

## What's Different between the JNIOR 410/412 and 310/312 for Cinema

**Last updated: April 9, 2015**

Thank you for using the next generation JNIOR – the Series 4 consisting of the models 410 and 412 for your Cinema installation. The JNIOR Series 4 represents a multi-year effort to create and develop the next generation JNIOR. INTEG has worked hard to make this next generation JNIOR just as reliable and robust as the Series 3. The first JNIOR Model 310s were put in the field in 2005 and are still running today!

The goal of this document is to highlight any differences that the user may need to be aware of when switching from a JNIOR Model 310 to a Model 410 for the first time. You will see that the look and feel of the next generation JNIOR Series 4 has preserved the features of the Series 3 to make the transition to Series 4 very easy.

**NOTE: This document will be updated as needed to add notes as INTEG receives feedback from the field.**

Please contact INTEG via e-mail at [rshulkosky@integpg.com](mailto:rshulkosky@integpg.com) or via phone at 724-933-9350 extension 20 with any questions.

## Topics

The following topics are discussed in this document.

- 1 – Hardware**
- 2 – JNIOR Support Tool**
- 3 – JNIOR Web Page**
- 4 – Software Updates and Cinema.JNIOR Program**
- 5 – Cinema Servers (Specifically GDC Server)**

## 1 – Hardware

The physical dimensions, I/O count, serial ports, Ethernet port and sensor port are the SAME on the Series 4 as the Series 3. The same power supply and expansion modules work for all of the JNIORS.

The only difference is the microprocessor and memory. The Series 4 has a 32 bit microprocessor and 32 MB DRAM, 2 MB SRAM and 32 MB Flash memory. The Series 3 has an 8 bit microprocessor, 2 MB SRAM and 2 MB Flash memory.

## 2 – JNIOR Support Tool

You need to make sure you are using the latest JNIOR Support Tool that can be downloaded from the INTEG website at the following link. It contains updates that allow it to work for both the Series 3 and Series 4 JNIORS.

<http://www.integpg.com/support/jnior/>

## 3 – JNIOR Web Page

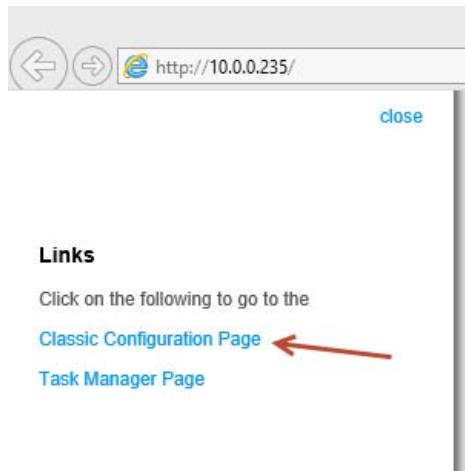
The Series 4 contains a new, dynamic web page utilizing HTML5 web technology. This technology allows the web page to change dynamically without using the Java Applets. The Series 4 still contains the Java Applets used with the Series 3 for configuration purposes. However, the functionality in the Java Applets will be migrated to the HTML5 technology in the future.

When selecting Launch Web Page from the Beacon tab in the JNIOR Support Tool or by typing in the JNIOR IP address into the browser address line, the new ‘dynamic’ JNIOR web page available with the Series 4 will be launched in your browser as shown below.

**PLEASE NOTE: The dynamic web page requires a ‘modern web browser’ which is defined as Internet Explorer 10 or greater, Google Chrome or Firefox.**



If you 'click' on the Show Menu link on the left side of the JNIOR dynamic web page, you will see the option to launch the Classic Configuration Web Page. This is the same web page that is used on the JNIOR 310/312. **It requires the Java plug-in on your PC to run.**



This will launch the typical (or 'classic') JNIOR web page used to Configure the JNIOR.

## 4 – Software Updates and Cinema.JNIOR Program

The JNIOR Support Tool has been updated to handle the two different operating systems for the Series 3 and the Series 4. With the new microprocessor came a new operating system.

And because of the new operating system, the various JNIOR applications had to have slight modifications and be recompiled for the new operating system. **There are SPECIFIC All-In-One update projects for the Series 3 and the Series 4.** Please make sure you use the correct update project.

The Cinema program was also compiled to run on the Series 4 and there is a specific update project to load this application. All of the features of the Cinema program are the same, configures the same and uses the same devices and macro files.

## 5 – Cinema Servers (Specifically GDC Server)

The JNIOR Series 4 works the same as the Series 3 with all the cinema servers. There is only one possible small configuration issue on the JNIOR Series 4 when using the GDC cinema server.

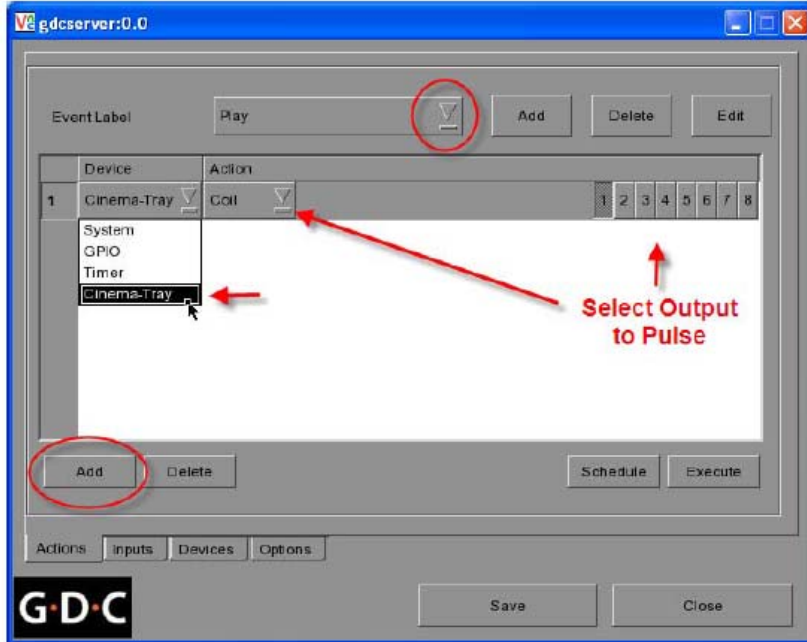
The GDC can interact and control the JNIOR 410/412 via two methods. You can use one method or both methods.

- 1) Making a Modbus connection to the JNIOR using port 502 on the JNIOR.
- 2) Using the Cinema.JAR program to control relays directly by sending specific commands and to send 'run macro' commands to the JNIOR.

**The following information describes how to enable the Modbus server on the JNIOR and it is ONLY required if you are using method 1 described above.**

Below is a screen picture of an example using Method 1 showing how to configure the COIL command on the GDC.

NOTE: The COIL command only works with JNIOR Relay Outputs 1 – 8 so it is easier to use Cinema.JAR when using the model 412 or relay output expansion modules.



using the Modbus connection allows you to control the JNIOR relay outputs using the COIL command

The GDC Cinema Server makes a connection to the JNIOR using the Modbus protocol for direct relay control. With the JNIOR Models 310 and 312, the Modbus Server was ‘enabled’ and running by default. With the new JNIOR Models 410 and 412, the Modbus Server is ‘disabled’ and not running by default.

**Therefore, when you first install your JNIOR Series 410/412, you MUST enable the Modbus Server to work with the GDC Cinema Server if you are using Method 1 described on the previous page.**

**You can enable the Modbus Server by either going to the JNIOR Configuration web page or by entering a Registry Key via a Telnet/Command Line session.**

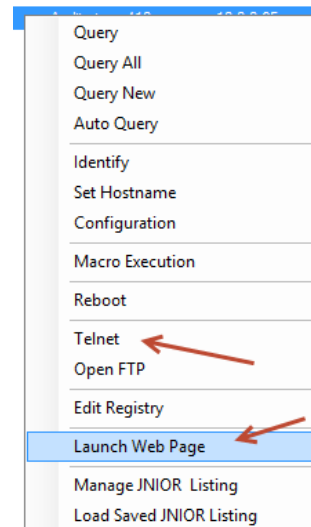
For either method, please go to the Beacon tab in the JNIOR Support Tool and ‘right click’ on your JNIOR and select to open a Telnet session or Launch Web Page.

For the web page, you can also just type your JNIOR IP address into your browser address line.

Or you can go directly to the JNIOR Configuration web page by typing the following in your web browser:

x.x.x.x/configure

where x.x.x.x is your JNIOR IP Address



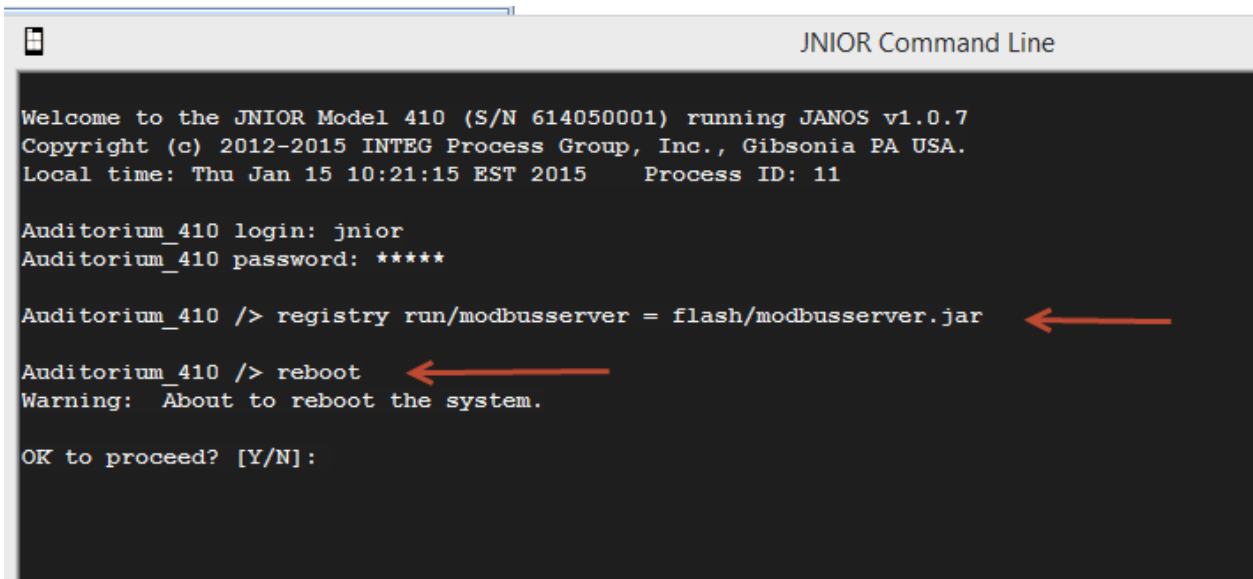
## Telnet/Command Line Session Method

If you launch a Telnet session, you will set the 'run' Registry Key so that the Modbus server will run each time the JNIOR boots up. Please type the following as shown in the screen picture below.

**registry run/modbusservice = flash/modbusservice.jar**

Then type **reboot** and enter a **Y** to reboot

After the reboot the Modbus server will be running.



```
JNIOR Command Line

Welcome to the JNIOR Model 410 (S/N 614050001) running JANOS v1.0.7
Copyright (c) 2012-2015 INTEG Process Group, Inc., Gibsonsia PA USA.
Local time: Thu Jan 15 10:21:15 EST 2015    Process ID: 11

Auditorium_410 login: jnior
Auditorium_410 password: *****

Auditorium_410 /> registry run/modbusservice = flash/modbusservice.jar
Auditorium_410 /> reboot
Warning: About to reboot the system.

OK to proceed? [Y/N]:
```

## JNIOR Web Page Method

After selecting, Launch Web Page, the new 'dynamic' JNIOR web page available with the Series 4 will be launched in your browser. Click on Show Menu and then Classic Configuration page. This will launch the typical (or 'classic') JNIOR web page used to Configure the JNIOR as shown below. Please go to the Configuration – Misc tab.

After you check the box to Enable Modbus Server, click on the Save Configuration button at the top of the web page and then click on the Yes button when asked to reboot the JNIOR.

The Modbus Server will be running on the JNIOR 410/412 when the reboot has completed and the GDC Cinema Server will be able to connect to the JNIOR.

