parameter passed.

Command: SetDuplicatePrimary

Argument 1: [Boolean] Specifies if source #1 is displayed on both outputs (true or false).

Response 1: [Text] Command result code.

Example	SetDuplicatePrimary true
Response	Success >

SetPrimaryOutput

Sets primary output to either output "A" or "B."



This setting is persistent through reboots. The command only needs to be sent when you want to change the argument.

Command: SetPrimaryOutput Argument 1: [Letter] "A" or "B".

Response 1: [Text] Command result code.

Example	SetPrimaryOutput A
Response	Success >

Restart

Restarts the Brio.
Command: Restart
No arguments required.

Response 1: [Text] Command result code.

Example	Restart
Response	Success >

Shutdown

Shuts down Brio. Command: Shutdown No arguments required.

Example	Shutdown
Response	Success >



ToggleAutoShow

Toggles Auto show on or off. Command: ToggleAutoShow No arguments required.

Response 1: [Text] Command result code.

Example	ToggleAutoShow
Response	Success >

SetAutoShow

Turns automatic display of connecting source on or off depending on the parameter passed.

Command: SetAutoShow

Argument 1: [Boolean] Specifies if connecting source is displayed on outputs (true or false).

Response 1: [Text] Command result code.

Example	SetAutoShow true
Response	Success >

SetAutoAcceptMeetingRequests

Turns automatic acceptance of meeting requests on or off depending on the parameter passed.



This setting is persistent through reboots. The command only needs to be sent when you want to change the argument.

Command: SetAutoAcceptMeetingRequests

Argument 1: [Boolean] Specifies if meeting requests are automatically accepted (true or false).

Response 1: [Text] Command result code.

Example	SetAutoAcceptMeetingRequests true
Response	Success >

Whiteboard/Annotation Commands

This section describes the commands related to the whiteboard and annotation.

StartWhiteboard

Starts a whiteboard.

Command: StartWhiteboard No arguments required.

Example	StartWhiteboard
Response	Success >



EndWhiteboard

Ends a whiteboard.

Command: EndWhiteboard No arguments required.

Response 1: [Text] Command result code.

Example	EndWhiteboard
Response	Success >

ClearWhiteboard

Clears the whiteboard.



This command is not supported during meetings.

Command: ClearWhiteboard No arguments required.

Example	ClearWhiteboard
Response	Success >

StartAnnotation

Starts annotation.

Command: StartAnnotation No arguments required.

Response 1: [Text] Command result code

Example	StartAnnotation
Response	Success >

EndAnnotation

Ends annotation.

Command: EndAnnotation No arguments required.

Example	EndAnnotation
Response	Success >



Index

AcceptMeeting	13
AcceptPresenter	14
AddMeetingGuests	15
ClearWhiteboard	22
DisconnectSource	18
EndAnnotation	22
EndMeeting	13
EndSecurity	16
EndWhiteboard	22
GetAddressBook	12
GetMeetingStatus	14
GetPendingMeetingRequest	14
GetSources	16
GetSourceStatus	16
IsMultisiteMeetingInProgress	14
MoveDviToPositionOne	18
MoveDviToPositionTwo	19
MoveSourceToPositionOne	18
MoveSourceToPositionTwo	18
RemoveMeetingGuests	15
Doctart	20

RotateSources	
SetAutoAcceptMeetingRequests	21
SetAutoShow	21
SetDuplicatePrimary	20
SetInfoVisibility	9, 12
SetPrimaryOutput	20
SetSourceAudioOn	17
SetSourceVisible	17
Shutdown	20
StartAnnotation	22
StartMeeting	13
StartPresenting	13
StartSecureSession	16
StartSecurity	15
StartWhiteboard	21
SwapSources	17
ToggleAudio	19
ToggleAutoShow	21
ToggleSourceVisibility	19

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