

## VX Series Software 8.0.1

### General Remarks

VX Series Software Version 8.0.1 is a software upgrade suitable for all Nautel VX Series transmitters.

Nautel highly recommends performing the upgrade to this version due to software upgrade security improvements.

### Upgrade Considerations

#### Upgrade Procedure

Software Upgrade procedures can be found in IS23006A, *VX Series – Software Upgrade Procedure*. Please be sure to review and understand the complete set of instructions prior to beginning your upgrade.

The transmitter will need to be set to the current date and time for the software upgrade to progress successfully.

This software upgrade will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

Due to the improved software upgrade security, once the transmitter is upgraded to VX SW 8.Y.Z, the transmitter cannot be downgraded to 7.Y.Z or 6.Y.Z.

Nautel does not recommend downgrading to previously released software.

### Removed

- Reverted changes from VX SW 8.0.0 due to issues relating to the Orban audio processor.
  - Digital signing of the software upgrade process has not been affected.

### Known Issues

#### User Experience

- Software upgrades using USB may not be functional for all VX transmitters. If a software upgrade file is located on a USB storage device and connected to the transmitter, the file may not appear in the list and indicate that the transmitter will not mount the USB storage device.
  - Uploading the software upgrade file to the transmitter will remedy this issue.
- After performing a software upgrade, the Remote AUI's browser page may show a white screen.
  - While on the AUI's page, refresh the browser's cache by pressing CTRL + F5 at the same time.
- The Pilot 1PPS Sync may momentarily go out of sync and the Pilot Unsync alarm will trigger during long-term synchronous operations approximately 1-2 times per day.
  - The transmitter will adjust itself back to the desired pilot phase within seconds and clear the alarm.
- If the preset is saved and the Alternate Frequencies are updated and saved using the AUI without changing the preset's Data Source, the changes will not be reflected in the transmitter's output.
  - This only affects the ASCII over IP and UECP over IP data sources.
  - Updating over IP works correctly.
  - Switching and saving the preset's RDS Data Source to another source and then switching and saving back to the desired source while updating the Alternate Frequencies settings will correctly reflect in the transmitter's output.
- If RDS is enabled with Data Source set to either ASCII over IP or UECP over IP and there's a telnet connection to the transmitter, changing the Data Source to another option (even the other "over IP" option) and saving causes the Preset menu to freeze in a loading state with an error.
  - Closing the telnet connection will allow the Preset menu to start working again.

- If the transmitter is outputting audio and the AGC Limiter is enabled with AGC Time Constant set to 10 ms or less, the modulation meter will go to >600 % and the audio will stop being outputted.
  - An Exciter/Controller reboot using the FPUI (Front Panel User Interface) will fix the issue.
- Performing a software upgrade via the AUI may not show the Reboot button when the upgrade is completed.
  - Pressing the browser's refresh button for the Remote AUI's page will remedy the issue.
- Transmitter does not inhibit RF correctly during reboot from a software upgrade using the AUI. While the transmitter does inhibit the RF during the reboot, it does not properly inhibit the RF before the reboot.
  - Turn off RF before performing a post-software upgrade reboot using the AUI to mitigate any undesirable behaviour.
- The Display Failure alarm may not trigger if the FPUI display suffers a partial or full failure.
- During a reboot, entering the FPUI's Network menu before the AUI is available resets the network settings to DHCP enabled.
  - Wait approximately 2 minutes before accessing the FPUI's Network menu after a reboot.
- Turning RF off and then rebooting/ac cycling the transmitter within 20-30 seconds will cause the RF to turn back on after startup.
  - Wait approximately 2 minutes before rebooting/ac cycling the transmitter after turning RF off.
- The increment values for the Low Forward Power and Very Low Forward Power fields in the AUI are 0.5 % when they should be 0.1 % to match the FPUI.
- The 10 MHz Delta Meter in Exciter VCXO requires a page refresh to update the meter value.
- The VCXO 10 MHz Calibration Start button does not automatically change its state based on the external 10 MHz connection.
  - Pressing the browser's refresh button for the Remote AUI's page will remedy the issue.
- Clearing the Transmitter Name/Call Sign, saving and rebooting the transmitter causes the Transmitter Name/Call Sign to go back to the previous value.
- Depending on the AUI's browser size, the Source for Software Upgrade files may not be shown.
  - Change the AUI's browser size until the Source appears.
- If the Spectrum Analyzer's Measurement Source is set to MPX and the Resolution Bandwidth is not set to a specific value, then the minimum, center and maximum frequencies show incorrect values. The Resolution Bandwidth values where this does not happen are 250 Hz, 500 Hz, 750 Hz, 1000 Hz, 2000 Hz and 2500 Hz.
- If the VCXO 10 MHz Calibration is started via the AUI, the FPUI shows the calibration and then changes to the Exciter VCXO instead of its original screen when the calibration is completed.
- After performing an Exciter/Controller reboot or ac cycle and accessing the FPUI's Network menu, the MAC Address shows all 0s.
  - Exiting and reentering the menu shows the correct MAC Address.
- Setting the High SWR Threshold to 1.000 will result in an error and will revert to 1.400.
  - Setting the High SWR Threshold to 1.001 will save the High SWR Threshold as 1.000.
- If the transmitter is using an analog L/R signal with an RDS and/or Pilot signal applied, the modulation will be less than the expected value.
  - This does not affect MPX-related sources.
- Hard Limiter may allow some modulation overshoot of around 1 % to 2 % in MPX Audio Sources.
- Changing the date and time using the front Panel UI will not update the date and time for the transmitter until the Time menu is exited.

## Audio Player

- Navigating to another page and back to the Manage Audio Files page on the AUI while uploading audio files will lock the Audio Files Available list and disallow refreshing the list or selecting and deleting files. The progress bar will also disappear but the audio files will still continue to be uploaded.
  - Pressing the browser's refresh button for the Remote AUI's page will remedy the issue.
- Changing and saving a stream's Stream Name, Stream URL, and Network Buffer in rapid succession may not successfully save all options.
  - Saving an option one at a time will successfully save each option.
- If a stream's URL is too long, the edit and delete buttons will be pushed off the page.
  - Use the horizontal scrollbar to view the edit and delete buttons.

## Notifications

- If an email is being inputted into an email field and the local-part (contents on the left of the @) is made up of 32 or more characters and then the @ symbol is inputted, adding any character after the @ makes the AUI more and more unresponsive.
  - Enter the @ symbol and complete the domain name before entering the local-part to avoid this issue.
- Emails sent for Transfer Controller alarms do not include the device or alarm name in the subject.
- Emails sent for various alarms do not include the alarm name in the subject.

## Orban Audio Processor

- A temporary "SP:" Orban preset is created when a new custom Orban preset is created.
  - Pressing the browser's refresh button for the Remote AUI's page will remedy the issue.
  - This does not affect functionality.
- An Orban preset may hold onto an unsaved changed value in its settings instead of showing its saved value.
  - Reactivating the Orban preset will set the settings back to their saved values.
- Setting ST ENC NO LIM as the active Orban preset and reloading the Audio Processing page shows none of the Orban presets as active.

## Presets

- Changing and saving a preset and then immediately attempting to delete the preset will result in an error and the preset will not be deleted.
  - Changing and saving another preset and attempting to delete the original preset will result in a successful deletion.
  - Making a new preset using cloning and attempting to delete the original preset will result in a successful deletion.
  - An Exciter/Controller reboot using the FPUI will fix the issue.
- If a preset is set as the Active Preset and is not attached to any scheduled rules, Remote I/O or Mod Loss Timeout and the Active Preset is changed to another preset, the original preset's Delete button does not activate. This also happens for a preset becoming the Active Preset where the Delete button does not deactivate.
  - An Exciter/Controller reboot using the FPUI will fix the issue.
- Switching back and forth between 2 presets with less than 5 second intervals can cause AUI instability.
- Repeatedly updating a preset's frequency can cause AUI instability.
  - Allow at least 5 seconds between saving preset frequency changes.
- Audio Delay units in the AUI's Presets do not match the units in the FPUI's Presets.

- Quickly deleting two scheduled rules in their order of creation causes a Connection Lost and the AUI does not reconnect.
  - An Exciter/Controller reboot using the FPUI will fix the issue.
- Attempting to save a preset with the frequency less than 87.50 MHz will result in an error.
- The Pilot Sync Phase option incorrectly appears when the Audio Source is set to MPX 1, MPX 2, DMPX AES 1, or DMPX AES 2.
- The Local Echo option incorrectly appears when the RDS Data Source is set to ASCII over IP.

## Remote I/O

- If the Remote AUI is opened in a new browser tab and an Analog Output Sample Full Scale value is changed and saved, the AUI page refreshes. The Sample Full Scale value successfully saves.

## Reports

- When filtering options from the Audio section in Reports, Audio Delay from Other Settings is included when it should not be.
- Power and frequency changes are not currently logged in Event History.
- Sorting by Device in Event History does not sort correctly.
- Local/Remote events in a downloaded report file are not translated.
- If the transmitter's Front Panel UI is left on certain screens for an extended period of time, after this time the Front Panel UI's Event History may not show new logs of alarms and events.
  - This does not occur when the Front Panel UI's main screen is displayed.
  - Accessing the Front Panel UI's main screen will allow new alarms and events to be logged in Event History.

## Users

- If a User is logged in with the Administrator permission disabled, the User cannot download the Event History report.

## Miscellaneous

- Error handling for the VCXO 10 MHz DAC Value field is incorrect.
- DMPX AES1/2's DMPX Level maximum value is 0.1 dBFS when it should be 0 dBFS.
- Mod Loss Timeout Seconds' maximum value is shown as 59.95 s when it should be 59.9 s.
- Minute selection maximum in the FPUI's Time menu is 100 instead of 59.
- If entering an incorrect value into a field, the error message will appear without attempting to save the value.
- Settings in Network have an "\*" next to their names to indicate that the fields require values. Since the page cannot be changed using the AUI, the "\*" should not be there.
- Switching from DHCP IP addressing to Static IP addressing will not reset IP address to 0.0.0.0.
- Setting a Scheduler Rule Time's To value to 24:00 and saving fails to create the rule.
  - Use a time other than 24:00 when creating a Scheduler Rule.
- Attempting to log into the AUI with invalid credentials will show an untranslated error message.
  - The message will appear as "login.Internal Server Error".

## VX Series Software 8.0.0

### General Remarks

VX Series Software Version 8.0.0 is a software upgrade suitable for all Nautel VX Series transmitters.

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### Upgrade Considerations

#### Upgrade Procedure

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This software upgrade will take approximately 30 minutes, but you will only be OFF-AIR during the rebooting process for approximately 2 minutes.

Due to the improved software upgrade security, once the transmitter is upgraded to VX SW 8.Y.Z, the transmitter cannot be downgraded to 7.Y.Z or 6.Y.Z.

Nautel does not recommend downgrading to previously released software.

### Added

- Added digital signing to the software upgrade process.

### Known Issues

#### User Experience

- Enabling the Orban audio processor may cause overmodulation.
- Software upgrades using USB may not be functional for all VX transmitters. If a software upgrade file is located on a USB storage device and connected to the transmitter, the file may not appear in the list and indicate that the transmitter will not mount the USB storage device.
  - Uploading the software upgrade file to the transmitter will remedy this issue.
- After performing a software upgrade, the Remote AUI's browser page may show a white screen.
  - While on the AUI's page, refresh the browser's cache by pressing CTRL + F5 at the same time.
- The Pilot 1PPS Sync may momentarily go out of sync and the Pilot Unsync alarm will trigger during long-term synchronous operations approximately 1-2 times per day.
  - The transmitter will adjust itself back to the desired pilot phase within seconds and clear the alarm.
- If the preset is saved and the Alternate Frequencies are updated and saved using the AUI without changing the preset's Data Source, the changes will not be reflected in the transmitter's output.
  - This only affects the ASCII over IP and UECP over IP data sources.
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