# **Calrec Release Notes**

**v3.2.3-b0**

New Features:

* 64/80ch 125us Streams
* Flexible Redundancy
  + Destination transport address can be different on A and B streams

Dependencies:

* Compatible with Hydra v2.0.7 and later

Limitations:

* Calrec Hydra and Bach AoIP Management interfaces must be on the same subnet
* Packet time and sample rate are global per bach card
* Receiver streams that are outside of the 239.0.0.0/8 range, are limited to UDP port numbers 5004 (A) and 5006 (B)

Fixed Bugs:

|  |  |
| --- | --- |
| **Issue key** | **Summary** |
| AOIP-1065 | Session: No Packets being received despite full and correct audio. Coveloz 14805 |
| AOIP-1657 | Vanilla AoIP: Ticks on snake test with 16 channel streams. Redmine 14930 |
| AOIP-1691 | Vanilla AoIP: Ticks on 8 channel 1ms streams |
| AOIP-1648 | Vanilla AoIP: Audio distorted on high TDMs if high total channel count. Redmine 14928 |
| AOIP-1097 | Single stream in soak test goes: "Network Delay Bigger than Offset" Coveloz #14850 |
| AOIP-2102 | PTP Parameters on Eth2 revert to defaults |
| AOIP-2103 | B Stream Destination MAC address is the A Streams Redmine #14907 |
| AOIP-1438 | Accessing certain Coveloz UI pages can cause all incoming audio to stop. Redmine 14920 |
| AOIP-1437 | Muting a destination in Coveloz UI can cause other non-related streams to be muted |
| AOIP-1370 | All errors only reported via the 1st RX stream - Coveloz #14626 |
| AOIP-2107 | Request Debug no longer gathers logs |

Known Issues:

|  |  |
| --- | --- |
| **Issue key** | **Summary** |
| AOIP-633 | Random phase alignment issues within streams - Coveloz #14732 |
| AOIP-1883 | Cannot set or change TTL value for SAP packets Redmine14944 |
| AOIP-1880 | AES67 SDP incompatibility Redmine#14943 |
| AOIP-2116 | WebUI source creation: leaving UDP as auto causes Errno-9 UDP out of range Redmine#14940 |
| AOIP-2066 | Creating destination with IS-05 can break manual stream creation mechanism. Redmine#14939 |
| AOIP-1387 | AoIP: Name change of destination stream requires user to remove and remake patches in Coveloz Redmine:#14942 |
| AOIP-2115 | WebUI sometimes doesn't display B stream creation options Redmine #14941 |
| AOIP-2114 | WebUI incorrectly blocks source creation and the locks out TDM Redmine#14939 |
| AOIP-626 | No hitless redundancy - Coveloz #14722 |
| AOIP-2113 | WebUI incorrectly reports that firmware upload fails |
| AOIP-1246 | AoIP box not fully working when running on Eth2 only |
| AOIP-654 | Inability to receive streams outside of 239.0.0.0/8 multicast range - Coveloz #14795 |
| AOIP-1174 | Bach module unable to boot correctly after Hydra2 component update |
| AOIP-1318 | Can't decap audio from RTP stream with Extended Headers: Redmine#14896 |
| AOIP-2061 | Change destination parameter in UI causes UDP port to go to 65535 |
| AOIP-1046 | NMOS: missing href node port in self/ |
| AOIP-1026 | Difficulties in naming convention for source streams and destinationTDMs (IS-05) |
| AOIP-1365 | No upgrade path between Coveloz versions (going past v2.3.1) |
| AOIP-1329 | Unable to set activation mode on ConnectionAPI (NMOS IS-05) Redmine:14906 |
| AOIP-632 | 3.2.0-b0 avmngd failure/crash - Coveloz #14774 |
| AOIP-2065 | Error Code -30 Service may not be running |
| AOIP-1027 | 404 error on UUIDs for IS-04 senders/sources/flows/devices |
| AOIP-714 | show ip-udp-config does not display correct stream info |
| AOIP-2101 | UI and audio operation lost after a period of time |
| AOIP-1396 | 3.2.0-b0 Various errors caused by full root file system. RM:14773 |
| AOIP-1518 | Bach cards fail to update fw/sw |
| AOIP-637 | Bach source stream is not advertised if stream name already exists on the network - Coveloz #14602 |
| AOIP-638 | Repeated sample on TDM when src stream is turned OFF - Coveloz #14586 |
| AOIP-1398 | 3.2.0-b0 Bach card unresponsive. Kernel stacktrace - possible out of memory. RM:14772 |
| AOIP-1400 | 3.2.0-b0 avmngd failure/crash RM:14774 |
| AOIP-1377 | AoIP box can come online as "Detected" after power cycle / soft reset of box |
| AOIP-1386 | AoIP box "AES67" LEDs on rear panel light regardless of whether AoIP modules are fitted. |
| AOIP-639 | Failure to receive streams that have a media clock offset - Coveloz #14573 |
| AOIP-640 | RTSP server should handle "not allowed" requests more gracefully than it currently does - Coveloz #11919 |
| AOIP-1363 | Information provided by the GUI is unreliable |
| AOIP-1394 | No convenient way for users to change AoIP setup port |
| AOIP-1362 | IP interrogation mechanism can render Coveloz card inoperative |

**v3.2.0**

Limitations:

* Calrec Hydra and Bach AoIP Management interfaces must be on the same subnet
* Packet time and sample rate are global per bach card

Dependencies:

* Compatible with Hydra v2.0.6 and earlier

# **Ross Release Notes**

**v3.2.3-b0**

Release date: 12/DEC/2019

FDK version: v.1.8.4-b41

SDK version: v3.2.3-b0

Firmware: <https://projects.coveloz.com/dmsf/files/4267/download>

JSON API:

**New Features:**

* 1-80 channels per stream
* Source Synchronous Mode in TDM Interface

**Bug Fixes:**

* Fix TDM Timing Constraints
* Fix listener dead lock due to backpressure from DDR caused by SW. COV-5081
* Fix listener glitch due to backpressure from DDR caused by SW. COV-502
* Fix redundancy dest MAC address. COV-5141

**Known Issues:**

**Limitations:**

**v3.2.2-b2**

* Release Date: 5-NOV-2019
* RTL version: v.1.8.4-b39
* Built from Git Branch: bach-hector-3,2
* Toolchain: 4848
* Kernel: 255

**New Features:**

* Flexible redundancy
  + The user can now set-up streams with different Multi-Cast (MC) IP address and UDP port for the primary versus the secondary (redundant) stream.
  + Update WebUI to support flexible redundancy

**Bug Fixes:**

* Fixed an issue with listening to different codec-types from the same talker
  + If a talker has two streams with different codec types, there was an issue listening to both streams. When disconnecting and reconnecting those streams, one of them could end up repeating the last sample indefinitely.
* PTP parameters will be saved after a power-cycle
* Apply PTP profile to all interfaces
  + The PTP profile was only being applied to the first network interface (eth1). This was caused by a change we made to ptp4l to prevent the custom PTP values from being overwritten. A side effect of this change was that the configuration would only be applied to the first interface, leaving eth2 with the default parameters.
* Fixed an issue with the PTP state machine re-centring the clock when the GM is switched over
  + Suppress clockcheck and don’t recenter on becoming GM
  + Suppress the PTP servo reset upon clockcheck failure
  + Leaving the clockcheck mechanism in place so we log when it occurs
  + Removing clock recentering upon becoming GM
* Redmine [#14783](https://projects.coveloz.com/issues/14783) (disabled HW mute)

**Known Issues:**

* Multi-unicast streams is an issue that we observed. It could have been there from before
* Updating the destination tab in WebUI is not working
* Stream update advertisement bug (receiver side)
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger a link-down alarm
* A combination of the following parameters yields about 1 bit error per minute in a TPC : Channel Frequency: 96kHz, packet time: 1000us, ptp: smpte, codec l24, streams: 8, channel per stream: 2.
* A combination of the following parameters yields about 1 bit error per minute in a TPC: Channel Frequency: 88.2kHz, packet time: 1000us, ptp: smpte, codec l24, streams: 8, channel per stream: 2.

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [COV-373], if this feature is available to a customer
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [COV-2234]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade, they must be manually re-set then saved again. Also, JSON-API has been changed
* Must use PTP aware switch on transparent mode when using 100Mbps to send/receive audio
* TDM streams from channel 128-256 are blocked when Channel frequency is set to 96Khz
* Two talker streams cannot share the same IP and UDP port
* Two listener streams cannot share the same IP and UDP port
* Stream names cannot be the same on the talker and listener
* RTCP is not supported
* SIP is not supported

## v3.2.1-b5[¶](https://projects.coveloz.com/projects/calrec-aoip/wiki/Firmware_Release_notes#v321-b5)

Release date: 16/MAY/2019

RTL version: v.1.8.4-b35

Download link: <https://projects.coveloz.com/dmsf/files/4236/download>

**Notes:**

* This version is different than v3.2.1-b4 with one ptp parameter change. In version 3.2.1-b5, the "sanity\_freq\_limit" is set to zero, instead of the original value of 200000000. Nothing else changed.  We decided to make this change in the release so neither the customer or us forgets and sees issues with audio glitches!
* PV has not been done on this build yet.
* Source-Sync TDM implementation.
* The RTL build's timing had -0.3ns worst slack.

**Known Issues:**

* Packet time 1ms @ 48Khz has bit errors [[COV-3835](http://ross-jira.rossvideo.com:8080/browse/COV-3835)]. Retesting v3.2.1-b0 seems to also have the issue.
* Updating the destination tab in WebUI is not working
* Stream update advertisement bug (receiver side)
* ETH2 ptp sub-params do not change when switching PTP profiles
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger a link-down alarm

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet.
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade, they must be manually re-set then saved again. Also, JSON-API has been changed.
* Must use PTP aware switch on transparent mode when using 100Mbps to send/receive audio
* TDM streams from channel 128-256 are blocked when Channel frequency is set to 96Khz
* Two talker streams cannot share the same IP and UDP port.
* Two listener streams cannot share the same IP and UDP port.
* RTCP is not supported
* SIP is not supported

**v3.2.1-b4**

Release date: 15/MAY/2019

RTL version: v.1.8.4-b35

Download link: <https://projects.coveloz.com/dmsf/files/4234/download>

**Notes:**

* Source-Sync TDM implementation. Passed a 32 stream cascade test for 15+ hours. PV has not been done on this build yet.
* The RTL build's timing had -0.3ns worst slack.

**Known Issues:**

* Updating the destination tab in WebUI is not working
* Stream update advertisement bug (receiver side)
* ETH2 ptp sub-params do not change when switching PTP profiles
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger a link-down alarm

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet.
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade, they must be manually re-set then saved again. Also, JSON-API has been changed.
* Must use PTP aware switch on transparent mode when using 100Mbps to send/receive audio
* TDM streams from channel 128-256 are blocked when Channel frequency is set to 96Khz
* Two talker streams cannot share the same IP and UDP port.
* Two listener streams cannot share the same IP and UDP port.
* RTCP is not supported
* SIP is not supported

**v3.2.1-b3**

Release date: 18/APR/2019

RTL version: v.1.8.4-b30

Download link: <https://projects.coveloz.com/dmsf/files/4226/download>

**Notes:**

* Fixed an NMOS bug ([~~#14844~~](https://projects.coveloz.com/issues/14844): NMOS: missing href node port in self/)

**Known Issues:**

* Updating the destination tab in WebUI is not working
* Stream update advertisement bug (receiver side)
* ETH2 ptp sub-params do not change when switching PTP profiles
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger a link-down alarm

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet.
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade, they must be manually re-set then saved again. Also, JSON-API has been changed.
* Must use PTP aware switch on transparent mode when using 100Mbps to send/receive audio
* TDM streams from channel 128-256 are blocked when Channel frequency is set to 96Khz
* Two talker streams cannot share the same IP and UDP port.
* Two listener streams cannot share the same IP and UDP port.
* RTCP is not supported
* SIP is not supported

**v3.2.1-b2**

Release date: 14/APR/2019

RTL version: v.1.8.4-b30

Download link: <https://projects.coveloz.com/dmsf/files/4225/download>

**New Features:**

* Improved TDM timing:
  + Removed IO delay blocks to improve our SCLK slack provided to users.

**Known Issues:**

* Updating the destination tab in WebUI is not working
* Stream update advertisement bug (receiver side)
* ETH2 ptp sub-params do not change when switching PTP profiles
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger a link-down alarm

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet.
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade, they must be manually re-set then saved again. Also, JSON-API has been changed.
* Must use PTP aware switch on transparent mode when using 100Mbps to send/receive audio
* TDM streams from channel 128-256 are blocked when Channel frequency is set to 96Khz
* Two talker streams cannot share the same IP and UDP port.
* Two listener streams cannot share the same IP and UDP port.
* RTCP is not supported
* SIP is not supported

**v3.2.1-b1**

Release date: 27/MAR/2019

RTL version: v.1.8.4-b28

Download link: <https://projects.coveloz.com/dmsf/files/4214/download>

**New Features:**

* Bug fix:
  + Fixed a corner case in adjusting the SCLK

**Known Issues:**

* Updating the destination tab in WebUI is not working
* Stream update advertisement bug (receiver side)
* ETH2 ptp sub-params do not change when switching PTP profiles
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger a link-down alarm

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet.
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade, they must be manually re-set then saved again. Also, JSON-API has been changed.
* Must use PTP aware switch on transparent mode when using 100Mbps to send/receive audio
* TDM streams from channel 128-256 are blocked when Channel frequency is set to 96Khz
* Two talker streams cannot share the same IP and UDP port.
* Two listener streams cannot share the same IP and UDP port.
* RTCP is not supported
* SIP is not supported

**v3.2.1-b0**

Release date: 19/MAR/2019

RTL version: v.1.8.4-b27

Download link: <https://projects.coveloz.com/dmsf/files/4213/download>

**New Features:**

* Calrec special release containing the following:-
  + TDM Fixes:
    - Added matching DDR IOB for data and clocks.
    - Fixed timing constraints.
  + ATG Fixes:
    - Fixed Clock Domain Crossing issue first observed on another platform.
    - Make Clock adjustments when the clock signal is positive.
  + RGMII:
    - Removed invalid false-paths.
* There were no software changes and no functionality changes.

**Known Issues:**

* Updating the destination tab in WebUI is not working
* Stream update advertisement bug (receiver side)
* ETH2 ptp sub-params do not change when switching PTP profiles
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger a link-down alarm

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet.
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade, they must be manually re-set then saved again. Also, JSON-API has been changed.
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* TDM streams from channel 128-256 are blocked when Channel frequency is set to 96Khz
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* RTCP is not supported
* SIP is not supported

**v3.2.0**

Release date: 28/OCT/2018

FDK version: v.1.8.4-b10 (<https://projects.coveloz.com/dmsf/files/4034/download> - FDK is only available for partners)

SDK version: v.3.2.0-b0 (<https://projects.coveloz.com/dmsf/files/4035/download> - SDK is only available for partners)

Firmware: <https://projects.coveloz.com/dmsf/files/4033/download>

JSON API: <https://projects.coveloz.com/dmsf/files/4032/download>

**New Features:**

* SSRC
  + Allows the user to select how the RTP SSRC field will be filled: ASIO, session-id, or manual
* Added Network Compensate Offset (NCO) feature
  + Allows accommodation of higher network delays where the delay doesn't vary too much.
  + User is allowed to configure any link offset value, per stream.
* Bug fixes

**Bug Fixes:**

* NMOS bug fixes
  + Removing invalid channels when creating a NMOS connection
  + Proper tracking of HWID/Stream ID's for NMOS connections
  + Allow avahi advertisements on all interfaces
* Changing listener link-offset changes codec
* With large RTP offsets the calculated link-offset was wrong
* Check ptp profile-settings to ensure correct values
* ATG state changes create notifications causing responses to events

**Known Issues:**

* Updating destination tab in WebUI is not working
* Stream update advertisment bug (receiver side)
* ETH2 ptp sub-params do not change when switching PTP profiles
* Updating Unicast Stream UDP port causes error & does not update
* ETH2 no cable does not always trigger link-down alarm

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
* The three Ethernet interfaces (ETH0, ETH1, and ETH2) should not be on the same subnet.
* If upgrading from v2.x to v3.x, the saved configurations will not work. After the upgrade they must be manually re-set then saved again. Also, JSON-API has been changed.
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* RTCP is not supported
* SIP is not supported

**v3.1.0**

Release date: 4/SEPT/2018

RTL version: 1.8.4-b8

Download link: <https://projects.coveloz.com/dmsf/files/3958/download>

JSON API: <https://projects.coveloz.com/dmsf/files/3959/download>

**New Features:**

* Added 1-to-16 channels per stream feature
* Added more logging and troubleshooting feature

**Bug Fixes:**

* [[COV-1441](http://ross-jira.rossvideo.com:8080/browse/COV-1441)][[COV-1525](http://ross-jira.rossvideo.com:8080/browse/COV-1525)][[COV-1820](http://ross-jira.rossvideo.com:8080/browse/COV-1820)] - Redundancy fixed
* [[COV-379](http://ross-jira.rossvideo.com:8080/browse/COV-379)] - ptp\_set\_parameter value 'slave-only' cannot be changed using REST API
* [[COV-356](http://ross-jira.rossvideo.com:8080/browse/COV-356)] - Some instability if 33 streams are running
* [[COV-379](http://ross-jira.rossvideo.com:8080/browse/COV-379)][[COV-1526](http://ross-jira.rossvideo.com:8080/browse/COV-1526)] - JsonAPI/CLI fixes
* [[COV-1456](http://ross-jira.rossvideo.com:8080/browse/COV-1456)][[COV-1511](http://ross-jira.rossvideo.com:8080/browse/COV-1511)][[COV-1512](http://ross-jira.rossvideo.com:8080/browse/COV-1512)] - Fixed Unicast capability
* [[COV-1480](http://ross-jira.rossvideo.com:8080/browse/COV-1480)][[COV-1661](http://ross-jira.rossvideo.com:8080/browse/COV-1661)] - WebUI fixes

**Limitations:**

* Using 100Mbps introduces a 3usec offset on the PPS with respect to 100Hz/7.2s signals [[COV-373](http://ross-jira.rossvideo.com:8080/browse/COV-373)], if this feature is available to a customer.
* If setting up Destination manually we must choose all advertised channels, not only part of the stream [[COV-2234](http://ross-jira.rossvideo.com:8080/browse/COV-2234)]
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* RTCP is not supported
* SIP is not supported