

**SAT-4d**

**Release Candidate**

**Notes**

Version 1.06-rc10

18.11.2025



# SAT-4d Release Candidate Notes

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## Version 1.06-rc10

18.11.2025

### Fixed Issues

- Fix a possible crash when parsing the service table of a transport stream input (CSM-1461)
- Audio buffer is running empty in case the audio output is switched to AES67 or Livewire (CSM-1453)

## Version 1.06-rc9

13.11.2025

### Fixed Issues

- The new Dual DVB-S/S2/S2X Tuner might have a TS bitrate of 0 after a reboot, although the tuner has a lock
- RIST requested counter no longer resets after timeout and stream resume

## Version 1.06-rc8

29.10.2025

### Fixed Issues

- TS/Demux configuration dialog might not open with some special service lists and the device might even crash when trying to change the configuration via the LCD menu (CSM-1427)
- Fixed wrong (generic) file name in log entry for settings upload/activation
- Fixed possibly empty VLAN select box (CSM-1423)

## Version 1.06-rc7

24.10.2025

### Changed functionality

- The list of present and missing licenses/rights on the System Settings / Global page is now presented in a clearer fashion

|                                  |                 |                 |
|----------------------------------|-----------------|-----------------|
| <b>Rights:</b>                   |                 |                 |
| ✓ 4 Channels                     | ✓ SRT Decoder   | ✓ Icecast Input |
| ✓ Advanced DVB-S/S2 Single Tuner | ✓ TS Decoder    | ✓ File Input    |
| ✓ Ravenna                        | – MPE           | – BISS          |
| ✓ Livewire                       | – TS Forwarding |                 |
| ✓ Live Listening                 | ✓ HLS Decoder   |                 |



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## Fixed Issues

- "Timed out" counter was not reset on "Reset counters"
- "Missed" counter is no longer reset on stream resume after timed out input stream
- Enhanced compatibility of the Icecast client
- Fixed audio output getting silent due to wrong automatic detection of codec type even if specific codec type is selected (e.g. MP2) in a TS/Demux input source. Even with a specific codec selected the (potentially wrong) automatic could kick in and break decoding.

## Version 1.06-rc6

01.10.2025

### New Functionality

- Added support for new Dual DVB-S/S2/S2X Tuner
- The optional TS Forwarding does now also allow to forward the signal from the ASI input via IP (in addition to the TS from one of the two SAT RF inputs)

### Fixed Issues

- PTP: small stability enhancements for the E2E mode
- PTP: added (better) support for the P2P mode
- Fixed a problem with the RF2 input in combination with high symbol rates
- Enhanced robustness of the optional SAT tuner inputs
- Fix the possibility of corrupted core dump files in case of an application crash
- Livewire SRC name changes on the device are not changing the advertised name immediately, but only after a reboot (CSM-1385)
- Fix a possible (and theoretically often) crash when loading settings, doing factory settings or changing the audio output name

## Version 1.06-rc5

25.09.2025

### New Functionality

- The optional TS MPE Forwarding can now be used in combination with all available TS input sources (including TS/IP) and is no longer limited to the TS from the satellite tuner
- Added Ancillary Data Output alarms

### Fixed Issues

- Fix a problem with the RF2 satellite tuner input in combination with high symbol rates not correctly passing the TS stream to the TS decoder (CSM-1345)



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- Fix wrong status on LCD screen for RF2 input (showing "Not configured")
- Ember+: Increased buffer sizes to prevent malformed packets when a lot of entries are subscribed (CSM-1308)
- The device could crash under special circumstances when loading settings
- Changing just the input source name did not change its name in the extended log
- The audio outputs could have output errors (signal outages) when reset counters is activated
- The Icecast client may get stuck in a redirect, not being able to re-establish the stream decoding (CSM-1358)

## Version 1.06-rc4

15.08.2025

### Fixed Issues

- After e. g. disabling/enabling an AES67 output the stream has an UTC/TAI offset of 37 seconds
- Further improvements to PTP synchronization stability
- Wrong PTP state in external clock status block
- No private/ancillary data output after reboot
- No displayed source on UDP Ancillary Output after select and save
- When changing the width of one of the log tables the page got distorted
- Icecast Server input source: add/delete didn't show immediate effect
- Overview: optional FM tuner shows wrong RDS values if the source is in standby

## Version 1.06-rc3

16.07.2025

### Fixed Issues

- The revised PTP implementation had a major problem likely selecting the wrong interface (and thereby the wrong PTP hardware clock) internally as the clock source



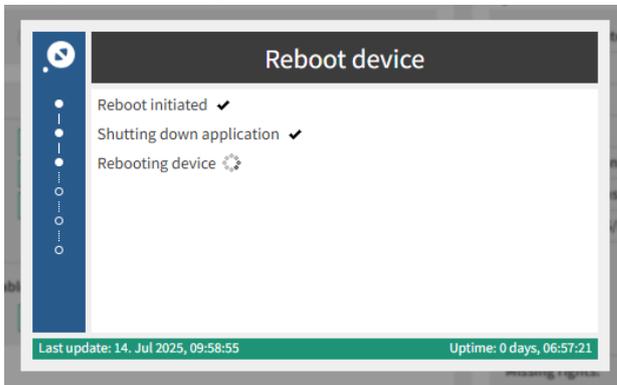
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## Version 1.06-rc2

15.07.2025

### New Functionality

- The possible actions that can be triggered by a GPI are enhanced by two new options, which allow to enable or disable a decoder input source
- SAT tuner: added a second C/N alarm
- For the optionally available SDP files on the Status/Storage page it is now additionally possible to copy the content of the file to the clipboard (instead of downloading the file)
- The rudimentary wait page shown when e. g. doing a firmware update or rebooting the device is replaced by a prettier dialog

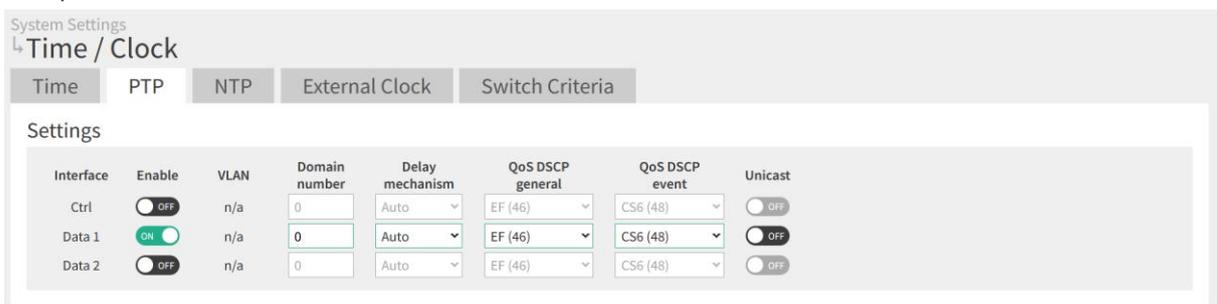


### Changed Functionality

- The PTP functionality did get a complete revision, as it was not working reliably. In the course of these changes we did also revise the way to configure everything related to time and clock handling including NTP and external clock.

Before this revision several menu options were involved in the configuration. The selection of interfaces, on which PTP should be enabled was done via the “Network Settings / Services” menu. The PTP configuration itself (e. g. domain number and delay mechanism) was done via the “AoIP Settings / External Clock” menu (but only allowing to use the same configuration for all interfaces enabled for PTP). NTP configuration was done via “Network Settings / NTP”, time configuration (time zone) via “System Settings / Time”. Pretty much scattered all over the place.

All these configuration options are now consolidated into a single place – the menu “System Settings / Time/Clock”:





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You still have to configure via the “External Clock” tab (which corresponds to the former “AoIP Settings / External Clock” menu), if and which external clock source (PTP, NTP, 1PPS) should be used for the audio clock synchronization (including optional AES67 outputs).

System Settings  
↳ Time / Clock

Time PTP NTP External Clock Switch Criteria

Main Backup 1 Backup 2

Source: PTP Source: None Source: None

If a backup for the external clock is configured (e. g. NTP), the switch criteria are now configured via the “Switch Criteria” tab of the “Time / Clock” menu.

System Settings  
↳ Time / Clock

Time PTP NTP External Clock Switch Criteria

Common

Fallback mode: Holdover  
Expert settings: OFF

PTP 1PPS NTP

Criteria(s)

State: Synced (slave) T1: 30 s  
Master offset: > 50000 µs T2: 30 s

Time settings ?

There’s also a new “Fallback mode” which allows you to control the behaviour if all configured external clock sources do fail. In “Holdover” mode (the new default) the device will keep the last external clock (no longer regulated) and will not switch to the internal clock, which would always result in a glitch.

- Together with the revision of the time and clock configuration we did also revise the available status information for time / NTP / PTP / external clock. Before the revision the NTP status could be found via the “Status / NTP” menu, whereas the external clock status could be found on the Overview page in a separate tab. PTP status information was only provided via this “External Clock” tab on the Overview page. The complete status information for all this is now also consolidated into a single place – the menu “Status / Time/Clock”:

Status  
↳ Time / Clock

PTP / NTP External Clock

Present Date / Time

|                         |               |
|-------------------------|---------------|
| Date/Time               | Timezone      |
| 11. July 2025, 09:42:49 | Europe/Berlin |

Synchronization Status

|             |                           |         |           |          |            |
|-------------|---------------------------|---------|-----------|----------|------------|
| Sync source | Last reference time (UTC) | Stratum | Frequency | Skew     | RMS offset |
| PTP (Ctrl)  | Fri Jul 11 07:42:46 2025  | 2       | 64.47 ppm | 0.00 ppm | 34 ns      |

Clock Sources

PTP - Ctrl ec4670.ffe.00fffb

|              |         |           |            |                 |                 |
|--------------|---------|-----------|------------|-----------------|-----------------|
| Source state | Stratum | Frequency | Freq. skew | Measured offset | Estimated error |
| Current best | 1       | 0 ppm     | 0.002 ppm  | +277 ns         | 150 µs          |

PTP Details

|                |        |           |               |            |           |
|----------------|--------|-----------|---------------|------------|-----------|
| State          | Domain | Frequency | Master offset | Path delay | Sync lost |
| Synced (Slave) | 0      | 45.5 ppm  | -157 ns       | 5799 ns    | 0         |

NTP Server 1 pool.ntp.org (as44222.vserver.site)

|              |         |            |            |                 |                 |       |        |         |
|--------------|---------|------------|------------|-----------------|-----------------|-------|--------|---------|
| Source state | Stratum | Frequency  | Freq. skew | Measured offset | Estimated error | Poll  | Reach  | Last RX |
| No select    | 2       | -0.036 ppm | 0.087 ppm  | -939 µs         | 11 ms           | 512 s | ●●●●●● | 386 s   |

Reset Counters

- If an audio output is configured to be AES67 (instead of AES/EBU or Analog), the AES67 output stream can now be enabled/disabled via the web interface (before the AES67 output stream was always enabled when the audio output was switched to AES67 and couldn’t be disabled via the web interface)



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## Fixed Issues

- AAC decoder: in case of bad input (due to e. g. stream or SAT reception interruptions) the audio level may change unintendedly when the decoding resumes (CSM-1074)
- Fix web interface error (showing "no space left on device"), even preventing login to web interface (CSM-1252)
- The individual gain may not get applied after reboot for TS/Demux inputs (CSM-1256)
- TS/IP input stream may not continue decoding after stream interruption (CSM-1077)
- Fix high AES67 output jitter
- Fix AES67 output time jumps when decoder is stopped/started
- Improved Icecast client compatibility in case of connection problems



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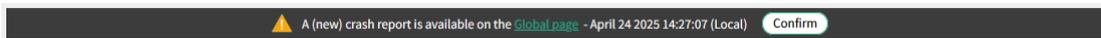
## Version 1.06-rc1

09.05.2025

### New Functionality

- Added new crash report functionality

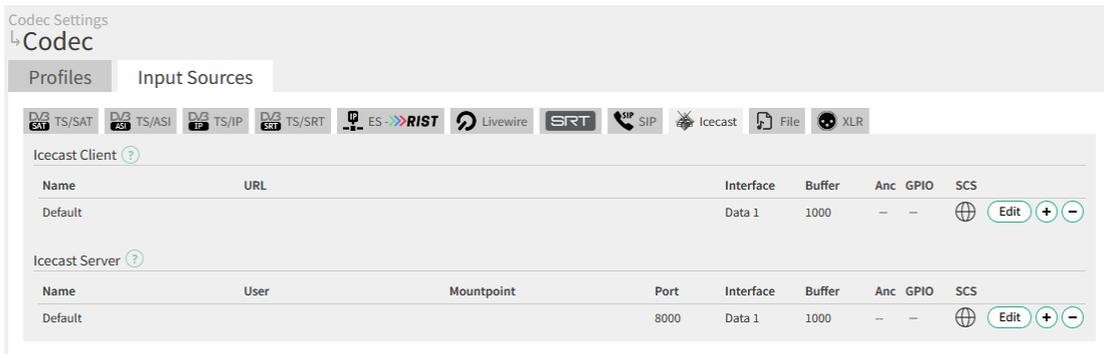
In case the device does crash (performing an unintended reboot) it was until now very difficult to find the root cause for the crash/reboot. In such a case a crash report will now be generated which should be sent to us via the 2wcom Support Center. It will allow us to inspect the reason for the crash/reboot, enabling us to develop a fix for the crash.



The crash report can be downloaded via System Settings / Global:



- Added Icecast server as new input source type, allowing to get audio from an Icecast source client connecting to that server instance



- Added PTP QoS DSCP settings

### Fixed Issues

- Headphone output not working with less than max. channel licensed (since 1.05/1.05-rc7)
- Loading factory settings might not stop/clear all input sources internally which could result in old settings still being used
- Ember+ may answer with "null" on set commands (disturbing e. g. proper operation of VisTool)
- Icecast client may stop receiving data (after redirect to illegal URL) and does not recover automatically
- General Icecast client compatibility enhancements
- Changing the input source gain of a file input source was not applied to all instances