



Using RS232 or Telnet with an eDIN Network Processor

Document History:

Date	Author	Notes
28/07/11	SJW	Information collated from other other apps notes/manuals, and released

The eDIN Network Processor can transmit or receive commands via RS232 or telnet. There is a standard dictionary of commands that may be received to recall scenes from the configuration or to adjust channels or simulate plate button-presses. Any string may be transmitted, including strings containing dynamic content.

If you are using telnet, ensure that you have that network service activated, and that you know the port-number you are using. From the *Settings* button on the main page, select *Network Services*, and ensure that *Enable remote control* is ticked:

Time TCP/IP properties Built-In firewall **Network services** MBUS over IP RS232 Editor Software upgrade

Networking services passwords

Super password: [password] Confirm: [password]

User password: [password] Confirm: [password]

Enable remote control

Use port: 22 (22 default)

If you are using RS232, ensure that your communications settings match that of your transmitting device. From the *Settings* button on the man page, select *RS232*:

Time TCP/IP properties Built-In firewall Network services MBUS over IP **RS232** Editor Software upgrade

Baudrate (bps) 9600

Data bits 8

Parity None

Stop bits 1

Handshake Hardware

Revert Apply

When using *Hardware* handshaking, ensure that your RTS / CTS terminals are connected to both devices (i.e. use a full 5-wire cable for: 0v, Tx, Tx, RTS, CTS)

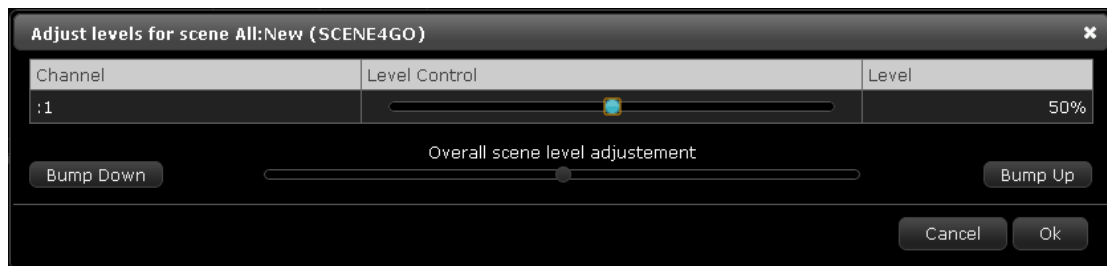
Input Commands

Note: % represents a placeholder character for a digit [0-9], sent as a normal printable character.

RS232 / Telnet Command string	Action
SCENE%GO SCENE%%GO SCENE%%%GO SCENE%%%%GO	Recall Scene, using the scene's pre-programmed fade time
SCENE%T%%GO SCENE%%T%%GO SCENE%%%T%%GO SCENE%%%%T%%GO	Recall Scene over a period of time T%% is in milliseconds
SCENE%T%%L%GO SCENE%%T%%L%GO SCENE%%%T%%L%GO SCENE%%%%T%%L%GO	Recall Scene over a period of time at a level T%% is in milliseconds
SCENE%NU SCENE%%NU SCENE%%%NU SCENE%%%%NU	Nudge up Scene by 5% over ½ second.
SCENE%ND SCENE%%ND SCENE%%%ND SCENE%%%%ND	Nudge down Scene by 5% over ½ second
SCENE%UP SCENE%%UP SCENE%%%UP SCENE%%%%UP	Fade up Scene
SCENE%DN SCENE%%DN SCENE%%%DN SCENE%%%%DN	Fade down Scene
SCENE%ST SCENE%%ST SCENE%%%ST SCENE%%%%ST	Stop Scene Fade

SEQUENCE%GO SEQUENCE%%GO SEQUENCE%%GO	Start Sequence (requires an Evolution configuration to be loaded into the Network Processor, as sequences are not supported in standard eDIN configurations created using the web-app)
SEQUENCE%ST SEQUENCE%%ST SEQUENCE%%ST	Stop Sequence
S%C%L%GO S%C%L%GO S%C%L%GO	Set Slave Pack Channel to Level
P%C%L%GO P%C%L%GO P%C%L%GO	Set Pack Channel To Level (Evolution pack with full DCM) L%% is in the range 000 to 100
M%D%C%L%GO M%D%C%L%GO M%D%C%L%GO	Set eDIN Module Channel To Level. D%% is the device code: <ul style="list-style-type: none"> • RP-03-02 : 4 • DIN-02-08 : 12 • DIN-03-04 : 13 • DIN-INT-00-08 : 15 • DIN-RP-05-04 : 16, or now the Mains-sync Module is: 23 • DIN-UBC-01-05: 17
P%D%L%GO	Set Pack DMX Channel to Level L is in the range 000 to 255
P%B%S%\r\n P%B%S%GO	Simulate Plate Button State (Held = 0, Pressed = 1, Released = 2, RaH = 3, Inactive = 4) See: http://www.evolutioncontrols.co.uk/pdf/techdata/Evolution-ButtonRS232Messages.pdf

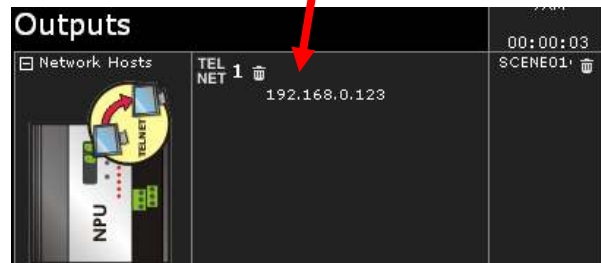
Scene numbers are found in the title bar of the scene-editor window:



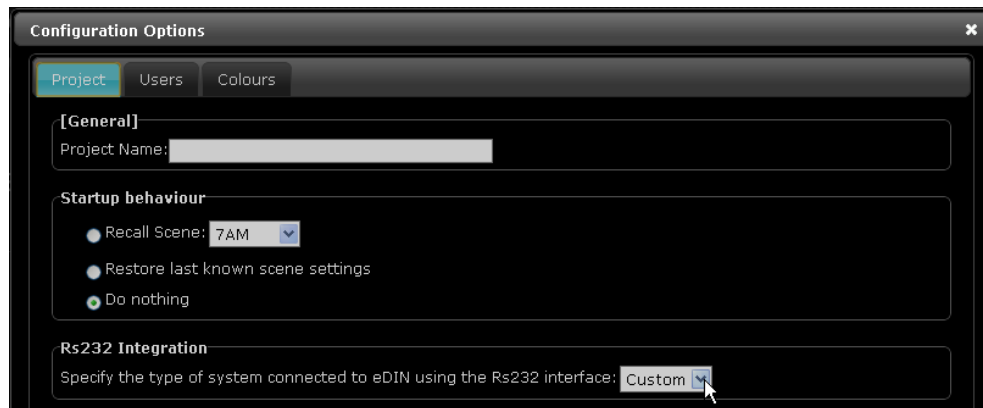
Note: these are not the same as the consecutive numbers shown as column headings in the main configuration editor window.

RS232 or telnet Output from eDIN

To use telnet output from eDIN, add a *Network Host* to the module list. You may add multiple network hosts if you need to communicate with devices on several different IP addresses. Enter the IP address of the device to which you want to send commands, and enter the string(s) to send for each scene where you need to transmit.



To use RS232 output from eDIN, select *Options* within the *Configuration* page, and under the *Project* tab, select *Custom* for the RS232 interface type. This will cause an *RS232 Host* to be added to your output devices list. You can then enter a string for each scene, as required.



The following show how expressions enclosed by the < and > characters may be used to output dynamic content, for example containing the current level of a channel or a scene.

Pattern	Sample	Sample output	Regular Expression	Description
<<	<<	<	<<	outputs the < character
<%>, <%%>, <%%%>	<65> <66>	A B	<([0-9]+)>	outputs decimal number as an rs232 byte.
<\$%>, <\$%%>	<\$41> <\$42>	A B	<(H h \$ x X) ([0-9a-fA-F]+)>	outputs hexadecimal number as an rs232 byte.
<B%%%%%%%%>	<B01000001><B01000010>	A B	<(B b) ([0-1]+)>	outputs binary number as an rs232 byte.
<S%a>, <S%%a>, <S%%a>, <S%%a>	<S1a> <S200a>	50 70	<(S s) ([0-9]+) a>	outputs scene level (0-100) as a numerical string .
<S%n>, <S%%n>, <S%%n>, <S%%n>	<S1n> <S200n>	2 E	<(S s) ([0-9]+) n>	outputs scene level (0-100) as an rs232 byte.
<P%C%D1> <P%C%D2>	<P01C01D1> <P01C01D2>	E 70	<(P p) ([0-9]+) (C c) ([0-	outputs level (0-255) of channel on pack as an rs232 byte or as a

<P%%C%%D3> <P%%C%%Dn>	<P01C01D3> <P01C01Dn>	070 70	9] +) (d D) (1 2 3 n) >	numerical string. Parameters: Pack Address, Channel Number in that order.
<P%%C%%H1> <P%%C%%H2> <P%%C%%H3> <P%%C%%Hn>	<P01C01H1> <P01C01H2> <P01C01H3> <P01C01Hn>	E 46 046 46	<(P p) ([0-9]+) (C c) ([0-9]+) (h H) (1 2 3 n) >	outputs level (0-255) of channel on packas an rs232 byte or as an hexadecimall string. Parameters: Pack Address, Channel Number in that order.
<M%%A%%C%%D1> <M%%A%%C%%D2> <M%%A%%C%%D3> <M%%A%%C%%Dn>	<M12A01C01D1> <M12A01C01D2> <M12A01C01D3> <M12A01C01Dn>	E 70 070 70	<(M m) ([0-9]+) (A a) ([0-9]+) (C c) ([0-9]+) (d D) (1 2 3 n) >	outputs level (0-255) of channel on module with device code as an rs232 byte or as a numerical string. Parameters: Device Code (see below)*, Module Address, Channel Number in that order.
<M%%A%%C%%H1> <M%%A%%C%%H2> <M%%A%%C%%H3> <M%%A%%C%%Hn>	<M12A01C01H1> <M12A01C01H2> <M12A01C01H3> <M12A01C01Hn>	E 46 046 46	<(M m) ([0-9]+) (A a) ([0-9]+) (C c) ([0-9]+) (h H) (1 2 3 n) >	outputs level (0-255) of channel on module with device code as an rs232 byte or as an hexadecimal string. Parameters: Device Code, Module Address, Channel Number in that order.

Device codes are:

- RP-03-02 : 4, DIN-02-08 : 12, DIN-03-04 : 13, DIN-INT-00-08 : 15, DIN-RP-05-04 : 16 or 23 for the Mains-Synchronised version, DIN-UBC-01-05: 17