

JNIOR Series 3 Release Notes

Updated as of Monday, August 29, 2016

June 14 2016 – 4.8.614.2124

Bug Fixes

- Fixed an issue where multiple MODBUS connections were violating the MODBUS store synchronization rules and overwriting values causing an incorrect counter value to be sent out.

January 29 2014 – 4.7.129.1526

Bug Fixes

- Fixed an issue regarding inputs 9 - 12 on the JNIOR 314.
- Fixed an issue preventing the JNIOR from obtaining a DHCP address.

January 3 2013 – 4.6.103.1518

Bug Fixes

- Fixed an issue where the flash file system was wasting space at the end of the sectors

August 11 2015 – OS 4.5.1119.1103

Changes – JNIOR Web Pages

- Updated the JNIOR Web pages (Java Applets) to re-sign the security certificate to allow the web pages to run properly in a browser. The old certificate had expired and the security technology had to be updated to use SHA256 encryption, a 2048-bit key and a secure timestamp.

November 19 2012 – 4.5.1119.1103

Bug Fixes

- Fixed an issue where the initial state for an output was not working.

September 7 2012 – 4.5.907.1405

New Features

- Added more logging to the MODBUS protocol

- "Modbus client - Not Logged In" - will be logged upon the first request from a non-logged in client that is not a login request
"Modbus client - Function FUNCTION_CODE Count out of range: COUNT_VALUE" - will be logged if the count is out of range for the request
- "Modbus client - Function FUNCTION_CODE Address out of range: ADDRESS_VALUE" - will be logged if the address is out of range for the request
- "Connection error on first request. Please check client settings" - will get logged if the client has closed the connection before the first request is processed
- "Unable to read MBAP header" - will get logged if the JNIOR cannot read a MODBUS request

Bug Fixes

- Addressed a bug on the 310 and 312 where counts would be missed if two signals were received on the digital inputs 2 microseconds apart.
- Fixed an issue in MODBUS where a non-logged in client might discard a Modbus message and cause the client to timeout.

August 15 2012 – 4.4.815.1000

New Features

- Added Device unsubscription in the JNIOR Protocol
- Added Registry Key unsubscription in the JNIOR Protocol

Bug Fixes

- Fixed a bug that was causing deadlock in the 4rout expansion module code.
- Fixed a bug where erroneous counts could be tallied on multiple inputs when an input cycled at a rate where the off time < debounce time and the period >= debounce time

April 17 2012 – 4.3.417.1008

Changes

- Changed logging of the RAM message to the jniorsys.log to only record if the largest free block changed by more than 5%
- Removed the log entry for 'waiting for current request to finish'. This means that a response from a custom command, usually a macro execution, is waiting for a request to finish. This is not a necessary log item.
- Changed ps -v to include uptime
- Time sync will try every 4 hours regardless of success on boot.
- Time sync will attempt 3 times to communicate with defined NTP Server.

Bug Fixes

- The JNIOR Protocol connection would log "client disconnected by exception" for every client disconnect. Now the type of exception is identified and EOF exceptions log "client disconnected"
- Fixed an issue where the jniorboot.log would report an hour off due to the daylight savings time change in the US back in 2005.
- Fixed the serial ports to work at 115200 baud rate.

March 8 2012 – Released 4.3.308.751

Changes

- Removed register_interprocess_app_response and unregister_interprocess_app_response messages from the jniorsys.log

Bug Fixes

- Fixed an issue in the external monitor packet in the JNIOR protocol
- Fixed an issue where the jniorio.log timestamp would drift

January 11 2012 – Released 4.3.111.1238

New Features

- Changes to the Host Name or Domain Name via the web page or registry will take effect immediately.

Bug Fixes

- Fixed an issue with the model 312 where all JNIOR protocol connection would fail.
- Fixed an issue where Modbus would report states for 16 channels even if external modules were not present.

December 30 2011 – Released 4.2.1230.1018

Bug Fixes

- Fixed an issue where the SMTP password was being saved in Plain Text when entered or edited from the web page.
- Fixes to MODBUS to allow reading of counters and usage meters for all versions of the JNIOR
- Fixed Alarming status via the JNIOR Protocol on the Model 314
- Fixed a multithreading issue with the One Wire Communications

September 29 2011 – Released 4.2.929.1229

New Features

- Will not allow a factory built JNIOR to downgrade its Operating System to a 3.x version

Bug Fixes

- The status light was not blinking for a JNIOR protocol connection when the I/O was busy
- Pulse durations longer than 15 seconds could get stuck on.
- SNMP Traps for single output configuration was not correct

August 30 2011 – Released 4.1

New Features

- Addition of a serial number OID to the SNMP MIB under the INTEG Process Group Private Enterprise Number
- Implemented simple authentication for email
- Control Panel available

Bug Fixes

- JNIOR Protocol was not timing out after 15 minutes of inactivity

January 20 2011 – Released 4.0

New Features

- Addition of Model number to the EEPROM guaranteeing Model configuration is not lost
- Implementation of the JNIOR Model 314
- Implementation of the JNIOR Model 312
- Compression added
- SNMP V1 Added
- Applications executed from flash are copied to the etc/cache directory for direct access from RAM. This eliminates the 64K size limit.
- Flash compaction up to 3 times on reboot
- Save time zone to registry
- Dynamic log sizes
- Delete command allows filter ex. "*.log"

Changes

- Allow up to 10 External temperature sensors
- Email change to try the mailhost before checking the MX records
- Rebooter class used to prevent reboot hangs as well as implementation of a 2 minute software watchdog
- gc() triggers based on free RAM amount not just every 5 minutes
- FFS resized to make room for larger OS. OS checks for valid FFS data at old pointer so data is not lost

Bug Fixes

- Additional exception handling to avoid LogNotify(5)
- 4ROUTES not logging correctly in jniorio.log
- Handles service host disconnecting on exception

August 17 2010 – Released 3.6.817.1459

New Features

- A registry key was added to allow the counter to increment during a soft pulse

April 22 2010 – Released 3.5.422.1046

New Features

- Ability for an application larger than 64K to be executed out of the flash directory
- Utilize the etc/cache directory to preserve space for the application

November 16 2009 - Released 3.4.1116.1135

Changes

- Changed the way the monitor packet is built to provide faster I/O responses. Also I/O is gathered at the start of building the packet so I/O can't change our values during packet construction.

Bug Fixes

November 6 2009 - Released 3.4.1106.839

New Features

- *Device/\$LastNtpSuccess* registry key holds the last successful NTP update time. This registry key does not persist through a reboot. If the key is missing then NTP was not successful on boot.

Changes

- Additional logging when time is manually set using the `date` command

Bug Fixes

- Fixed a bug where the `jniorio.log` timestamp was not affected by the manual `date` command.
- Fixed a bug in Beacon where a JNIOR on the same physical network but with a different IP scheme would not be able to be configured.

October 14 2009 - Released 3.4.1014.1142

New Features

- `jrconfig -d` deletes the JNIOR INI file therefore resetting the configuration file to factory settings.
- `jrconfig -r` deletes the JNIOR INI file therefore resetting the configuration file to factory settings as well as removing the field update to the JNIOR OS.
- Added *IO/Outputs/ROUT#/InitialState* to provide the ability to set an Output to close or pulse on boot. Note that this happens after the registry is loaded about 60 seconds after power is applied. A key that is defined with a value of 0 will close the output. A key that is defined with a positive value will pulse the given outputs for that duration.

Changes

- The Beacon UDP Server will now respond directly to the IP Address issuing the request instead of broadcasting the response.
- Beacon now tries to send UDP packets a second time 1 second after trying the first time. This is done because UDP is unreliable.

- Beacon will now try to use all available Network adapters
- The OS will now look for web pages in /www/ and /flash/www/ automatically without the WebServer/Path key being set
- Fixed an issue with the Flash File System where a file might not be able to be committed to the file system due to not being able to allocate enough space. This occurs even though there are enough unused bytes but not enough unused blocks.

Bug Fixes

- A change was made to the Set Output Block to fix a timing issue where an ending pulse would cause the wrong IO states to get set.

July 21 2009 - Released 3.3.721.1122

Changes

- The JNIIOROS timeout while waiting for its turn to use the OS pipeline has been extended
- Type 0x28 temperature One Wire Devices are configurable. Using the *OneWire/XXXXXXXXXXXXXXXX28/TempResolution* registry key a user can configure the device for 9, 10, 11, or 12 bits. The following table describes the affects of the change.

Table 1. DS18B20 Conversion Times and Resolution Settings

Resolution	9 bit	10 bit	11 bit	12 bit
Conversion Time (ms)	93.75	187.5	375	750
LSB (°C)	0.5	0.25	0.125	0.0625

- Removed OneWire Trending

Bug Fixes

- The thread count limit was getting reached when using a MODBUS client with low timeout values. This would cause the MODBUS server to shutdown.
- If a bad value was supplied for the *Device/ServiceHost* key then the outbound JNIIOR Protocol Client connection would never be attempted.

July 9 2009 - Released 3.3.709.1220

New Features

- Added SetInputCounter Function to the JNIIOR OS Interface. Requires 3.3 or later
- The JniorProtocol server can periodically try to establish a connection with another server running on another device but once the connection is made the functionality is consistent with previous behavior where the device is the client and responsible for sending the keep alive to maintain the connection.
- The command `jrflash` has a new feature that allows you to extract the update image from the JNIIOR. Using `jrflash -e` will create a file at the root that is the exact file that was used to update the unit to the current running release. You will need to ftp to the JNIIOR to get the file. Once the JNIIOR performs the next reboot, the file will be removed.
- The Email feature will now log the greeting returned from an email server if there is an error code returned. An example is if the email server deems that the incoming IP Address is blacklisted.

Changes

- Changed the version scheme for the JNIOR Operating System
- Now a monitor packet is sent in response to any I/O command whether any I/O actually changed state.
- Setting the clock via the JNIOR protocol now sets the system wide time
- IO/Outputs/rout#/TriggerCount is now IO/Outputs/rout#/\$TriggerCount

Bug Fixes

- NullPointerException was getting thrown during send mail if there was no reply from a server.
- Paid close attention to the bytes being sent out over the RS232 port during boot. Several messages were removed with the exception of "\r\n\r\nHit any key to login." This string is present in the TINIOS firmware. Also any JNIOR running a factory installed version of the OS older than 3.3 will display messages during the UPD Programming. A factory installed OS is the OS that JNIOR was shipped with.
- A bug in the JNIOR Protocol was noted when IO changes happened at a 10Hz rate across all internal I/O additively. This means that not just one input had to have a 10Hz signal to cause the issue. When this happened scheduled monitor packets, device subscriptions, registry subscriptions, and the status light did not get serviced.

June 12 2009 - Released 3.2.4

New Features

- *IO/Outputs/ROUT#/ForcePulseDuration* added to cause an open or close command to effectively pulse the given output instead. This is used if a pulse command cannot be sent.

Changes

- Changed the way 4ROUT subscriptions are handled. They are handled internally and no longer poll the external device. This has a performance boost.

Bug Fixes

- Fixed up the external 4 ROUT logging
- Fixed an issue with pulsing a single output using the command packet
- Fixed subscribe to an internal output was throwing an exception
- Fixed an issue with pulsing an external output
- In some rare cases "orphaned" blocks were found in the Flash File System. These blocks were not getting cleaned up and could cause the Flash File System to effectively "fill up". These are now checked for and cleaned up on boot.

May 28 2009 – Released 3.2.1

New Features

- Conversion to Flash File System (FFS2). FFS2 has performance benefits over the original approach.
- Added Beacon Functionality to provide UDP broadcast JNIOR discovery and configuration.
- Took external device enumeration methodology to all external modules as it was designed for the Type FB 4 relay out module. Up to two modules can be connected at one time. Below is a chart

outlining the channels numbers of the 1st and 2nd modules connected.

	Type FB 4 Relay Out	Type FC RTD	Type FD 0 - 10 volt	Type FE 4 - 20 ma	Type 10
1 st Module	Outputs 9 - 12	Inputs 1 - 4	Inputs 1 - 4 Outputs 1 - 2	Inputs 1 - 4 Outputs 1 - 2	Input 1
2 nd Module	Outputs 13 - 16	Inputs 5 - 8	Inputs 5 - 8 Outputs 3 - 4	Inputs 5 - 8 Outputs 3 - 4	Input 2

- Provided JniorOS Interface and JniorProtocol features to allow access to the external modules using new enumerated channel numbers.
- Added the extern command for hot device enumeration. **TINI> extern**
- You can subscribe to the external outputs using the internal output addressing scheme. Internal Outputs are addressed from 0x00000000000101FF to 0x00000000000108FF. The new external output addresses range from 0x00000000000109FF to 0x00000000000110FF.

Changes

- Changed the **date -n** command to use the registry value of *"IpConfig/NTPServer"* instead of the default `clock.isc.org`.

Bug Fixes

- Fixed an issue where the MODBUS Connection that issues the reboot command does not get closed properly because the JNIOR reboots before returning from the reboot method.
- Fix for riding though external sensor fix in Assigning External Module Order
- Pulsing a single output in the JNIOR Protocol using type 6 in the command packet is fixed.
- Subscribing to an external output would throw an IOException.