

Brio



205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 BOARDS (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com

**External Control Protocol
Reference Manual
020-101364-02**

Brio

External Control Protocol
Reference Manual
020-101364-02

Revision History

Date	Version	Description
3/26/2014	1	First Release.
4/29/2014	2	Updated for R1.0.3.

NOTICES

COPYRIGHT AND TRADEMARKS

© 2014 Christie Digital Systems USA Inc. All rights reserved.

All brand names and product names are trademarks, registered trademarks or trade names of their respective holders.

REGULATORY

The product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a commercial environment. The product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the **user's own expense**.

CAN ICES-3 (A) / NMB-3 (A)

이 기기는 업무용(A급)으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다.

GENERAL

Every effort has been made to ensure accuracy, however in some cases changes in the products or availability could occur which may not be reflected in this document. Christie reserves the right to make changes to specifications at any time without notice. Performance specifications are typical, but may vary depending on conditions beyond Christie's control such as maintenance of the product in proper working conditions. Performance specifications are based on information available at the time of printing. Christie makes no warranty of any kind with regard to this material, including, but not limited to, implied warranties of fitness for a particular purpose. Christie will not be liable for errors contained herein or for incidental or consequential damages in connection with the performance or use of this material.

The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!



GENERAL WARRANTY STATEMENTS

For complete information about Christie's limited warranty, please contact your Christie dealer. In addition to the other limitations that may be specified in Christie's limited warranty, the warranty does not cover:

- Problems or damage occurring during shipment, in either direction.
- Problems or damage caused by combination of a Product with non-Christie equipment, such as distribution systems, cameras, video tape recorders, etc., or use of a Product with any non-Christie interface device.
- Problems or damage caused by misuse, improper power source, accident, fire, flood, lightning, earthquake or other natural disaster.
- Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.
- Problems or damage caused by use of a Product on a motion platform or other movable device where such Product has not been designed, modified or approved by Christie for such use.
- Problems or damage caused by use of a system in the presence of an oil-based fog machine.
- Failure due to normal wear and tear.

PREVENTATIVE MAINTENANCE

Preventative maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

Table of Contents

Getting Connected	1
Ethernet Connectivity	1
Commands and Responses	3
Command Overview Table	3
Command Responses	4
Supported Command Descriptions.....	5
SetDuplicatePrimary	5
MoveSourceToPositionOne	5
SetPrimaryOutput.....	5
ToggleSourceVisibility	5
StartWhiteboard	6
EndWhiteboard	6
StartMeeting	6
EndMeeting	7
GetAddressBook	7
ToggleAudio.....	7
ToggleAutoShow	8
Restart.....	8
Shutdown.....	8
StartSecurity	8
EndSecurity	9
AcceptMeeting	9
StartPresenting	9
AcceptPresenter	10
GetSources.....	10
Index	11

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 later within this document by first opening a TCP socket connection to port 11135 on the Brio.

Commands and Responses

This section contains the command arguments and responses in the required format.

Command Overview Table

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

Command	Description	Page Reference
SetDuplicatePrimary	Duplicates source #1	5
MoveSourceToPositionOne	Moves specified source to the first position in the source list	5
SetPrimaryOutput	Sets primary output	5
ToggleSourceVisibility	Toggles visibility (show/hide) for a given source	5
StartWhiteboard	Starts whiteboard	6
EndWhiteboard	Ends whiteboard	6
GetAddressBook	Gets available sites from the address book	7
StartMeeting	Starts meeting with provided sites	6
EndMeeting	Ends meeting	7
ToggleAudio	Toggles audio on/off for a given source	7
ToggleAutoShow	Turns Auto-show on or off	8
Restart	Restarts Brio	8
Shutdown	Shuts down Brio	8
StartSecurity	Starts a security session for a given duration	8
AcceptMeeting	Accepts or declines a meeting request	9
EndSecurity	Ends the current security session.	9
StartPresenting	Sends a request to be a presenter	9
AcceptPresenter	Accepts incoming request to be a presenter	9
GetSources	Gets all sources.	10

Notes: 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, as space is used as the argument delimiter.

Commands and Responses

When used as part of a response, the '>' character will be replaced with the four character ASCII string >; since this is the character 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

A response is returned for every command sent to Brio. If multiple values are returned in a single response, the argument delimiter is an ASCII space character, and 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.



205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 BOARDS (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com

Supported Command Descriptions

This section describes the details for each command.

SetDuplicatePrimary

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

Command: SetDuplicatePrimary

Argument 1: *[Boolean]* on/off

Response 1: *[Text]* Command result code.

1: SetDuplicatePrimary Example

Command Description	Turn duplication of source #1 ON
Command	SetDuplicatePrimary true
Response	Success 0>

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.

2: MoveSourceToPositionOne Example

Command Description	Move source location at position 3 to position 1
Command	MoveSourceToPositionOne 3
Response	Success>

SetPrimaryOutput

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

Command: SetPrimaryOutput

Argument 1: *[Letter]* "A" or "B".

Response 1: *[Text]* Command result code.

3: SetPrimaryOutput Example

Command Description	Set output "A" as primary
Command	SetPrimaryOutput A
Response	Success>

ToggleSourceVisibility

Toggles visibility of a given source number on or off.

Command: ToggleSourceVisibility

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

Commands and Responses

Response 1: *[Text]* Command result code.

4: ToggleSourceVisibility Example

Command Description	Toggle visibility of the source 3
Command	ToggleSourceVisibility 3
Response	Success>

StartWhiteboard

Starts a whiteboard.

Command: StartWhiteboard

<No Arguments Required>

Response 1: *[Text]* Command result code.

5: StartWhiteboard Example

Command Description	Start whiteboard
Command	StartWhiteboard
Response	Success>

EndWhiteboard

Ends a whiteboard.

Command: EndWhiteboard

<No Arguments Required>

Response 1: *[Text]* Command result code.

6: EndWhiteboard Example

Command Description	Ends whiteboard
Command	EndWhiteboard
Response	Success>

StartMeeting

Starts a meeting with given sites.

Command: StartMeeting

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

NOTICE

Site names are case sensitive.

Response 1: *[Text]* Command result code.

7: StartMeeting Example

Command Description	Start a meeting with site1 and site2
Command	StartMeeting site1 site2
Response	Success>

EndMeeting

Ends a meeting.

Command: EndMeeting

<No Arguments Required>

Response 1: *[Text]* Command result code.

8: EndMeeting Example

Command Description	End meeting
Command	EndMeeting
Response	Success>

GetAddressBook

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

Command: GetAddressBook

<No Arguments Required>

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

Response 2: *[Text]* Site Name

Response X: *[Loop]* Response 2 loops for each site in the response.

9: GetAddressBook Example

Command Description	Get a listing of all sites in the system. Two sites will be returned: <ul style="list-style-type: none"> - Name: Site1 - Name: Site8
Command	GetAddressBook
Response	Success 2 Site1 Site8>

ToggleAudio

Toggles audio on or off for a given source.

Command: ToggleAudio

Argument 1: *[Number]* Source number

Response 1: *[Text]* Command result code.

10: ToggleAudio Example

Command Description	Toggle audio for source 3
Command	ToggleAudio 3
Response	Success>

Commands and Responses

ToggleAutoShow

Toggles Auto show on or off.

Command: ToggleAutoShow

<No Arguments Required>

Response 1: *[Text]* Command result code.

11: ToggleAutoShow Example

Command Description	Toggle auto show
Command	ToggleAutoShow
Response	Success>

Restart

Restarts the Brio.

Command: Restart

<No Arguments Required>

Response 1: *[Text]* Command result code.

12: Restart Example

Command Description	Restart Brio
Command	Restart
Response	Success>

Shutdown

Shuts down Brio.

Command: Shutdown

<No Arguments Required>

Response 1: *[Text]* Command result code.

13: Shutdown Example

Command Description	Shutdown Brio system
Command	Shutdown
Response	Success>

StartSecurity

Starts a security session for a given duration.

Command: StartSecurity

Argument 1: *[Text]* Password of the security session

NOTICE

Passwords are case sensitive.

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

Response 1: *[Text]* Command result code.

14: StartSecurity Example

Command Description	Starts security session with password "CantGuessIt" for the
----------------------------	---

	duration of 30 minutes
Command	StartSecurity CantGuessIt 30
Response	Success>

EndSecurity

Ends a security session.

Command: EndSecurity

<No Arguments Required>

Response 1: *[Text]* Command result code.

15: EndSecurity Example

Command Description	Ends security session
Command	EndSecurity
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

Response 1: *[Text]* Command result code.

16: AcceptMeeting Example

Command Description	Accept meeting request
Command	AcceptMeeting true
Response	Success>

StartPresenting

Sends a request to take presentation responsibilities.

Command: StartPresenting

<No Arguments Required>

Response 1: *[Text]* Command result code.

17: StartPresenting Example

Command Description	Start presenting request
Command	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

Response 1: *[Text]* Command result code.

18: AcceptPresenter Example

Command Description	Accept request to become presenter
Command	AcceptPresenter true
Response	Success>

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 site in the response.

19: GetSources Example

Command Description	Get all sources
Command	GetSources
Response	Success 2 1 10.10.30.214 2 10.10.30.215>

Index

AcceptMeeting	9	SetPrimaryOutput	5
AcceptPresenter.....	10	Shutdown.....	8
EndMeeting	7	StartMeeting.....	6
EndSecurity.....	9	StartPresenting	9
EndWhiteboard	6	StartSecurity	8
GetAddressBook	7	StartWhiteboard.....	6
GetSources	10	ToggleAudio	7
MoveSourceToPositionOne	5	ToggleAutoShow	8
Restart	8	ToggleSourceVisibility	5
SetDuplicatePrimary	5		

Touchboards

205 Westwood Ave, Long Branch, NJ 07740

Phone: 866-94 BOARDS (26273) / (732)-222-1511

Fax: (732)-222-7088 | E-mail: sales@touchboards.com

Corporate offices

USA – Cypress
ph: 714-236-8610

Canada – Kitchener
ph: 519-744-8005

Consultant offices

Italy
ph: +39 (0) 2 9902 1161

Worldwide offices

Australia
ph: +61 (0) 7 3624 4888

Brazil
ph: +55 (11) 2548 4753

China (Beijing)
ph: +86 10 6561 0340

China (Shanghai)
ph: +86 21 6276 7708

Eastern Europe and
Russian Federation
ph: +36 (0) 1 47 48 100

France
ph: +33 (0) 1 41 21 44 04

Germany
ph: +49 2161 664540

India
ph: +91 (080) 6708 9999

Japan (Tokyo)
ph: 81 3 3599 7481

Korea (Seoul)
ph: +82 2 702 1601

Republic of South Africa
ph: +27 (0)11 510 0094

Singapore
ph: +65 6877-8737

Spain
ph: + 34 91 633 9990

United Arab Emirates
ph: +971 4 3206688

United Kingdom
ph: +44 (0) 118 977 8000