



## NX Series Software 5.0 Release Notes

### General Remarks:

NX Series Software Version 5.0 is a Software update suitable for NX3 through NX100 Nautel NX-Series transmitters. It is not fully compatible with NX200 through NX400 transmitters, as the software upgrade process may fail if attempted.

This release is considered **CRITICAL** for those who are experiencing issues with network/system stability, are using a streaming service for audio content (such as Shoutcast) or require any of the bug fixes/improvements identified below. Nautel recommends you upgrade at your earliest convenience, **during your next scheduled site visit.**

For those who do not require any of the bug fixes/improvements identified below or are satisfied with current transmitter behaviour, this release is considered **NON-CRITICAL** and Nautel typically does not recommend you upgrade under these circumstances. If you choose to upgrade, Nautel recommends you perform the upgrade **during a regularly scheduled site inspection.** In the event you require support from Nautel Customer Service, they may require you to perform an upgrade to the latest software release in order to resolve your issue if deemed necessary.

You can download NX Series Software Version 5.0 [here](#).

Software Upgrade procedures can be found in IS13004\*, *NV and NX Series – Burning Compact Flash Card*, IS16009A, *NX3/NX5/NX10 – Updating to 5.x Software and OS Recovery* and IS19003, *NX15 – NX100 – Updating to 5.x Software*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

### New Features:

- Added ability to configure Analog Output Sample Voltage Scaling.
  - Analog Outputs now show up under the Remote I/O page.
  - The following fixed meters are now configurable Analog Outputs with a Sample Full Scale Range of 1-10V:
    - Forward Power
    - Reflected Power
    - B+ Voltage
    - Total B+ DC Current

### Improvements / Enhancements:

- Improved system stability and network stability/connectivity.
- Improved stability for streaming audio and audio files.
- Increased the Watchdog timeout from 30 seconds to 1 minute to account for the stability health check system.
- Increased the precision of Reflected Power meters in the AUI from 3 to 4 digits (e.g. when the Reflected Power is 200W, the meter now shows 0.200 kW instead of 0.20 kW).



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- Disabled Phone Home logging for NX3, NX5 and NX10s due to the transmitter remote AUI crashing because of large log file sizes.

## Removed / Retired Features:

None at this time.

## Bug Fixes:

- Fixed a bug that disallowed the Audio Player to play audio streams or MP3s on High Power NXs (NX15 – NX400).
- Fixed a bug that disallowed the User from adding a new Scheduler event using the Local AUI on High Power NXs (NX15 – NX400).

## Known Issues:

- Software upgrade process for multi-rack NX transmitters (NX200 through NX400) is not reliable, typically failing while attempting to upgrade the individual racks. Repeat attempts to upgrade may be required if software upgrade process is initiated, with no guarantee of successful completion.
- If you have an active preset with the first created stream as the Audio Source and another preset with the first created playlist as the Audio Source and switch to the second preset, the stream will continue to modulate due to both the playlist and stream having the same order value. See (1).

## Workarounds:

1. Create another stream that has a different order value than the desired playlist and then switch to that stream from the current stream and then switch back to the desired playlist. The same goes for switching from a playlist to a stream.

## Installation Considerations:

This software update will take approximately 30 minutes and may require multiple reboots. You will be OFF AIR during the upgrade process. If you experience LAN-related alarms soon after an OS recovery/CF card reimage, another OS recovery/CF card reimage may be needed.



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## NX Series Software 4.9.2 Release Notes

### General Remarks:

NX Series Software Version 4.9.2 is a Software update suitable for all Nautel NX-Series transmitters. This release is considered **NON-CRITICAL** as it involves minor bug fixes or features and Nautel does not recommend you upgrade unless elements of the release address your specific needs. If you choose to upgrade, Nautel recommends you perform the upgrade **during a regularly scheduled site inspection**. In the event you require support from Nautel Customer Service, they may require you perform an upgrade to the latest software release to resolve your issue if deemed necessary.

You can download NX Series Software Version 4.9.2 [here](#).

Software Upgrade procedures can be found in IS13005\*, *NX Series AM Transmitters Software Upgrade*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

### New Features:

None at this time.

### Improvements / Enhancements:

- Added the ability for NX Transmitter sub-devices to be interrogated by external Nautel combiners.

### Removed / Retired Features:

None at this time.

### Bug Fixes:

- Fixed a bug that did not allow the NX3 and NX15 to properly support Phone Home.

### Known Issues:

- The Audio Player is not able to play audio streams or MP3s on High Power NXs (NX15 – NX400). Other audio sources are not affected by this.
  - The Audio Player on Low Power NXs (NX3 – NX10) is not affected.
- Cannot add new Scheduler event using the Local AUI on High Power NXs (NX15 – NX400). Remote AUI can still add a new Scheduler event.

### Workarounds:

None.



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## Installation Considerations:

This software update will take approximately 30 minutes and may require multiple reboots. You will be OFF AIR during the upgrade process.

## NX Series Software 4.9.1 Release Notes

### General Remarks:

NX Series Software Version 4.9.1 is a Software update suitable for all Nautel NX-Series transmitters. We recommend upgrading your transmitter(s) to this latest release DURING NEXT REGULARLY SCHEDULED SITE INSPECTION.

You can download NX Series Software Version 4.9.1 [here](#).

Software Upgrade procedures can be found in IS13005, *NX Series AM Transmitters Software Upgrade*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

### New Features:

- Improved SNMP compliance. New NX and Nautel Base MIBS are available. To ensure SNMP functionality following upgrade to 4.9.1 the new MIBs must be installed.

### Improvements / Enhancements:

None at this time.

### Removed / Retired Features:

- As part of SNMP v2c compliance, write-only OIDs may no longer be used. Nautel' write-only channels which are exposed via SNMP OID's remain functionally write-only but are listed as read-write and will return a 0 when queried.

### Bug Fixes:

- Improved operating system logging to reduce memory consumption.
- Nautel's MIBs have been modified to meet stricter criteria of SNMP v2c compliance.
- The syntax of traps listed in the MIBs has been changed to conform to the notification syntax expected by SNMP v2c.
  - Traps OIDs now explicitly contain a '0' node prior to the trap node number, a requirement for SNMP v2c.
  - Any customer who had previously worked around the omission of the node should no longer do so to maintain function.
- Nautel has overhauled the OID groups to be both SNMP v2c compliant and to better reflect the current state of the OIDs and their logical groupings.



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## Known Issues:

- The Audio Player is not able to play audio streams or MP3s on High Power NXs (NX15 – NX400). Other audio sources are not affected by this.
  - The Audio Player on Low Power NXs (NX3 – NX10) is not affected.
- Cannot add new Scheduler event using the Local AUI on High Power NXs (NX15 – NX400). Remote AUI can still add a new Scheduler event.

## Workarounds:

None.

## Installation Considerations:

This software update will take approximately 20 minutes and may require multiple reboots. You will be OFF AIR during the upgrade process.

## NX Series Software 4.9 Release Notes

### General Remarks:

NX Series Software Version 4.9 is a Software update suitable for all Nautel NX-Series transmitters. We recommend upgrading your transmitter(s) to this latest release DURING NEXT REGULARLY SCHEDULED SITE INSPECTION.

You can download NX Series Software Version 4.9 [here](#).

Software Upgrade procedures can be found in IS13005, *NX Series AM Transmitters Software Upgrade*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

### New Features:

None at this time.

### Improvements / Enhancements:

- In combined systems, the recovery process after a prolonged open interlock has been sped up by keeping power supplies turned on.
- Improved the accuracy of the pretty meters.

### Removed / Retired Features:

None at this time.



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## Bug Fixes:

- Restored proper function to the brick wall low pass filter on AES 2.
- SNMP Set requests while in local-only mode no longer cause the SNMP subsystem to hang.
- Restored some missing utility files. This resolves some previously unrecovered network connection drops.
- Eliminated excessive Audio Player logging.
- Older system logs are now being purged during upgrades, as they provide little value and potentially occupy a lot of space.
- Fixed a number of typos in the AUI.

## Known Issues:

None at this time.

## Workarounds:

None

## Installation Considerations:

This software update will take approximately 20 minutes and may require multiple reboots. You will be OFF AIR during the upgrade process.

## NX Series Software 4.8 Release Notes

### General Remarks:

NX Series Software Version 4.8 is a **MINOR** Software update suitable for all Nautel NX-Series transmitters. We recommend upgrading your transmitter(s) to this latest release DURING NEXT REGULARLY SCHEDULED SITE INSPECTION.

You can download NX Series Software Version 4.8 [here](#).

Software Upgrade procedures can be found in IS13005, *NX Series AM Transmitters Software Upgrade*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

For any customers using the SNMP OIDs nxControllerStandbyExciterInstalled or nxControllerAutoExciterChangeoverEnabled, please be advised that their values have been corrected so that 1 means true and 0 means false.

### New Features:

None



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## Improvements / Enhancements:

- Restored SNMP access to NX power module alarms.
- All NX summary alarms that are available via remote I/O are now available as SNMP traps.

## Removed / Retired Features:

None

## Bug Fixes:

- The SNMP system log is now cleared during the upgrade procedure.
- Corrected values of SNMP OIDs nxControllerStandbyExciterInstalled or nxControllerAutoExciterChangeoverEnabled so that 1 means true and 0 means false.
- SNMP traffic will no longer write excessive logs. This prevents filling up hard drive space, which can result in bizarre system behaviour.

## Known Issues:

There are no known issues specific to this release.

## Workarounds:

None

## Installation Considerations:

This Software update will take approximately 20 minutes, and may require multiple reboots. You will be OFF AIR during the upgrade process.

## NX Series Software 4.7 Release Notes

### General Remarks:

NX Series Software Version 4.7 is a **SIGNIFICANT** Software update suitable for all Nautel NX-Series transmitters. We recommend upgrading your transmitter(s) to this latest release DURING NEXT REGULARLY SCHEDULED SITE INSPECTION.

You can download NX Series Software Version 4.7 [here](#).

Software Upgrade procedures can be found in IS13005, *NX Series AM Transmitters Software Upgrade*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.



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## New Features:

This release introduces support for the new NX3 and NX15 members of the NX family.

The cutback routine has been changed significantly to minimize the amount of time an NX transmitter will spend at very low power levels after a significant number of shutback events. With this update, the transmitter's output power will not be reduced further than approximately 25% of rated power, and the recovery time has been reduced to a maximum of 3 minutes.

When replacing a control/interface PWB on a NX200 or NX300, a new procedure is required to register the rack interface PWBs with the control/interface PWBs. See the new NX200 or NX300 troubleshooting manual for the updated procedure.

## Improvements / Enhancements:

- Resolved an issue that caused intermittent Exciter Not Responding alarms that would cause an undesired exciter changeover if automatic changeovers were enabled.

## Removed / Retired Features:

None

## Bug Fixes:

- Resolved an issue where USB devices would not mount reliably.
- Minor cleanup of MIB data.
- Resolved an issue causing intermittent Engine Not Responding alarms in transmitters configured for IBOC operation.

## Known Issues:

There are no known issues specific to this release.

## Workarounds:

None

## Installation Considerations:

This Software update will take approximately 20 minutes, and may require multiple reboots. You will be OFF AIR during the upgrade process.





## NX Series Software 4.6 Release Notes

### General Remarks:

NX Series Software Version 4.6 is a **SIGNIFICANT** Software update suitable for all Nautel NX-Series transmitters. We recommend upgrading your transmitter(s) to this latest release DURING NEXT REGULARLY SCHEDULED SITE INSPECTION.

You can download NX Series Software Version 4.6 [here](#).

Software Upgrade procedures can be found in the *Non-Standard Maintenance* section of your *Operations and Maintenance Manual*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

General areas of improvement include: significant SNMP improvements and a newly revamped B+ control algorithm. Further details are below.

### New Features:

This release introduces a new SNMP agent, one which adheres correctly to the SNMP standard. Issues surrounding invalid GETs, the inability to walk the OID tree, and including multiple commands in a single packet have been resolved. Some SNMP reliability and connection issues have also been resolved.

As well B+ power supply's control algorithm has been overhauled. This is a significant change that provides numerous improvements including minimizing the occurrence of B+ related events, providing B+ power supply stability under all operating conditions, and decreasing the power ramp up time of the transmitter.

### Improvements / Enhancements:

- Eliminated a number of nuisance alarms, primarily B+ related.
- Users can now make scheduler rules that start or end in January.

### Removed / Retired Features:

- The ability to individually enable or disable SNMP traps has been removed. It is still possible to enable or disable traps as a whole.
- "Transmitter RF Off" has been removed from the Notifications alarm list. It is not technically feasible with the current software topography.

### Bug Fixes:

- Resolved an issue where the transmitter's output power could be reduced to near-zero if a High B+ Shutback occurred during an SWR Shutback event. When this occurred, the transmitter would take a significant amount of time to recover to the power setpoint.
- Upper and lower sideband adjustments now operate independently, rather than the upper sideband control affecting both.
- The B+ Limit will now reset to 430V on every power cycle.
- Low B+ shutdown no longer occurs on exciter changeovers.



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- Improved reliability of High B+ Shutback alarm logging.
- Cleaned up some Phone Home connect/disconnect issues.
- Several NX meters that were not being logged correctly are now being logged correctly.
- The Host Not Responding alarm now displays correctly in the AUI logs on arm-based systems.
- Fixed an issue with incorrect scrolling in the Alert box.
- Only the top-most error message on any given AUI page will now be shown at the bottom of the page.
- Resolved a number of issues around creating/editing Configurations and local vs remote-enabled modes on NX.
- Corrected Heatsink Temperature meter upper limit.
- Minor UI consistency changes.
- Fixed a typo in Critical Parameters "Settings" output.

## Known Issues:

None

## Installation Considerations:

This Software update will take approximately 20 minutes, and may require multiple reboots. You will be OFF AIR during the upgrade process.