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Serial Port Control

Application

The Jands Vista T4, T2, and I3 consoles as well as PC applications support remote control via RS232 to enable lighting control from either remote sources or other control products. This tech note describes setting up and the commands and syntax of the remote control protocol.

Connecting to the serial port

The cable that connects from the triggering device to the Vista should be a standard serial cable (also called a null-modem cable, or serial printer cable) – it should not be a serial cable extension. The important feature of the cable is that that pin 2 at one end needs to be connected to pin 3 at the other end, and vice-versa.

Enabling the serial port

The computer or other device sending the trigger commands and the Vista must have their serial ports set to match each other. To set the Vista serial port select 'User preferences' from the Vista menu and click on the 'General' tab: The serial port setting must be entered, without spaces, as follows:

- The number of data bits
- If parity is used
- The number of stop bits
- The data rate (baud)

For example: type "8N1-9600" for 8 data bits, no parity, 1 stop bit, 9600 baud.

By default, the serial port preferences are set to "disabled". Vista must be restarted for the serial port changes to take effect.

Command Syntax

All commands should be sent to the Vista as single lines of text followed by Return or Enter.

The supported commands are:

- go
- rego
- pause
- release
- load

Examples:

- go clip 1
- rego clip_24
- pause MyVerySpecialClip
- release clip37
- load showname.vst

Commands can also be sent to set Fixture levels in the Programmer. The Syntax is:

{fixture id} @ {level}

where:

- “fixture id” is any combination of number, +, > and minus
- level is a value between 0 and 100 or just f (or F) for full.

Examples:

- 1@F to drive fixture 1 to full
- 1>10-5 @ 75 to drive fixtures 1, 2, 3, 4, 6, 7, 8, 9 & 10 to 75%
- 1>10-3>7@f to drive fixtures 1, 2, 8, 9 & 10 to 100%

Command acknowledgements

Vista sends acknowledgements back to confirm that commands have been received and either been accepted or have failed. Vista does not echo characters sent to the serial port. There are three response types:

Commands that are understood and could be executed: Successful commands return the complete command appended with “OK”. For example if the console received “go clip: 1” it would return “go clip: 1 OK”.

Commands that are understood but could not be executed: If the command is good but the object of that command is not known an error message will be returned. For example, if the nominated clip did not exist.

Unknown Commands: If the command is not understood, the message “ILLEGAL COMMAND” is returned.

Notes

- Ensure that there is an end of line character (return or enter) at the end of each command.
- Commands and clip names are *not* case sensitive.
- Spaces before or after commands and clip names do not affect the behaviour. Note however that spaces within a clip name eg “Clip 1” do affect behaviour and it is not recommended that clip names include spaces – use underscore instead.

Common Problems

The following points should be checked when problems are experienced with serial port control of Vista.

Serial Port not Enabled in User Preferences or Invalid Setting

The Serial Port must be enabled in the User Preferences. Additionally it must be set to a baud rate that matches that of the controlling device. If problems occur it is recommended that the serial Port be set to exactly that suggested in the information window for the serial port ie 8N1-9600.

No Reboot

The application must be restarted for changes to the Serial Port setting in the User Preferences to take effect. It is recommended if problems occur that Vista T4, T2, and I3 consoles be hard restarted ie shutdown to power off then restarted.

BIOS Incorrectly Set (T4, T2, and I3 Consoles only)

The correct BIOS settings for the serial port are as follows:

T4/T2 Version 1 CPU

Press Del button after power up to enter the BIOS setup.

In the Integrated Peripherals section set:

- Onboard Serial Port 1 to 3F8/IRQ4
- Onboard Serial Port 2 to 2F8/IRQ3
- Onboard Serial Port 3 to 3E8/IRQ10
- Onboard Serial Port 4 to Disabled

T4/T2 Version 2/3 CPU

Press Del button after power up to enter the BIOS setup.

In the Integrated Peripherals → Super IO Device section set:

- Onboard Serial Port 1 to 3F8/IRQ4
- Onboard Serial Port 2 to 2F8/IRQ3

I3

Press F2 button after power up to enter the BIOS setup.

In the Advanced section set:

- Serial Port to Enable

Cable Incorrect

The required RS232 cable depends on the controller used. If using a standard PC a cable with the following connections should be used:

Console Female DB9	PC Female DB9
2	3
3	2
5	5