9992-DEC Firmware Version 0.8.X Release Notes

NOTES:

- **A 9992-DEC running version 0.6.24 cannot be directly upgraded to version 0.6.50 or later. Such a decoder will need to be upgraded to any version between 0.6.25 and 0.6.49 as an intermediate step, and then upgraded to version 0.6.50 or later.**
- **For later versions, the upgrade/downgrade rules are:**
    1. **Any version starting at 0.6.25 can be directly upgraded to 0.6.59 or later (including 0.8.0).**
    2. **Version 0.6.59 can be downgraded to any older version.**
    3. **For versions 0.7.0 and later, the lowest version they can be downgraded to is 0.6.59.**

    If it ever becomes necessary to downgrade from versions 0.7.0 or later to any version below 0.6.59, the procedure is to first downgrade the unit to 0.6.59, and then to the desired version.

- **If the previous version is 0.6.59 or earlier, the first time version 0.8.0 boots, that boot will be about one minute longer than normal as additional updates will happen. This will happen only once.**
- **The first time version 0.8.0 boots, if it detects that the Factory image version is lower than 0.6.59, it will update the Factory image to whatever image is available in the unit that is higher than 0.6.58. This will happen in the first two minutes of operation. During this time, there will be a high CPU alarm. This will happen only once.**

Baseline version: 0.7.0

Version 0.8.0 New Features:

- Add full SNMP support. The complete MIB can be downloaded from the **Admin** top tab, **General** bottom tab.
- Additional A/V sync issue logging.
- Some AAC streams from software transcoders have occasional issues with inserting extra access units. The 9992-DEC will normally drop those to stay in sync, unless the size of the discontinuity exceeds a threshold – in which case it will restart the playback. This version increases this threshold to 5 access units.
- Support for DSP version 3.2 and 3.3. Version 3.3 improves the robustness of H.264 decoding in the presence of incorrectly terminated SEI NALUs.
- Add the ability to specify the partner by hostname instead of IP address in SRT. The device will perform a DNS lookup to find the IP address. This feature requires DNS to be configured in the **Network** tab.
- Increase the maximum SRT connection latency x bit rate limit from 1000 milliseconds at 32 Mb/s to 2000 milliseconds at 32 Mb/s.

Version 0.8.0 Bug Fixes:

- Correct an occasional A/V sync issue when the stream is restarted. The audio will now start being played about 5 seconds after the video starts and will always be in sync.
- Fix an issue whereby setting the two decoder channels to consecutive UDP ports would cause one of them not to receive. This issue only affects UDP reception, not RTP, since RTP ports need to be even.
- Establish a well-defined default gateway priority for traffic leaving the unit that does not specify an interface. The priority is:
    - First Priority: frame interface.
    - Second Priority: Ethernet 1.
    - Third Priority: Ethernet 2.
- Fixed an issue whereby a decoder channel with genlock enabled would occasionally come back with an A/V sync error if the genlock signal had a discontinuity (i.e., disappeared and came back).
- Fixed an issue whereby a decoder channel that encountered an audio error (e.g., due to corrupted streams or uncorrected packet loss) would occasionally come back with an A/V sync error.
- Fix occasional audio “pops”.
- Fix the audio level (it was lower than it should have been).
- Fix an issue with audio AES control bits.
- Fix a rare case where the ASI input would stop receiving after an error.
- Fixed another issue whereby a decoder channel that encountered an audio error (e.g., due to corrupted streams or uncorrected packet loss) would occasionally come back with an A/V sync error.
- Fix corrupted audio when receiving RTMP.
- Fix an SRT issue when the interface selected is configured for DHCP and does not have an IP address. In this case, the unit will retry the connection once an address is acquired.

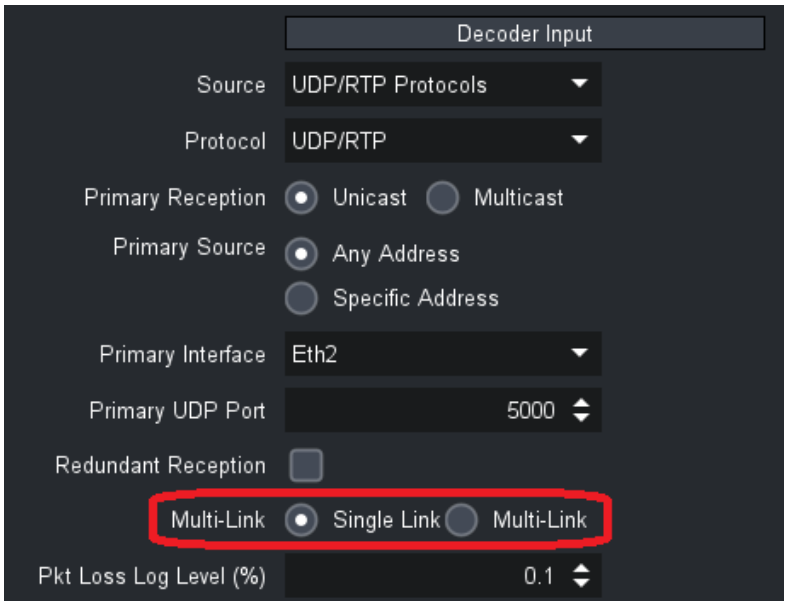
Version 0.8.1

- This version adds support for correctly processing 720x480 i30 signals. Such signals are internally scaled to 1920x1080i30 and then can be re-scaled to any valid SDI signal.

Version 0.8.2

- New feature: starting from this version, it is no longer necessary to have a RIST license to use ST 2022-7 seamless switching (and bonding). The **Multi-Link** control is now in UDP/RTP mode, as indicated below.

  IMPORTANT: In previous versions, the Multi-Link setting was inactive in UDP/RTP mode. If your saved configuration has it set to Multi-Link, that setting will take effect when loading version 0.8.2. Simply set it back to Single-Link and hit the Apply button to go back to your previous configuration.

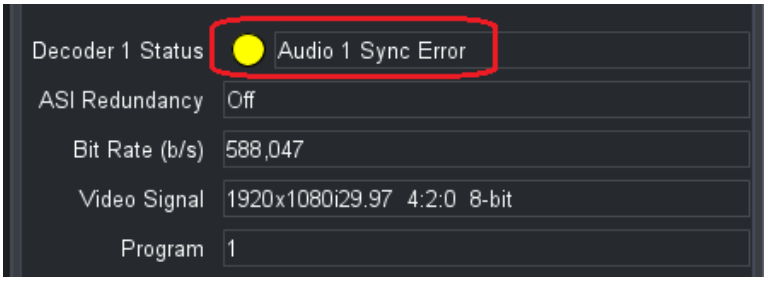


Version 0.8.3

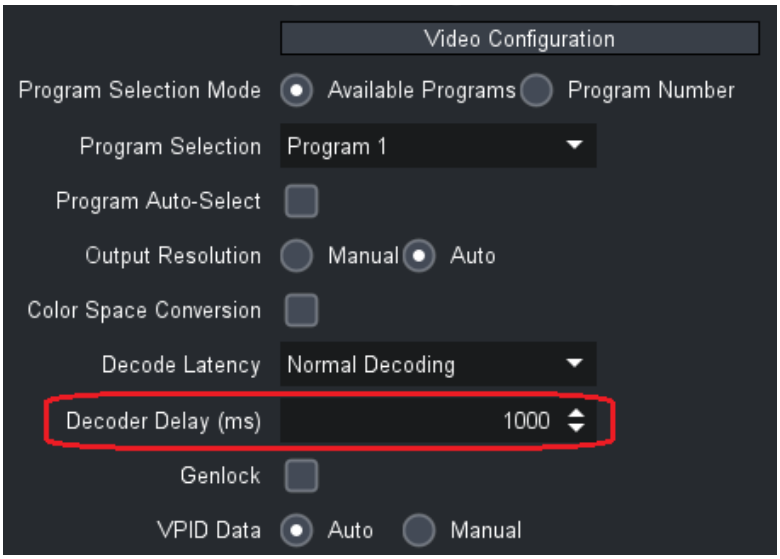
- This version corrects an issue with scaling, whereby if the incoming resolution and the output resolution had the same frame rate and interlace mode, the image would not be scaled and would be presented in the top right corner of the image.

Version 0.8.4

- This version corrects an issue whereby the decoder channel could occasionally lock up and go to black if the input signal were grossly out of audio timing model compliance. This issue would not happen with compliant signals.
- Previous versions would continuously restart the channel when the input is out of audio model compliance (i.e., video too far ahead of audio). This version will play the content without A/V sync, and will raise a yellow alarm in the **Decoder Status** field:

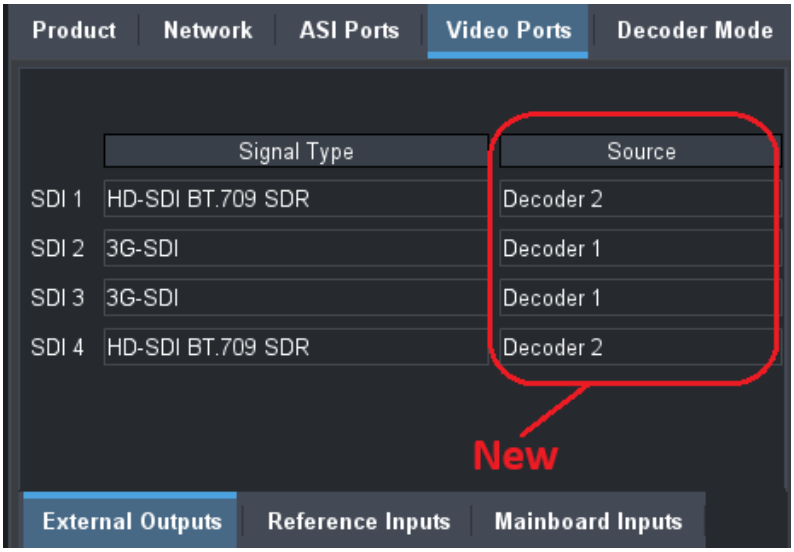


If this alarm is raised, it may be possible to clear this situation by increasing the **Decoder Delay** until the problem clears. Note that changing the **Decoder Delay** causes the channel to restart.

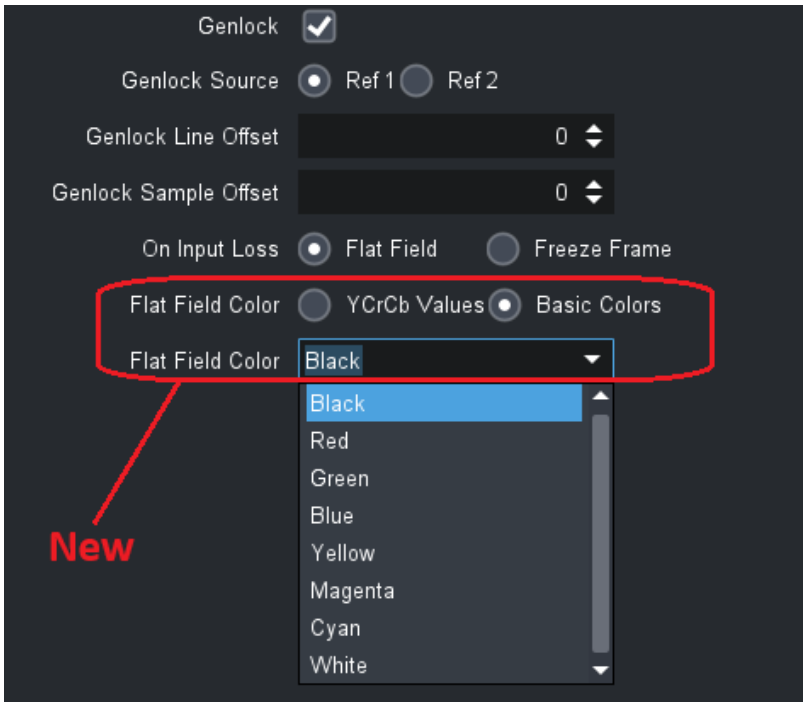


Version 0.8.5

- In this version, the **Video Ports** top tab, **External Outputs** bottom tab has been enhanced to show the channel signal source:



- When genlock is enabled and signal is lost, the decoder can either put up a flat field or freeze the last frame. In this version, the flat field color can be specified either as YCrCb values or basic colors:



- This version includes CAN bus stability improvements.
- This version includes stability improvements when the signal disappears and re-appears.