

Monitoring Audio Processor

Version 3.0.5 _____ 2020-10-05 _____

Corresponding minimum software versions:

Remote Panel X*AP RM1	1.10.1	X*AP RM1
J*AM - Jünger Application Manager	2.9.10	J*AM
Dante interface board DT-100	2.0.3.8	O_DAP_DANTE_a
Firmware	8.0.0.0	
Module Software	4.2.0	
Module MB App	2.0.3	
MADI interface board MX-164	9.0.0.0	O_DAP_MB_a
		O_DAP_MO_xx_a
SDI interface board SDI-150	53.0.0.0	O_DAP_SDI_a
AES interface board DD-188A	7.0.0.0	O_DAP_AES_a
Dolby Decoder/Encoder CAT1100	3.1.0.0	
D/D+/E Decoder		O_DAP_Dolby_DEC_b
D/D+ Encoder		O_DAP_Dolby_DENC_b
E Encoder		O_DAP_Dolby_EENC_b
Dolby E Encoder CAT559	1.1.4.0	O_DAP_Dolby_EENC_a
Dolby D/D+ Encoder CAT561	2.4.0.8	O_DAP_Dolby_DENC_a
GfK Watermarking JDSPA		O_DAP8_WM_GFK_a
Firmware	1.3.7.0	
Bootloader	1.2.3.0	
FM Conditioner Coprocessor JDSPA		O_DAP8_FM_a
Firmware	0.9.0.0	
Bootloader	1.2.3.0	

Changes:

- changed (*Dante*) includes DT-100 firmware version 2.0.3.8
- improved (*Dante*) Firmware based on 4.2.0 Audinate Brooklyn Firmware released
- fixed (*Dante*) Dante Module display issue with long Current IP Addresses

Version 3.0.4 _____ 2020-03-05 _____

Corresponding minimum software versions:

Remote Panel X*AP RM1	1.10.1	X*AP RM1
J*AM - Jünger Application Manager	2.9.10	J*AM
Dante interface board DT-100	1.1.4.8	O_DAP_DANTE_a
Firmware	8.0.0.0	
Module Software	3.10.0	
Module MB App	1.1.4	
MADI interface board MX-164	9.0.0.0	O_DAP_MB_a
		O_DAP_MO_xx_a
SDI interface board SDI-150	53.0.0.0	O_DAP_SDI_a
AES interface board DD-188A	7.0.0.0	O_DAP_AES_a
Dolby Decoder/Encoder CAT1100	3.1.0.0	
D/D+/E Decoder		O_DAP_Dolby_DEC_b
D/D+ Encoder		O_DAP_Dolby_DENC_b
E Encoder		O_DAP_Dolby_EENC_b
Dolby E Encoder CAT559	1.1.4.0	O_DAP_Dolby_EENC_a
Dolby D/D+ Encoder CAT561	2.4.0.8	O_DAP_Dolby_DENC_a
GfK Watermarking JDSPA		O_DAP8_WM_GFK_a
Firmware	1.3.7.0	
Bootloader	1.2.3.0	
FM Conditioner Coprocessor JDSPA		O_DAP8_FM_a
Firmware	0.9.0.0	
Bootloader	1.2.3.0	

Changes:

- changed (*SDI*) includes SDI firmware version 53

- changed (*Dolby*) Dolby D/D+/E de/encoder with revision 10 supported
- fixed (*Dolby*) Dolby metadata reversion status in encoder B

Version 3.0.3 _____ 2018-07-25 _____

Changes:

- fixed (*Dolby*) Dolby CAT1100 Decoder startup behavior

Version 3.0.2 _____ 2018-07-20 _____

Corresponding minimum software versions:

Remote Panel X*AP RM1	1.10.1	X*AP RM1
J*AM - Jünger Application Manager	2.9.10	J*AM
Dante interface board DT-100	1.1.4.8	O_DAP_DANTE_a
Firmware	8.0.0.0	
Module Software	3.10.0	
Module MB App	1.1.4	
MADI interface board MX-164	9.0.0.0	O_DAP_MB_a
		O_DAP_MO_xx_a
SDI interface board SDI-150	51.0.0.0	O_DAP_SDI_a
AES interface board DD-188A	7.0.0.0	O_DAP_AES_a
Dolby Decoder/Encoder CAT1100	3.1.0.0	
D/D+/E Decoder		O_DAP_Dolby_DEC_b
D/D+ Encoder		O_DAP_Dolby_DENC_b
E Encoder		O_DAP_Dolby_EENC_b
Dolby E Encoder CAT559	1.1.4.0	O_DAP_Dolby_EENC_a
Dolby D/D+ Encoder CAT561	2.4.0.8	O_DAP_Dolby_DENC_a
GfK Watermarking JDSPA		O_DAP8_WM_GFK_a
Firmware	1.3.7.0	
Bootloader	1.2.3.0	
FM Conditioner Coprocessor JDSPA		O_DAP8_FM_a
Firmware	0.9.0.0	
Bootloader	1.2.3.0	

Changes:

- new feature (*Dolby Metadata*) new easy to use Dolby Metadata interface called accessDP making the D*AP8 MAP the ideal replacement for Dolby's DP570!
- this new interface can be used as monitor controller without Dolby codec installed!
- new feature (*Loudness*) loudness and level alarms with adjustable thresholds
- new feature (*SNMP*) loudness and level alarms can trigger SNMP messages
- new feature (*Dolby*) Dolby D/D+ Encoder now featured on newer CAT1100 boards
- new feature (*Log Ports*) Log Ports can now carry a name that is transmitted to the J*AM software
- new feature (*Audio*) reference volume can now be set and recalled (also from the new accessDP interface)
- improved (*Audio*) manual stereo routing is now carried out simultaneously for both channels
- improved (*Interface*) option boards without distinct firmware are now nevertheless shown on the Firmware Update page to provide better system overview
- changed (*accessDP*) Internet Explorer is not supported for accessDP user interface
- changed (*Dolby Emulation*) Dolby Metadata parameters Lo/Ro and Lt/Rt changed, new mandatory firmware 3.1.0.0!
- fixed (*Web UI*) problem with disappearing checkboxes in some versions of Firefox
- fixed (*Events*) removed unnecessary entries and gained naming consistency in measurement parameter events
- fixed (*Dolby*) Dolby D-Encoder data rate works with IE11
- fixed (*Web UI*) issue when setting crosspoints in Google Chrome
- fixed (*J*AM*) Log Port level meters show all channels

- fixed (*Web UI*) occasional problems with not reloading Web UI after backup restore
- fixed (*Preset Restore*) problem with missing Log Port presets
- fixed (*Web UI*) reboot reminder on telnet activation/deactivation
- fixed (*Web UI*) small problem with parameters in metadata presets
- fixed (*Web UI*) problems with EQ filter graphics
- fixed (*Events*) parameter events can now be created from default
- fixed (*Web UI*) several problems with Internet Explorer

Version 2.8.1 _____ 2016-08-17 _____

Changes:

- new feature (*Dolby*) Dolby firmware version 2.1.0.4 for CAT1100 officially supported and included in system firmware file

Version 2.8.0 _____ 2016-04-21 _____

Corresponding minimum software versions:

Remote Panel X*AP RM1	1.9.2-34505	X*AP RM1
J*AM - Jünger Application Manager	2.8.19	J*AM
Dante interface board DT-100	1.0.3.7	O_DAP_DANTE_a
Firmware	7.0.0.0	
Module Software	3.7.0	
Module MB App	1.0.3	
MADI interface board MX-164	7.0.0.0	O_DAP_MB_a
		O_DAP_MO_xx_a
SDI interface board SDI-150	51.0.0.0	O_DAP_SDI_a
AES interface board DD-188A	7.0.0.0	O_DAP_AES_a
Dolby Decoder CAT1100	2.1.0.2	O_DAP_Dolby_DEC_b
Dolby Encoder CAT559	1.1.4.0	O_DAP_Dolby_EENC_a
Dolby Decoder CAT561	2.4.0.8	O_DAP_Dolby_DENC_a

Changes:

- new feature (*Mobile UI*) configurable button matrix (please see Mobile UI side menu)
- new feature (*Mobile UI*) functions can now be locked or hidden from Mobile UI via Remote Access control page
- new feature (*Web UI*) important status messages are now shown on a red info bar
- new feature (*Web UI*) preset cleanup function helps deleting unused presets
- new feature (*X*AP*) remote access via X*AP RM1 is now prepared to be restricted to certain function sets
- new feature (*Dolby*) Dolby firmware version 2.1.0.2 for CAT1100 officially supported
- new feature (*Measurement*) added downmix output to metering sources
- improved (*X*AP*) disconnecting X*AP from M*AP now requires prompt confirmation
- improved (*X*AP*) mute is now shown more clearly in the X*AP display
- improved (*X*AP*) removed knob acceleration from main volume
- improved (*Web UI*) Firefox on Windows 10 is now supported
- improved (*Web UI*) option board detection error message clarified
- improved (*Mobile UI*) level meter readability
- improved (*Mobile UI*) metering precision
- improved (*Dolby*) Metadata default settings
- improved (*Dolby*) output mute on non-audio flag now consistent
- improved (*Presets*) added new default presets
- improved (*Measurement*) 7.1 backsurround channels loudness weighting now according to ITU 1770-4
- improved (*Audio*) manual stereo routing is now carried out simultaneously for both channels
- improved (*System*) status and front panel display turns red on DSP halt

- improved (*Sync*) AES audio input channel 1/2 is now added as a default to the sync priority list
- improved (*Firmware*) firmware files are internally checked for compatibility before update
- improved (*Backup*) added serial number to exported backup file name
- improved (*Licensing*) Dolby E encoder license is now shown more clearly in license list
- fixed (*Backup*) unnecessary reboot after restoring backup file
- fixed (*Web UI*) Microsoft Edge is not supported yet and now showing an unsupported browser message
- fixed (*Dante and MADI*) rarely occurring problem with detection of option boards DT-100 and MX-164 on startup
- fixed (*MADI*) unwanted cpu load with unconnected MADI inputs
- fixed (*Web UI*) problem when modifying Log Port and Matrix routings in preset section
- fixed (*Web UI*) enabling bass management now highlights LFE Gain in circuit diagram
- fixed (*Web UI*) problem with sticky tool tips
- fixed (*Web UI*) checkbox width in I/O Events
- fixed (*Web UI*) problem with occasional appearing script problem in some browsers
- fixed (*Web UI*) rarely occurring Web UI inaccessibility due to system overload
- fixed (*Web UI*) problem when importing single presets in Chrome and Firefox Browsers
- fixed (*Web UI*) Local SDI and MADI Routing now works properly
- fixed (*Web UI*) problem when modifying routings in preset section
- fixed (*Mobile UI*) deleting Hotkeys no longer stops Mobile UI from loading
- fixed (*Measurement*) all meters now have the same release timing
- fixed (*Measurement*) unintended opening of speech gate in Dialnorm measurement without input signal present
- fixed (*Dolby*) removed unnecessary error message from systems without Dolby E encoder
- fixed (*Dolby*) wrong latency in Decoder/Emulation mode after initial boot
- fixed (*Presets*) problem when deleting presets while being loaded
- fixed (*Presets*) empty preset groups are no longer automatically restored to factory settings on reboot

Version 2.7.4 _____ 2015-08-14 _____

Changes:

- improved (*Web UI*) bootloader version is now shown on firmware page
- fixed (*Web UI*) possible problem with shifting lines in Firefox 40 and above
- fixed (*Backup*) rare problem restoring backup files shortly after reboot or initialization
- fixed (*Device Front Panel*) problem displaying umlauts and special characters
- fixed (*Web UI*) menu labels no longer contain local typeset characters unintendedly

Version 2.7.0 _____ 2015-07-22 _____

Corresponding minimum software versions:

Remote Panel X*AP RM1	30314	X*AP RM1
J*AM - Jünger Application Manager	2.8.12	J*AM
Dante interface board DT-100	1.0.3.6	O_DAP_DANTE_a
Firmware	6.0.0.0	
Module Software	3.7.0	
Module MB App	1.0.3	
MADI interface board MX-164	5.0.0.0	O_DAP_MB_a
		O_DAP_MO_xx_a
SDI interface board SDI-150	51.0.0.0	O_DAP_SDI_a
AES interface board DD-188A	7.0.0.0	O_DAP_AES_a
Dolby Decoder CAT1100	2.1.0.0	O_DAP_Dolby_DEC_b
Dolby Encoder CAT559	1.1.4.0	O_DAP_Dolby_EENC_a
Dolby Decoder CAT561	2.4.0.8	O_DAP_Dolby_DENC_a

Changes:

- new feature (*Dolby*) support for Dolby CAT1100 firmware version 2.1.0.0
- new feature (*Dolby*) CAT1100 option board now supports Dolby E encoding (license required)
- new feature (*Firmware*) all option board firmwares are now automatically updated with the main system firmware and kept consistent to avoid any firmware mismatch
- improved (*Audio*) routing handling for removed option boards
- improved (*Firmware*) incompatible option board firmware is now reported for lower and higher firmware versions
- improved (*Web UI*) missing presets in preset events are now marked clearly
- improved (*Web UI*) unauthorized logins are now collected into a single system message
- improved (*Web UI*) naming consistency for all input and output parameters
- improved (*Web UI*) preset name display within EQ diagram
- improved (*Web UI*) system status page now features a Diagnostics File download button instead of the export log function
- improved (*Web UI*) output naming in bass management and equalizer
- improved (*X*AP & Mobile UI*) system prepared for remote access filtering - coming soon
- improved (*Presets*) event and preset settings are now synchronized to avoid loss of changes made right before reboot
- fixed (*Audio*) inaudibly small occasional click noise on aux output
- fixed (*Web UI*) problems with metering bars when using Chrome browser and Windows 8
- fixed (*Web UI*) backup restore preset filter is now graphically separated from other restore filter options
- fixed (*Web UI*) Dante input channel 16 now shows correct subscription status
- fixed (*Events*) empty parameter events no longer appear as other event types
- fixed (*Events*) missing triggers can now be removed from actions without problems
- fixed (*Ember+*) possible race conditions for fragmented S101 packets causing VSM studio to crash
- fixed (*Dolby*) preset handling in Decoder/Emulation mode
- fixed (*AES option*) AES option board DD-188A can now be used as system sync source
- fixed (*Ember+*) memory leak in Ember+ server when sending warning events (Release)

Known issues:

- A Dolby E Encoder (CAT561) firmware bug causes an audible delay of about 13 ms between channel 1 and 2 of Encoder 2, if Encoder 1 is switched to "2 (two-channel)"
Workaround: Set Encoder 1 to "5.1 (surround)" instead of "2 (two-channel)" even if using stereo in Encoder 1
- Frontdisplay is not capable of displaying umlauts and some special characters
- System overview sometimes causes a 'script not responding' error when clicking any items
Workaround: On error use the main navigation tabs instead of the block diagram to navigate

Version 2.6.0 _____ 2015-05-11 _____

Corresponding minimum software versions:

Remote Panel X*AP RM1	30008	X*AP RM1
J*AM - Jünger Application Manager	2.8.12	J*AM
Dante interface board DT-100	1.0.3.5	O_DAP_DANTE_a
Firmware	5.0.0.0	
Module Software	3.7.0	
Module MB App	1.0.3	
MADI interface board MX-164	5.0.0.0	O_DAP_MB_a
		O_DAP_MO_xx_a
SDI interface board SDI-150	51.0.0.0	O_DAP_SDI_a
AES interface board DD-188A	6.0.0.0	O_DAP_AES_a
Dolby Decoder CAT1100	1.6.0.7	O_DAP_Dolby_DEC_b
Dolby Encoder CAT559	1.1.4.0	O_DAP_Dolby_EENC_a
Dolby Decoder CAT561	2.4.0.8	O_DAP_Dolby_DENC_a

Changes:

- new feature (*Audio*) added more factory default presets
- new feature (*Dante*) support for Dante Audio-over-IP Option Board DT-100

- new feature (*Dante*) parameter triggers from Dante network states and audio conditions
- new feature (*MADI*) support for MADI optical/coaxial Option Board MX-164
- new feature (*MADI*) parameter triggers from MADI states and audio conditions
- new feature (*SDI*) redesigned SDI web interface for easy setup, routing and status overview
previous settings are preserved; please become familiar with the new SDI interface after updating!
- new feature (*Firmware*) system firmware now carries all option boards firmware
after updating the system firmware please take a look at the SYSTEM -> Firmware Update page to see whether an option board firmware is available
updating option boards may take a while, please be patient and refer to the Update Guide in the firmware package
- new feature (*Measurement*) Dolby Dialnorm measurement now indicates speech gate activity
- new feature (*X*AP*) recent measurement results are now available
- new feature (*X*AP*) Dolby Dialnorm measurement now indicates Dialogue Intelligence Speech Gate activity
- new feature (*Console*) added ctrl + c command to return to console main menu from submenu
- improved (*Audio*) sonics of bass management cross over filters
- improved (*Audio*) analog outputs automatically mute on non audio signals
- improved (*Option Boards*) components are now reset separately after updating their individual firmwares
- improved (*Dante*) Dante Sync Source display shows detailed info about *AP sync source
- improved (*Dante*) channel status detects all SMPTE non-audio types
- improved (*Measurement*) metering data is not displayed (instead -/- is shown) until their values become valid
- improved (*Network*) stability by filtering broadcast and multicast network traffic
- improved (*Presets*) and fine-tuned some parameters within factory default presets and events
- improved (*Dolby*) decoding of 7.1 signals is now possible with all devices
- fixed (*Audio*) problem with bass management x-over filters when set to 12 db/oct
Attention! Polarity of the subwoofer output has been inverted, please check your frequency response!
- fixed (*Audio*) minor problem with bass management mix channel into sub when switching between 7.1 and 5.1+2
- fixed (*Web UI*) scroll bar problem in routing matrix
- fixed (*Web UI*) minor glitches in web interface graphics
- fixed (*Web UI*) graphical problems with routing matrix preset
- fixed (*Web UI*) issue with routing matrix displayed in downscaled browser windows
- fixed (*Web UI*) problem with bouncing mouse wheels when setting parameters to their boundary values
- fixed (*Web UI*) disappeared EQ curves in Internet Explorer
- fixed (*Web UI*) misplaced backup restore box with long file names
- fixed (*Web UI*) copy and paste operations now work flawlessly in preset events
- fixed (*Measurement*) Dolby Dialnorm measurement now works in all program configurations
- fixed (*Measurement*) initialization issue in program measurement
- fixed (*Dolby*) metadata generator now correctly displays metadata fail if the module is set to decoding mode mute
- fixed (*System*) problem caused by long term network inactivity
- fixed (*System*) occasionally unavailable web interface although unit remains working normally
- fixed (*Backup*) restoring backup files using Internet Explorer now works flawlessly

Known issues:

- (*MADI*) only sample rates that can be recognized by the system will be displayed correctly
- When updating the units firmware, coming from an earlier version the system may regret recognizing the new firmware file as a valid version. A message may appear stating that the file is not suitable for this unit or the MD5 checksum is wrong. This is caused by a change in firmware file structure and can be avoided by using a basic firmware file prior to updating to the final full version.
solution: please see the Update Guide pdf provided in the firmware zip file for details

Version 2.5.0 _____ 2014-09-29 _____

Corresponding software versions:

Remote Panel:	25105
J*AM - Jünger Application Manager:	2.6.15
SDI interface board:	50
AES interface board DD188A:	3
Dolby Decoder CAT1100	1.6.0.7
Dolby Encoder CAT559	1.1.4.0
Dolby Decoder CAT561	2.4.0.8
Versions are minimum requirements - newer versions recommended.	

- new Pro Logic 2 decoder can now be fed from downmix (this is called Confidence Mode)
- new Unity Gain Mode for Dolby metadata emulation
- new Dolby encoder behaviour is now user configurable
- new default presets for Dolby metadata emulation
- new Dolby E decoder can now display frame rate mismatch between system rate and incoming rate and use mismatch as a trigger (e.g. for warning or correction)
- new Dialnorm measurement type Leq(A)
- new DD188A AES3 interface option board now supported
- improved overview and handling for Dolby decoding and emulation
- improved when decoding Dolby D+ and using the metadata generator, the extended bitstream info is correctly shown
- improved preset naming
- improved active speaker identification and dim status is now displayed as a warning message
- improved Dolby decoder status does no longer show fail when incoming signal is PCM
- improved system log is no longer scrolling in snail speed
- changed default device name is now stating the unit's serial number
- fixed metadata processor reversion mode
- fixed EQ presets are now shown unlinked (improved overview)
- fixed Dolby decoder output labels
- fixed routing page sometimes loaded incorrectly
- fixed metadata programs 2 or above are now correctly loaded from actions
- fixed option module firmware is now displayed correctly
- fixed Dolby D/D+ encoder module status is now orange (warning) when metadata input is lost
- fixed minor problems with DSP overview in web GUI
- fixed log port routing now also works with stereo linking
- fixed Dolby decoder status does no longer show arbitrary random errors
- fixed system messages are now updated without reloading system status page
- fixed action active status after reboot

Known Issues:

- Dolby metadata processor presets, as well as Dolby decoder and encoder presets created with earlier versions are not compatible with the new parameter structure.
 Workaround: Please set up the system from scratch. The new factory presets are helpful for an easy and fast setup.
- If updating firmware from older versions does not complete, stating an error message, please backup your settings and restore factory defaults prior to upgrading.
 This problem does only appear with complex event/trigger/action configurations, due to memory shortage. Problem is fixed when upgrading from 2.5.0 or later.
- Dolby E downmix of program 1 in program configuration 4x2 creates a wrong downmix signal
 Workaround: downmix is not necessary in 4x2, thus just discard its output signal
- Dolby Digital Plus does not decode at data rates higher than 1024 kbps
 Workaround: use any data rate lower than the limit
- Incomplete output signal for invalid combinations of program configuration and channel mode (e.g. 5.1+2 and 3/0)
 Workaround: always set correct combinations of program configuration and channel mode

Version 2.2.1 _____ 2014-03-11 _____

- improved parameter trigger reaction speed (e.g. Dolby bitstream format)
- improved routing matrix web GUI performance
- improved Dolby metadata emulation latency reduced for PCM signals (selectable)
- improved internal fallback sync is now indicated as a warning status
- fixed Firefox 27 now fully supported
- fixed preset routing matrix no longer corrupted by on air routings
- fixed restoring presets no longer deletes unselected preset groups
- fixed reboot now works flawlessly
- fixed creating measurement events from existing events works as expected
- fixed creating presets after restoring preset files no longer requires prior reboot

Known Issues:

- level meters may show graphical glitches in Internet Explorer 11

Version 2.2.0 _____ 2013-12-20 _____

Corresponding software versions:

Remote Panel:	22717
J*AM - Jünger Application Manager:	2.4.9
SDI interface board:	50
Dolby Decoder CAT1100	1.6.0.6
Dolby Encoder CAT559	1.1.4.0
Dolby Decoder CAT561	2.4.0.3
Versions are minimum requirements - newer versions recommended.	

Initial release - welcome to second generation Jünger Audio Monitoring Audio Processor

Key features:

- fully featured monitoring path from 2.0 up to 7.1
- comprehensive bass management
- 5-band speaker correction equalizer
- switchable input setups for easy comparison
- downmix, matrix, output limiter...
- Dolby metadata emulation
- Remote logging of four independent Log Ports (up to 7.1 each)
- extensive metering capabilities
- and many more

Known Issues:

- reboot via console or web GUI may cause problems with trigger configuration (fixed in 2.2.1)
- measurement events created using an existing measurement event causes a reboot on parameter change (fixed in 2.2.1)
- when restoring presets all existing presets are deleted independent of selected preset groups (fixed in 2.2.1)
- after restoring presets, new presets cannot be created (fixed in 2.2.1)
workaround: reboot device first