

Integrating the SMART X-Port 30™ Unit with a Room Control System

The SMART X-Port 30 unit is a component of the Symposium™ L-150 interactive lectern and the Symposium IM-150 integration module. It controls the switching of audio, serial and RGB video signals. If you have the correct version of the X-Port 30 firmware, you can control source-switching of the Symposium L-150 interactive lectern or the Symposium IM-150 integration module with any third-party room control system. This document defines the commands used to program the interface between the X-Port 30 unit and a third-party room control system. For information about obtaining the correct firmware, refer to *Upgrading the SMART X-Port 30 Firmware*.

Data Format

There are two options for the command data format: with checksum bytes and without checksum bytes.

Use the following symbols at the start and end bytes:

- With Checksum:
 START Byte = "<"
 END Byte = ">"
- Without Checksum:
 START Byte = "["
 END Byte = "]"

Option 1 (no command checksum bytes):

Without Checksum START Byte	CMD Byte 1	CMD Byte 2	CMD Byte 3	...	CMD Byte n	Without Checksum END Byte
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Option 2 (with command checksum byte):

With Checksum START Byte	CMD Byte 1	CMD Byte 2	CMD Byte 3	...	CMD Byte n	Checksum High Nibble (0h to Fh)	Checksum Low Nibble (0h to Fh)	With Checksum END Byte
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Command List

Command	Parameter Definition	Description
SRC	? = Query 0 = Source 1 (PC1) 1 = Source 2 (PC2) 2 = Source 3 (Auxiliary)	Source (Command or Status Query)
DIA	0? = Hardware Model Number Query (e.g. <DIA H8A CF>) 1? = Firmware Version Number Query (e.g. <DIA v2.11 46>) 2? = Firmware Checksum Query (e.g. <DIA D189 F4>) 3? = Module Status Query (e.g. <DIA 1F 85>)	Diagnostic Query Refer to the next page for further information about the DIA 3 command.

When running the DIA 3 command, the device may appear to not be working if it happens to be busy processing when you send the command. For this reason, we recommend that you repeat the DIA 3 command several times.

The following table explains DIA 3 replies to module status queries:

Hex Response	Checksum	Description
1F	85	All devices are working well.
1E	84	RS232_A device is not working.
1D	83	RS232_B device is not working.
1B	81	RGB_A device is not working.
17	76	RGB_B device is not working.
0F	84	Audio device is not working.

Examples of Commands

Example 1 – Source query from third-party room controller to X-Port 30 unit using Option 1:

Without Checksum START Byte	CMD Byte 1	CMD Byte 2	CMD Byte 3	CMD Byte 4	Without Checksum END Byte
[S	R	C	?]

Example 2 – Source reply from X-Port 30 unit to third-party room controller using Option 2:

With Checksum START Byte	CMD Byte 1	CMD Byte 2	CMD Byte 3	CMD Byte 4	Checksum High Nibble	Checksum Low Nibble	With Checksum END Byte
<	S	R	C	0	1	8	>

Example 3 – Source command from third-party room controller to X-Port 30 unit using Option 2:

With Checksum START Byte	CMD Byte 1	CMD Byte 2	CMD Byte 3	CMD Byte 4	Checksum High Nibble	Checksum Low Nibble	With Checksum END Byte
<	S	R	C	2	1	A	>

Example 4 – Diagnostic query for checksum from third-party room controller to X-Port 30 unit using Option 1:

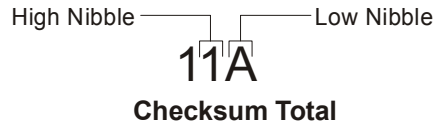
Without Checksum START Byte	CMD Byte 1	CMD Byte 2	CMD Byte 3	CMD Byte 4	CMD Byte 5	Without Checksum END Byte
[D	I	A	2	?]

Example 5 – Diagnostic reply on checksum from X-Port 30 unit to third-party room controller using Option 2:

With-Checksum START Byte	CMD Byte 1	CMD Byte 2	CMD Byte 3	CMD Byte 4	CMD Byte 5	CMD Byte 6	CMD Byte 7	CMD Byte 8	CMD Byte 9	Checksum High Nibble	Checksum Low Nibble	With-Checksum END Byte
<	D	I	A		D	1	8	9		F	4	>

Example Calculation of Checksum for Source Command

	Alphanumerical Data (ASCII)	Hex
CMD 1	S	53
CMD 2	R	52
CMD 3	C	43
CMD 4	2	32
Checksum Total		11A



RS-232 Protocol Parameter Definition and Connector Pin Assignment

Baud rate: 9600 bps

Data bits: 8 bits

Parity: None

Stop Bit: 1 bit

DB9 Connector Pin Assignment (for Custom Cable between X-Port 30 Unit and Room Control System):

Pin No.	Signal	Description
1	--	--
2	RXD	Receive Data
3	TXD	Transmit Data
4	--	--
5	GND	Ground
6	--	--
7	RTS	Request to Send
8	CTS	Clear to Send
9	--	--