Updating a JNIOR Series 4 Operating System and jnior.ini Configuration File

Last updated: February 18, 2015

Thank you for using the next generation JNIOR – the Series 4 consisting of the models 410, 412 and 414.

The goal of this document is to describe how to update the Series 4 operating system (called JANOS) and how to ingest a new configuration file, the jnior.ini file.

NOTE: These two functions can be done easily using the JNIOR Support Tool. This document also applies to users either creating their own 'update' tool or who prefer to manually control the update process.

Please contact INTEG via e-mail at rshulkosky@integpg.com or via phone at 724-933-9350 extension 20 with any questions.

1 – Updating the JNIOR Series 4 Operating System

Updating the JNIOR Series 4 operating system (OS) is a 2-step process. The first step is to transfer the OS update file and the second step is to issue a command to cause the Series 4 JNIOR to load the new OS.

If you use the JNIOR Support Tool and build an Update Project to load the Series 4 OS, the JNIOR Support Tool has a specific 'OS Update' step for the Series 3 and Series 4. If you select the Update Series 4 OS step, you just need to transfer the upd file and the JNIOR Support Tool will take care of issuing the jrupdate command.

Below is a picture of the All-In-One update project for the JNIOR Series 4 that updates the OS and all of the other standard software on a Series 4 JNIOR.
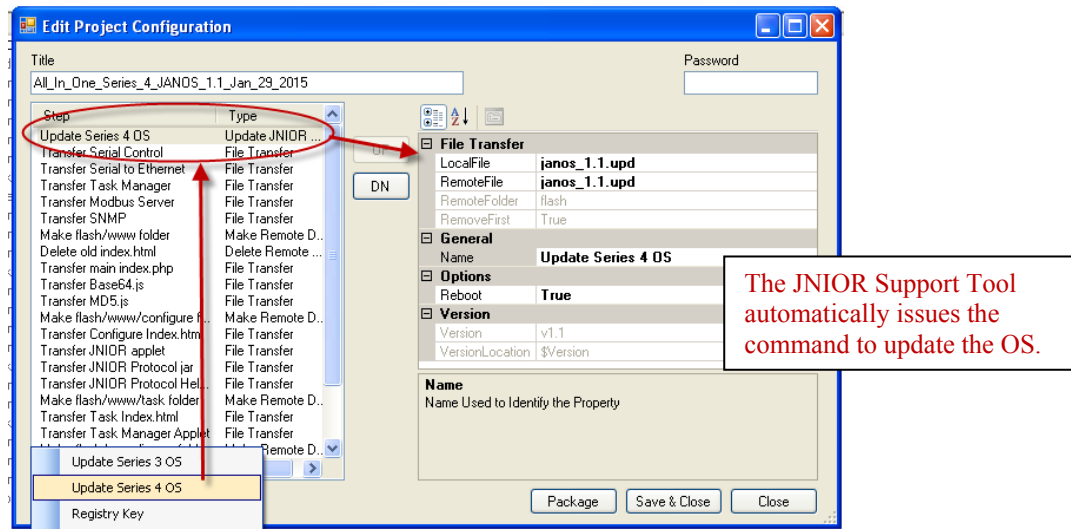
Alternatively, you can 'manually' update the JNIOR Series 4 OS as follows.

An update to the Series 4 <u>operating system</u> consists of one (1) file. This file must be transferred to the JNIOR via FTP. The file is named according to the OS update revision. This allows the user to know which version of the OS they are utilizing.

NOTE: The OS update file only updates the OS. It does not update the JNIOR web pages or any other standard applications on the JNIOR. A complete update of all of the software on the JNIOR can be done using the All-In-One Update Project shown above that is used with the JNIOR Support Tool. Running the All-In-One update project will make sure that your JNIOR has all of the latest software.

The OS update file can be transferred to any location on the JNIOR Series 4, but <u>it is recommended you FTP the file to the TEMP folder on the JNIOR</u>. The TEMP folder is the best location because when the JNIOR reboots, any file stored in the TEMP folder is automatically deleted. This will keep you from storing unnecessary files on the JNIOR.

You can use the JNIOR Support Tool to open an FTP session to the JNIOR. Please go to the Beacon tab in the JNIOR Support Tool and 'right-click' on your JNIOR and then select Open FTP from the pop-up box as shown below. Or you can use any third party FTP package.

2
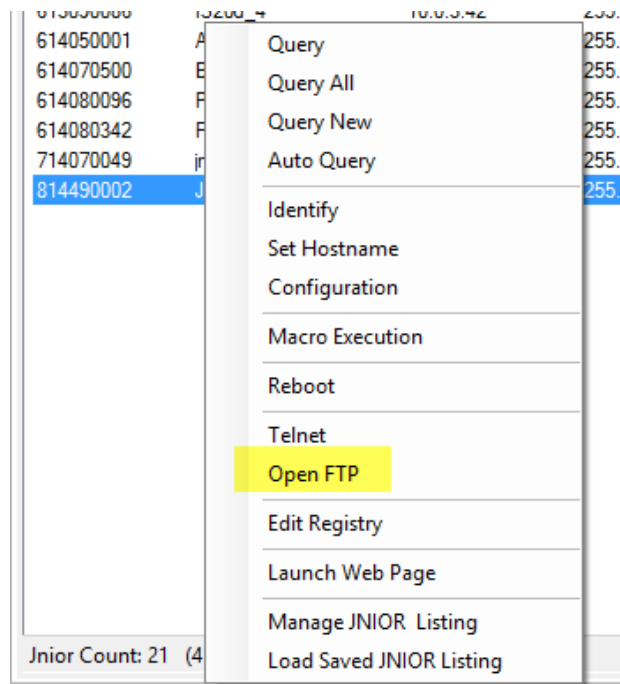
The following is the view of the JNIOR file system via Windows Explorer FTP. The TEMP folder is highlighted.
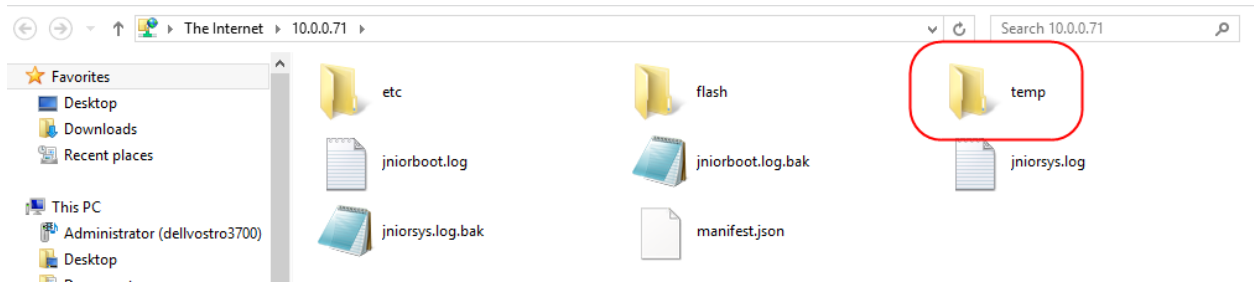
A typical Series 4 OS update file starts with janos_ and then the revision number as shown below.
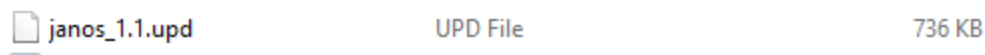
Please 'drag and drop' or FTP the JANOS update file into the TEMP folder on the JNIOR.

From a telnet session (or from the Command Line Tab in the JNIOR Configuration Web Page), you can verify that the file was successfully transferred.

In the JNIOR Series 3, the udpate file was put in the root folder and by rebooting the JNIOR, the OS would always look for the specific update file (always called jr310.upd) on boot-up and if it found it and the OS was different than the version already running, the JNIOR would update the OS and delete the upd file.

In the JNIOR Series 4, the user (or the JNIOR Support Tool) must command the JNIOR Series 4 to do the update. This is because the OS update file is NOT a unique name (for better revision tracking) and can be located in any folder on the JNIOR. Therefore, the user must open a Telnet (Command Line) connection to the JNIOR Series 4 and use the **jrupdate** command shown in the screen picture below.

```
jr714070049 /> help jrupdate
JRUPDATE [options]...

 -U file      Perform Field Firmware Update.
 -F           Skip confirmation prompt.
 -P           Reboot if successful.
 -R           Rollback OS.
 -C           Cancel pending update.

 Manage JNIOR firmware.
jr714070049 />
```

The 'options' for the jrupdate command can be combined. The recommended command to use is   **jrupdate –UFP filename**   This will cause the JNIOR to update the OS, skip asking for a confirmation that you really want to udpate and then reboot after the update.

Below is a screen picture of the command. <u>Please note that the filename must be prefaced with the folder nanme (path) where it is stored.</u>

```
jr714070049 /> jrupdate -ufp temp/janos_1.1.upd
```

After you hit enter, the command will execute the OS udpate and reboot the JNIOR.

```
jr714070049 /> jrupdate -ufp temp/janos_1.1.upd
...................................loaded 0xFFE00000-0xFFE7ACF0
Java Class Library updated.
Rebooting...
```

2 – Updating the JNIOR Configuration via the JNIOR.ini File

Whenever the user changes a configuration item in the JNIOR, the 'change' is stored in the JNIOR registry system. For operational reasons, the registry settings are loaded in static RAM, but backed up in flash memory. The file stored in flash memory is named jnior.ini.

For the Series 3 JNIOR, the user could FTP a new jnior.ini file to the flash folder (manually or via the JNIOR Support Tool) and the Series 3 operating system would detect that a new jnior.inifile was loaded (in less than a minute) and replace ALL of the registry settings with the settings from the new jnior.ini file.

For the Series 4 JNIOR, the updating of the registry keys by transferring a file works differently. A command must be executed to 'merge' the new registry settings.

The user (or JNIOR Support Tool) can transfer a jnior.ini file, but the file does not have to be, and probably should not be, named jnior.ini. The file can be transferred to any folder on the JNIOR Series 4, EXCEPT it cannot be transferred to the flash folder if it is named jnior.ini. It will be deleted and replaced with the current settings.

The other difference between the Series 3 and Series 4 is that on the Series 4, the new ini file settings will be 'merged' (or updated) to the existing registry keys. The Series 4 update process does NOT do a complete replacement of the jnior.ini file.

The registry command allows the user to manage the registry and thus the jnior.ini file. Below is a picture of the command and its options from a telnet session.

```
jr714070049 /> help registry
REGISTRY [options] [key [= value]]

 -S          Generate snapshot.
 -E file     Export to file.
 -I file     Load specified INI file.
 key         Key(s) to display (may contain wildcards).
 value       Defines new value for the key.
```

The command   registry –I filename   will merge the ini file. Since you can transfer (FTP) the ini file to any location on the JNIOR, you may need to add a 'path' if the file is not in the root directory.

NOTE: It is recommended that you do NOT call your ini file jnior.ini and it is recommended that your transfer your ini file to the TEMP folder on the JNIOR. Any file stored in the TEMP folder is deleted upon a reboot. This will prevent you from accumulating unnecessary files on the JNIOR.

Below is the command for a new ini file named configuration_1.ini that was transferred to the TEMP folder.

NOTE: You should follow the regsitry command with a   reboot   command so that any programs running will use the new configuration items.

```
jr714070049 /temp> dir
configuration_1.ini

jr714070049 /temp>
```

```
jr714070049 /> registry -I temp/configuration_1.ini
Loading temp/configuration_1.ini...
jr714070049 />
```

You could also build the transfer and merge of a jnior.ini file into an 'update project' used with the JNIOR Support Tool with the 3 steps shown below.

This is a 'telnet command' update step available with Support Tool version 6.2.313.756