

# MT128

## 128 Track Digital Audio Recorder

### Reference manual.

This document describes the functions of the MT128 Software application.

# WARNING

**Non-contractual document. Functions and features described in this manual are subject to change without notice.**

# TABLE OF CONTENTS

<b>INTRODUCTION:</b> .....	<b>5</b>
<b>Technical properties:</b> .....	<b>6</b>
<b>EQUIPMENT USE ENVIRONMENT</b> .....	<b>7</b>
<b>DEFINITION OF USED TERMS</b> .....	<b>8</b>
AD Converter.....	8
ADAT .....	8
AES / EBU.....	8
AIFF.....	8
ASIO .....	9
BWF.....	9
Ethernet.....	9
Ethersound .....	9
LTC.....	10
MADI.....	10
MIDI .....	10
MMC.....	10
MTC.....	11
NTFS.....	11
RF64.....	11
SMPTE Timecode.....	12
Sony 9 PIN.....	12
S-PDIF .....	12
USB.....	12
VITC .....	12
WORD CLOCK.....	13
WAV .....	13
<b>PUTTING IN OPERATION</b> .....	<b>14</b>
<b>MT 128 Project Manager</b> .....	<b>14</b>
<b>Project settings</b> .....	<b>16</b>
<b>Preferred disk</b> .....	<b>18</b>
<b>Extra information</b> .....	<b>19</b>
<b>Project Settings page in Edit Mode</b> .....	<b>21</b>
<b>DESCRIPTION OF WORKSPACE</b> .....	<b>22</b>
<b>SYS-INFO Section</b> :.....	<b>23</b>
<b>Project-INFO Section</b> :.....	<b>23</b>
<b>The bottom bar</b> .....	<b>23</b>
<b>Transport control panel</b> .....	<b>24</b>
<b>Locator function bar</b> .....	<b>26</b>
<b>Page Selector Bar</b> .....	<b>27</b>
<b>Transport Option Dialog Box</b> .....	<b>29</b>

**Marker manager..... 32**

**Take validation box ..... 35**

    Unvalidated Takes ..... 36

**I/O FUNCTION PAGES..... 37**

    Meters ..... 37

    ASIO Device ..... 38

    Machine & Tools..... 39

**ARM PAGES..... 40**

    Arming Matrix..... 40

    Group..... 42

        Edit Group Dialog Box ..... 43

    Delay ..... 44

    Route..... 46

**MIXER PAGES..... 48**

    Mono matrix mixer..... 48

    Mixes ..... 50

    Group..... 52

    Main ..... 53

**TIME LINE PAGES ..... 55**

    Tracks view ..... 55

    List : Database organization..... 56

        Record List..... 57

        Take List ..... 60

        List View Functions..... 61

        Original Clip List..... 62

        Editing policy :..... 62

        File List..... 63

        Folder List..... 63

        EDL List Clip(s) ..... 64

    Import / Export..... 66

        Import Audio File ..... 67

    Project Export..... 71

        Exporting Takes audio files. .... 71

**SYSTEM SETTINGS..... 75**

    Record Options ..... 75

    PLAYBACK OPTIONS..... 77

    MIXER/ROUTING ..... 78

    REGIONAL OPTIONS ..... 79

    LAYOUT OPTIONS ..... 80

    MIDI / LTC..... 81

    Remoting Options..... 82

    LOG ..... 83

**ADMINISTRATION PAGES ..... 84**

- Administration Login:..... 85**
- General Options: ..... 86**
- Startup Option ..... 87**
- Licensing : ..... 88**
- Update page..... 89**
  - Load Package and Installation procedure. .... 90
- Script Page ..... 91**
- System pages : System function access. .... 92**
  - Disk Manager..... 93
  - Format Disk ..... 94

## INTRODUCTION:

Congratulations to purchase this 128 track digital audio recorder.

The MT-128 is an easy to use and secure hard disc multitrack recording system. Designed for professional users. It is delivered as a computer based turnkey system or as integrated software in a piece of hardware (like mixing console). All control of the MT-128 can be done by at least a 15"-Touch-TFT.

The graphic user interface (GUI) is designed to provide always an overview of status information and allows quick access to main functions.

The system can be configured with up to 128 Channels of digital audio I/O, available in MADI, AES-3 and ADAT®format. It supports Wordclock- and Video-Synchronization. Timecode is supported via LTC-I/O, MIDI and others...

The MT-128 supports WAVE, Broadcast-Wave (RF64) and AIFF file formats and operates in „single file per track “ mode. Projects and audio files can be imported- and exported.

All incoming and outgoing audio signal can be free routed. An internal mixer controls the levels of audio outputs (direct track output) and it allows up to 9 stereo mix busses plus a separate stereo PFL-Bus.

Loop-Recording, Auto Punch-In/Out, Pre-and Post-record buffer (up to 3 seconds), Track-Arming while recording and some more recording features make the MT-128 a state of the art non-destructive „Audio-Multitracker“.

Generated audio files are displayed in „classical“ time-line view, but also in a list view. This helps to keep the overview and makes it easy to handle the MT-128 projects. All recorded audio is managed as record-sessions, takes, clips and files. The Take-management fulfils the needs of take organized recording workflow.

The security of audio data is given by a permanent auto save, in worst case (like power loss) only last buffers (max. 10 seconds) will be lost. The possible RAID support of the System helps to reduce the risk of data-loss by hard disc failure.

## Technical properties:

### Support of:

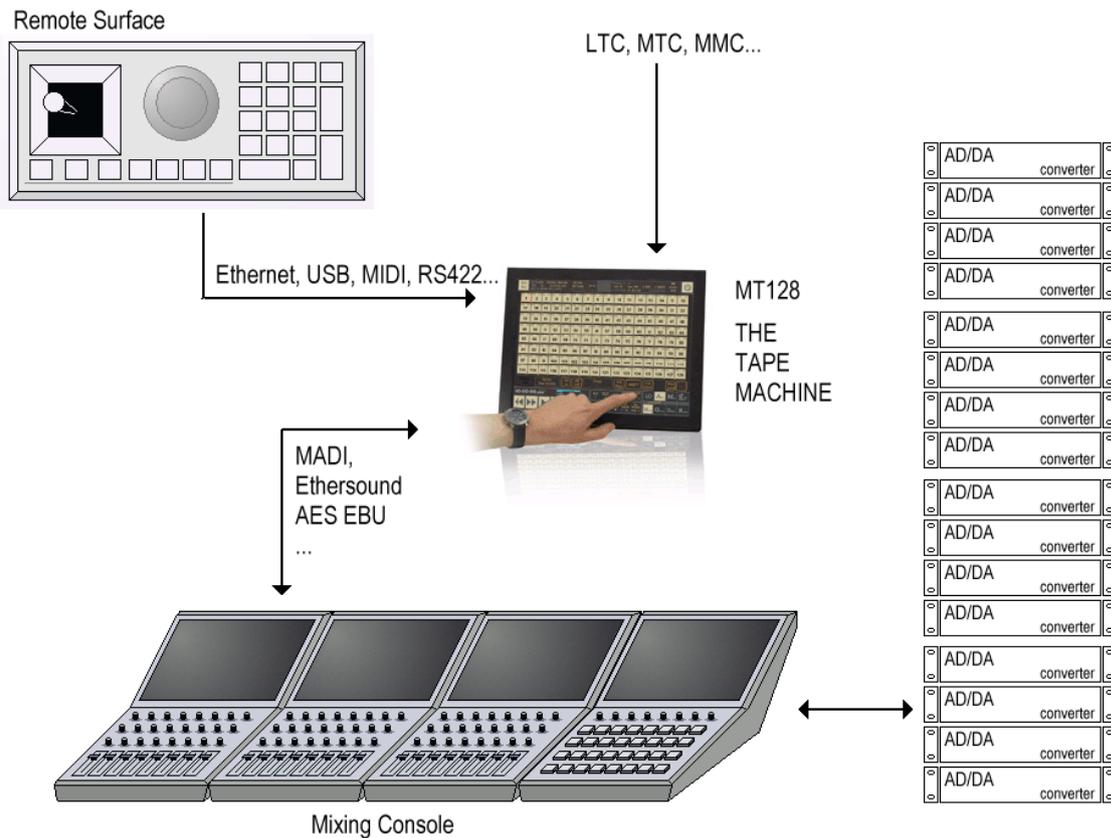
- 128 TRACKS,
- 8-32 BIT (FLOAT) @ 32-384 KHZ SAMPLERATE,
- I/O OPTIONS MADI/AES/ADAT@/ANALOG,
- PLAYBACK VARISPEED,
- CONTINUOUS RECORDING, MIRROR RECORDING,
- BWF(RT64), WAV, AIFF,
- SINGLE FILE PER TRACK (STEREO FILE FOR LINKED TRACK),
- FILE IMPORT & EXPORT,
- TIME AND TRACK STAMPING,

### Some Features:

- REMOTE CONTROL,
- TOUCH SCREEN, MOUSE, KEYBOARD,
- EXTERNAL TIMECODE, WORDCLOCK, VIDEOSYNC,
- MONITORING,
- MATRIX-MIXER, MAIN- PFL- AND AUX-Busses,
- FADER GROUPS,
- FLEXIBLE ROUTING,
- TRACKGROUPS,
- FULL METERING,
- TIMELINE, LIST VIEW,
- INDIVIDUAL TRACK DELAY,
- LOCATOR MANAGEMENT,
- TAKE MANAGEMENT,
- WAVEFORM DISPLAY,

# EQUIPMENT USE ENVIRONMENT

The MT128 is Multi Tracks Audio Recorder Player system dedicated to stressful environment such as live performances, shows, public events or record session with a band or orchestra.



## DEFINITION OF USED TERMS

source : wikipedia, the free encyclopedia.

### AD Converter

An analog-to-digital converter (abbreviated ADC, A/D or A to D) is a device which converts continuous signals to discrete digital numbers. The reverse operation is performed by a digital-to-analog converter (DAC).

Typically, an ADC is an electronic device that converts an input analog voltage (or current) to a digital number proportional to the magnitude of the voltage or current. However, some non-electronic or only partially electronic devices, such as rotary encoders, can also be considered ADCs. The digital output may use different coding schemes, such as binary, Gray code or two's complement binary.

### ADAT

Alesis Digital Audio Tape or ADAT, first introduced in 1991, was used for simultaneously recording eight tracks of digital audio at once, onto Super VHS magnetic tape - a tape format similar to that used by consumer VCRs. Greater numbers of audio tracks could be recorded by synchronizing several ADAT machines together. While this had been available in earlier machines, ADAT machines were the first to do so with sample-accurate timing - which in effect allowed a studio owner to purchase a 24-track tape machine eight tracks at a time. This capability and its comparatively low cost were largely responsible for the rise of project studios in the 1990s.

"ADAT" is also used as an abbreviation for the ADAT Lightpipe protocol, which transfers 8 tracks in a single fiber optic cable. The ADAT cable standard is no longer strictly tied to ADAT tape machines, and is now utilized by analog-to-digital converters, input cards for digital audio workstations, effects machines, etc. One of the original benefits of utilizing ADAT versus S/PDIF or AES/EBU was that a single cable could carry up to eight channels of audio. (AES10 (MADI) can now carry up to 64 channels.)

### AES / EBU

The digital audio standard frequently called AES/EBU, officially known as AES3, is used for carrying digital audio signals between various devices. It was developed by the Audio Engineering Society (AES) and the European Broadcasting Union (EBU) and first published in 1985, later revised in 1992 and 2003. Both AES and EBU versions of the standard exist. Several different physical connectors are also defined as part of the overall group of standards. A related system, S/PDIF, was developed essentially as a consumer version of AES/EBU, using connectors more commonly found in the consumer market.

### AIFF

Audio Interchange File Format (AIFF) is an audio file format standard used for storing sound data for personal computers and other electronic audio devices. The format was co-developed by Apple Computer in 1988 [1] based on Electronic Arts' Interchange File Format (IFF, widely used on Amiga systems) and is most commonly used on Apple Macintosh computer systems.

The audio data in a standard AIFF file is uncompressed pulse-code modulation (PCM). There is also a compressed variant of AIFF known as AIFF-C or AIFC, with various defined compression codecs.

Standard AIFF is a leading format (along with SDII and WAV) used by professional-level audio and video applications, and unlike the better-known lossy MP3 format, it is non-compressed (which aids rapid streaming of multiple audio files from disk to the application), and lossless. Like any non-compressed, lossless format, it uses much more disk space than MP3—about 10MB for one minute of stereo audio at

a sample rate of 44.1kHz and a sample size of 16 bits. In addition to audio data, AIFF can include loop point data and the musical note of a sample, for use by hardware samplers and musical applications.

The file extension for the standard AIFF format is .aiff or .aif. For the compressed variants it is supposed to be .aifc, but .aiff or .aif are accepted as well by audio applications supporting the format.

## ASIO

Audio Stream Input/Output (ASIO) is a computer soundcard driver protocol for digital audio specified by Steinberg, providing a low-latency and high fidelity interface between a software application and a computer's sound card. Whereas Microsoft's DirectSound is commonly used as a stereo input and output for non-professional users, ASIO allows musicians and sound engineers to process their audio via Windows computer software instead of external hardware.

## BWF

Broadcast Wave Format (BWF) is an extension of the popular Microsoft WAVE audio format and is the recording format of most file-based non-linear digital recorders used for motion picture and television production. It was first specified by the European Broadcasting Union in 1997, and updated in 2001 and 2003.

The purpose of this file format is the addition of metadata to facilitate the seamless exchange of sound data between different computer platforms and applications. It specifies the format of metadata, allowing audio processing elements to identify themselves, document their activities, and permit synchronization with other recordings. This metadata is stored as extension chunks in a standard digital audio WAV file.

Files conforming to the Broadcast Wave specification have names ending with the extension .WAV.

## Ethernet

Ethernet is a family of frame-based computer networking technologies for local area networks (LANs). The name comes from the physical concept of the ether. It defines a number of wiring and signaling standards for the Physical Layer of the OSI networking model, through means of network access at the Media Access Control (MAC) /Data Link Layer, and a common addressing format.

Ethernet is standardized as IEEE 802.3. The combination of the twisted pair versions of Ethernet for connecting end systems to the network, along with the fiber optic versions for site backbones, is the most widespread wired LAN technology. It has been in use from around 1980 to the present, largely replacing competing LAN standards such as token ring, FDDI, and ARCNET.

## Ethersound

EtherSound is one of several Audio over Ethernet technologies currently used in audio engineering and broadcast engineering applications. EtherSound is developed and licensed by Digigram.

EtherSound is compliant with IEEE Ethernet standards allowing the use of standards-compliant hardware and cables. However, EtherSound is not designed to share Ethernet LANs with typical office operations data or Internet traffic such as email. Like all audio-over-Ethernet technologies, EtherSound adapts the non-deterministic nature of CSMA/CD protocols to provide a continuous stream of high-sample rate, 24-bit digital audio data. The Ethernet protocol allows every device equal access to the network (Carrier Sense Multiple Access) and accepts the inevitability of "collisions" as a result. Ethernet data is sent in bursts. Ethernet frames are sent in a serial stream (one after the other) and contain addresses, protocol control information and data. EtherSound's solution to the problem of using a non-deterministic equal-

priority network to transmit deterministic, prioritized audio data is proprietary, as are the solutions adopted by other audio-over-Ethernet technologies.

## LTC

Linear (or Longitudinal) Timecode (LTC) encodes SMPTE timecode data as a Manchester-Biphase encoded audio signal. The audio signal is commonly recorded on a VTR track or other storage media. Each frame is terminated by a 'sync word' which has a special predefined sync relationship with any video or film content.

A special bit in the linear timecode frame, the 'biphase mark correction' bit, ensures that there are an even number of AC transitions in each timecode frame.

The sound of linear timecode is a jarring and distinctive noise and has been used as a sound-effects shorthand to imply 'telemetry' or 'computers'. Many professional audio engineers see this use of LTC in sound-effects as an exceptionally lazy, unrealistic sound design technique. In the industry "LTC" is pronounced "Litsy" except in the UK where it is pronounced "ell-tee-see".

## MADI

Multichannel Audio Digital Interface, or MADI, is an industry-standard electronic communications protocol that defines the data format and electrical characteristics of an interface carrying multiple channels of digital audio. The AES standard for MADI is currently documented in AES10-2003. The MADI standard includes a bit-level description and has features in common with the two-channel format of AES3. Serial digital transmission over coaxial cable or fibre-optic lines of 28, 56, or 64 channels is supported, with sampling rates of up to 96 kHz and resolution of up to 24 bits per channel.

## MIDI

MIDI (Musical Instrument Digital Interface), is an industry-standard protocol defined in 1982 that enables electronic musical instruments such as keyboard controllers, computers, and other electronic equipment to communicate, control, and synchronize with each other. MIDI allows computers, synthesizers, MIDI controllers, sound cards, samplers and drum machines to control one another, and to exchange system data. MIDI does not transmit an audio signal or media — it transmits "event messages" such as the pitch and intensity of musical notes to play, control signals for parameters such as volume, vibrato and panning, cues, and clock signals to set the tempo. As an electronic protocol, it is notable for its widespread adoption throughout the music industry.

Note names and MIDI note numbers. All MIDI compatible controllers, musical instruments, and MIDI-compatible software follow the same MIDI 1.0 specification, and thus interpret any given MIDI message the same way, and so can communicate with and understand each other. MIDI composition and arrangement takes advantage of MIDI 1.0 and General MIDI (GM) technology to allow musical data files to be shared among many different files due to some incompatibility with various electronic instruments by using a standard, portable set of commands and parameters. Because the music is simply data rather than recorded audio waveforms, the data size of the files is quite small by comparison.

## MMC

MIDI Machine Control, or MMC, a subset of the MIDI specification, provides specific commands for controlling recording equipment such as multi-track recorders.

MMC messages can be sent along a standard MIDI cable for remote control of such functions as Play, Fast Forward, Rewind, Stop, Pause, and Record. These are "System Exclusive" (SysEx) messages.

## MTC

MIDI time code (MTC) embeds the same timing information as standard SMPTE time code as a series of small 'quarter-frame' MIDI messages. There is no provision for the user bits in the standard MIDI time code messages, and SysEx messages are used to carry this information instead. The quarter-frame messages are transmitted in a sequence of eight messages, thus a complete timecode value is specified every two frames. If the MIDI data stream is running close to capacity, the MTC data may arrive a little behind schedule which has the effect of introducing a small amount of jitter. In order to avoid this it is ideal to use a completely separate MIDI port for MTC data. Larger full-frame messages, which encapsulate a frame worth of timecode in a single message, are used to locate to a time while timecode is not running.

Unlike standard SMPTE timecode, MIDI timecode's quarter-frame and full-frame messages carry a two-bit flag value that identifies the rate of the timecode, specifying it as either:

- 24 frame/s (standard rate for film work)
- 25 frame/s (standard rate for PAL video)
- 30 frame/s (drop-frame timecode for NTSC video)
- 30 frame/s (non-drop timecode for NTSC video)

MTC distinguishes between film speed and video speed only by the rate at which timecode advances, not by the information contained in the timecode messages; thus, 29.97 frame/s dropframe is represented as 30 frame/s dropframe at 0.1% pulldown.

MTC allows the synchronisation of a sequencer or DAW with other devices that can synchronise to MTC or for these devices to 'slave' to a tape machine that is striped with SMPTE. For this to happen a SMPTE to MTC converter needs to be employed. Please note that it is possible for a tape machine to synchronise to an MTC signal (if converted to SMPTE), if the tape machine is able to 'slave' to incoming timecode via motor control, which is a rare feature.

## NTFS

NTFS is the standard file system of Windows NT, including its later versions Windows 2000, Windows XP, Windows Server 2003, Windows Server 2008, Windows Vista, and Windows 7.

NTFS supersedes the FAT file system as the preferred file system for Microsoft's Windows operating systems. NTFS has several improvements over FAT and HPFS (High Performance File System) such as improved support for metadata and the use of advanced data structures to improve performance, reliability, and disk space utilization, plus additional extensions such as security access control lists (ACL) and file system journaling.

## RF64

RF64 is a BWF-compatible multichannel file format enabling file sizes to exceed 4 GB. It has been specified by the European Broadcasting Union.

The file format is designed to meet the requirements for multichannel sound in broadcasting and audio archiving. It is based on the Microsoft RIFF/WAVE format and Wave Format Extensible for multichannel parameters. Additions are made to the basic specification to allow for more than 4 GB file sizes when needed. The format is transparent to the BWF and all its supplements and chunks.

A maximum of 18 surround channels, stereo down mix channel and bit stream signals with non-PCM coded data can also be stored in the file format. RF64 can be used in the entire programme chain from capture to editing and play out and for short or long term archiving of multichannel files.

## SMPTE Timecode

SMPTE timecode is a set of cooperating standards to label individual frames of video or film with a timecode defined by the Society of Motion Picture and Television Engineers in the SMPTE 12M specification. SMPTE revised the standard in 2008, turning it into a two-part document: SMPTE 12M-1 and SMPTE 12M-2, including important new explanations and clarifications.

Timecodes are added to film, video or audio material, and have also been adapted to synchronize music. They provide a time reference for editing, synchronisation and identification. Timecode is a form of media metadata. The invention of timecode made modern videotape editing possible, and led eventually to the creation of non-linear editing systems.

## Sony 9 PIN

The 9-Pin Protocol is an RS-422 communications protocol using a 9 pin serial cable that allows a computer interface to Sony and other manufacturer's VTRs. This protocol supports both one-inch reel-to-reel video tape recorders as well as cassette video tape recorders.

## S-PDIF

S/PDIF specifies a Data Link Layer protocol and choice of Physical Layer specifications for carrying digital audio signals between devices and stereo components over either optical or electrical cable. The name stands for Sony/Philips Digital Interconnect Format (more commonly known as Sony Philips Digital InterFace), the two companies being the primary designers of the S/PDIF format. It is part of a larger collection of international standards known as IEC and defined by IEC 60958 (often referred to as AES/EBU), where it is known as IEC 60958 type II. S/PDIF is essentially a minor modification of the original AES/EBU standard for consumer use, providing small differences in the protocol and requiring less-expensive hardware.

## USB

USB (Universal Serial Bus) is a way of setting up communication between a computer and peripheral devices. USB is intended to replace many varieties of serial and parallel ports. USB can connect computer peripherals such as mice, keyboards, PDA, gamepad and joysticks, scanners, digital cameras, printers, personal media players, flash drives, and external hard drives. For many of those devices, USB has become the standard connection method. USB was designed for personal computers, but it has become commonplace on other devices such as PDA and video game consoles, and as a power cord between a device and an AC adapter plugged into a wall plug for charging. As of 2008, there are about 2 billion USB devices sold per year, and about 6 billion total sold to date.

The design of USB is standardized by the USB Implementers Forum (USB-IF), an industry standards body incorporating leading companies from the computer and electronics industries. Notable members have included Agere (now merged with LSI Corporation), Apple Inc., Hewlett-Packard, Intel, Microsoft and NEC.

## VITC

Vertical Interval TimeCode (VITC) is a form of SMPTE timecode embedded as a pair of black-and-white bars in a video signal. These lines are typically inserted into the vertical blanking interval of the video signal. There can be more than one VITC pair in a single frame of video: this can be used to encode extra data that will not fit in a standard timecode frame.

VITC contains the 64 data bits of the SMPTE linear timecode frame embedded in a new frame structure with extra synchronization bits and an error-detection checksum. The VITC code is always repeated on two adjacent video lines, one in each field. This internal redundancy is exploited by VITC readers, in addition to the standard timecode "flywheel" algorithm.

## WORD CLOCK

A word clock or wordclock (sometimes sample clock, which can have a broader meaning) is a clock signal (not the actual device) used to synchronise other devices, such as digital audio tape machines and compact disc players, which interconnect via digital audio. S/PDIF, AES/EBU, ADAT, TDIF and other formats use a word clock. Various audio over Ethernet protocols use broadcast packets for the word clock. The device which maintains the word clock on a network is the master clock.

Word clock should not be confused with timecode; word clock is used entirely to keep a perfectly-timed and constant bitrate to avoid data errors. The word clock generator, usually built-in to analog-to-digital converters, creates digital pulses which contain no other data, and is considered essential to avoid frequency drift between the internal oscillators of each device. Timecode is actual data (technically metadata) about the media content being transmitted, and is optional, being sent in a higher layer.

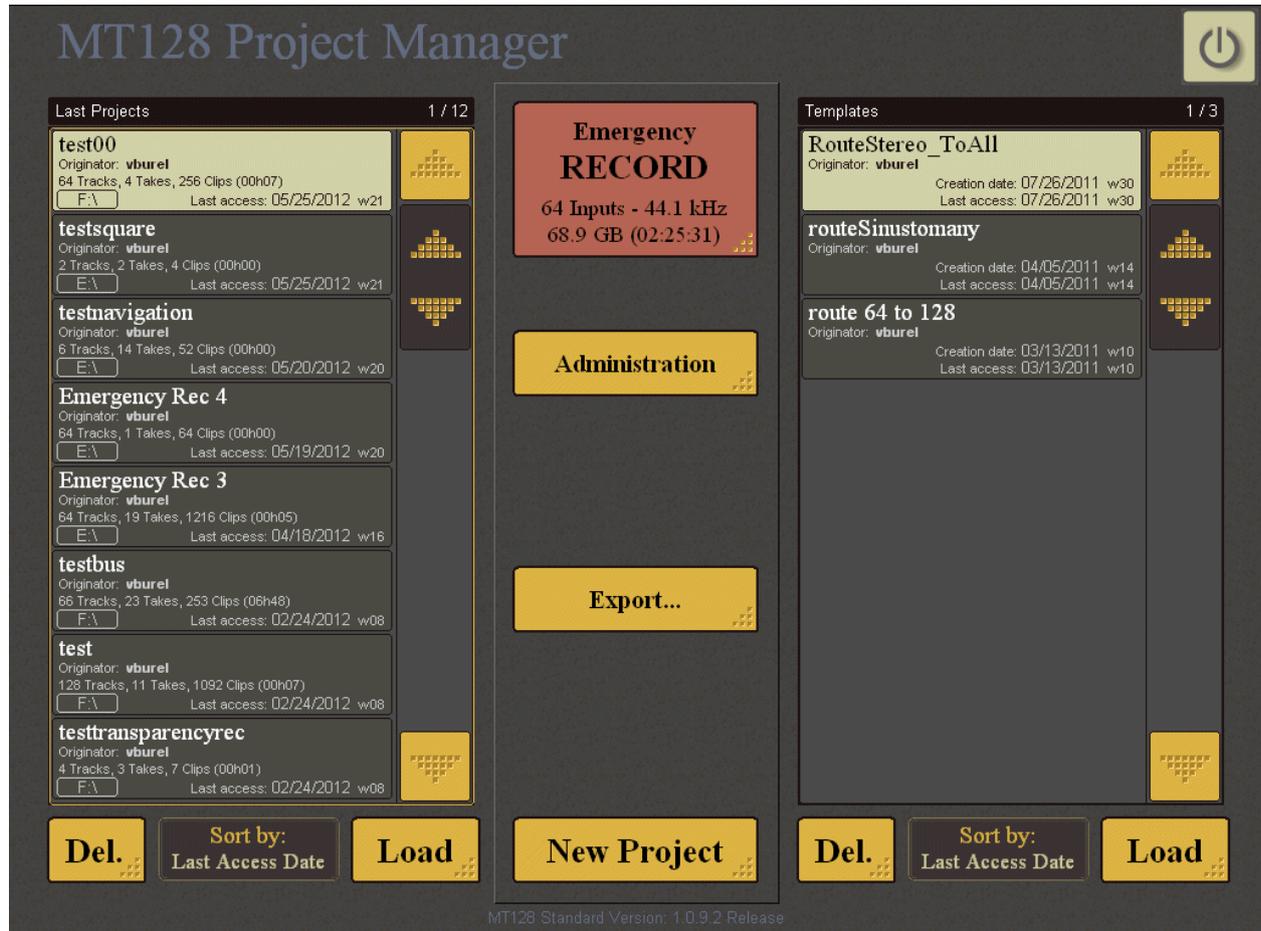
## WAV

WAV (or WAVE), short for Waveform audio format, also known as Audio for Windows, is a Microsoft and IBM audio file format standard for storing an audio bitstream on PCs. It is an application of the RIFF bitstream format method for storing data in "chunks", and thus also close to the 8SVX and the AIFF format used on Amiga and Macintosh computers, respectively. It is the main format used on Windows systems for raw and typically uncompressed audio. The usual bitstream encoding is the Pulse Code Modulation (PCM) format.

## PUTTING IN OPERATION

### MT 128 Project Manager

After launching the MT 128 Software, The project manager window appears. It gives the list of all projects and templates found on the system. For project list, all available disks are automatically scanned. If this list is empty, it means that all disks are empty



### Emergency RECORD

A tap on this button starts immediately the recording. A project called "Emergency \_xx" is automatically created. All inputs available are routed 1:1 to automatically armed tracks. "Emergency Record" start with the last audio-device settings.

### Scroll bar

The scroll bar allows to move up and down in the list of recent projects as in the list of templates. The digits on top show the current selection and total number of projects/templates.

### Load

Select a project or template from list and tap this button to recall a recent project or to create a new project based on a template.

**Delete**

Select a project or template from list and tap this button to delete a recent project or template.

**Power off**

A tap on this button to shut down the MT-128. To prevent accidental shut down, a dialog box appears to confirm (ok) or cancel the shut down.

**Sort by**

A tap on this button to select the criteria of sorting the list.

**New Project**

A tap on this button will make appear the Project Setting Dialog box in order to create a new project.

**Administration**

To enter in the administration pages (login/password required).

**Export**

Export take(s) of a given project. A Tap on this button will open the current selected project and propose you to export its takes on other disk...

## Project settings

The project settings page appears after creating a new project or after loading an existing project.

All Metadata, recording parameters (resolution, samplerate, file format) and TC-Sync source are entered or listed here. This page can be re-called in operation with a tap on the Project display in the top bar.

### **name**

A tap opens the virtual keyboard to enter name of a new project (the name cannot be modified after having created the project). If it's a new project, the Take Prefix is automatically filled with the name of the project.

### **Description**

A tap opens the virtual keyboard to enter/change text data. This field is also used to fill broadcast wave file header information (when recording BWF audio file).

### **Originator**

A tap opens the virtual keyboard to enter/change text data. This field is also used to fill broadcast wave file header information (when recording BWF audio file).

### **References**

A tap opens the virtual keyboard to enter/change text data. This field is also used to fill broadcast wave file header information (when recording BWF audio file).

### **Sample rate**

A tap opens list for selection of sampling frequency (recording/playback) to define the sample rate of the project.

### **Bit res**

A tap opens list for selection of bit resolution (8 /16 / 24/ 32 bits) for recording audio file.

### **File type: BWF/ WAV / AIFF**

A tap opens list for selection of file format – WAV, AIF, BWF (RF 64).

### **TC Source**

A tap opens list for selection TC-Source – Internal, Local PC Clock, Ext TC, MIDI TC, LTC, TC from Remote drivers... This options is also in the Transport Option Dialog Box.

### **Disk Mode**

A tap on this button will display a small contextual menu to select the following mode:

- TAPE: this regular mode, makes the recording on disks given by the preferred disk list. If several disk are selected, it will fill disk in the defined disk order.
- SPLIT: enables recording across several drives. Tracks are logically distributed on disks. For example with two drives, the 64 first tracks will be recorded on first disk while the 64 others will be recorded on the second disk.
- MIRROR: The last disk of the Preferred Disk Selection is use as mirror disk. It means it makes a backup copy of all audio file being recorded.

REM : Mirror mode works in 128 tracks only for 44.1/48kHz Samplerate. At 96kHz the Mirror mode can work if the MT128 is limited to 64 tracks (depends on administration pages.).

### **Take prefix**

A tap opens the virtual keyboard to enter/change name of take prefix. Name is reflected in filename of recorded audio files.

### **Create Project**

A tap created the new defined project.

### **Cancel**

A tap returns to project manager if coming from there. / Or discards changes if editing project currently in operation.

## Preferred disk

A tap opens a specific dialog box (see below) to let the user select which disk will be involved in the recording. For a new project, the first selected disk is used to store the project itself and all its settings. Letters of available drives and remaining recording-time (capacity) are indicated.

The Recording process is using this selection of disk to store audio file (sequentially or simultaneously in SPLIT mode or MIRROR mode). The MT128 is able to detect when the disk become full and automatically continue the recording on next disk without any data loss.



### Disk drives

A tap selects connected drive for further action. Scrollbar (right side) allows for navigation through the list.

### Move up

A tap moves a selected drive on step 1 higher. Order of disk determines the priority to which drive recording is being made, once it is enabled for recording.

### Move down

A tap moves a selected drive on step lower.

### Select/Deselect

A tap toggles status (record enabled/disabled) of selected drive. A hook in the list box indicates that the drive is record enabled.

### OK

Click Ok to validate the current disk selection and close dialog box.

### **Cancel**

A tap discards changes being made and exits.

## **Extra information**

A tap opens a sub page for editing further metadata of current project.

**Project Extra Informations**

Comments/Remark:  
Project created for demonstration in the USER Manual

Reference:

Internal Reference:

Folder:

Category:

Client:

Client Reference:

**Exit**

### **Comments/Remarks**

A tap opens the virtual keyboard to enter metadata of current project.

### **Reference**

A tap opens the virtual keyboard to enter metadata of current project.

### **Internal reference**

A tap opens the virtual keyboard to enter metadata of current project.

### **Folder**

A tap opens the virtual keyboard to enter metadata of current project.

### **Category**

A tap opens the virtual keyboard to enter metadata of current project.

**Client**

A tap opens the virtual keyboard to enter metadata of current project.

**Client reference**

A tap opens the virtual keyboard to enter metadata of current project.

**Exit**

A tap closes the dialog box.

## Project Settings page in Edit Mode.

When Editing project, other functions are available (such as SAVE AS Template). However the name cannot be modified except on SAVE AS command. Project Editing can be done while Playback or Recording.

### **Save Modification**

Save the actual setting. This button is blinking when something has been modified.

### **Cancel**

Return to operation without changing parameters of the project.

### **Project Manager**

A tap exits current project and opens the project manager (the startup page). This function is active only after having loaded a project

### **Save as template**

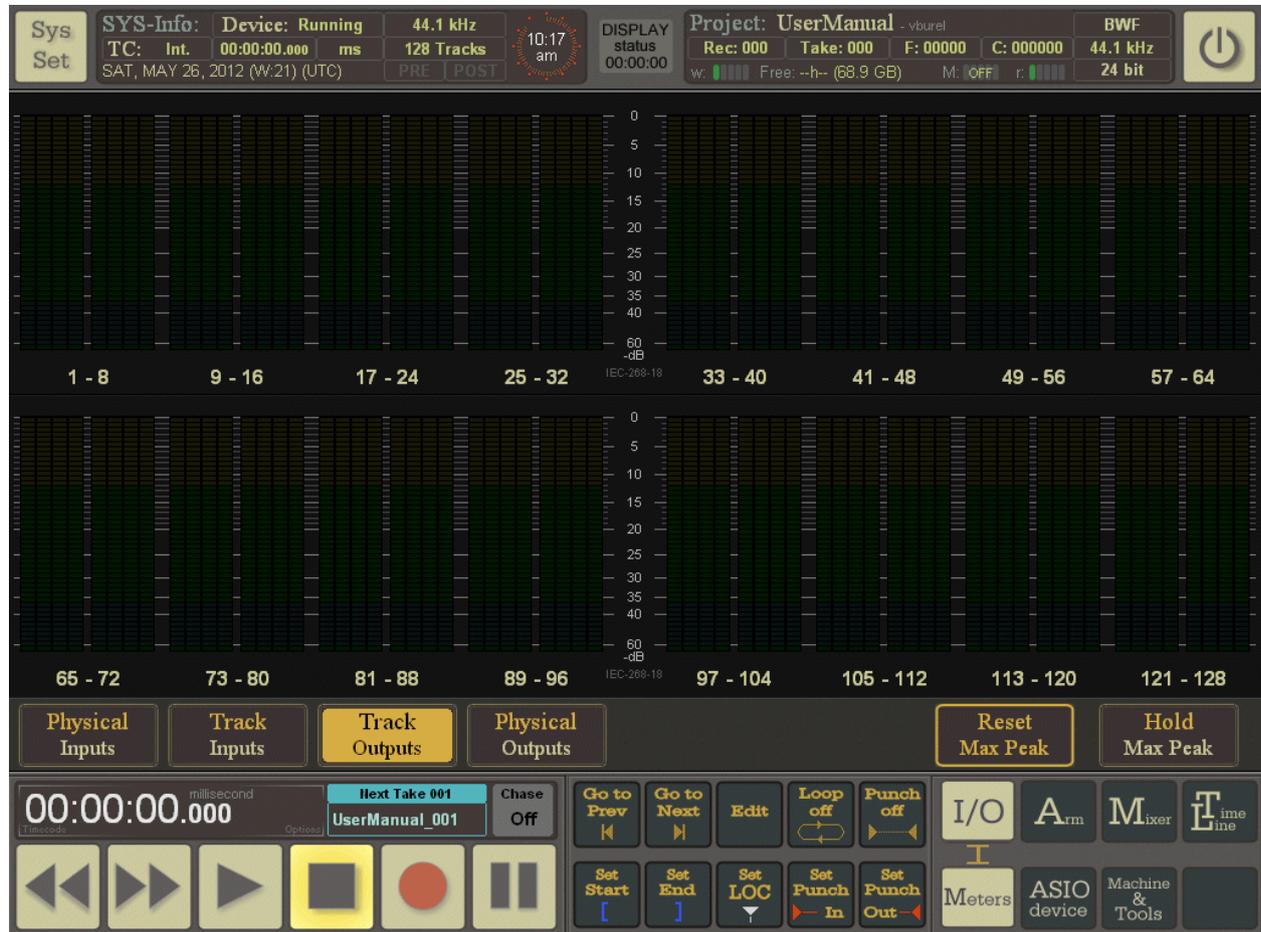
Opens a dialog box for defining a new template (or overwriting an existing one) based on the current project. This function is active only after having loaded a project.

### **Save as new project**

A tap saves current project as a further project. This function is active only after having loaded a project.

## DESCRIPTION OF WORKSPACE

The workspace of the MT-128 is subdivided into 3 main parts. On top there is the "Top bar", in center there is the space for all "Function-Pages", on bottom is the "Transport Panel", the „Locator Function Bar“ and the „Page-Selector Bar“.



### Top bar

The "Top bar" shows two buttons. On the left the "Sys Set" button to access the "System Settings" page, on the right the "Power Off" button to shut down the MT-128. The two displays, "SYS-Info" on the left and "Project" on the right, show essential system and project information.

### Power Off

A tap on this button shuts down the MT-128. To prevent accidental shut down, a dialog box appears to confirm (ok) or cancel the shut down.

### SYS Set

The "Sys Set" button opens the system setting dialog box.

### DISPLAY Status

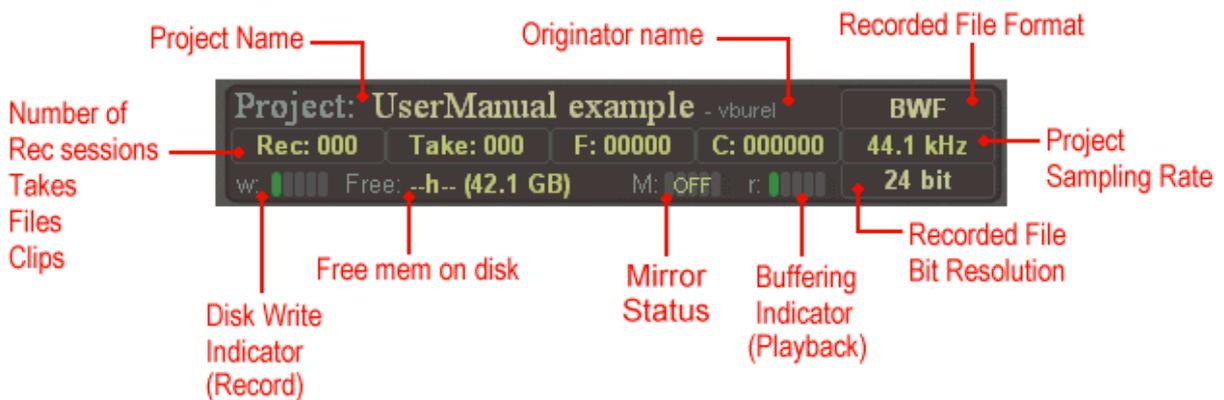
Display the big caption info bar, to display timecode and recorder status in big format.

### SYS-INFO Section :



The incoming TC is shown in its original native format. The Format is blinking when chasing if it does not fit the Timecode format of the project (see Transport Option Dialog Box). The audio device sampling rate is also blinking when it does not fit the one from the project.

### Project-INFO Section :



The Free memory shown is depending on the number of armed track and the current audio file format of the project.

### The bottom bar

The "Bottom Bar" bar consists of three parts. On left there is the transport control panel, as known from tape machines. In the middle there is a function bar for cue points, locators and punch recording functionality. On the right side the "Page Selector Bar" is shown. To facilitate operating, the layout of the "Bottom Bar" can be changed. (see "System Settings")



## Transport control panel

The Transport Control Panel shows six buttons to control the MT-128, like on common tape machines. The color of the buttons change from gray to colored when a function is active. The display on top of the buttons shows on the left side the current position of the play/record cursor on the MT-128 timeline, on the right side it shows the take-information. Also a special function is given on the display; tap on the timecode of play cursor to go to a desired time-line position (only in stop or play mode), tap on the take-information area to open the Take Validation Box.



### **REW : Rewind**

A tap switches from „Stop“ or „Playback“ to Varispeed-Operation in reverse direction (rewind). There are up to 4 speed levels. Each tap steps to the next level. Each speed level can be defined in SysSet-Playback.

### **FF : Forward/FS**

A tap switches from „Stop“ or „Playback“ to Varispeed-Operation in normal direction (forward). There are up to 4 speed levels. Each tap steps to the next level. Each speed level can be defined in SysSet-Playback. During record the button becomes a „Fail Start“-function that is indicated by the letters „FS“. Then a tap on „FS“ will generate a marker at the preceding position (start of record or the previous FS-position). When record is stopped the all markers are updated on the timeline. FS-markers contain the suffix „\_FS##“ (## = number).

### **Play**

A tap starts Playback or (if enabled) toggles between Reverse Playback and normal Playback.

### **Stop**

A tap stops Playback/Record. Pushing STOP again can toggle the cursor position between previous playback starting point and last Stop point (see TRANSPORT options).

### **Record**

A tap starts recording. During record each tap will start a new take (if enabled in SysSet-Record). In Punch-Mode – indicated by the letter „P“ in the center of the button – the button-border is blinking while not recording; i.e. outside a punch-region.

### **Pause**

A tap will toggle between Pause-Mode and Playback/Recording. While Recording, PAUSE mode does not create new clip or new file or new take, it's like a time break.

### **TimeCode Zone**

A tap opens Num Pad Dialog Box to let you define a new timecode to place the cursor on new position.

### **Options Zone**

A tap in this area opens the Transport Option Dialog Box.

### **Next take**

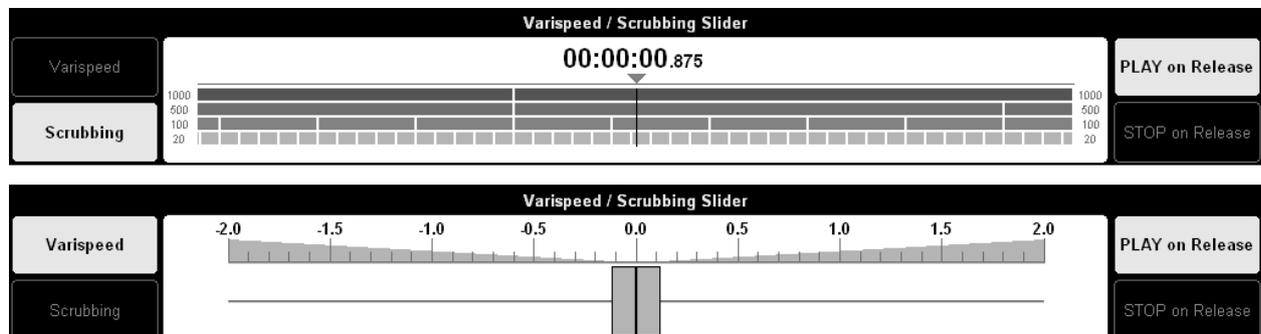
A tap opens the Take Preparation Box to define the name and comments for the next take.

### **CHASE**

The Chase Button activated the chasing process to follow the current selected TC source.

### **Varispeed/Scrubbing**

Depending on chosen mode the varispeed / scrubbing slider allows to move on the tape.



### **Play on release**

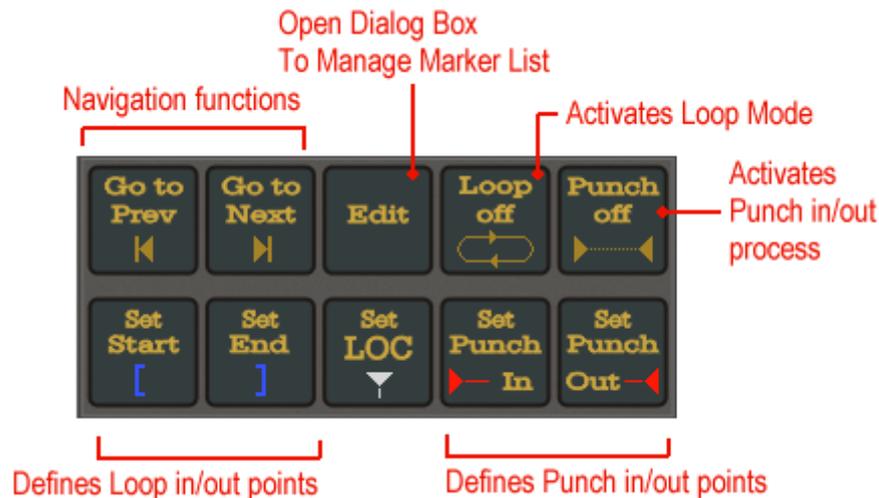
A tap enables the Play on release-mode. Button is white when mode is active, then playback is resumed when releasing the slider.

### **Stop on release**

A tap enables the Stop on release-mode. Button is white when mode is active, then playback stops when releasing the slider.

## Locator function bar

This section of the "Transport & Page Selector" bar is done to operate with Cue points (Marker), Locator (only for MT-128 transport function) and to set and edit sections for auto punch recording. Marker-positions can be recalled by using <Goto next/prev>, and also via „Marker Manager“ or by tapping in timeline (top timeline for Locator, Start, End – bottom timeline for Punch In/Out). Maximum number of all markers: 999



### **Go to Prev**

A tap places Playhead to previous (left hand side) Marker (all types)

### **Go to Next**

A tap places Playhead to next (right hand side) Marker (all types)

### **Edit**

A tap opens the „Marker Manager“ sub page.

### **Set Start**

A tap sets Start-Marker at current cursor position for Loop-operation

### **Set End**

A tap sets End-Marker at current cursor position for Loop-operation

### **Set LOC**

A tap sets Locator-Marker at current cursor position (Cue)

### **Set Punch In**

A tap sets Punch In-marker at current cursor position for Punch recording

### **Set Punch Out**

A tap sets Punch Out-marker at current cursor position for Punch recording

### **Loop off active**

A tap toggles between „Loop active“ and „Loop off“ - Loop active is also indicated in the REC-Button of transport-control

### **Punch off active**

A tap toggles between „Punch active“ and „Punch off“. Punch active is indicated in the REC-Button of transport-control. When punch is activated, the recording is done only, between punch-in and punch-out point (for armed tracks of course).

### **Page Selector Bar**

The different functions pages of the workspace can be easily accessed by one or two taps on the „Page Selector Bar“. There are four „top pages“ containing up to four „sub pages“ each.



#### **I/O**

This page allows to access to 3 sub pages : Meters, Asio Device, Machine & Tools.

#### **Arm**

This page allows to access to 4 sub pages : Matrix, Group, Delay, Routing.

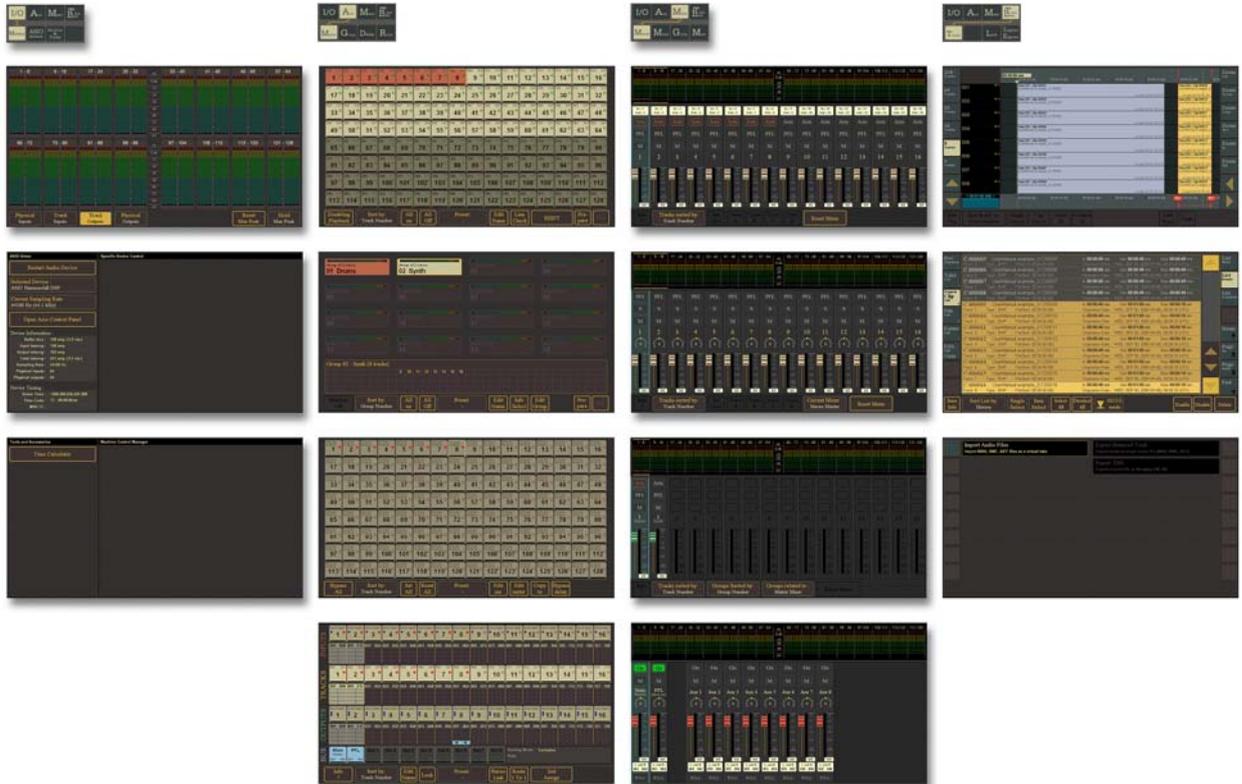
#### **Mixer**

This page allows to access to 4 sub pages : Matrix, Mixes, Group, Main.

#### **Time line**

This page allows to access to 4 sub pages : Tracks, List, Import/Export.

All the MT128 pages per group I/O , ARM , MIXER and TIMELINE:



## Transport Option Dialog Box

By clicking on the right part of the Timecode display in the transport bar, a specific option dialog box appears to setup different option regarding the Transport.

M.I.D.I.

/

LTC



### Transport Scaling

Defines the scale type used to display timecode in the transport bar. Setting this scale is also setting the TimeLine Scale in the same time. While changing TimeLine Scale does not affect the selected Transport Scale.

### TimeLine Scaling

Defines the scale type used to display timecode on timeline and list (Rec Session, Take, Clips, Files, EDL...).

### TimeCode Source

Gives the source of Timecode used in chasing mode. Click on it to make appear a menu of different TC-Sources:.

Time Code Source	Comment
Internal	Time code is given by the project timeline
24H	Real Time given by PC Clock
LTCa	LTC coming from ASIO driver (RME TCO)
LTCi	LTC coming from physical audio input
MTC1	SMPTE time code coming from M.I.D.I. input 1
MTC2	SMPTE time code coming from M.I.D.I. input 2
MMC TC	SMPTE coming from MMC Remote Driver

REM : LTCi (audio input) and MIDI input 1&2 can be configured in the System Settings Pages (see M.I.D.I. / LTC section).

**TimeCode Format**

Gives the current Timecode format used to display Cursor position as timecode (hh:mm:ss:frame). **In chase mode, this format must fit the format of the incoming timecode.**

**Incoming Timecode**

This Shows the source Timecode in the selected format. Below it displays the same time code with the offset applied on. **This second Timecode will be the one followed by the chasing process.**

**TimeCode Offset**

Is the Offset applied to the incoming Timecode in chasing mode.

**Send All Timecode**

When checked on, the MT128 is sending timecode on all possible output (LTC, MTC...).

**Chase :**

The chase section starts with the Delta Meter Bar that gives the drift of the timecode compared to the current playback position in chasing mode. Clicking on this meter bar opens/closes a TC-logger sub page on the right. This TC-logger allows to have the history of received timecode in chasing mode.

**Chase Mode :**

There is chase mode for recording and playback. In playback the chase mode can be SOFT , HARD or VARI when while record the chase mode can be SOFT only (automatic).

**RESYNC :**

Means try to lock again on the timecode if it is lost.

**STOP AFTER TC-LOSS :**

Means stop playback or record if the timecode is not present or corrupted during a certain amount of frames.

**Mute FF/REW :**

While FF or REW , the playback can be played at different speed than x1 (like on a true tape machine). If Muted, the FF/REW process will be all-silent.

**Reverse Playback :**

If the option is checked on, to push PLAY twice will go on reverse playback.

**Goto End on Record :**

If the option is checked on, the cursor will go automatically at the end of the project (end of the last clip on the timeline) when pushing REC button.

**Return on Stop:**

Return to previous position when stopping.

***Record Start Time:***

Start a recording session at pre- defined time. This time can be defined by clicking in the right box. The time reference is the PC time given by the small clock on the caption SYS-INFO section.

***Record Duration:***

Stops recording after defined time. This time can be defined by clicking in the right box.

***Time Limited Files:***

Auto creates periodically new audio files.

***Pre Record Buffer:***

When enabled there is audio added to the audio file preceding the start point of the recording.

***Post Record Buffer:***

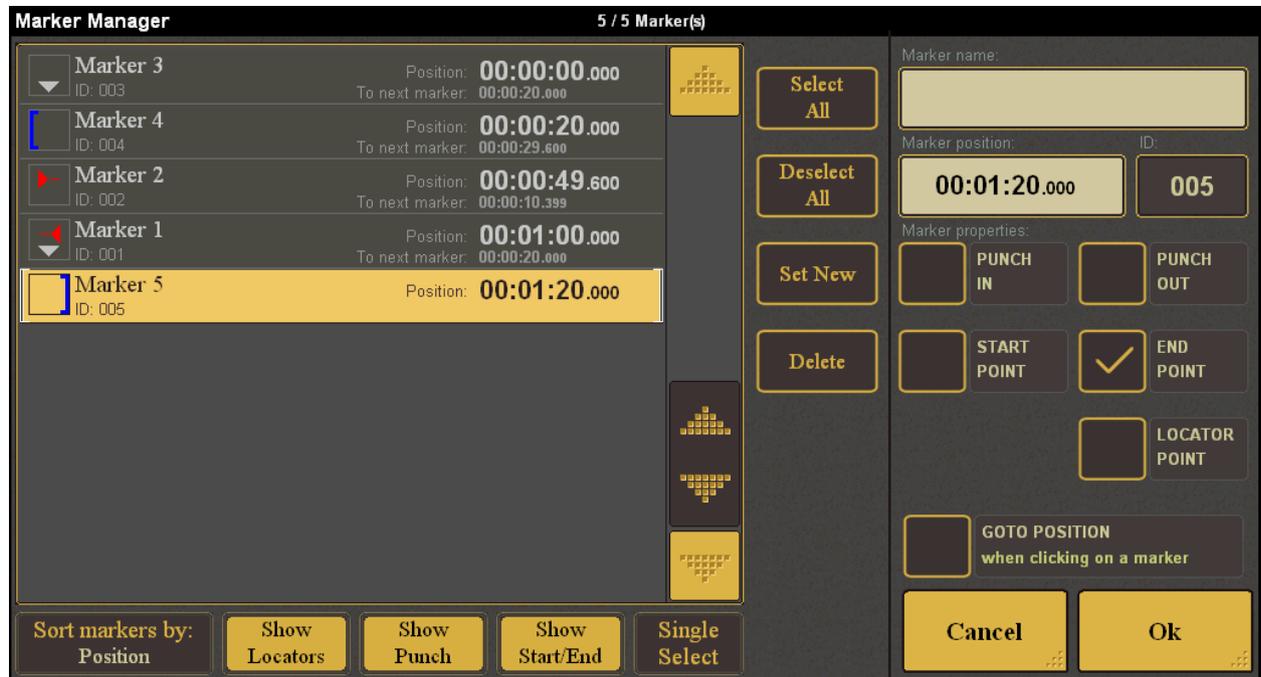
When enabled there will be audio added at the end of the audio file following the end of the recording.

***Pre -Roll:***

Time to start playback before the original start point.

## Marker manager

In this sub-page all marker-related operations (name, position, marker-type, add, delete) can be done. A list-box shows all markers, their position and attribute. Three view-filters and a sorting function help to keep overview. All markers are numerated by an internal ID.



### Markers

On the left side all markers are listed. A scrollbar on the right side navigates through all marker entries. Icons reflect the attribute of the markers, that can be adjusted on the right side. Markers contain at least one attribute.

### Select all

A tap selects all markers in the list. Button is blinking. tapping again resumes to previous selection.

### Deselect all

A tap deselects all markers in the list. Button is blinking. tapping again resumes to previous selection.

### Set new

A tap defines a new marker (type Locator) at the current playhead position.

### Delete

A tap deletes selected marker after confirming the step.

### Sort Markers by

A tap opens list for selection the sorting order (position, name, ident)

### Show locators

A tap toggles listview for markers that carry the Locator attribute. Colored button indicates display „on“, grey button display „off“.

### **Show Punch**

A tap toggles listview for markers that carry the Punch attribute. Colored button indicates display „on“, grey button display „off“.

### **Show Start/Stop**

A tap toggles listview for markers that carry the Start/Stop attribute. Colored button indicates display „on“, grey button display „off“.

### **Select Mode**

Allows to change the current selection mode.

- Single Select : Exclusive Single Selection.
- CTRL Select : Cumulative selection
- SHIFT Select : Area Selection.

### **Marker Name**

A tap opens the virtual keyboard to enter name of selected marker.

### **Marker Position**

A tap opens numeric to enter TC position of selected marker.

### **ID**

shows the internal ID of selected marker.

### **Punch in**

A tap toggles marker attribute between „on“ and „off“. A hook indicates „on“.

### **Punch out**

A tap toggles marker attribute between „on“ and „off“. A hook indicates „on“.

### **Start Point**

A tap toggles marker attribute between „on“ and „off“. A hook indicates „on“.

### **End Point**

A tap toggles marker attribute between „on“ and „off“. A hook indicates „on“.

### **Locator Point**

A tap toggles marker attribute between „on“ and „off“. A hook indicates „on“.

### **GO TO POSITION**

A tap toggles function – a hook indicates „on“. When function is „on“ the playhead jumps to marker position when tapping to the according marker entry in the list. This works in Stop and Play.

### **Cancel**

A tap discards changes being made and exits subpage.

**OK**

A tap saves changes being made and exits subpage.

## Take validation box

The „Take Validation Box“ allows for preparing the next take. After recording a take it will popup automatically (depending on „SysSet-Recording-Always Good Take“) for confirmation of already recorded takes. The functionality of the Take Validation Box depends whether a new take needs to be prepared or existing takes need to be validated. A tap on the „OK/Cancel“ or „Exit“-button will close the Take Validation Box and allow for further operation without preparing or confirming takes.

The screenshot shows a software interface for preparing a take. The main window is titled "Take Preparation" and has a dark background. At the top, it says "Next Take 003". There are three small input fields for "In:", "Out:", and "Length:". Below these are three larger text input fields. The first is labeled "Take Name:" and contains the text "UserManual example\_003". The second is labeled "Take Comment / Description:" and is empty. The third is labeled "Take Prefix:" and contains the text "UserManual example". At the bottom of the main area are two large buttons: "Ok" and "Cancel". To the right of the main area is a vertical panel titled "Prepare Next Take" which contains a virtual keyboard with yellow keys.

### **Take name**

A tap opens the virtual keyboard to enter the take name being recorded next. The take name will be reflected by the clip- and file-name.

### **Take comment/Description**

A tap opens the virtual keyboard to enter metadata for the next take.

### **Take prefix**

A tap opens the virtual keyboard to enter prefix for the next take.

### **OK**

A tap saves changes being made and exits subpage

### **Cancel**

A tap discards changes being made and exits subpage.

## Unvalidated Takes

A list shows all takes, that are not validated so far. A scrollbar on the right hand side allows for navigation through the list i.e. the take entries. A tap on the take name will select it for edit and shows all information related to the take (Origination Date, Record Session,...).



### Good Take

A tap marks the take as good. It's related audio (clip) is enabled on timeline.

### Bad take(disable)

A tap marks the take as bad. It's related audio (clip) is enabled on timeline. A „bad take“ is marked in the List-View.

### Abort take (delete)

A tap deletes the take and its related audiofile. No audio (clip) will be added to the timeline.

### Exit

A tap exits the subpage.

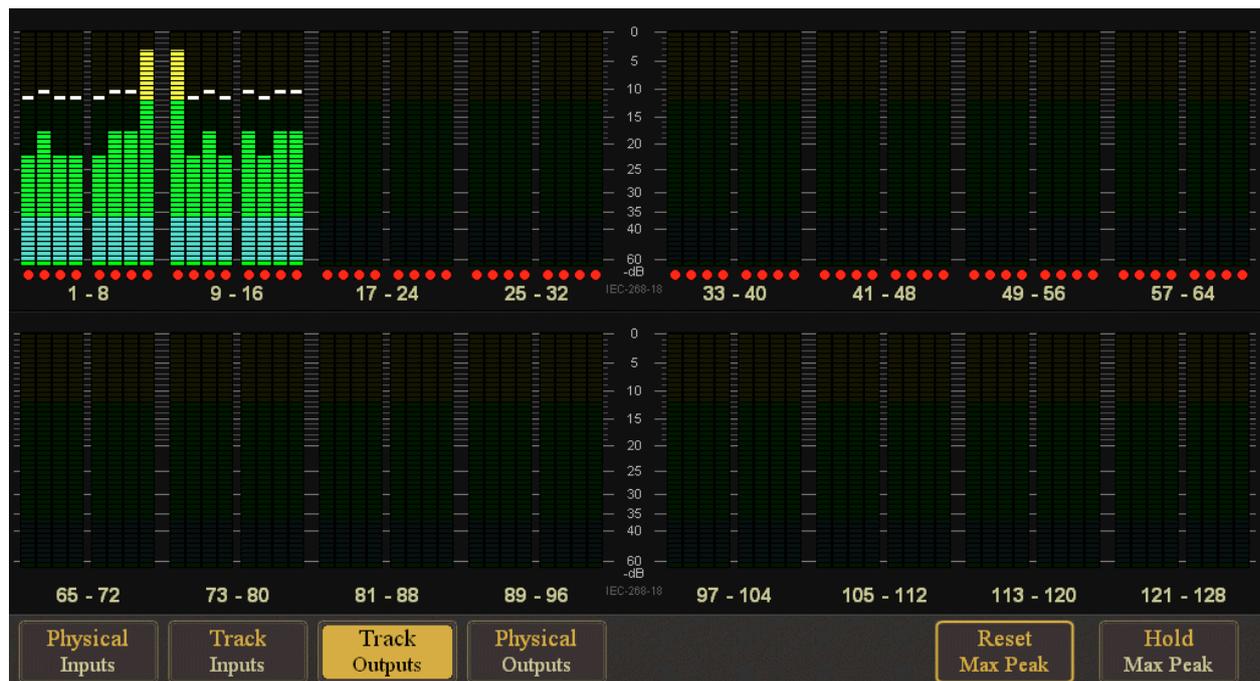
## I/O FUNCTION PAGES

The first group of pages allow to check audio i/o (metering pages) and configure ASIO driver. The “Machine & Tools” sub page provides access to possible additional components. It can be whatever software tool and later specific Machine Control Software (to remote additional hardware, like converter or router for example).



### Meters

Metering of audio signal at four different measure points is provided on this page. Red Dots at the bottom of each track show that track is armed. Green rectangle at the bottom of the scale of each track shows whether there is signal present or not. Green = signal is present



#### Physical Inputs

A tap shows the metering of all physical inputs.

#### Physical Outputs

A tap shows the metering of all physical outputs.

#### Track Inputs

A tap shows the metering of all track inputs.

### **Tracks Output**

A tap shows the metering of all track outputs

### **Reset Max Peak**

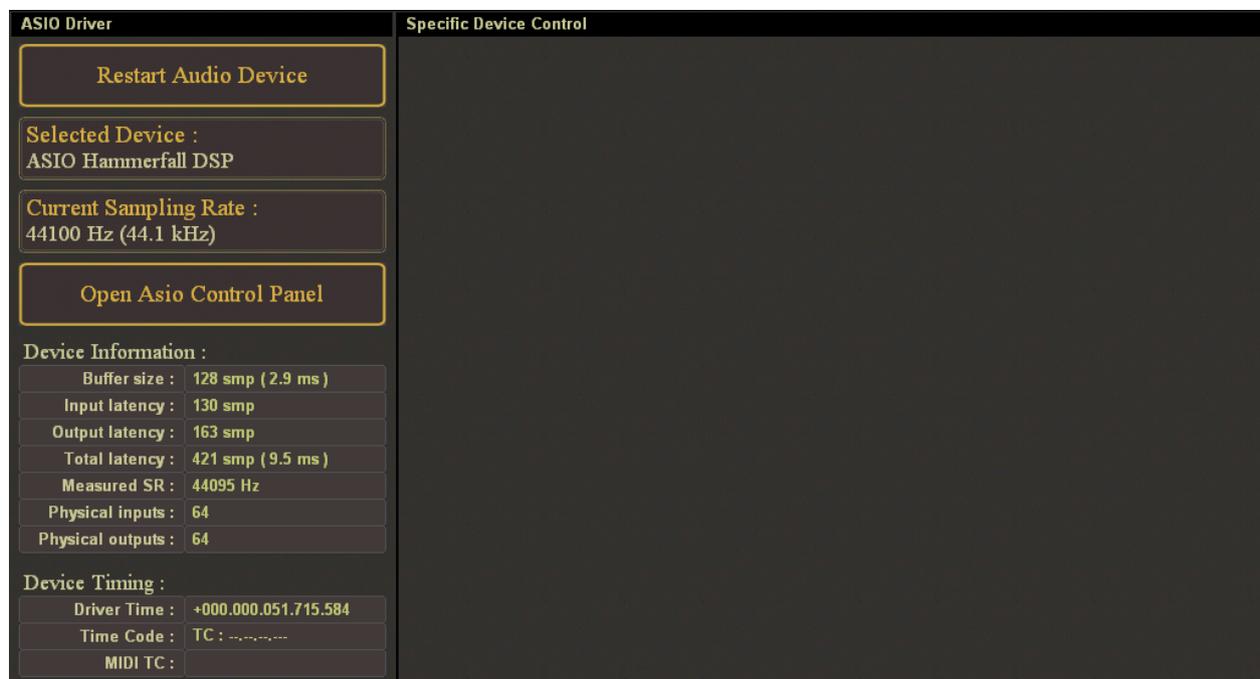
A tap resets the maximum peak when „Hold Max Peak“ is on.

### **Hold Max Peak**

A tap toggles between „Hold Max Peak“ on and off. Button is lit when function is „on“.

## **ASIO Device**

Control and information about the used audio device and it's properties..



### **Restart Audio Device**

A tap will restart the audio device after confirming with „ok“.

### **Selected Device**

A tap opens a selection of all available audio devices (ASIO Drivers).

### **Current Sampling Rate**

A tap opens a menu to select another sampling frequency. The ASIO driver can accept or not this new sampling rate (depends on hardware configuration, ASIO synchro type...).

### **Open ASIO Control Panel**

A tap opens the driver dialog of used / selected audio device.

**Device Information:**

Information about audio device properties (buffer size, latency, sample rate, number of i/o's).

Samplerate is Measured SR: it means the MT128 is measuring the sampling rate according the number of sample provided per second by the audio driver. If this sampling rate is not according current project sample rate, MT128 show different alert. This allows to detect bad hardware synchro for example (bad wordclock , bad synchro).

**Device Timing:**

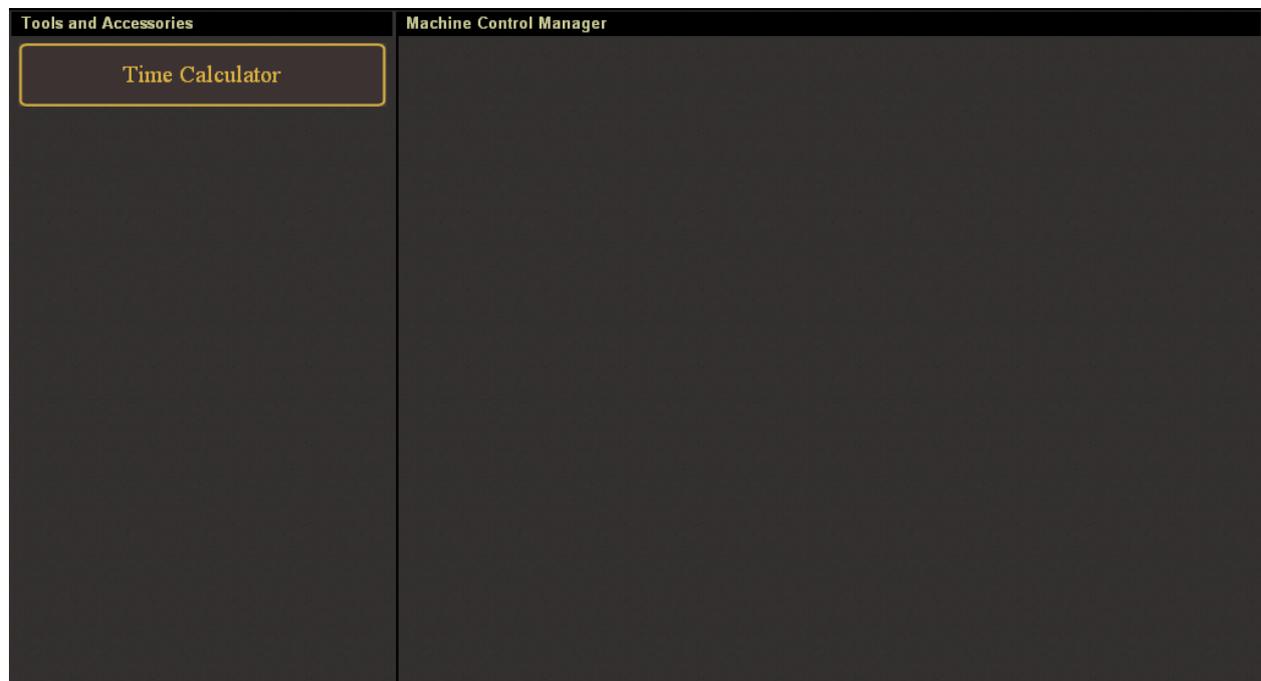
Information about elapsed time since start of audio device, current timecode coming from the ASIO Driver (for example from the RME TCO board).

**Specific Device Control**

Area dedicated to possible specific control of the ASIO driver (future implementation).

**Machine & Tools**

This page is intended to give access to additional components. It can be regular software which will be listed in the Tools & Accessories section (the list is given by the startup script , see administration page and MT128 StartupScript language documentation).



The Machine Control Manager Section is dedicated to list the possible MT128 specific driver to control additional hardware (like converter, router etc...).

# ARM PAGES

This group of 4 pages are dedicated to Recording session. They allow to manage track arming, group definition and arming, delay per track for monitoring and routing. All the bare necessities to manage whatever record session.

## Arming Matrix



### Track Button (128)

A tap arms / unarms the related track. Button becomes red if track status is armed. Depending of alternate modes (Edit Name / Line Check / Prepare / Disabling Playback) a tap will cause different functions.

### Disabling Playback

Enter in a mode where you act on Playback status (small green arrow in each track button).

### Sort by:

A tap opens a selection for different sorting options (track number, track name, input assignment, output assignment).

### All On

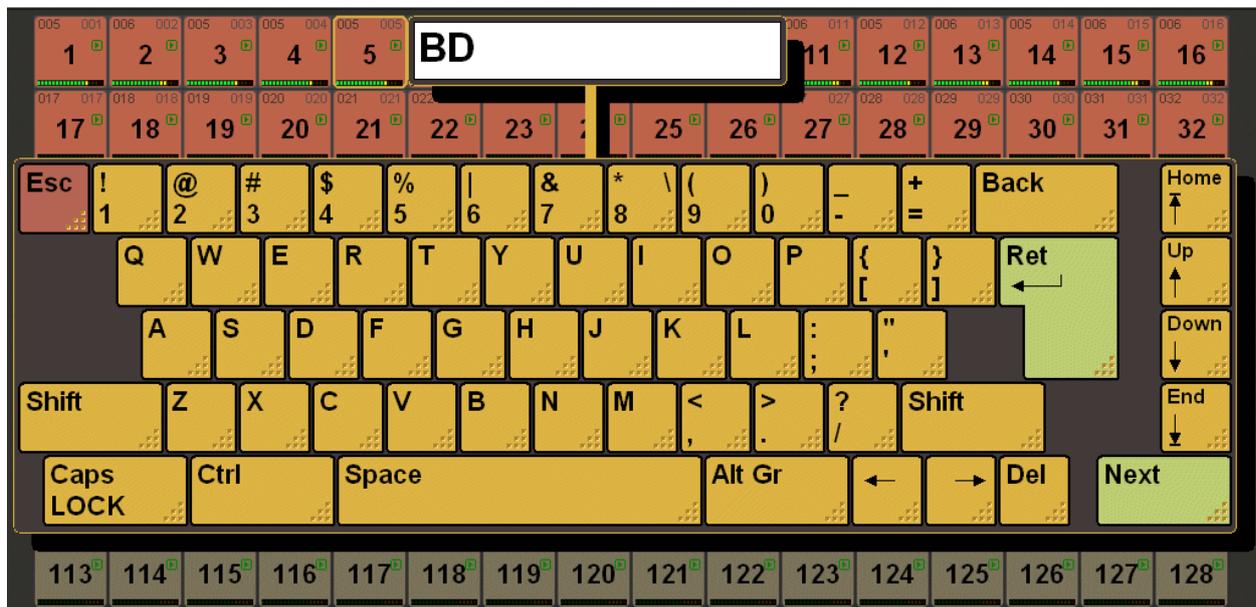
A tap arms all tracks (or enable playback if in this mode). Button is ON when all tracks are armed and previous states can be restored. A further tap will resume to previous arming selection.

### All Off

A tap unarms all tracks (or disable playback on all tracks if in this mode). Button is ON when all tracks are unarmed and previous states can be restored. A further tap will resume to previous arming selection.

### Edit Name

A tap enables the Naming-mode. Button is blinking when naming mode is active, then a tap on a track button will open the virtual keyboard for naming. The button NEXT allows to valid the current name and go to edit the next track name. This navigation is also implementd on true keyboard with page-up / page down key.



### SHIFT

A tap enables coherently ARM/UNARM of several tracks. tap <Shift>, then first track and last track => selection of all tracks in between

### Line Check

This mode allow to monitor (in the PFL bus) the input of the track you select. This monitored track can be armed/ unarmed by clicking twice. This mode is automatically canceled if going in a n other page.

### Prepare

In this mode, the arming can be set on several track but without being active. It's a preparation. When finished, the user will have to click on SET (confirm the preparation) or ESC (abort).

## Group

Tracks can be combined as track groups. Depending on „SysSet-Mixer / Routing – Exclusive Group“ a track can be part of one or more track groups. There are 16 Group buttons with group number, group name, meter and count of tracks



### Group button

Like in the arming matrix page, typing on group buttons acts on arming status. To select a group without changing its arming status can be done in INFO SELECT mode.

### 128 field Matrix for Group information

Display shows track number assigned to the selected group. Armed tracks are marked with a red square in the background.

### Sort by:

A tap opens a selection for different sorting options (group number, group name).

### All On

A tap arms all groups. If the button is ON, a further tap will resume to previous arming state.

### All Off

A tap unarms all groups. If the button is ON, a further tap will resume to previous arming state.

### **Edit Name**

A tap enables the Naming-mode. Button is blinking when naming is active, then a tap on a track-group button will open the virtual keyboard for naming.

### **Info select**

A tap enables the Info-mode. Button is blinking when mode is active, then a tap on a track-group button will show all tracks assigned in the info display.

### **Edit Group**

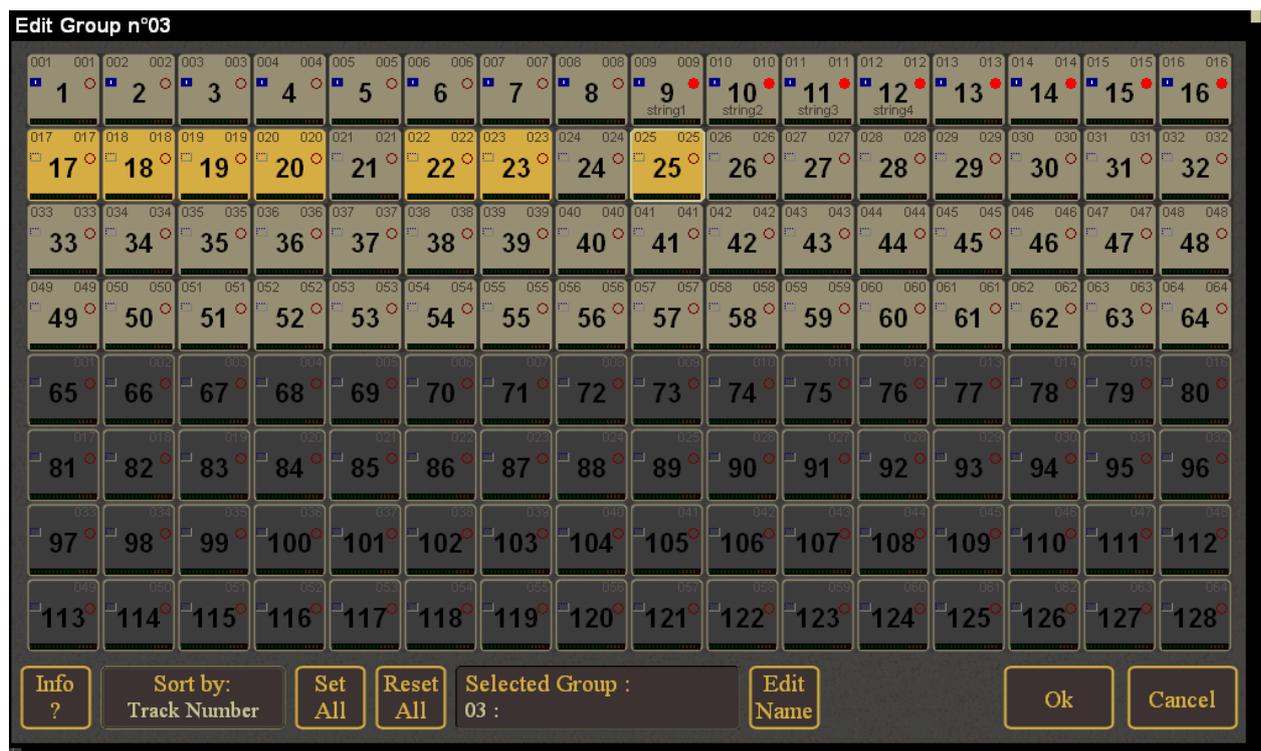
A tap enables the Edit-mode. Button is blinking when mode is active. A tap on a track group will open a sub page (Edit Group) for assignment of tracks to that group.

### **Prepare**

Preparation to arm / unarm several groups.

## **Edit Group Dialog Box**

A dialog box appears to select the tracks which will be in the group.



### **Sort by:**

A tap opens a selection for different sorting options (track number, track name, input assignment, output assignment).

### **Set All**

A tap assigns all tracks. Button stays ON when all tracks are assigned, a further tap will resume to previous assignment.

### Reset All

A tap un-assigns all tracks. Button stays ON when all tracks are unassigned. A further tap will resume to previous assignment.

### Selected group

Display Information related to the current group.

### Edit Name

A tap opens the virtual keyboard to enter name of track group.

### OK

A tap saves changes being made and exits.

### Cancel

A tap discards changes being made and exits.

## Delay

Delay can be used at the Track Output before the mixers. Delay is „non-destructive“ and therefore intended for monitoring.

The screenshot displays the MT128 software interface. At the top, there is a status bar with the following information: Sys Set, SYS-Info, Device: Running, 44.1 kHz, 10:56 am, DISPLAY status 00:00:00, Project: UserManual - vburel, Rec: 001, Take: 001, F: 00064, C: 000064, 44.1 kHz, BWF, 24 bit. Below the status bar is a grid of 128 tracks, numbered 1 to 128. Tracks 1-32 are in a grey state, tracks 33-48 are in a blue state, and tracks 49-128 are in a grey state. Below the track grid is a row of buttons: Bypass All, Sort by: Track Number, Set All, Reset All, Preset: -, Edit ms, Edit meter, Copy to, Bypass delay. At the bottom, there is a transport control section with a time display of 00:13:41.170, a Next Take 002 button, and various transport controls like Go to Prev, Go to Next, Edit, Loop off, Punch off, I/O, Arm, Mixer, Time Line, Set Start, Set End, Set LOC, Set Punch In, Set Punch Out, Matrix, Group, Delay, and Route.

### **Track Button (128)**

For each track a delay can be set , reset, muted.

### **Bypass All**

A tap bypasses all track delays. Button is blinking and track buttons become violet when mode is active.

### **Sort by**

A tap opens a selection for different sorting options (track number, track name, input assignment, output assignment).

### **Set all**

A tap will copy the delay-value of the selected track to all other tracks. Button stays ON when function is active. A further tap will resume to previous values.

### **Reset all**

A tap resets all adjusted track delays to zero. Button stays ON when function is active. A further tap will resume to previous values for each track delay.

### **Edit ms**

A tap enables the enter-mode for the track delay in milliseconds. Button is blinking when mode is active, then a tap on a track button will open the virtual numeric for input of desired value. Maximum delay is 100ms.

### **Edit meter**

A tap enables the enter-mode for the track delay in meters. Button is blinking when mode is active, then a tap on a track button will open the virtual numeric for input of desired value. Maximum delay is 34,4 meters (related to speed of sound defined by the System Setting Regional Options).

### **Copy to**

A tap enables the copy-mode. Button is blinking when mode is active, then a tap on a track button will copy the delay value of the previous selected track button.

### **Bypass Delay**

In this mode a delay can be muted on individual tracks

## Route

128 x 128 Routing matrix. There are three lines: Inputs / Tracks / Outputs Depending of SysSet-Mixer / Routing – Exclusive Routing options. Each Physical Input can be assigned to one or more tracks. Each track can be routed to one physical output. Also a track can have 2 assignment and combine two physical inputs and 2 physical outputs.

BUS (MAIN , PFL and 8 AUX) can also be routed to physical outputs, or/and tracks inputs (to be able to record BUSES if required).

The matrix-view shows 16 of 128 channels. The view is organized in 2 successively „channel- units“ of 8 channels. There are 16 „channel-units“ (16x16 = 128) that can be accessed tapping in the info display related to each line. Browsing is done for each line (Inputs / Tracks / Outputs) independently. Routing is done with two taps (source => destination or destination => source).

The screenshot displays the MT128 software interface. At the top, there's a 'Sys Set' section with 'SYS-Info: Device: Running', '44.1 kHz', '128 Tracks', and '11:06 am'. Below this is a 'Project: UserManual - vburel' section with 'Rec: 001', 'Take: 001', 'F: 00064', 'C: 000064', '44.1 kHz', and '24 bit'. The main part of the interface is a routing matrix with three rows: 'INPUTS', 'TRACKS', and 'OUTPUTS'. Each row has 16 columns representing channels. The 'INPUTS' row shows 16 HDSP MADI inputs, with channel 5 selected. The 'TRACKS' row shows 16 tracks, with channel 5 selected. The 'OUTPUTS' row shows 16 HDSP MADI outputs, with channel 5 selected. Below the matrix is a 'BUS' section with 'Main Master', 'PFL', and 8 'Aux' channels. The bottom section contains a control panel with buttons for 'Info', 'Sort by: Track Number', 'Edit Name', 'Lock', 'Preset', 'Stereo Link', 'Route 1 To 1', '2nd Assign', a timeline showing '00:06:14.025', and various transport controls like 'Go to Prev', 'Go to Next', 'Edit', 'Loop off', 'Punch off', 'I/O', 'Arm', 'Mixer', 'Time Line', 'Set Start', 'Set End', 'Set LOC', 'Set Punch In', 'Set Punch Out', 'Matrix', 'Group', 'Delay', and 'Route'.

### Physical Input

Input Selector and input overview that can be used as slider to select the desired 16 input area.

### Tracks

Tracks selector and overview that can be used as slider to select the wanted 16 tracks.

### Physical Output

Out put Selector and overview that can be used as slider to select the wanted 16 output.

### **Bus outputs**

BUS Selector.

### **Info display**

Contextual help.

### **Sort by:**

A tap opens a selection for different sorting options (track number, track name, input assignment, output assignment).

### **Edit name**

A tap opens enables the naming mode for Inputs / Tracks / Outputs / Busses. A further tap on any channel-button (input, track, output, bus) will open the virtual keyboard for text input. See also Help in the „Info display“.

### **Lock**

A tap enables the lock-mode. Button is blinking when mode is active, then a tap on any channel-button (input, track, output, bus) will lock it. See also Help in the „Info display“.

### **Stereo Link**

Enter this mode to link (or unlink) 2 adjacent tracks together. When 2 tracks are linked, the recorded file (related to these 2 tracks) is a stereo one. Tracks are also automatically linked on different mixer pages.

### **2nd assign**

This mode allows to set a second input/output assignment. Tracks can receive signal from 2 inputs, and can send signal to 2 output.

### **Route 1:1**

Reset routing to initial one. The button is ON while it can restore the previous routing. In this case, clicking again will recall the previous setting.

# MIXER PAGES

The MT-128 has three mixers – matrix, mixes and main. There are 9 stereo-busses (main, aux 1-8) for independent mixes and a pfl-bus which can be routed to any of the 128 physical outputs. Matrix- and Main mixer work parallel; i.e. both of them can feed every physical output with signal. The mixer „Mixes“ feeds the 9 stereo-busses. On top there is a meter bar which is also used for browsing through all „channel-units“. The bus-routing can be predefined in the „startup-script“. By default the „main“-bus and the „pfl-bus“ are routed to the last two physical outputs. The auxiliary busses are routed to the backwards counted pairs of physical outputs. Example: 64 possible tracks – main = 63/64, pfl = 63/64, aux 1 = 61/62, aux 2 = 59/60,... Note: When „main-bus“ and „pfl-bus“ use the identical outputs any used pfl-function will work as „solo/cut“-function by muting the „main-bus“.

## Mono matrix mixer



### Meter bar

Displays level of all tracks. The meter bar is also used to select part of the mixer and to show which strip are displayed in the mixer section.

### Strips

Each track is represented by a strip. In each strip we have from the top to the bottom, a routing button, a button to ARM / UNARM track, a PFL button, a MUTE button and a fader to set the gain of the track.

### Slider (level)

A „zoomed“ fader is used for optimized handling on touchscreen. Two sliders are provided for coarse and fine adjustment.



### Route page access

On the top of the strip, the routing is displayed (physical input, physical output). A tap will access the view of the related track on the routing page.

### Arm

A tap arms / unarms the related track. Button becomes red if track status is armed.

### PFL

A tap toggles the pfl-function (on / off). Button is lit when pfl is on. Then the track output is fed to the pfl-bus.

### Mute

A tap toggles the mute-function (on / off). Button is lit when mute is active. Then the track output is muted on its assigned physical output. Note: there can be still signal present on this physical output as it can be fed from another mixer.

## Gain

A Tap on it display a precision fader to adjust level.

## Sort by:

Sort by: Track Number, Track Name, Input assignment, Output Assignment



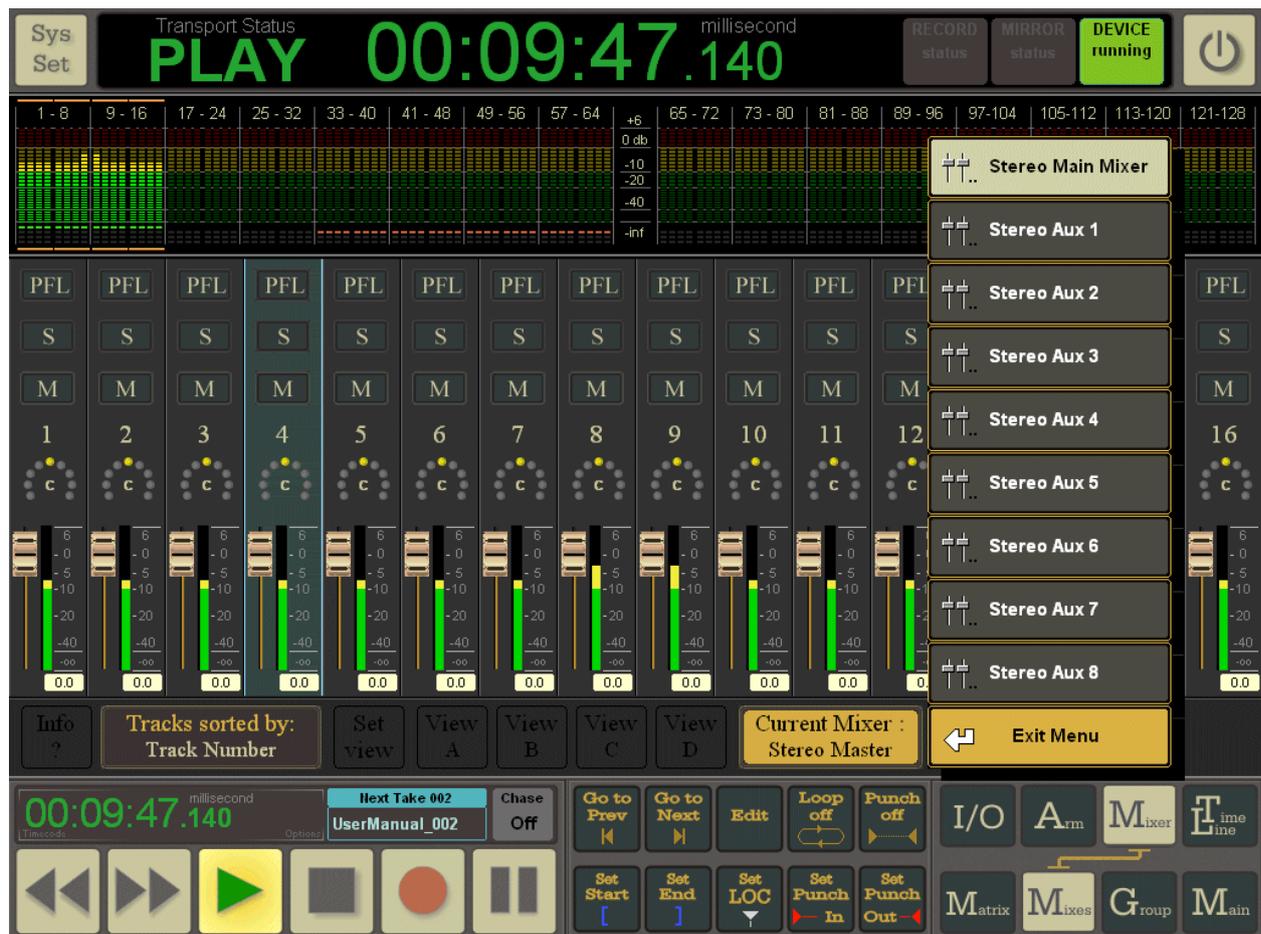
## Reset Menu

This button opens a menu to reset different type of parameters of the mixer on every tracks : ARM ALL, ARM OFF, RESET PFL, RESET MUTE, SET SLIDER GAIN.

## Mixes

Mixes-Mixer allow for independent stereo mixes which can be routed to any physical stereo output. Further there is a PFL-bus which can be routed to any physical output. 16 track fader (= 2 channel units) are shown per page – display of track number, track name, current level and panoram. On top there is a meter bar showing all available channels which is also used for browsing through all „channel-units“.

On the bottom, the Current Mixer is displayed in a button used to display a menu to select the desired mixer. Stereo Mixer (per default) or Aux 1 to Aux 8. The BUS Assignment of these mixers are in the Main sub page.



### Meter bar

Displays level of all tracks of the current selected mixer. The meter bar is also used to select part of the mixer and to show which strip are displayed in the mixer section.

### PFL

A tap toggles the pfl-function (on / off). Button is lit when pfl is on. Then the track output is fed to the pfl-bus.

### Solo

A tap toggles the solo-function (on / off). Button is lit when solo is active. Then all other channels are muted and only solo'ed channels are fed to the stereo bus.

### Mute

A tap toggles the mute-function (on / off). Button is lit when mute is active. Then the track output is muted on its assigned physical output. Note: there can be still signal present on this physical output as it can be fed from another mixer.

### Panoramic

Since the mixer are stereo and send signal to a stereo BUS, the panoramic control allows to adjust the signal on Left or Right Channel of the BUS..

## Gain

A Tap on it display a precision fader to adjust level.

## Sort by:

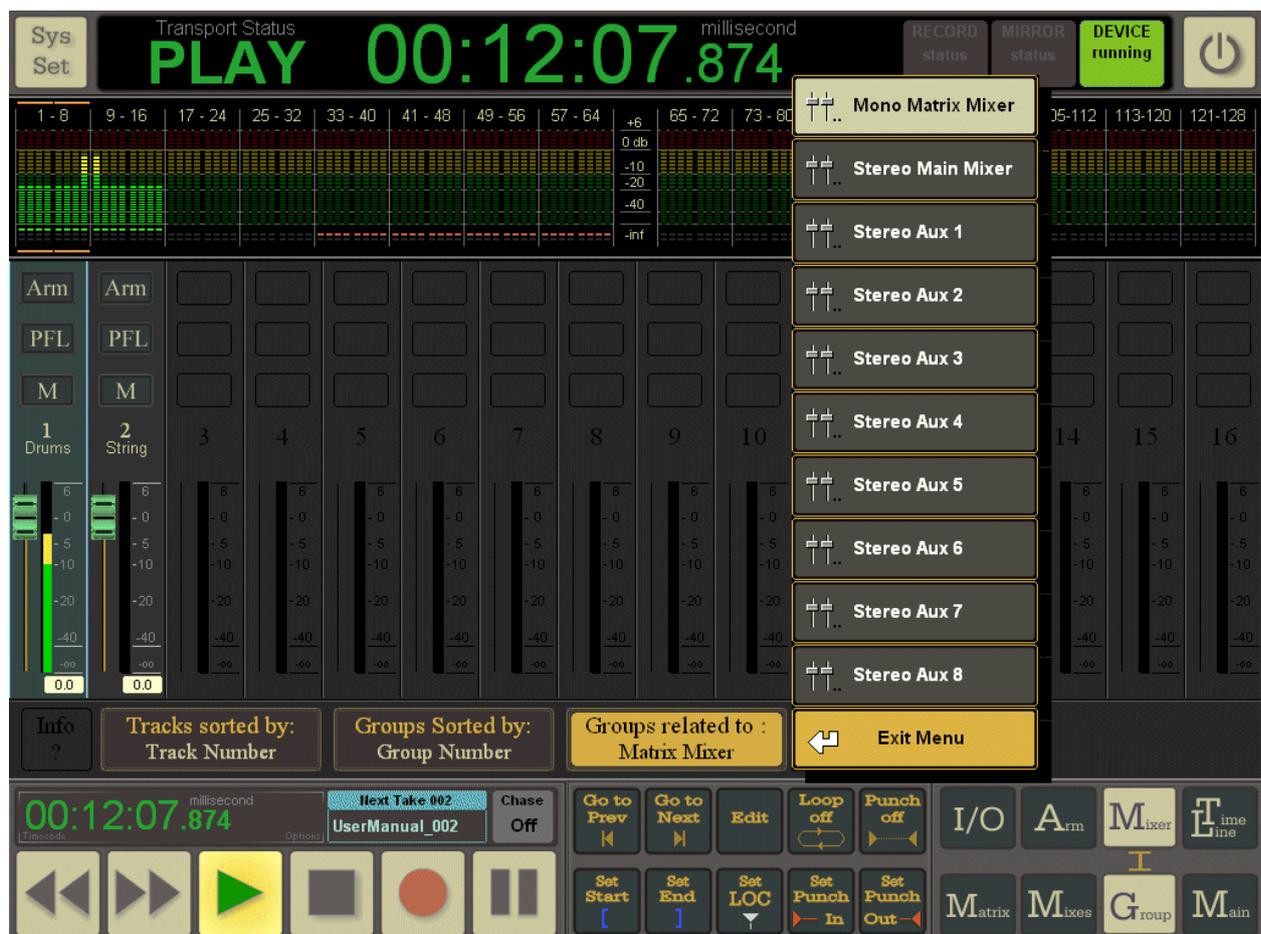
Sort by: Track Number, Track Name, Input assignment, Output Assignment  
tap closes the slider.

## Reset Menu

This button opens a menu to reset different type of parameters of the mixer on every tracks :RESET PFL, RESET SOLO, RESET MUTE, RESET PANORAMIC, RESET SLIDER GAIN.

## Group

In this section, we retrieve our groups defined in the ARM-GROUP page. For each group (upto 16) a related strip has been created and fits the strip of the mixer it belongs to. The group can be related to all of mixers : Mono Matrix mixers, Stereo Main mixer, and AUX mixers.



## Meter bar

Displays level of all tracks of the current mixer related to groups. The meter bar is also used to show which strip are part of the selected group.

### Sorted Track

The sorted function is the same as for all other mixer pages, but here will take effect only in the meter view. While the strip, showing group can be sorted by the other button.

### Sorted Groups:

Allows to sort the 16 strips of groups (by number or by name).

### Main

The main mixer provides level control of all stereo busses (Main, PFL, Aux 1-8). Master strips are shown – display of name, current level and balance level. Activation and mute buttons. On top there is a meter bar showing all available physical outputs (where the buses are routed to).



### On (activate)

A tap toggles between „on“ and „off“. Button is lit when „on“. Then bus signal is fed to assigned physical output. Replacing possible signal coming from tracks.

### Mute

A tap toggles the mute-function (on / off). Button is lit when mute is active. Then the bus signal is muted on its assigned physical output. Note: there can be still signal present on the physical output as it can be fed from the matrix mixer/bus.

### ***Meter bar***

A 128 channel meter bar showing level of the physical outputs to which the buses are assigned to.

### ***Routing***

shows the current routing of bus output, a tap on opens the routing page. In white the routing to physical outputs, in red below the routing to track inputs if any.

### ***Balance***

A tap opens the large slider for adjustment of balance level of stereo signal.

## TIME LINE PAGES

All timeline based operation, take history and audio import/export-functions are provided in these suite of pages.

### Tracks view

The screenshot displays the 'Tracks view' of the MT128 software. At the top, the transport status shows 'REC 00:16:10.842' in milliseconds, with a 'RECORD 64 Track 02h09' indicator and a 'DEVICE running' status. The main area shows 128 tracks, with tracks 001 through 008 visible. Each track has a waveform and a clip name, such as 'Take:001, Clip:00001 UserManual\_001 C00001'. The bottom bar contains various controls, including 'Edit Clip', 'Sort Track by: Track Number', 'Single Select', 'Clip Select', 'Select All', 'Deselect All', 'TAKE Prev.', 'TAKE Next', 'CLIP Prev.', 'CLIP Next', 'CLIP End', and 'Punch active'.

### Tracks vertical view 128 tracks

Timeline with all 128 tracks visible. There are navigation-shortcuts on different areas of the timeline-window. On the left hand side there is information of track status and a vertical numeration of all 128 tracks.

### Top Timeline

Timeline – a tap in the top area will snap the playcursor to the nearest locator position.

### Middle Timeline

Trackview – a tap in the middle area will place the playcursor to the exact „tap-position“.

### Bottom Time Line

Timeline – a tap in the bottom area will snap the playcursor to the nearest punch-marker position.

### Track Status

numeration in „channel units“ of 8 tracks each. A green led indicates when a track contains audio and a red led indicates an armed track.

### **Vertical Zoom (Left Button row)**

A tap zooms the vertical view to 128, 64, 32, 16, 8, or 4 tracks. Cursors allows to navigate vertically.

### **Horizontal Zoom (right Button row)**

Different buttons allow to see all the timeline (Full Zoom) or just 10 minutes of the timeline, 3 minutes or 30 seconds. Zoom in / Zoom out allows to zoom in a free way in both directions.

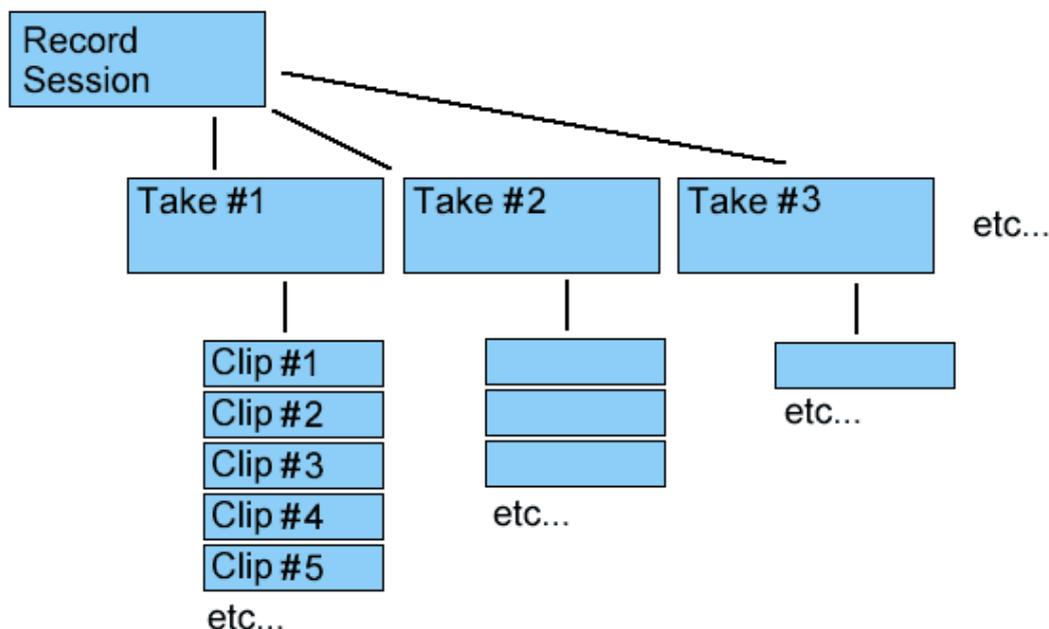
### **Navigation buttons:**

The five navigation buttons allow to go quickly to different key positions: Previous take, next take, previous clip, next clip or clip end.

## **List : Database organization.**

The List page is the database view of all recorded / imported audio data : Take and record session history. Files and Clips History. And finally EDL List which is the list of clip related to the timeline (what you see in the timeline view). The timeline is a kind of 2D projection of all this records history.

- **Record Session:** a “Record Session” is created at each start of record – also produces a new “Take”
- **Take:** a “Take” is created at record start and also when clicking the record button again, during recording (if the option is enabled in <SysSet-Recording>).
- **File:** Physical Audio Data – each track is recorded in it’s own “File”.
- **Clip:** Clips are defining track region reserved to recorded file.



## Record List



A Record Session is created at the beginning of the record (since you press the REC button of the transport bar). A record session is created even if no track are armed. A Record session is finished when push the STOP button.

<p>1 — 1 Selected Record Session</p> <p>1 — 1 Selected Take</p> <p>8 — 8 Selected Clips</p> <p>8 — 8 Selected Files</p> <p>1 — 1 Selected Folder</p>	<p>Selecting an item in a list is automatically producing a selection of involved items in other list.</p> <p>For example, here we have selected a Record Session, we can see that it contains 1 take, 8 clips and 8 files. And we can also see that only 1 folder is concerned.</p> <p>All the selection process is linked in this way to show the relationship between items type.</p>
--	--

Deleting (Disabling or Enabling) Record session (s), automatically deletes (Disables or Enables) pending Takes and clips.

### Item Info

A tap shows detail of the current selected Item and allow to edit some field : For example the session name and a comment can be typed here for each Rec Session item : the following dialog box appears :

### Session name :

shows name of selected <item>, a tap opens the virtual keyboard for text input.

### Session comment / description

shows comment / description of selected <item>, a tap opens the virtual keyboard for text input.

**Origination date**

Shows date and time of origin

**Termination date**

Shows date and time of termination.

**Take number**

Shows count of takes contained in the Record session

**File number**

Shows count of files contained in the Record session

## Take List

A tap shows a list of takes.

The screenshot shows the 'Take List' interface. At the top, there's a 'Sys Set' button and system information: 'SYS-Info: Device: Running 44.1 kHz', 'TC: Int. 00:00:00.000 ms 128 Tracks', and 'THU, OCT 1, 2009 (W:40) (UTC)'. Project info includes 'Project: UserManual example - vburel', 'Rec: 003', 'Take: 006', 'F: 00016', 'C: 000016', '44.1 kHz', and '24 bit'. A clock shows '04:30 pm'. The main list shows six takes with their respective In, Out, and Size values. A right sidebar has buttons for 'List Mode', 'List Details', 'List Complete', 'Home', 'Page up', 'Page down', and 'End'. The bottom control bar features a timecode display (00:00:00:00), transport controls, and buttons for 'GOTO mode', 'Enable', 'Disable', 'Delete', 'I/O', 'Arm', 'Mixer', 'Time line', 'Set Start', 'Set End', 'Set LOC', 'Set Punch In', 'Set Punch Out', 'Tracks', 'List', and 'Import Export'.

Deleting (Disabling or Enabling) Take(s), automatically deletes (Disables or Enables) pending clips.

On the right, there is navigation buttons :

### **Home**

A tap switches the list view to the top position of the list.

### **Page up**

A tap switches the list view by page in up-direction.

### **Page down**

A tap switches the list view by page in down-direction.

### **End**

A tap switches the list view to the end position of the list.

### **scroll buttons**

A tap scrolls the list view in up- or down-direction.

**scroll slider**

scrolls variable the list vertically

**List View Functions****Sort by:**

A tap opens a selection for different sorting options (history, name, start point, length, track+history, track+start point).

**Single/CTRL Select**

A tap toggles selection mode between single and CTRL. Single = only one item can be selected // CTRL = several items can be selected. Note: there is interplay with „Item/Group Select“.

**Item/Group select**

A tap toggles selection mode between item and group. Item = only the tapped item is selected // Group = all coherent items are selected // Note: there is interplay with „Single/Multi Select“.

**Select All**

A tap selects all items in the list. Button is blinking when function is active. A further tap resumes to previous selection.

**Deselect All**

A tap deselects all items in the list. Button is blinking when function is active. A further tap resumes to previous selection.

**GOTO Mode**

A tap enables the „goto-mode“. Button is colored when mode is active. Then a tap on an item will place the playcursor to the start point given by the item.

**Enable**

A tap enables selected item(s) on the timeline (and all related EDL). Note: depending the order of record, the item can be „under“ a 1 higher item.

**Disable**

A tap disables selected item(s) on the timeline (and all related EDL). The related clips disappear from timeline. A disabled item can be enabled again.

**Delete**

*A tap deletes selected item(s). The related clips disappear from timeline (and all related EDL). Related audio is deleted if we are in the file list. There is no undo of deletion.*

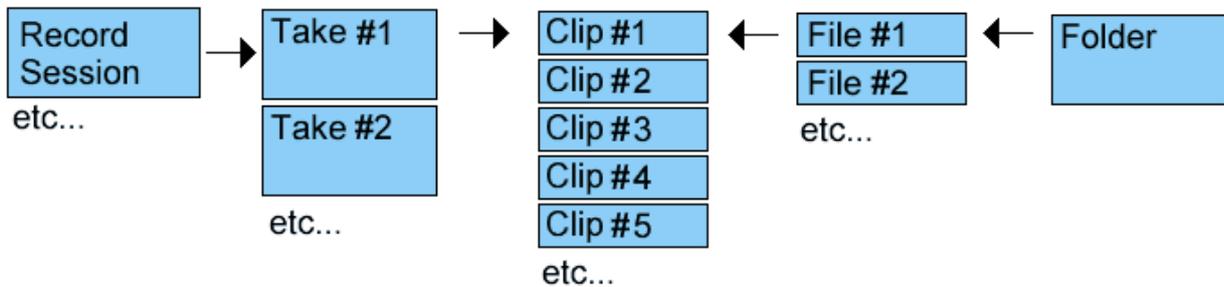
### Original Clip List

A tap shows a list of clips generated by the different record sessions (or import sessions). This is the original clip list related to the record history.

Track	Type	FileStart	In	Out	Size
1	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
2	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
3	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
4	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
5	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
6	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
7	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
8	BWF	00:00:00.000	00:00:00.000	00:00:45.519	00:00:45.519
9	BWF	00:00:00.000	00:00:49.658	00:01:00.000	00:00:10.341
10	BWF	00:00:00.000	00:00:49.658	00:01:00.000	00:00:10.341
11	BWF	00:00:00.000	00:00:49.658	00:01:00.000	00:00:10.341
12	BWF	00:00:00.000	00:00:49.658	00:01:00.000	00:00:10.341

### Editing policy :

Clips are the center of the editing process and are always concerned by the functions (Enable / Disable / Delete).



The user can act on Clip disabling/deleting by different ways and according several hierarchies. For example deleting a Take will consequently delete related clips (but related files and folder won't be deleted). On the side, deleting a File will delete all clips pending on this file (but of course related takes and record session won't be affected).

## File List

All generated file (or imported files) are listed in the File List.

The screenshot shows the MT128 software interface. At the top, there's a status bar with 'SYS-Info' (Device: Running, 44.1 kHz, 128 Tracks, TC: Int, 00:00:00.000 ms, THU, OCT 1, 2009 (W:40) (UTC)), 'Project: UserManual example - vburel', and 'BWF' (Rec: 003, Take: 006, F: 00016, C: 000016, 44.1 kHz, 24 bit). The main area is the 'File List' panel, which is currently selected. It shows a list of 12 audio files (F:00001 to F:00012) with their respective folder paths and sizes. The 'File List' tab is active, and other tabs like 'Rec Sessions', 'Take List', 'Original Clip List', 'Folder List', and 'EDL List Clip(s)' are visible. The bottom of the interface features a control panel with various buttons for file management (Item Info, Sort List by, Single Select, Item Select, Select All, Deselect All, GOTO mode, Enable, Disable, Delete) and playback controls (Next Take 007, Chase, Go to Prev, Go to Next, Edit, Loop off, Punch off, I/O, Arm, Mixer, Time line, Set Start, Set End, Set LOC, Set Punch In, Set Punch Out, Tracks, List, Import Export).

### Delete

A tap deletes selected item(s). The related clips disappear from timeline (and consequently all related clips in EDL). Related audio file is also deleted. There is no undo of deletion.

### Folder List

The list of folders shows all the folder involved in the project, containing all files of the project. This list is auto generated/checked and cannot be edited. However the user can use functions (like Delete, Disable/Enable) to edit all Clips and Files related to selected folder.

## EDL List Clip(s)

A tap shows the list of active clips on the timeline. The EDL reflects exactly what is represented on the Time Line Track.

Item	Sort List by:	Single Select	Item Select	Select All	Deselect All	GOTO mode	Enable	Disable	Delete
Rec Sessions	History								
Tr001-000001	C:000001								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr001-000002	C:000009								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							
Tr002-000003	C:000002								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr002-000004	C:000010								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							
Tr003-000005	C:000003								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr003-000006	C:000011								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							
Tr004-000007	C:000004								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr004-000008	C:000012								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							
Tr005-000009	C:000005								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr005-000010	C:000013								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							
Tr006-000011	C:000006								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr006-000012	C:000014								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							
Tr007-000013	C:000007								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr007-000014	C:000015								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							
Tr008-000015	C:000008								
In: 00:00:00.000	Out: 00:00:45.519	Size: 00:00:45.519							
Tr008-000016	C:000016								
In: 00:00:49.658	Out: 00:01:00.000	Size: 00:00:10.341							

Actually there is no editing function available to directly change something on the EDL.

### List mode

Allows to get 3 different view of the List : Basically with 24, 12, or 6 item per page. For each different size of item line, the list can display further information.

### List complete

A tap switches to a complete view. For the EDL list, many information are now displayed : name, in, out, size, original clip, file start point where the clip begins, and many other information related to the clip position on the timeline according different possible layer of clip.

Rec Sessions	Take	Clip Origin	In	Out	Size	FileStart	rank	Gain	Fade In	Fade Out	Overlaped Left	Overlaped Right
1	001	UserManual example_0 C00001	00:00:00.000	00:00:20.000	00:00:20.000	00:00:00.000	000001	0.0 db	0 ms	0 ms	0.0 ms	0.0 ms
1	007	UserManual example_0 C00017	00:00:20.000	00:00:24.760	00:00:04.760	00:00:00.000	000017	0.0 db	10 ms	10 ms	0.0 ms	10.0 ms
16	008	UserManual example_0 C00033	00:00:24.750	00:00:30.389	00:00:05.639	00:00:00.000	000033	0.0 db	10 ms	10 ms	0.0 ms	0.0 ms
1	001	UserManual example_0 C00001	00:00:30.389	00:00:45.519	00:00:15.130	00:00:30.389	000001	0.0 db	0 ms	0 ms	0.0 ms	0.0 ms
1	002	UserManual example_0 C00009	00:00:49.868	00:01:00.000	00:00:10.341	00:00:00.000	000009	0.0 db	0 ms	0 ms	0.0 ms	0.0 ms
1	001	UserManual example_0 C00002	00:00:00.000	00:00:20.000	00:00:20.000	00:00:00.000	000002	0.0 db	0 ms	0 ms	0.0 ms	0.0 ms

**In**  
shows in-time of selected <item> (all items)

**Out**  
shows out-time of selected <item> (all items)

**Size**  
shows length of selected <item> (all items)

**Take**  
shows the take the <item> belongs to (clip)

The EDL item shows also information concerning the relation between the clip representation in the timeline (top layer) and the original clip as it has been originally recorded.

Tr001-000002 C:000017	In: 00:00:20.000	Out: 00:00:24.760	Size: 00:00:04.760
Take: 007	Clip Origin: UserManual example_0 C00017	FileStart: 00:00:00.000	rank: 000017
Top Layer: 00:00:20.000	EDL Clip: 00:00:20.000	Size: 00:00:04.760	Gain: 0.0 db
Original Clip: 00:00:20.000	Size: 00:00:07.447	Fade In: 10 ms	Overlaped Left: 0.0 ms
	Size: 00:00:07.447	Fade Out: 10 ms	Overlaped Right: 10.0 ms

In the example above, we can see that only a part of the original clip is used in the timeline (top layer). To be precise, only the beginning of the original clip is visible (size = 4s.760ms) and the right part is overlapped by an other clip (on a upper layer : rank > 17), that's why we can see the overlapped Right : 10.0ms (default cross-fade duration).

## Import / Export

The Import/Export Page is intended to provide different functions to import audio file into current project or export from the current project. It allows (or will allow in future version) to import or export different part of project , in different format into or from the current project (EDL).

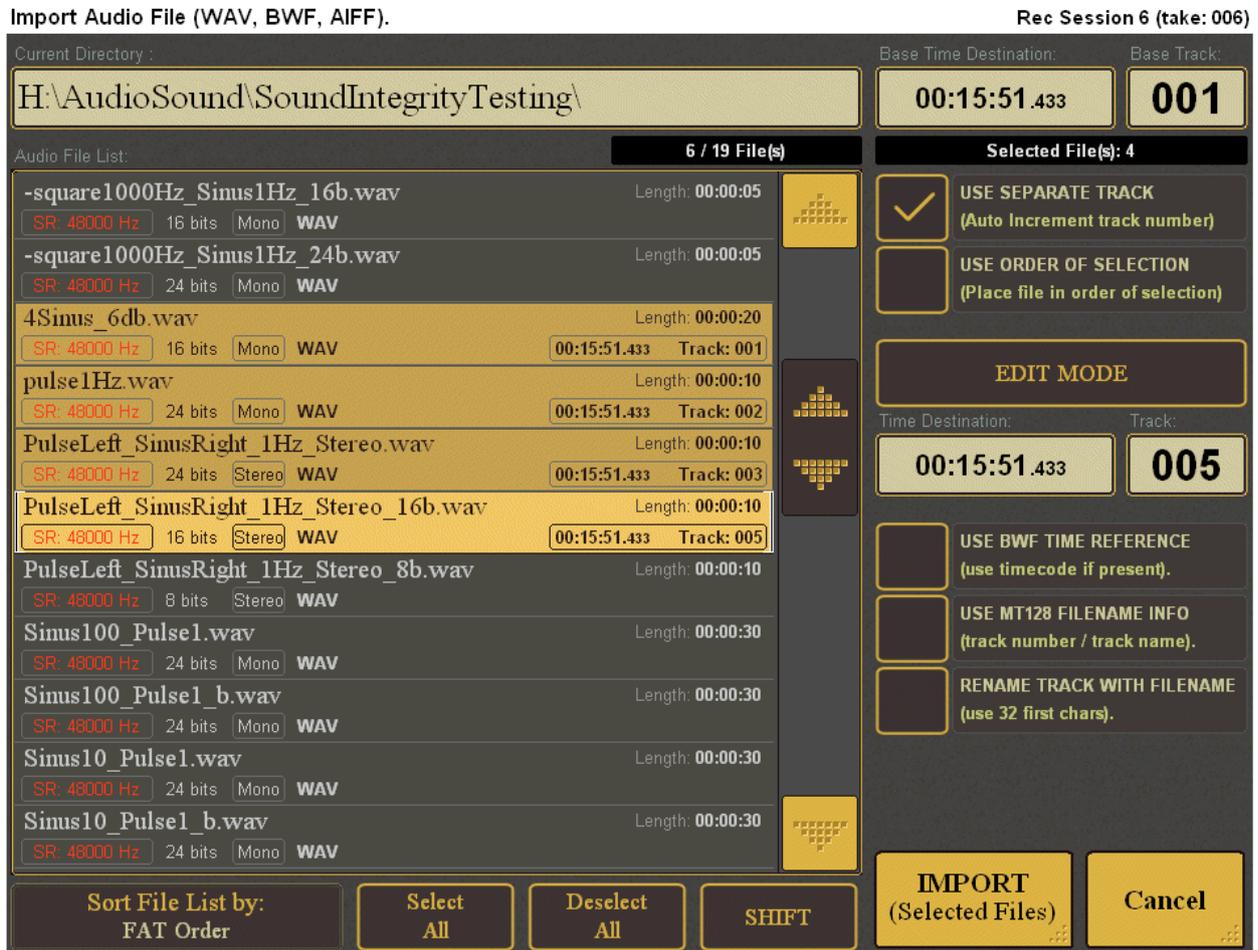


### Import Audio Files

A tap opens subpage „Import Audio File“ . See next pages for procedure details.

## Import Audio File

MT-128 can import audiofiles (wav, bwf, aiff) as a „virtual take“. All audiofiles located in a (previous browsed) directory are listed and can be marked for import to the current project. Every import produces a new „virtual take“. Note: Depending the number of files the listing can take some time.



### Current Directory

Path of browsed directory for import. A tap opens dialog box to „Select Folder containing Audio File“

### Base Time Destination

Initial TC-Position of imported audio (= actual playcursor when opening the dialog). A tap opens the virtual numeric to enter TC-value (which can be negative).

### Base Track

Initial Track where audio will be imported. A tap opens the virtual numeric to enter value.

### <selected/count of files>

shows position of selection cursor and total number of files.

**Selected file**

shows count of selected files for import.

**Use Separate Track**

Each audiofile is imported to a separate track, incrementing from „Base Track“ - vertical increment. Audio is aligned horizontally on the timeline.

**Use Order Of Selection**

The order of selection is considered for import of files. Horizontal increment or vertical increment (when <Use separate track> is <on>).

**Edit Mode**

Allows individual (<> base) assignment of TC-Position („Time Destination“) and Track Position („Track“) of an already selected audiofile. Tap to enter and exit the Edit-Mode. Attention: Changes being made will be discarded when a new selection is done.

**Time Destination**

A tap opens virtual numeric pad to enter TC-value.

**Track**

A tap opens virtual numeric pad to enter value.

**Use BWF Time Reference**

Audio will be placed on the timeline according to the TC-Stamp in the BWF-Header. If there are files with identical TC-Stamp in the same track, MT-128 will place them at their defined position but on different „layers“ (see database).

**Use MT Filename Info**

Audiofiles recorded with MT-128 (from a different project) will be placed to track according to their filename. Don't forget <Use separate Track> for horizontal alignment.

**Rename Track With Filename**

Audiofile will rename its destination-track of the Project.

**Sort File List by:**

A tap opens a selection for different sorting options (FAT order, name, BWF TC Ref, File length).

**Select All**

A tap selects all <items> in the list. Button is blinking when function is active. A further tap resumes to previous selection.

**Deselect All**

A tap deselects all <items> in the list. Button is blinking when function is active. A further tap resumes to previous selection.

**SHIFT**

A tap enables coherently selection of two or more markers. tap <Shift>, then first marker entry and last marker entry => selection of all markers inbetween

**scroll buttons**

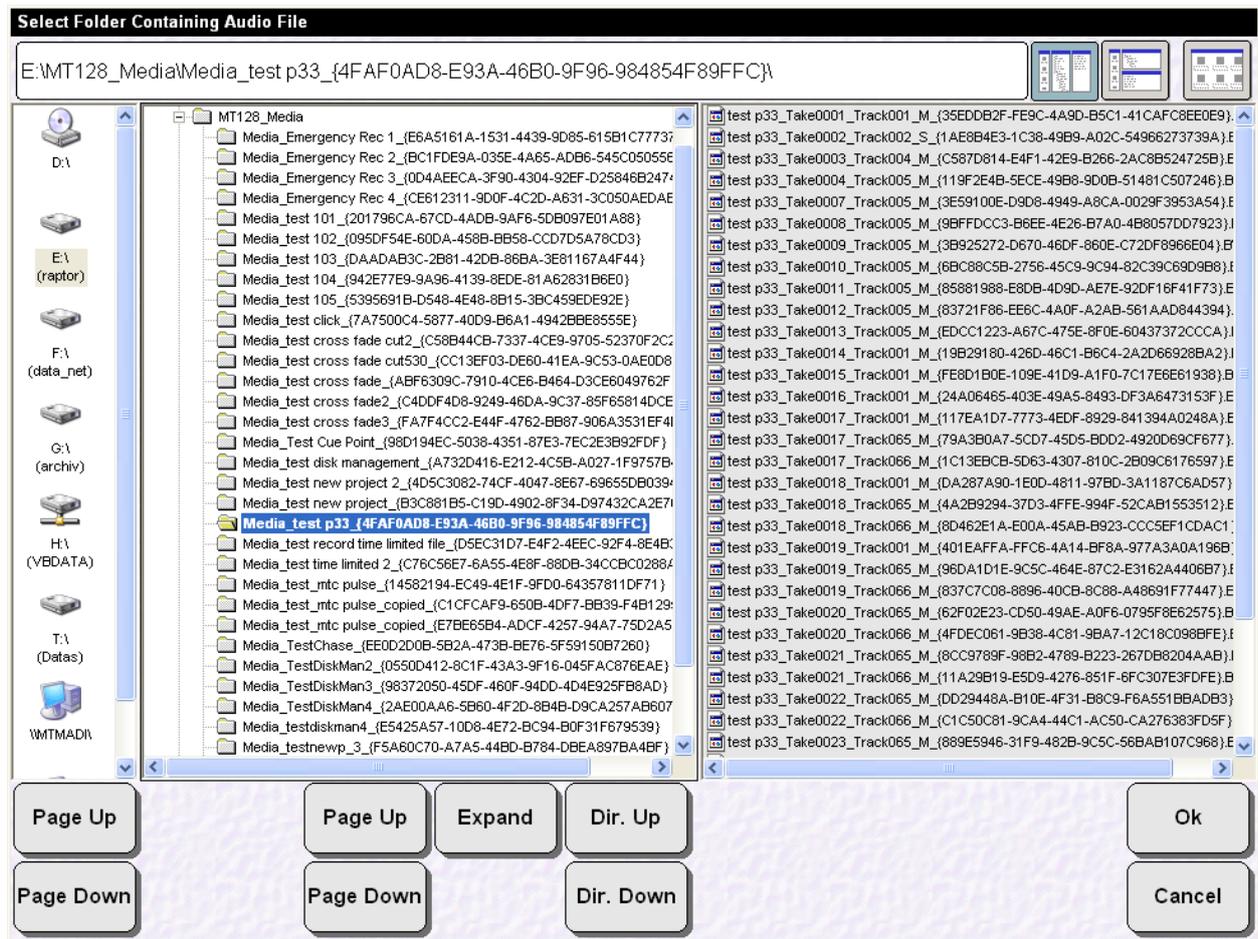
A tap scrolls the list view in up- or down-direction.

**scroll slider**

scrolls variable the list vertically

**Select Folder Containing Audio File**

Dialog for browsing the directory for import. There are three windows (drives, tree, folder). The layout of the view and the folder view (icon, list) can be changed. Note: Disabling network-scan when not connected to a LAN will speed up the scan.

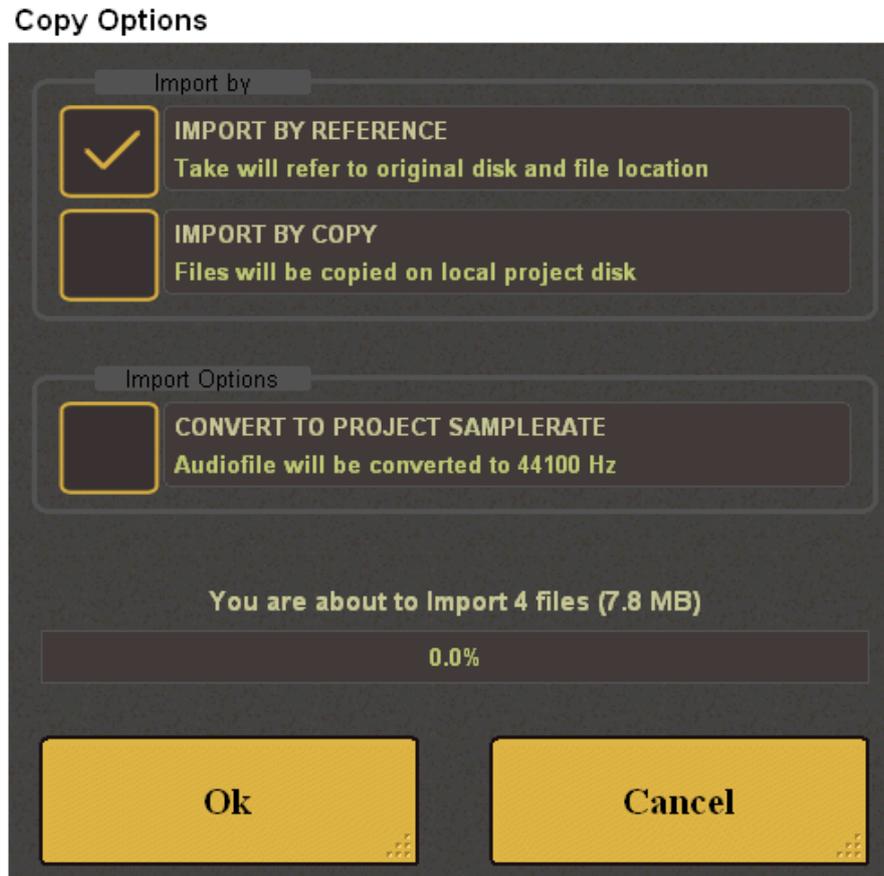


**Cancel**

A tap will close the page.

**Import (Selected Files)**

A tap will display a confirmation dialog box to import selected audiofiles as a „virtual take“ according different options:



### ***Import by Reference***

Let the selected audio files where they are and create a virtual take by referencing the audio files.

### ***Import by Copy***

Copy selected audio files first in the current project disks. Then it creates a virtual take by referencing these copied audio files.

### ***Convert to project samplerate***

Copy and convert selected audio files first in the current project disks. Then it creates a virtual take by referencing these copied/converted audio files.

### ***Ok***

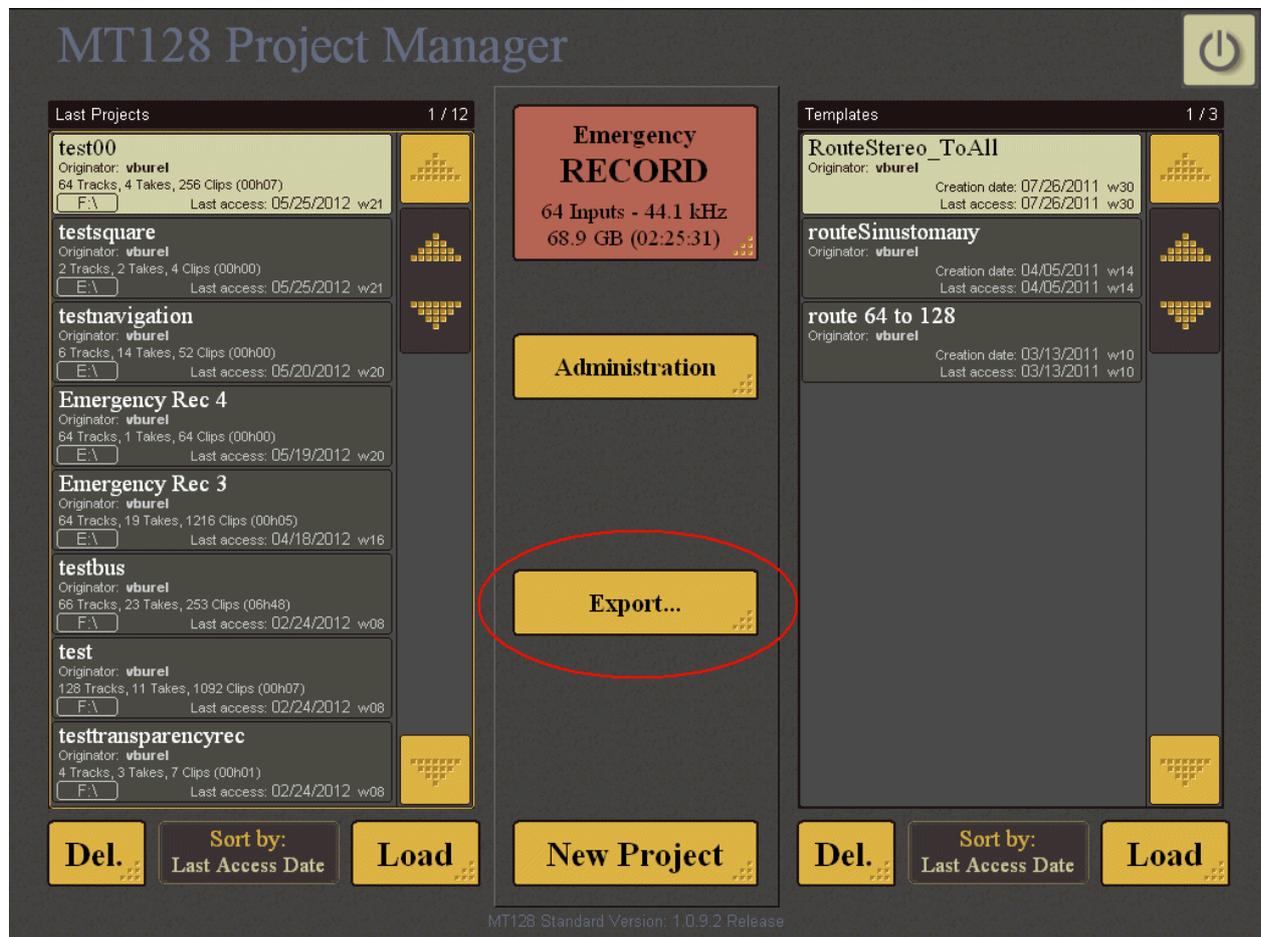
Will start the import process, according checked options.

### ***Cancel***

Will cancel the import process.

## Project Export

In the startup page there is an EXPORT button to export takes of the selected project to other hard disk (or whatever USB or network storage).



### Export

A tap on this button will open the following dialog box to let you choose what you want to export.

### Exporting Takes audio files.

#### Export To

A tap in this area will let you select a destination disk or folder. If a Disk is selected, the exported take will be done in MT128\_Export directory. Export procedure creates a folder with the name of the project it comes from.

#### Take List

The take list is showing the available take you can export. Per default all takes are selected. For each take highlighted you can see the related audio file in the right list (showing the first 25 files contained in the takes).

On the bottom of the take list, there is 4 buttons to help you to make your selection if required.

Export MT128 Project, Take and Files Rec Session 5 (take: 005)

Export to :

Name: **UserManual**  
 Originator: **vburel**  
 Origination Date: **05/26/2012**  
 Last Modification: **05/26/2012**

Take List: 1 / 5 Take(s) Sel Take(s):5 (288 Files - 8.7 GB)

<input checked="" type="checkbox"/>	<b>T:005</b> UserManual_005 SR:44100 Hz In: <b>00:14:11</b> .964 Out: <b>00:15:51</b> .433 Size: <b>00:01:39</b> .468 Files: 64 (616.7 MB) Origination Date : SAT, MAY 26, 2012 (W:21), 09:45:43 (UTC)	
<input checked="" type="checkbox"/>	<b>T:004</b> UserManual_004 SR:44100 Hz In: <b>00:14:11</b> .964 Out: <b>00:16:25</b> .528 Size: <b>00:02:13</b> .564 Files: 64 (808.1 MB) Origination Date : SAT, MAY 26, 2012 (W:21), 09:43:29 (UTC)	
<input checked="" type="checkbox"/>	<b>T:003</b> UserManual_003 SR:44100 Hz In: <b>00:14:32</b> .493 Out: <b>00:16:29</b> .397 Size: <b>00:01:56</b> .903 Files: 64 (808.1 MB) Origination Date : SAT, MAY 26, 2012 (W:21), 09:41:18 (UTC)	
<input checked="" type="checkbox"/>	<b>T:002</b> UserManual_002 SR:44100 Hz In: <b>00:14:17</b> .097 Out: <b>00:14:58</b> .318 Size: <b>00:00:41</b> .221 Files: 32 (93.9 MB) Origination Date : SAT, MAY 26, 2012 (W:21), 09:40:30 (UTC)	
<input checked="" type="checkbox"/>	<b>T:001</b> UserManual_001 SR:44100 Hz In: <b>00:00:00</b> .000 Out: <b>00:13:41</b> .170 Size: <b>00:13:41</b> .170 Files: 64 (6.4 GB) Origination Date : SAT, MAY 26, 2012 (W:21), 08:41:39 (UTC)	

Files in take...

- 001\_005.wav
- 002\_005.wav
- 003\_005.wav
- 004\_005.wav
- 005\_005.wav
- 006\_005.wav
- 007\_005.wav
- 008\_005.wav
- 009\_005.wav
- 010\_005.wav
- 011\_005.wav
- 012\_005.wav
- 013\_005.wav
- 014\_005.wav
- 015\_005.wav
- 016\_005.wav
- 017\_005.wav
- 018\_005.wav
- 019\_005.wav
- 020\_005.wav
- 021\_005.wav
- 022\_005.wav
- 023\_ld\_005.wav
- 024\_005.wav
- 025\_005.wav

Sort Take List by: History (more recent)

### Sort Take List by :

Click on this button to select a sorting criteria and get the list in the wanted order.

### Check All:

Select all takes in the list

### Uncheck All:

Deselect all takes from the list.

### SHIFT:

Click on this button to make selection by clicking twice : on the first item and on the last item. Every item between will be also selected.

### Export :

Click on this button to make appear the dialog box below to confirm and launch the export process.

**Cancel :**

Click on this button to cancel operation.



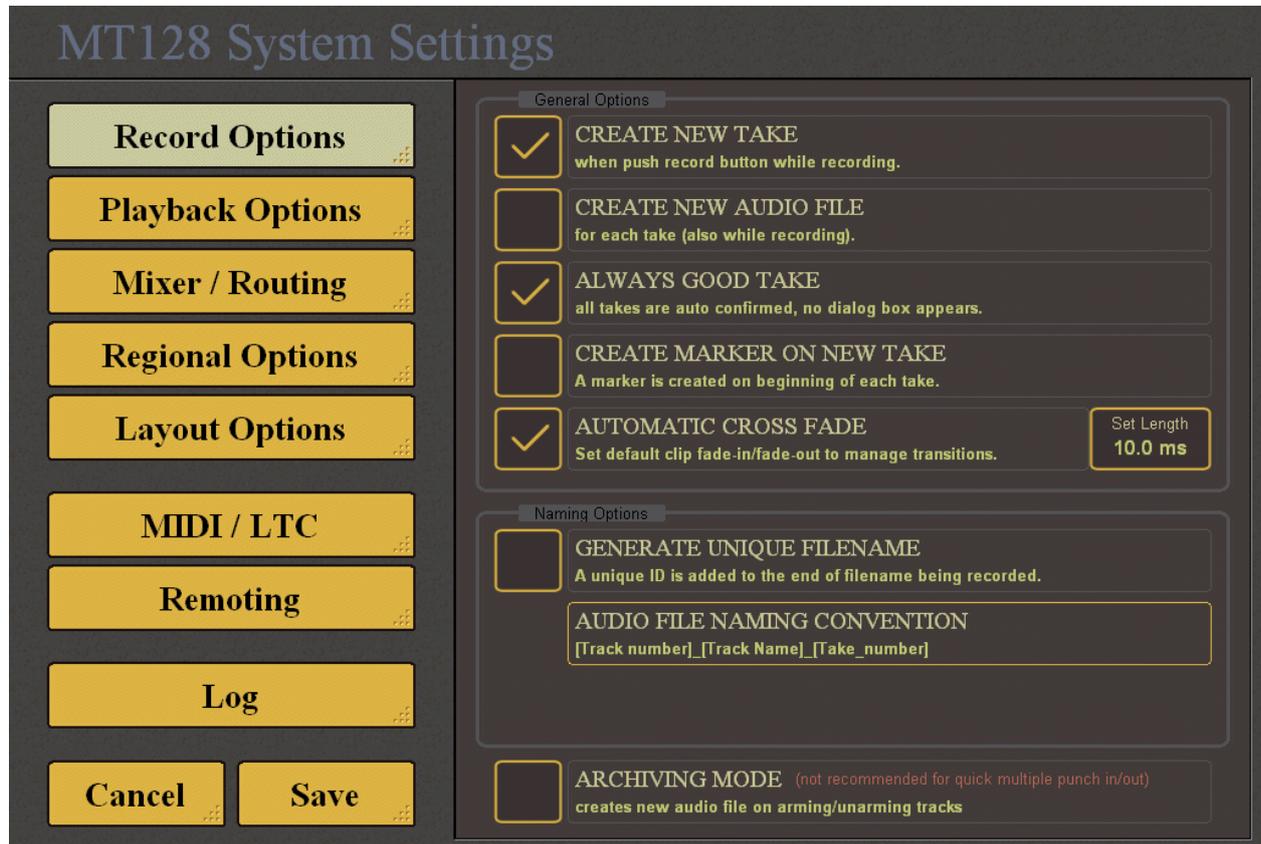
A progress bar (with remaining time) will show you the copy process progression.

SYSTEM SETTINGS  
&  
ADMINISTRATION PAGES

## SYSTEM SETTINGS

For individual control of the MT-128, there are several options to match requirements needed by the user. System settings are global options that are more depending on the general configuration and possible connected hardware.

The System Settings pages are based on a list of thumbnails on the left that display different configuration pages (on the right).



### Cancel

A tap discards changes being made and exits (except for remoting parameters which are set in time).

### Save

A tap saves changes being made and exits. ! Audio Device can be restarted according parameters/configuration change (in this case, it is notified on the save button) !

## Record Options

This first page of the system settings will enable you to set some options related to recording.

### CREATE NEW TAKE

When pushing record button while recording a new take is created.

**CREATE NEW AUDIO FILE**

For each take (also while recording), a new audio file is created.

**ALWAYS GOOD TAKE**

All takes are auto confirmed, no take validation dialog box appears.

**CREATE MARKER ON NEW TAKE**

A marker (locator) is created on beginning of each take.

**AUTOMATIC CROSS FADE**

Set default clip fade-in/fade-out to manage transitions. The default duration of this fade-in fade out can be set by clicking on the right box (Set Length).

**GENERATE UNIQUE FILENAME**

If checked, generated filename are unique thanks to a unique number attached as name suffixe.

**AUDIO FILE NAMING CONVENTION**

Display a list of different naming convention and let you select which one will be used to automatically set the name of the audio file generated during recording..

**ARCHIVING MODE**

Create new audio files on arming/unarming tracks.(not recommended for punch in/out)

## PLAYBACK OPTIONS

The second thumbnail is presenting option related to playback.



### **PLAYBACK WHILE RECORD**

Playback is launched when pushing record button.

### **CHANGE POSITION ON PLAYBACK**

Allows to change cursor position while playback.

### **FF/REW Speed X**

This section allows to define speed for 4 different FF / REW speed.

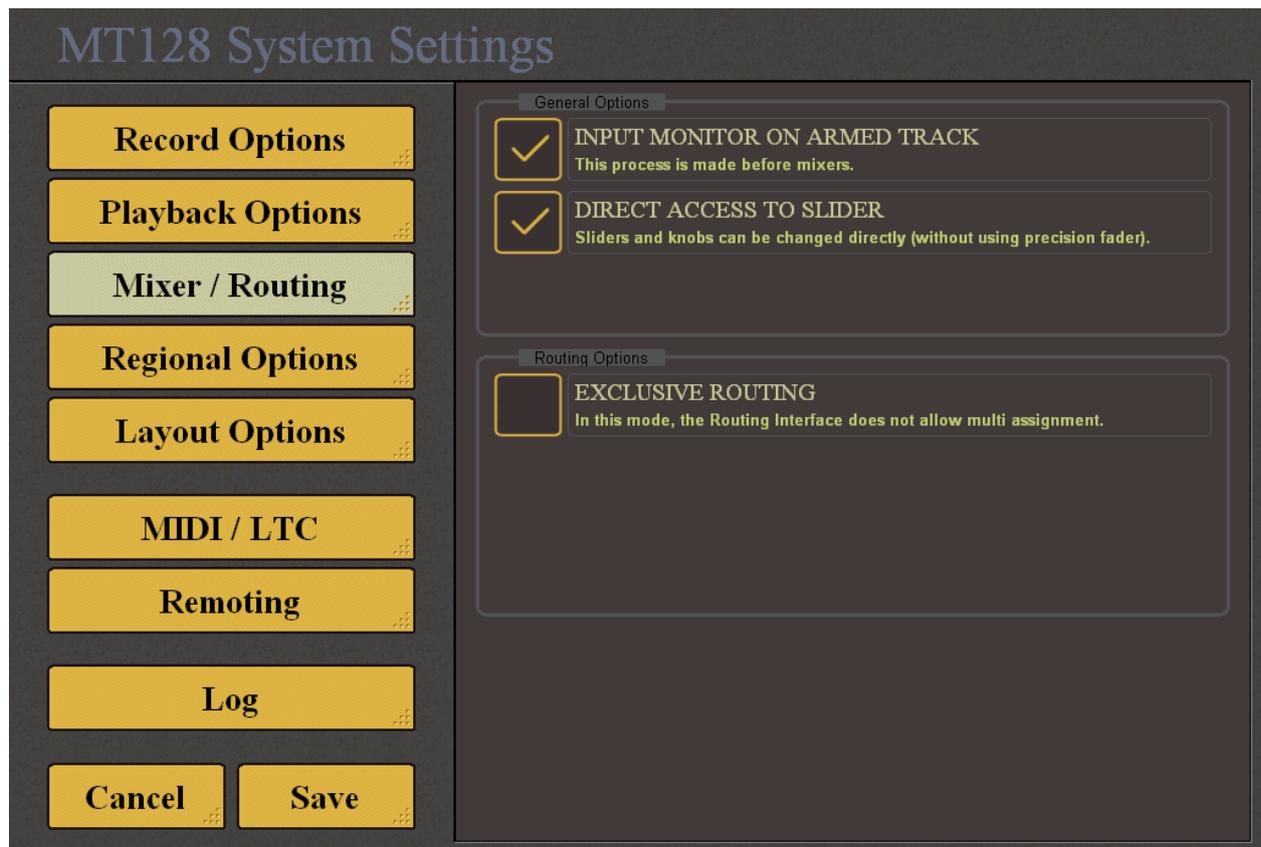
### **VARISPEED/SCRUBBING BAR**

Slider Bar appears when typing FF / REW / STOP buttons. ACC Rate (smoothing parameter) gives the time used to change the pitch of the sound : time to go from an octave to the next one (below or above).

### **SHOW DELETED ITEMS**

If checked, all deleted item (clip, take, file, rec session...) are shown in the List view.

## MIXER/ROUTING



### **INPUT MONITORING ON ARMED TRACK**

This process is made before mixers. It allows to monitor tracks input only when armed. Otherwise the track input is monitored all the time (except in playback of course).

### **DIRECT ACCESS TO SLIDER**

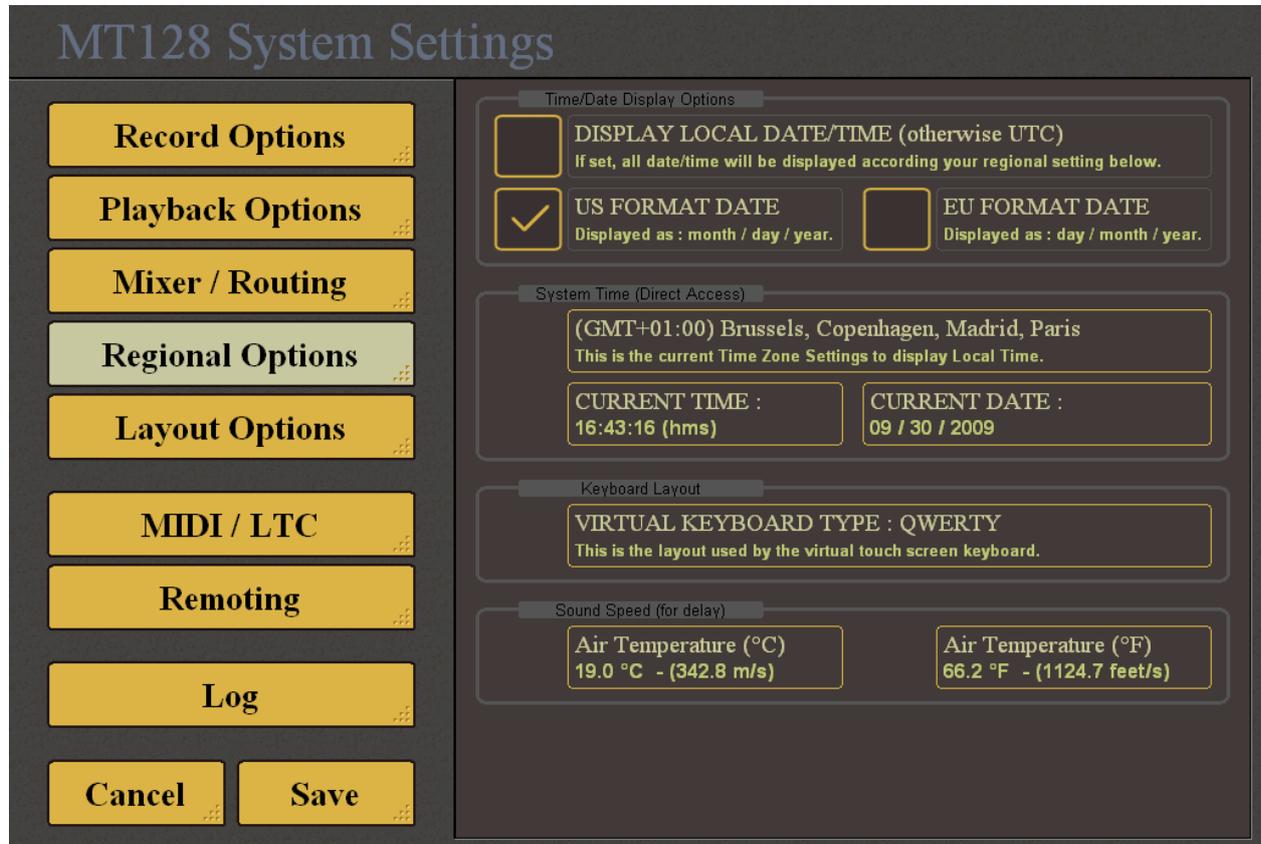
If checked, this option allow to directly move mixer slider without having to use the big precision fader displayed on the left or on the right of the screen.

### **EXCLUSIVE ROUTING**

In this mode, the Routing Interface does not allow multiple assignment. An input can be routed to a single track.

## REGIONAL OPTIONS

The Regional option thumbnail allows to set some well known system parameters



### **DISPLAY LOCAL DATE/TIME (otherwise UTC)**

If set, all date/time will be displayed according your regional setting below.

### **US FORMAT DATE**

Displayed as : month / day / year.

### **EU FORMAT DATE**

Displayed as : day / month / year.

### **(GMT+01:00) Amsterdam, Berlin, Bern, Rom, Stockholm, Wien**

This is the current Time Zone Setting to display Local Time. You can change it by clicking on it. The change takes effect immediately.

### **CURRENT TIME : 16:43:16**

A tap opens numeric to enter time. The change takes effect immediately.

### **CURRENT DATE : 09 / 30 / 2009**

A tap opens numeric to enter date – according the chosen format (US / EU). The change takes effect immediately.

**VIRTUAL KEYBOARD TYPE :**

This is the layout used by the virtual touch screen keyboard. Options: AZERTY / QWERTY / DWORAK / QWERTZ

**Air Temperature (°C)**

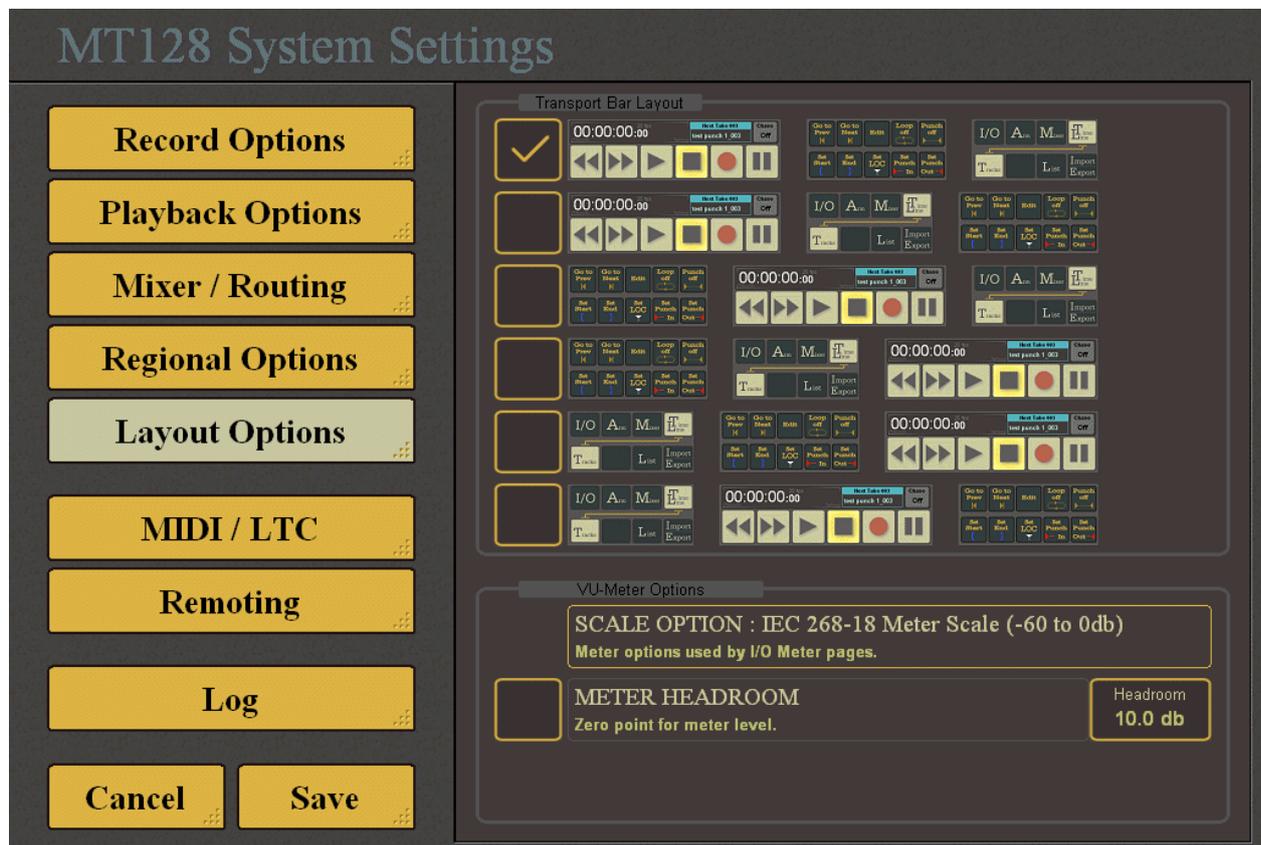
A tap opens numeric to enter value of temperature in Celsius. The speed of sound is calculated in meters for the delay.

**Air Temperature (°F)**

A tap opens numeric to enter value of temperature in Fahrenheit. The speed of sound is calculated in feet for the delay.

**LAYOUT OPTIONS**

This page allows to change the layout of the bottom bar to place the 3 sections (Transport, Marker, pages Selector) in different way.

**SCALE OPTION**

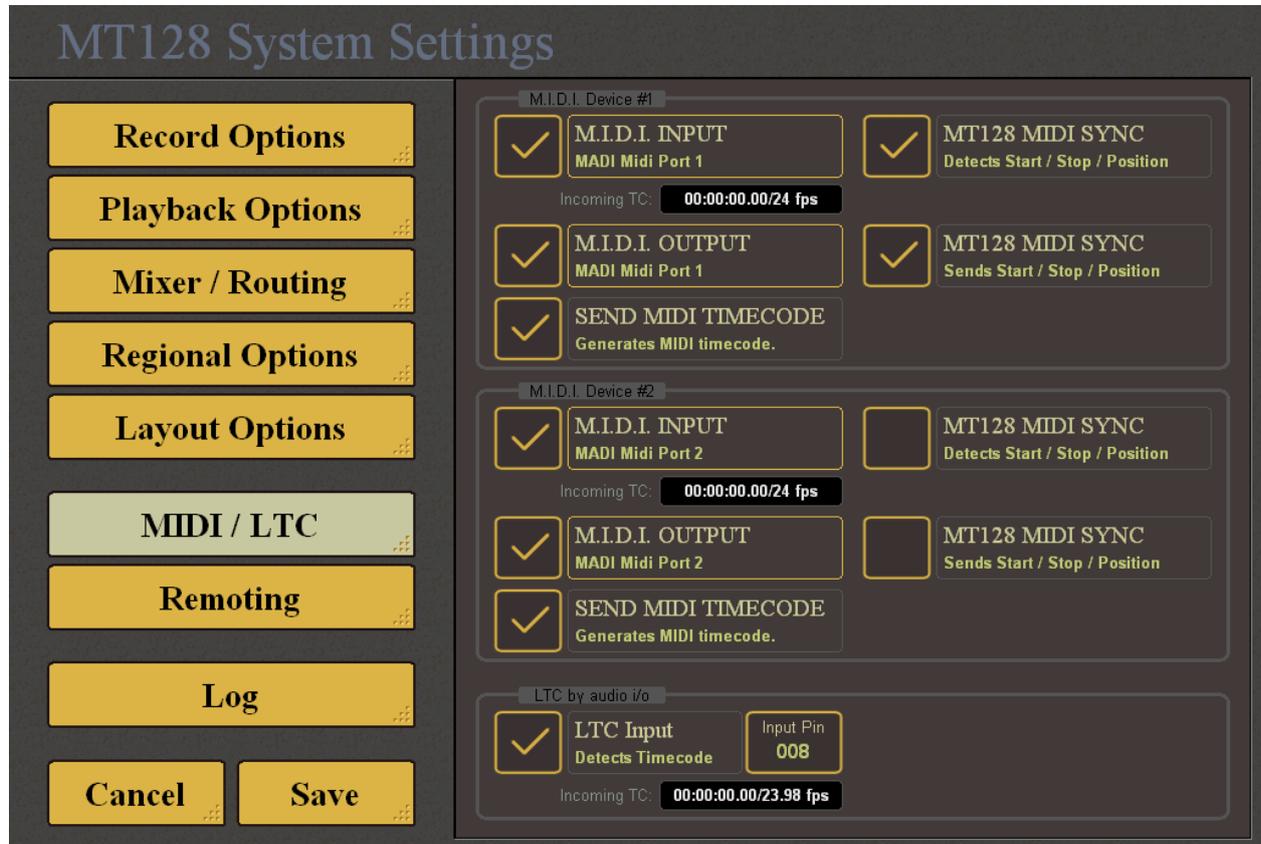
Display a list of different meter scale to let you select the one you want to see in the I/O Meter page.

**METER HEADROOM**

Allows to add a db value to the Metering (basically to change the ZERO point of the measure).

## MIDI / LTC

This page allows to setup a couple of MIDI i/o and the LTC by audio i/o.



### **M.I.D.I. Input**

To activate and select a MIDI input Device

### **M.I.D.I. Output**

To activate and select a MIDI output Device

### **MT128 MIDI SYNC**

To activate the MT128 Property protocol to synchronize 2 machine (only for Play / Stop / Record / Goto command)

### **SEND MIDI TIMECODE**

Activate the generation of Midi timecode on MIDI output.

### **LTC input**

Activate and set the physical input pin for receiving LTC signal.

## Remoting Options

A tap opens the „Remoting Options“ page. This is listing all drivers found on the system to interface different remote surface. This list will be increased in the time according the user needs...



# LOG

This page shows 2 lists. The error list on the top and a Log below that can be used to check some information in case of problem.

## MT128 System Settings

**Record Options**

**Playback Options**

**Mixer / Routing**

**Regional Options**

**Layout Options**

**MIDI / LTC**

**Remoting**

**Log**

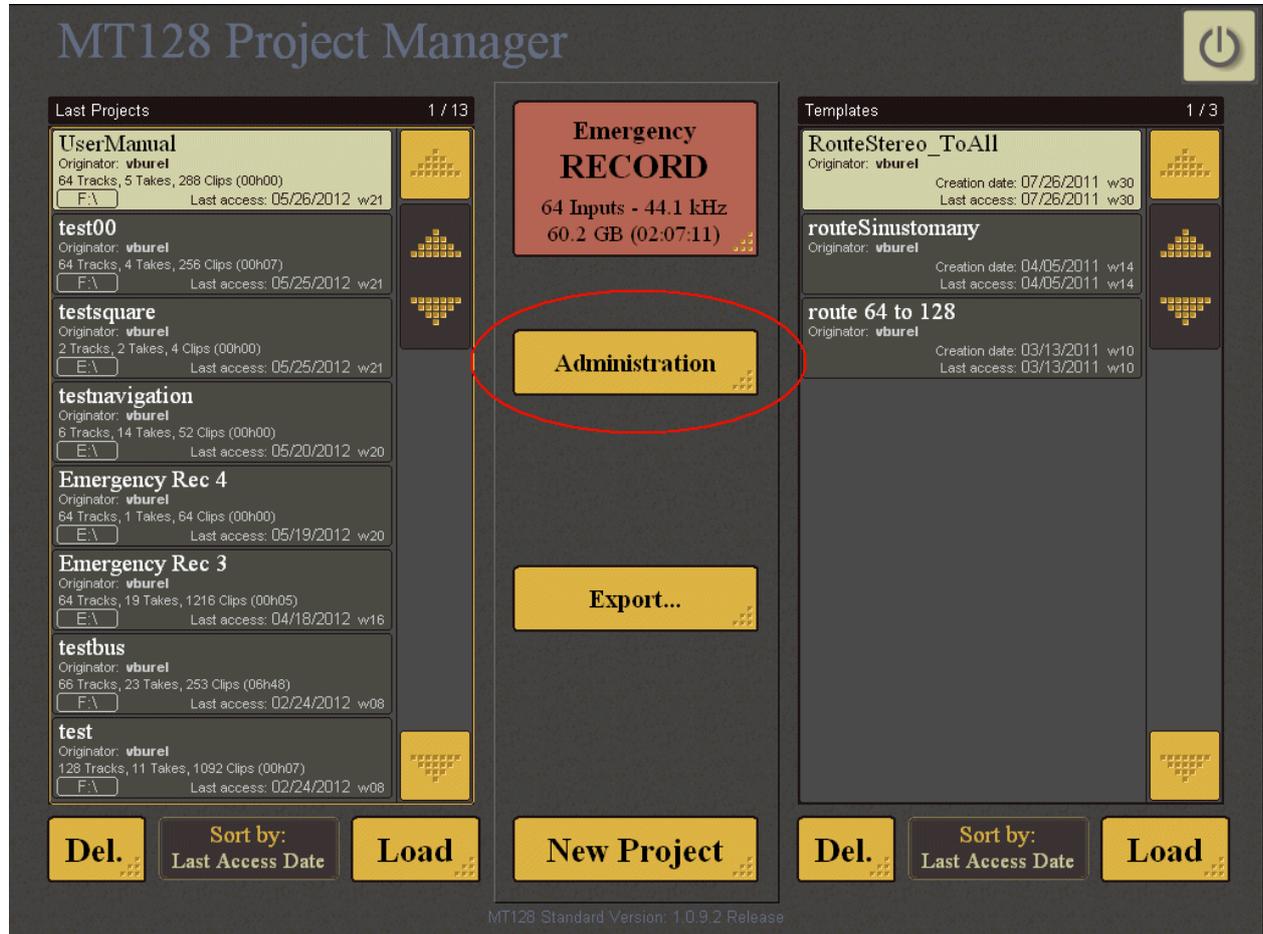
**Cancel**

**Save**

<b>[001] Err(-6000) : VBASIOStop return -997 (AsioMan)</b>	[     ]
[002] Err(-6000) : VBASIOStop return -997 (AsioMan)	[     ]
[003] Err(-6000) : VBASIOStop return -997 (AsioMan)	[     ]
[004] Err(-1009) : Application Not Present [AD8HR Remote Unit] (Scriptman)	[     ]
[005] Err(-1009) : Application Not Present [RME Midi Remote] (Scriptman)	[     ]
<b>[035] ASIO START DEVICE</b>	[     ]
[034] MOTOR THREAD START (Physical Free Mem = 1018.9 MB)	[     ]
[033] ASIO PREPARE [SR=44100, Buffer = 128, IN:64 OUT:64, Flag DevOpen:1, Flag Prepared:1, Flag Play:0]	[     ]
[032] ASIO OPEN [SR=44100, Buffer = 128, IN:64 OUT:64, Flag DevOpen:1, Flag Prepared:0, Flag Play:0]	[     ]
[031] ASIO CLOSE [SR=44100, Buffer = 128, IN:64 OUT:64, Flag DevOpen:1, Flag Prepared:0, Flag Play:0]	[     ]
[030] APPSTORE THREAD START	[     ]
[029] -Load Cue List [Total Size = 1 kB]	[     ]
[028] -Load Settings [Total Size = 75 kB]	[     ]
[027] -Load Clip [16 item(s), Total Size = 1 kB]	[     ]
[026] -Load File [16 item(s), Total Size = 3 kB]	[     ]
[025] -Load Take [6 item(s), Total Size = 2 kB]	[     ]
[024] -Load RecSession [3 item(s), Total Size = 1 kB]	[     ]
[023] -Load Folder [1 item(s), Total Size = 1 kB]	[     ]
[022] Open Project (name = UserManual example)	[     ]
[021] Scanned Template: 0 (0ko)	[     ]
[020] -Template Base (C:\) : 0 item(s)	[     ]
[019] Scanned Projects: 21 (16ko)	[     ]
[018] -Project Base (T:\) : 3 item(s)	[     ]
[017] -Project Base (G:\) : 0 item(s)	[     ]
[016] -Project Base (F:\) : 1 item(s)	[     ]
[015] -Project Base (E:\) : 17 item(s)	[     ]
[014] Close Current Project If Any ...	[     ]

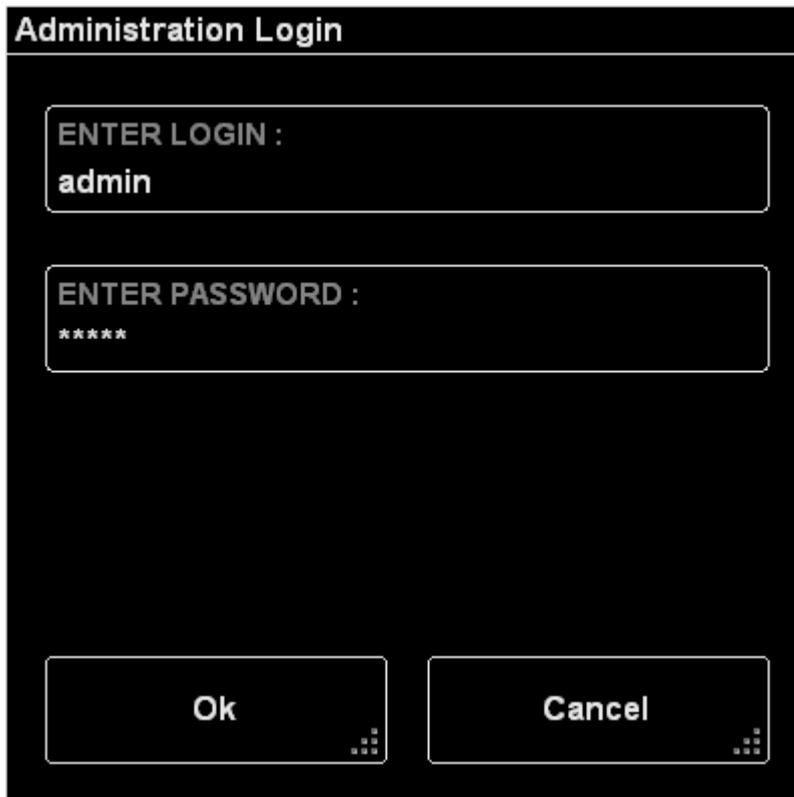
# ADMINISTRATION PAGES

From the Startup page, the user can get access to administration pages. These pages are protected by login / password.



## Administration Login:

The default Login / Password is 'admin / admin'



The image shows a dialog box titled "Administration Login" with a black background and white text. It contains two input fields: "ENTER LOGIN :" with the text "admin" and "ENTER PASSWORD :" with six asterisks "\*\*\*\*\*". At the bottom, there are two buttons: "Ok" and "Cancel".

**Administration Login**

ENTER LOGIN :  
admin

ENTER PASSWORD :  
\*\*\*\*\*

Ok Cancel

## General Options:

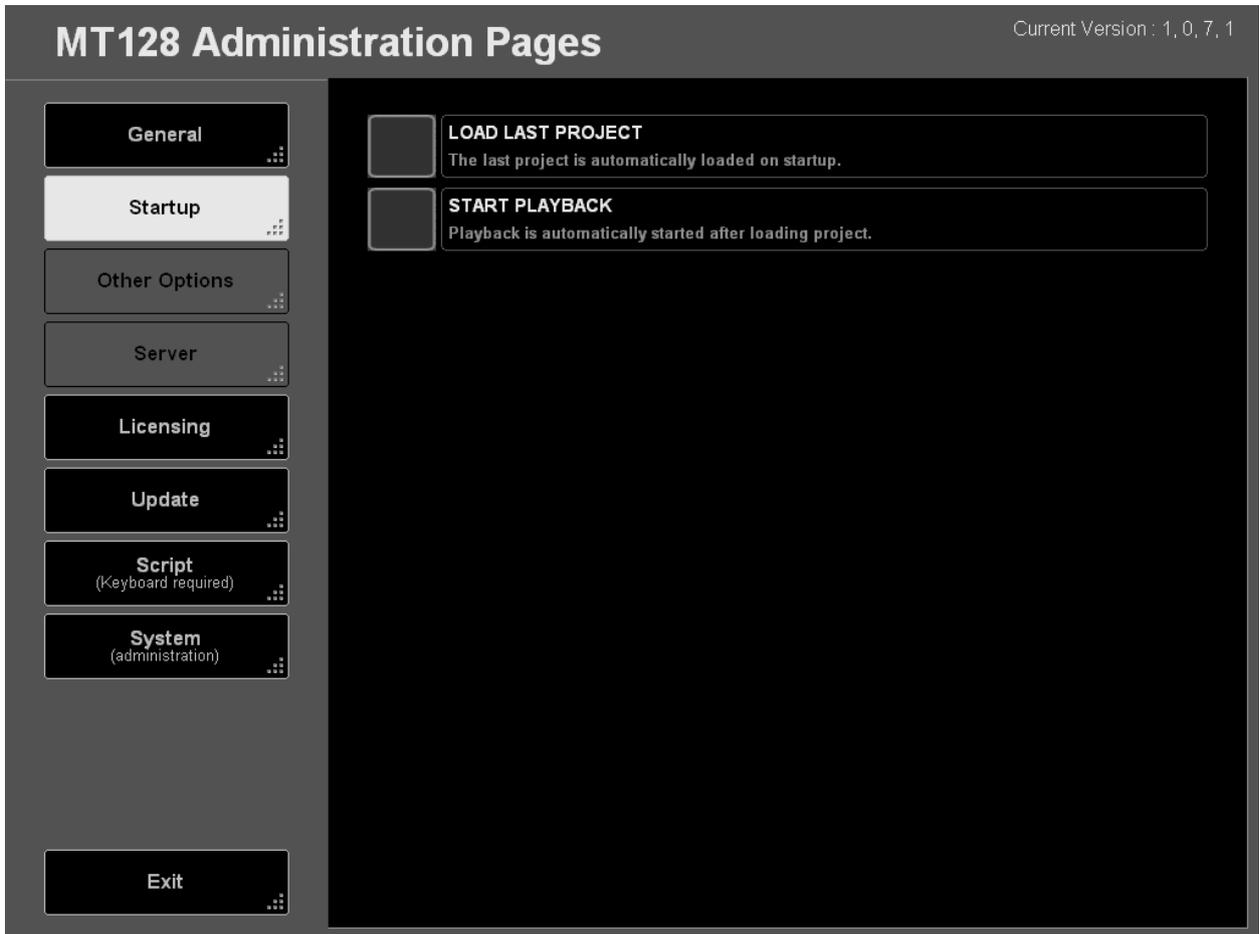
In the first page we are retrieving regular system options and regional settings.

The screenshot displays the 'MT128 Administration Pages' interface. On the left is a vertical menu with the following options: General (selected), Startup, Other Options, Server, Licensing, Update, Script (Keyboard required), System (administration), and Exit. The main content area shows the following settings:

- MACHINE NAME :** MTMADI
- USER / OWNER NAME :** vburel
- (GMT+01:00) Brussels, Copenhagen, Madrid, Paris**  
This is the current Time Zone Settings to display Local Time.
- CURRENT LOCAL TIME :** 16:13:33 (hms)
- CURRENT LOCAL DATE :** 02 / 03 / 2010
- US FORMAT DATE**  
Displayed as : month / day / year.
- EU FORMAT DATE**  
Displayed as : day / month / year.
- VIRTUAL KEYBOARD TYPE : QWERTY**  
This is the layout used by the virtual touch screen keyboard.

## Startup Option

Not implemented yet.



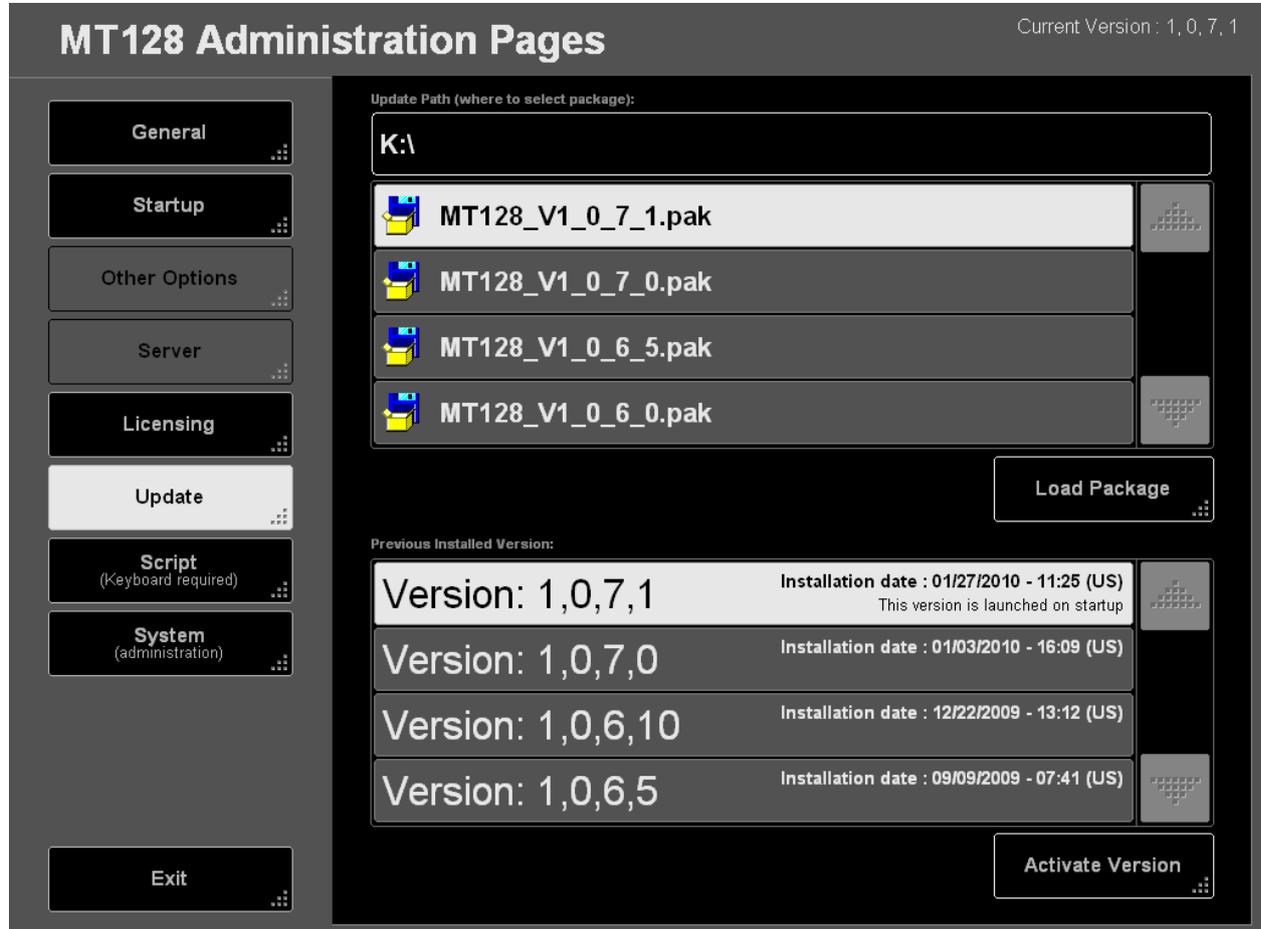
## Licensing :

The Licensing page, will allow changing the licensing of the Hardlock dongle connected inside the MT128 station. It can be useful to renew temporary license or to add possible optional feature if required (possible future options).

The screenshot shows the 'MT128 Administration Pages' interface. The title bar indicates 'Current Version : 1, 0, 7, 1'. On the left is a vertical navigation menu with buttons for 'General', 'Startup', 'Other Options', 'Server', 'Licensing' (highlighted), 'Update', 'Script (Keyboard required)', 'System (administration)', and 'Exit'. The main area is titled 'License Path (where to select VTC file):' and contains a text input field with 'R:\', a file explorer icon, and a 'Write License' button. Below this, a grey box displays 'DONGLE: 0x000002CF'. Underneath, the 'Activated License(s):' section lists three licenses: 'License 60: MT128 Standart Key', 'License 61: Innovason M.A.R.S. Key', and 'License 70: Integrator Key'. An image of a yellow USB dongle is shown in the bottom right corner.

## Update page

The Update page allow to update the MT128 version with a new package. It also allow to activate a previous version. In all cases the update/activation procedure will take effect on next launch.

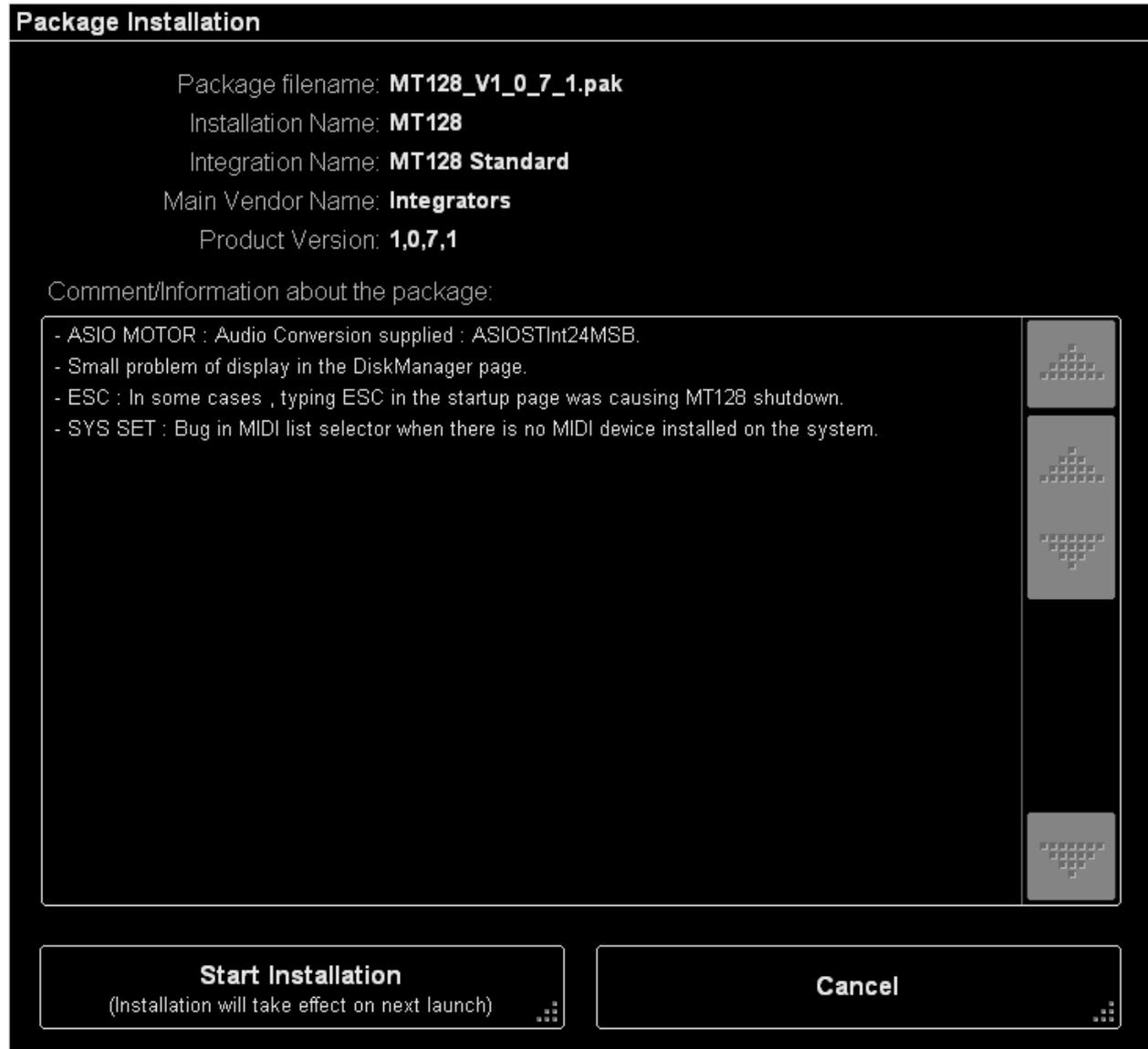


Push LOAD PACKAGE button to load the selected package present on the current selected folder.

The package must fit your MT128 Integration model. MT128 Standard Version will not install other package made for other kind of integration (like Innovason MARS for example).

## Load Package and Installation procedure.

Clicking on LOAD PACKAGE open the dialog box below. It displays different information about the package the user is about to install. The “comment” field gives the main new features / functions / correction added in the package.



Click on **Start Installation** button if you want to install this package. Reboot will be required.

## Script Page

The MT128 Startup is conditioned by 2 script . The system script provided by the manufacturer (not editable) and the startup script that can be edited in this administration page :

**MT128 Administration Pages** Current Version : 1, 0, 7, 1

**Script**  
(Keyboard required)

```

-----
- VB-AUDIO MT128 Startup Script
-----
SECTION="options"
-----
-ENABLE = "NetworkDrive"

ENABLE = "WavImportFromNetworkDrive"
ENABLE = "WavImportFromCD"
ENABLE = "WavImportFromNetworkComputer"

SET "MixerStripMaxDelay" = 0.1"

SET "MixerMasterBusStatus" = 1"
SET "MixerPFLBusStatus" = 1"

SECTION="accessories"
-----
APPLICATION = "Time Calculator"
DESCRIPTION = ""
DIR = "C:\MT128-Tools"
EXENAME = "TimeCalc_big.exe"
COMMAND = ""
END

APPLICATION = "RME Midi Remote"
DESCRIPTION = ""
DIR = "C:\Program Files\RME\MIDIRemotel4"
EXENAME = "midiremote.exe"
COMMAND = ""
END

APPLICATION = "ADSHR Remote Unit"
DESCRIPTION = ""
DIR = "C:\Program Files\ADSHR Remote Unit"
EXENAME = "ADSHR.exe"
COMMAND = ""
END

```

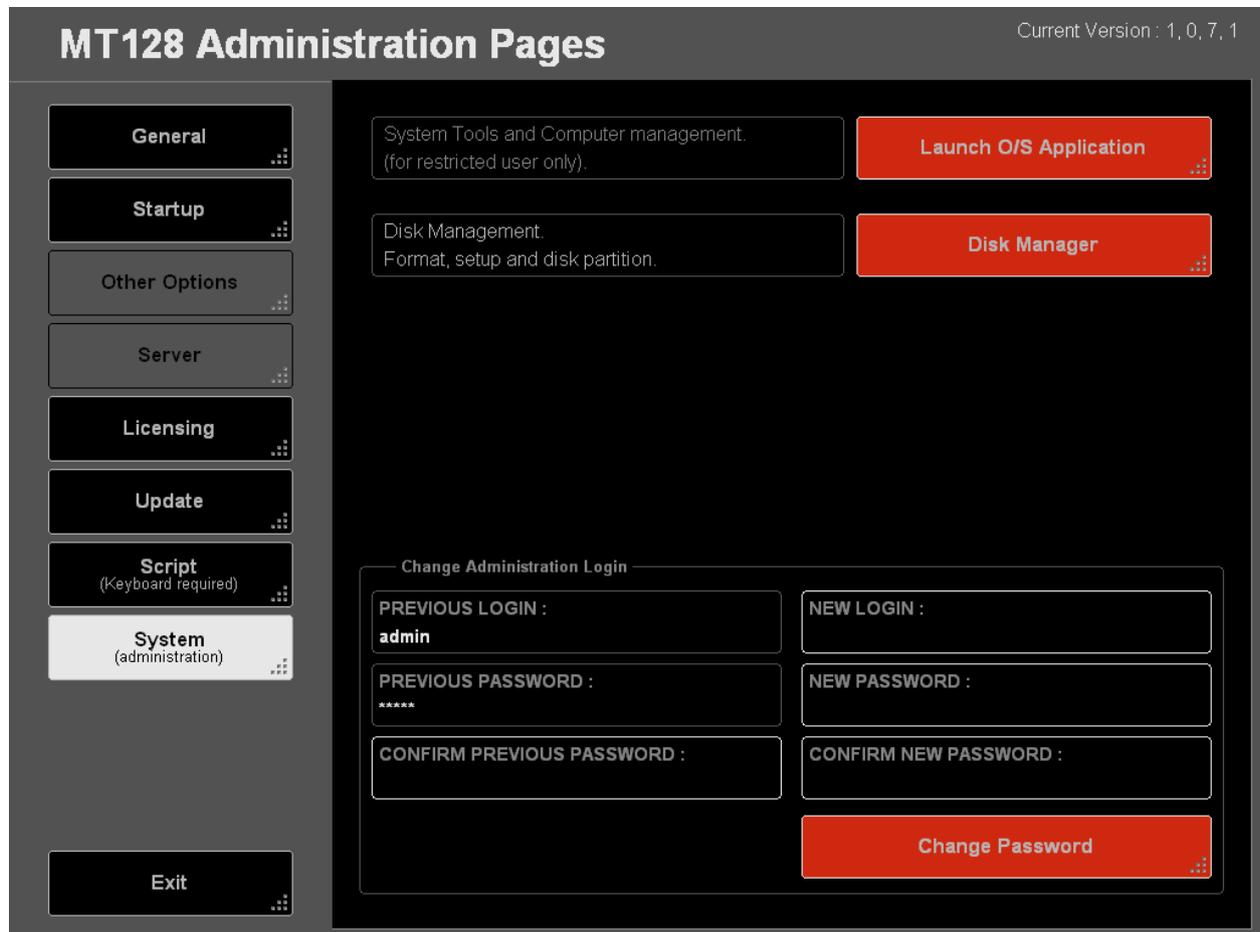
Modifying startup script takes effect on next launch.  
Please Shutdown the machine after saving the script.

**Save Script**

The startup Script is read and interpreted on MT128 startup. For more information about the script instruction set, refer to the document called "MT128\_StartupScript\_Language.pdf".

## System pages : System function access.

The last page gives access to system function and components. Windows Explorer could be launched from the O/S Application menu.

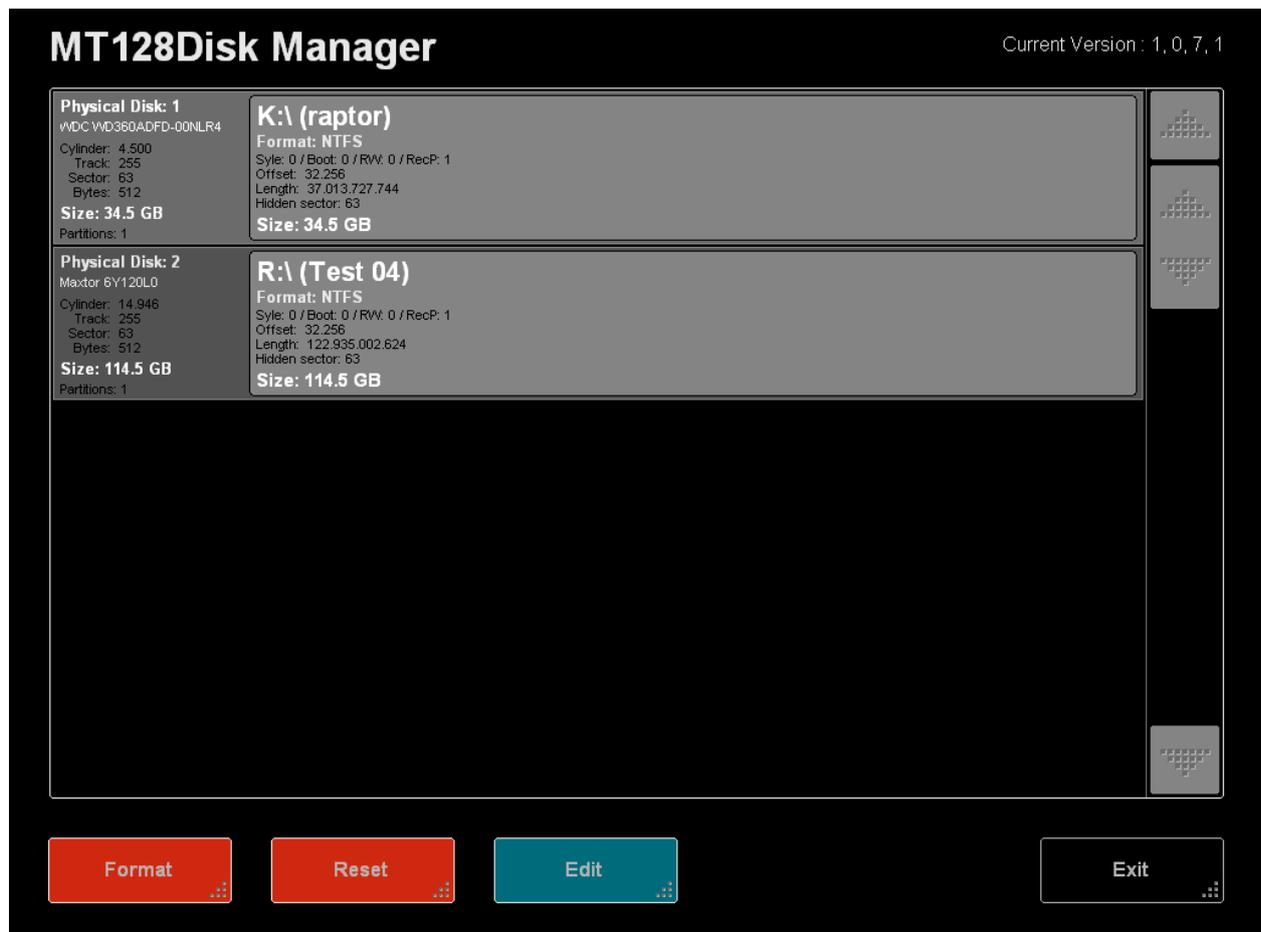


Also the Administration pages Login and Password can be modified in this page.

## Disk Manager

The Disk manager component is here to provide a simplified and secure way to manage disk , without risk to act on system disk.

REM : A direct Access to Disk manager can be set in the Startup Page (so without asking to the user to enter in the administration pages) – See Startup Script Instruction set..

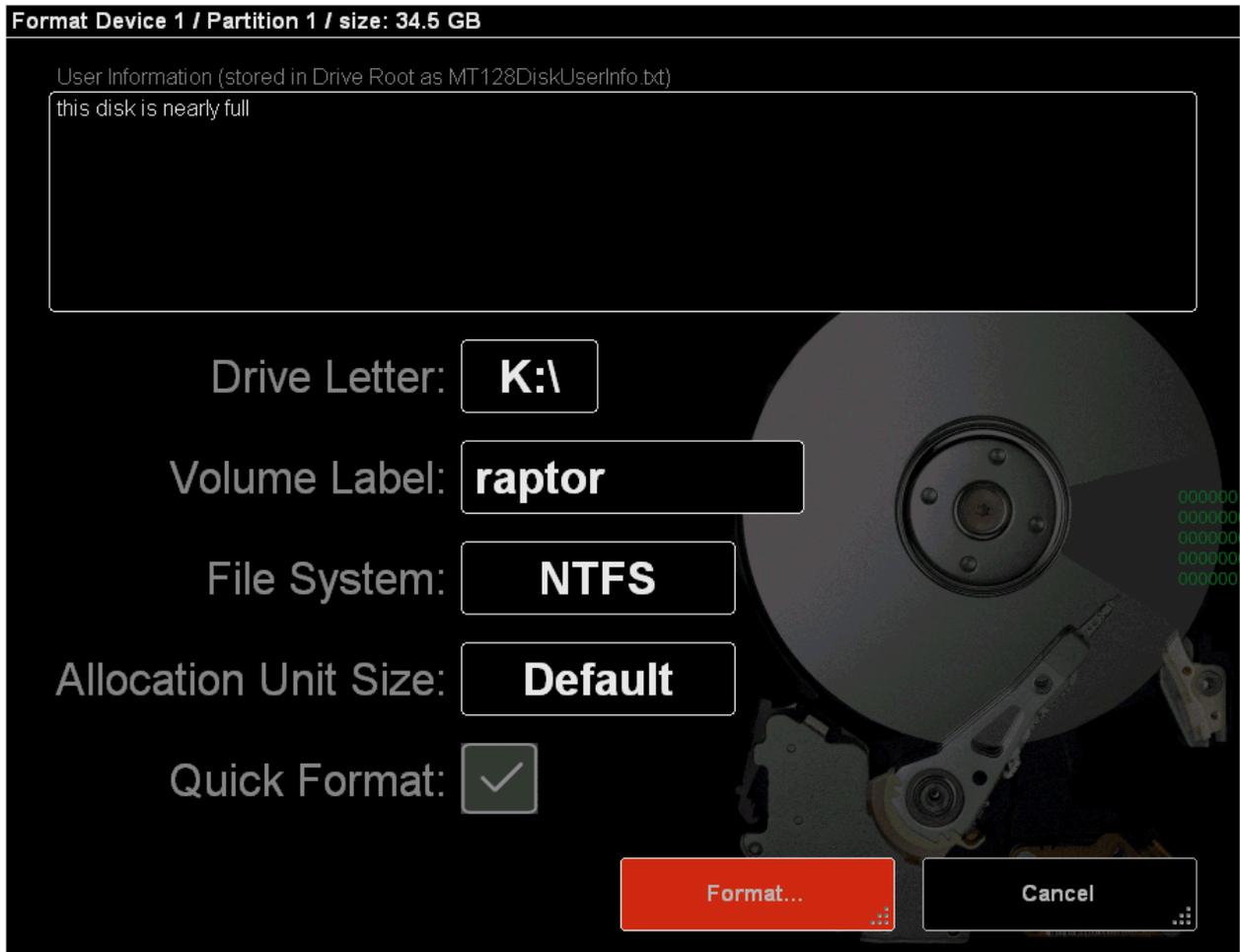


The disk manager shows upto 4 partitions per disk (even if the disk owns more partition). The Format function allows to format the selected partition. The RESET button is made to reset completely the selected Disk (All data are removed and a single partition is created, fitting the entire disk size).

Edit button allows to change Disk Name and driver letter assignation.

## Format Disk

When pushing the FORMAT button, the following dialog box appears.



Different information can be set before launching the format process.