

# MPX-2ds Release Notes

Version 1.01  
19.06.2024



# MPX-2ds Release Notes

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# MPX-2ds Release Notes

## Version 1.01

29.02.2024

### Fixed Issues

- Changing the DTE parity setting has no effect
- In some cases, the change to the output source is not adopted
- Changes to the decoder sample rate (optional) are not applied correctly.
- Fixed some problems with the Live Listening feature
- PTP might not work correctly in certain environments
- PTP might not be active after loading a settings file with a corresponding configuration
- Ancillary data sources might not work after loading a settings file with a corresponding configuration
- Changing the SNMPv3 authentication protocol (MD5 <-> SHA1) did not work
- When doing "Load factory settings", the user account passwords were not reset to default
- When loading a settings file, the user account passwords were not taken from the loaded settings file
- The metronome icon on the Overview page (which should signal external clock usage and its state) was not shown appropriately

#### 1.01-rc4

- Buffer management: Fixed a buffer management issue that was introduced in 1.01-rc2, causing buffers to be played out with a static clock, slowly decreasing or increasing the level until it needs to reset

#### 1.01-rc2

- Web interface: session timeout did no longer work
- SRT input stream will be only restarted if parameters were changed
- Standby input sources were no longer activated when needed - Fixed
- UDP ancillary output status did not always work
- When switching from PTP to internal clock, the audio outputs had a short distortion
- Web interface: on the Login page the user name field now has the focus on page load to allow immediate typing without the need for the additional click into the field
- Web interface: for elementary stream and TS/IP input sources not applicable configuration options are getting hidden in case of UDP protocol selection
- Improve robustness of the TS decoder (could hang up completely on bad input data, stopping TS processing completely)
- TS private data decoding may stop after bad weather and disturbed SAT reception
- file playback can be disturbed (since firmware 2.15-rc1) -> the minimum configurable audio buffer has been increased to 100ms
- SNMP: Reading SNMP OID "virtualCommonAudioTsforwardingOutputsMpe2Ipinfo" leads to a crash

#### 1.01-rc1

- GPI Forwarding may have some issues when an input source with GPI Forwarding enabled is used for more than one audio output on different backup levels
- Fixed Icecast client issues with Icecast streams with ContentType audio/mpegurl
- General security and access control improvements
- Fixed some problems with HE-AACv2 and the Icecast Source Client and Icecast Server
- Enhanced compatibility to AAC encoded in short frame mode



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## New Functionality

- AES67 Outputs (optional): Up to two additional AES67 output streams that can be configured in parallel to the physical outputs.

Interface Settings  
↳ AES67 Outputs

Settings

Enabled	Source	Redundancy	Multicast IP	Port	IP interface	VLAN	Payload ID	Packet time	Audio mode	Width	QoS DSCP	TTL	Empty packets
1. <input checked="" type="checkbox"/>	MPX Decoder 1 Decoder chain 1	<input type="checkbox"/>	239.19.57.1	5004	Data 1	0	96	1 ms	Stereo	24 bit	Best effort (0)	42	<input type="checkbox"/>
2. <input checked="" type="checkbox"/>	Decoder 2 Stereo decoder 2	<input type="checkbox"/>	239.19.57.2	5004	Data 1	0	96	1 ms	Stereo	24 bit	Best effort (0)	42	<input type="checkbox"/>

- Output of the decoded audio directly to the headphone output (requires the Audio Output right)

1.01-rc2

- Added parity configuration for DTE outputs

1.01-rc1

- Added ping and traceroute possibility to web interface (Network Settings / TCP/IP / Tools)

Network Settings  
↳ TCP/IP

General Tools

Ping

Settings

Destination:

Interface:

Count:

TTL:

Data size (0=default):

Output

```

PING heise.de (193.99.144.80): 56 data bytes
64 bytes from 193.99.144.80: seq=0 ttl=247 time=10.199 ms
64 bytes from 193.99.144.80: seq=1 ttl=247 time=10.105 ms
64 bytes from 193.99.144.80: seq=2 ttl=247 time=9.901 ms
64 bytes from 193.99.144.80: seq=3 ttl=247 time=9.894 ms
64 bytes from 193.99.144.80: seq=4 ttl=247 time=9.773 ms

--- heise.de ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 9.773/9.974/10.199 ms
  
```

Traceroute

Settings

Destination:

Interface:

Max. hops:

Time to wait:

Output

```

traceroute to heise.de (193.99.144.80), 5 hops max, 38 byte packets
 1 192.168.96.1 (192.168.96.1) 0.212 ms (64) 0.221 ms (64) 0.192 ms (64)
 2 mx204-2.ham.purtel.com (185.39.84.9) 7.292 ms (254) 4.488 ms (254) 4.079 ms (254)
 3 * * *
 4 100.83.140.3 (100.83.140.3) 3.414 ms (252) 3.503 ms (252) 3.845 ms (252)
 5 be100.c350.f.de.plusline.net (80.81.193.132) 10.210 ms (251) 10.138 ms (251) 10.077 ms (2
  
```

- Added event log entries when loading a settings file or loading factory settings
- When generating a settings file on the Global page you can now not just only download the file, but also save it to the internal storage. You can also directly change the name of the settings file.

Generate settings file: .xml

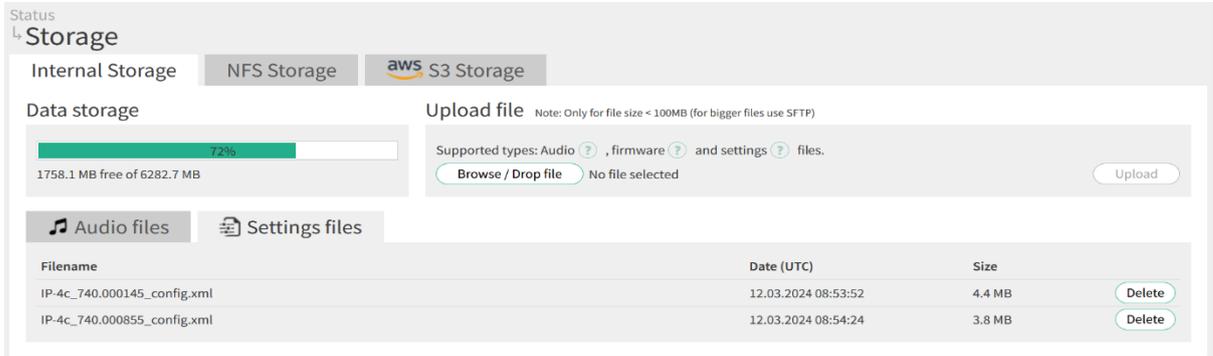
Settings file: IP-4c\_740.000145\_config.xml

Actions:

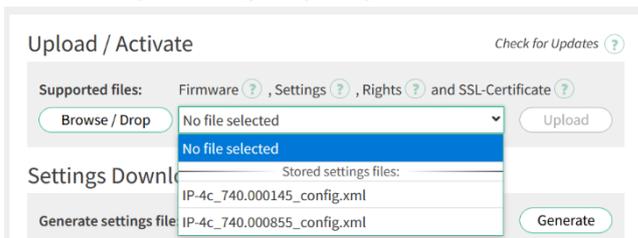


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- Settings files can also be uploaded via the Storage page



- Once there are settings files on the internal storage the user can select one of the stored files instead of uploading one and load it via the new consolidated Upload/Activate section, thereby having a sort of preset functionality, allowing to quickly switch between different configurations.



## Changed functionality

- File playback did only support files < 2 GB
- Added support for WAV files with BW64/RF64 file format

### 1.01-rc1

- The different upload sections on the Global web page (Firmware, Settings, Rights, SSL Certificate) were consolidated to just one section allowing to upload every of the four kinds of files



- The manager user can be granted limited access to the Global web page, allowing just to switch between different configurations



# MPX-2ds Release Notes

## Version 1.00

29.02.2024

### Fixed Issues

#### 1.00-rc11

- SNMP: No TRAP is sent for a GPI tunneling event.
- GPO Site: Settings are not always applied.
- $\mu$ MPX GPIO tunneling status is not displayed on the overview page.
- Dual  $\mu$ MPX decoder operation has been improved and scenarios where the error recovery after signal loss would lead to longer stretches of unstable behavior should no longer persist.
- When doing "Load Factory Settings" some settings may not be back to default, but only after a reboot
- When uploading and activating a settings file some settings may not be activated correctly and may need a reboot
- Fix the possibility that the TS decoder does not provide the service list (showing 0 services)
- DTE output configuration with Private Data MPE demux can disturb other DTE outputs
- Under high CPU load IP packets may get lost and reported as missed

#### 1.00-rc10

- When using a DTE adapter cable (for DTE 1-4), DTE 2 and 4 are swapped.
- SAT Tuner alarm/monitoring is swapped between RF1/RF2

#### 1.00-rc9

- Input and output level measurement displaying incorrect values.
- The web interface can get unresponsive on the Overview page, when an input source description is longer than one line and changes its content regularly (e. g. in case of file playlists)

#### 1.00-rc7

- A bad combination of two changes introduced in firmware 1.00-rc5 (migrating password hashes from MD5 to bcrypt and doing "Load factory settings" without reboot) could lead to the impossibility of being able to login to the web interface after having done "Load factory settings".  
A reboot would fix this problem, but one might not be able to initiate the reboot due to the impossibility to login to the web interface.
- The audio error counter may not increase for very small buffer underruns
- DNS configuration per interface did not work via LCD menu
- SAT tuner: if reception gets interrupted due to e. g. bad weather conditions for a longer period of time, the device might fail to re-establish tuner lock (with the normal dual tuner EXM01)
- SAT Tuner: Freq. offset value shows an invalid value

#### 1.00-rc5

- Synchronized Payout did not work correctly without SFN license
- The new individual switch criteria did not work correctly (were not applied correctly)
- Device could hang up when the audio file belonging to a file input source is not present (e. g. after loading a settings file)
- Ember+ improvement for read-only items (in the virt subfolder)
- Some special characters in the name fields of the input sources etc. could mess up the display of the defined settings in the web interface



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## 1.00-rc4

- Saving settings to USB may fail, if the USB stick is removed too quickly after the OK message is shown
- Fix visible name field in TS/Demux configuration when in “Service from list” mode
- Improved source switching for AES outputs and improved buffer management to avoid AES frame losses that could occur after a few switchovers

## 1.00-rc3

- Saving settings to USB via the LCD menu could fail if the USB stick was removed too early after OK message
- Configuration changes done in the Codec dialogs may not get saved, when the dialog is left while the new (individual) Switch Criteria tab is selected
- Extended log entries for missed RTP packets may have empty stream names, if the packet was lost in a redundant (DualStreaming) or FEC stream
- If a decoder does provide ancillary data this data is now also shown on the Overview page if the input source is not the currently active one

## 1.00-rc2

- SAT tuner status may get unavailable (e. g. after disabling/enabling a SAT input source)

## 1.00-rc1

- Packet loss leads to an underrun of the  $\mu$ MPX buffer
- SNMP monitoring status was not reset to “disabled” if all input sources are getting disabled
- SNMP monitoring status / Warning LED / Relay were not reset (e. g. for the “Audio – No Input Data” alarm) if all input sources are getting disabled
- Loading the "Check for Updates" dialog does not work in every browser



# MPX-2ds Release Notes

## New Functionality

### 1.00-rc11

- SAT Tuner: Tuning at low symbol rate has been improved
- Remote firmware update: Firmware files stored on the device (via SFTP / website) can now be updated via an external API.
- Added new alarm for DTE timeout
- Added entries to the extended log in case of CC (continuity count) errors in transport stream decoding
- Added an event log entry when setting a GPO by GPI tunnelling

### 1.00-rc5

- Possibility to read out the available storage space
- Added the fan status to Status→Device in the web interface (needs System Controller v1.07)

### 1.00-rc4

- For security reasons the password hashes of the user accounts are no longer stored as MD5, but as bcrypt hashes. The migration will be done automatically.
- Added the possibility to update the firmware locally from USB

### 1.00-rc3

- Added the possibility to update the firmware from USB via the LCD menu
- Added the possibility to update the firmware automatically from USB, if the USB stick does contain a folder “autoupdate” with one firmware bundle file.

Note: This automatic firmware update will not be done, if the PIN lock for the LCD display is activated.

- Added the IP interface link status to the IP interface selection in the different configuration dialogs

### 1.00-rc2

- Settings update: Optional “Override IP settings”, loads / activates all settings from the settings file including the IP parameters.

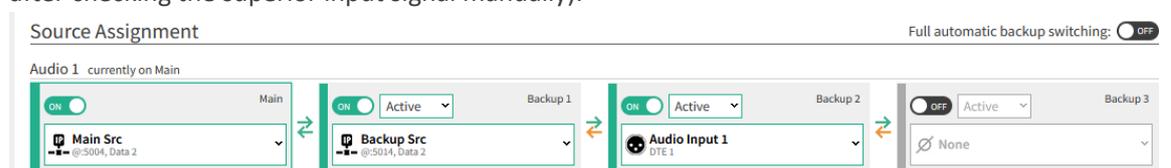
## Settings update



### 1.00-rc1

- Stereo Decoder Silence Detection: Alarm for monitoring the audio levels of the stereo decoder
- Added SNMP traps for detected local GPI and remote GPI (GPI Forwarding) changes
- The fully automatic switching between the different decoder ranks (Main, Backup1-3) in both inferior and superior direction can now be deactivated. It will then allow you to configure, if the backup switching between two decoder ranks should be automatically done in both inferior and superior direction (as it's done by default) or if the automatic is only allow to switch in inferior direction.

The switch back to a superior input rank will then not be done automatically but only on user request (e. g. after checking the superior input signal manually).





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- Added the possibility to locally load settings from and save settings to USB via the LCD menu. The settings loading from USB can be done in two different ways – one without and one including the TCP/IP configuration.
- Added the possibility to access the latest 50 event log entries via external API (e. g. SNMP)

## Improvements

### 1.00-rc1

- $\mu$ MPX: The stability of the  $\mu$ MPX buffer / 19kHz signal during a reconfiguration, packet loss and after a device start

## Changed functionality

### 1.00-rc11

- Reduced sensitivity of the jog wheel for better user experience when doing configurations via the LCD menu
- Loading settings via the web interface will show a warning when trying to load settings from a different device type. The settings can still be loaded, though, as many settings are of general nature.

### 1.00-rc5

- Improved clock synchronization for decoder and external RDS inputs (EXM42) to handle some edge cases better
- “Load factory settings” from within the web interface does no longer require a reboot

### 1.00-rc4

- The individual gain adjustments per input source can now be done with a resolution of 0.01 dB steps
- Audio input are no longer upconverted to 192kHz for AES outputs (removed limitation of 1.00-rc3).

### 1.00-rc3

- Decoder outputs are now always sample rate converted to a fixed 192kHz clock to allow safer switchovers from decoder to decoder on AES outputs, as well as more flexible RDS summation if cases where the dual BNC input module is present.

### 1.00-rc2

- When changing an output source (e.g. from Dec 1 to Dec2), silence is no longer generated. Only the fade out and fade in is still active. This prevents high strokes during the change.

### 1.00-rc1

- DTE settings are moved to the ancillary data page