Utilizing the 4ROUT with the GDC Server

Last updated: December 4, 2019

The following information describes how to utilize the JNIOR 4 Relay Output Expansion Module with the GDC cinema server.

Please contact INTEG via e-mail at support@integpg.com or via phone at 724-933-9350 with any questions.

Background Information

The GDC cinema server allows the user to select any of the 8 standard JNIOR Model 410 relay outputs. However, if the user needs more than 8 relay outputs, the JNIOR 4 Relay Output (4ROUT) Expansion Module must be used. One or two of the 4ROUT expansion modules can be used per JNIOR, providing a total of 12 or 16 relay outputs.

Since the GDC cinema server does not have predefined buttons to select the additional relay outputs (9 – 12 or 13 – 16), the user must enable an additional software program on the JNIOR called the Serial Control PLUS program and configure the GDC to send a "control cue" via the Ethernet (TCP) to the JNIOR.

JNIOR Configuration

Each JNIOR is shipped with the Serial Control program already installed. However, the factory shipped version only communicates via one of the serial ports on the JNIOR (the AUX serial port is the default port). To work with the GDC server, a new version of the program called Serial Control PLUS must be installed.

The Serial Control PLUS program allows the user to send ASCII commands to the JNIOR via the serial port and/or via the Ethernet using a TCP port. The default serial port is the AUX port and the default TCP port is 9202.

The user may change the serial port to the RS232 port or disable the serial function by changing the Serial Port Registry Key in the JNIOR. (A screen picture of the default Registry Keys is shown below.)   To change to the RS232 port, change the Serial Port Registry Key to RS232 and to disable the serial control function via either serial port, change the key to disabled.

To change the TCP port, modify the TcpPort Registry Key to the desired value. Changing the port number to -1 disables the ability to make an Ethernet connection to the Serial Control PLUS program.

**NOTE: The JNIOR must be rebooted for any changes to take effect.**

The Serial Control PLUS program can be installed on a JNIOR using the All In One Update project available from INTEG or on the INTEG website on the JNIOR Downloads page.

https://integpg.com/all-downloads/#janos-series-4

NOTE: When you download the All In One Update project, do NOT unzip it. The JNIOR Support Tool will unzip it.

The Update project is implemented using the JNIOR Support Tool. The JNIOR Support Tool is also available on the Downloads page.

After you install the JNIOR Support Tool, click on the Open Project link, navigate to where you saved the Update zip file and select it. Click on the Publish Update to JNIOR link and select your JNIOR. If your JNIOR IP address is not displayed, enter its IP address in the address field.
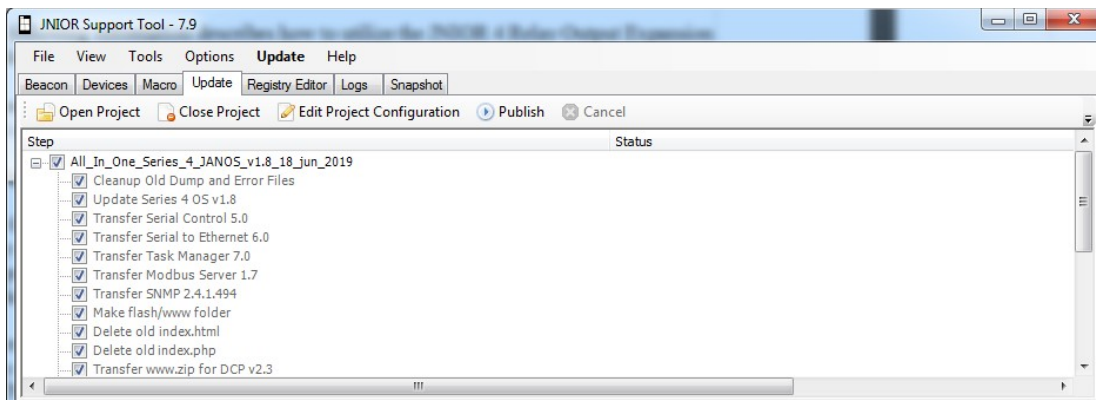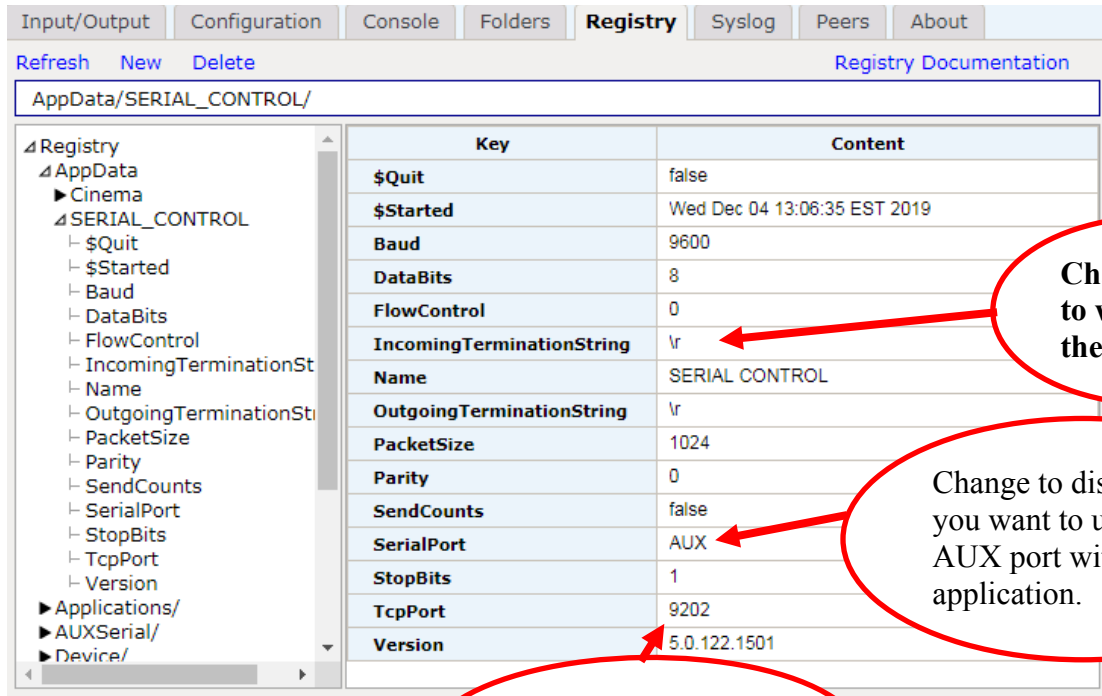

The Update project will load the Serial Control PLUS software, set the Run key so it is started on boot-up, and reboot your JNIOR. When the JNIOR is finished rebooting, you can launch the JNIOR web page and go to the Registry Editor tab. Click on the Apps folder and then the Serial_Control folder to view the various Registry Keys.

In the following screen shot, the 3 most important Registry Keys are highlighted in yellow. It is important to note the 'default' Incoming Termination String is \r (which in HEX is represented as \0D).

NOTE: You must change the Incoming Termination String on the JNIOR to \n and REBOOT the JNIOR. The GDC sends \n and the termination string is NOT configurable on the GDC.
Serial Control PLUS Default Registry Keys

Change to \n to work with the GDC.

Change to disabled if you want to use the AUX port with another application.

Change to use a different port over the Ethernet.

GDC Configuration

As shown in the screen picture below, the GDC user interface allows the user to utilize the 8 relay outputs standard on the JNIOR.
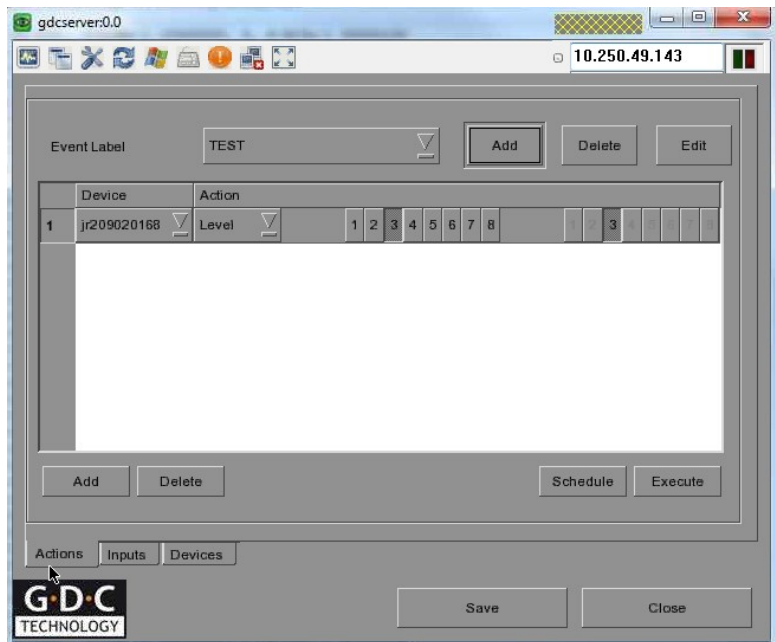
However, to utilize the outputs on a 4 Relay Output Expansion Module, the user must do the following:

1. Under Configuration -> Maintenance Access -> 257910 -> General ->
    Automation -> Devices -> Add -> Type -> NETWORK SOCKET

2. From NETWORK SOCKET configure IP address of JNIOR, default port 9202

3. Press "+" to add a control cue. The control cues for the JNIOR are listed below.
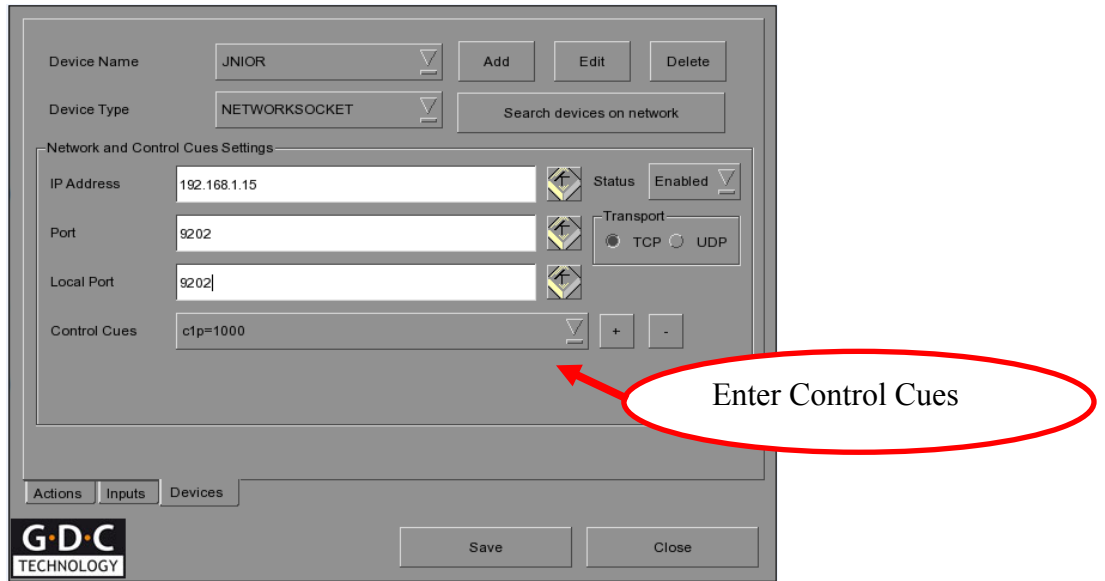
Control Cues

The following commands are available to control the relay outputs:

cX   **Close the output** (relay is "on" closing the contact)
            where X = +1 through +8 for the external relay outputs on the 4 ROUT
oX   **Open the output** (relay is "off" opening the contact)
            where X = +1 through +8 for the external relay outputs on the 4ROUT
p=yyy   **Pulse duration** (milliseconds) and is used in conjunction with the 'close'
            or 'open' command

Examples:
c+1   close relay output 9 (first output on <u>first</u> expansion module)
c+5   close relay output 13 (first output on <u>second</u> expansion module)
c+2p=1000   close output 10 for 1 second and then open again (pulse)
o125   open relay outputs 1, 2, 5

Please consult the Serial Control PLUS Manual for more details.