AxelTech

The shape of broadcasting to come

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01.

Turnkey radio & TV solutions provider
Broadcast equipment manufacturer | Software developer

⊗ Our company

Axel Technology is the leading Manufacturer Italian Broadcasting company for professional radio and television solutions since 1996. It was founded in Bologna by Giuseppe Vaccari, who brought his large experience and began to expand his company rapidly all over the world and over the years Axel Technology has also continued to consolidate its position as the leading manufacturer of solutions from the broadcasting field. Innovation, research and development are the main sources of a competitive presence in the worldwide market. Axel Technology's equipment and solutions are present in over 120 nations thanks also to a widespread sales network **Axel Technology's** extended know-how is based on the large experience as system integrator, and allows the designing of complex turn-key systems, in order to interface different equipment in an easy way, that gives the clients the most efficient and price competitive working systems ever. Radio studios with multiple control rooms, multi-channel video logging systems, single or multi-channel radios and TV automation systems are currently delivered in Italy and abroad.

**MORE THAN 2000 CUSTOMERS
ALL OVER 120 COUNTRIES IN THE WORLD.**

02. Here we are

Nice to meet you

WHAT WE DO

Since the beginning, **Axel Technology's** key to development and success have been technology and innovation, together with the know-how of the skilled 50+ staff members.

That's the main reason of the constant growth in the worldwide market, that sees Axel Technology's equipment being present in over 120 nations with a widespread sales network. Axel Technology's extended know-how is based on the large experience as system integrator, and allows the designing of complex turnkey systems, in order to interface different equipment in an easy way.

That gives the customers the most efficient and price competitive working systems ever.

GIUSEPPE VACCARI

CEO

"...the most important things

are having a look beyond

innovation and meet all

market requirements.

So we are working to design

the shape of broadcasting to come"

GIACOMO VACCARI

Production director

ENRICO VACCARI

Sales Manager

MARCO BRANZANTI

CTO

CLAUDIO ASTORRI

Radio Specialist

SIMONA LIPPI

Area Manager

ROBERTO PALMARINI

IT Manager

CHRISTIAN SIGHINOLFI

R&D Manager

STEFANO GREGO

Channel Sales Director

STEFANIA VANCINI

Executive Assistant

STEFANO PIZZI

Technical Support Coordinator

CRISTIANO CINELLI

Area Manager

VALERIO SIBILLA

Software Development Manager

03. Products and categories

Radio solution

TV solution

Add On

ON AIR

Turnkey

Radio

Television

Add on

Turnkey

AxelTech
The shape of broadcasting to come

Radio

01.

Oxygen 3000
Oxygen 3000 Dante

Digital Broadcast Console

THE BEST IN ITS CATEGORY,
FOR QUALITY AND FEATURES

Oxygen 3000 is the new concept digital console and defines a new standard in the broadcast market. Characterized by an elegant design and compact size, **Oxygen 3000** has been designed for both On Air and Production radio studios. **Oxygen 3000** is based on digital technology with DSP audio processing to deliver high-end quality, latest features and flexibility with ease of use. **Oxygen 3000** is the number 1 of the category at the best quality/price ratio. Oxygen 3000 is a powerful and compact unit featuring 10 faders, meters for each single channel, built-in 7" display for settings, wide range of connectivity and accessories in a rugged and classy steel chassis. Easy and reliable as the analogue mixing consoles, **Oxygen 3000** adds the value of the digital engine that grants a near 0 latency (< 0,7 ms I/O) and plenty of advanced functions as the internal routing signal, customizable preset and easy recall, user defined smart keys, analog and digital I/O.

// Highlights

» Fully digital broadcast mixing console
» Near 0 latency (< 0,7 ms I/O)
» Signals routing
» 10-faders console
» 4+1 busses (PGM, SUB, Aux1, Aux2, PFL)
» User-definable Snapshot
» 5 bands fully parametric EQ
» Dynamic Processor on microphone inputs
» Customizable RGB colored buttons
» 7" Graphic Color Display

» Control-Room and Studio Facilities
» A/B Fast source switch buttons
» 10 led meter bars for input source monitoring
» High Resolution led meter bars for outputs (164 LEDS)
» HDMI Out - Full HD connection for mixer monitor
» 2 Timers (Control-Room and Studio microphones timers on HDMI Monitor)
» Optional TalkBox for guest and presenter
» Optional Redundant PSU
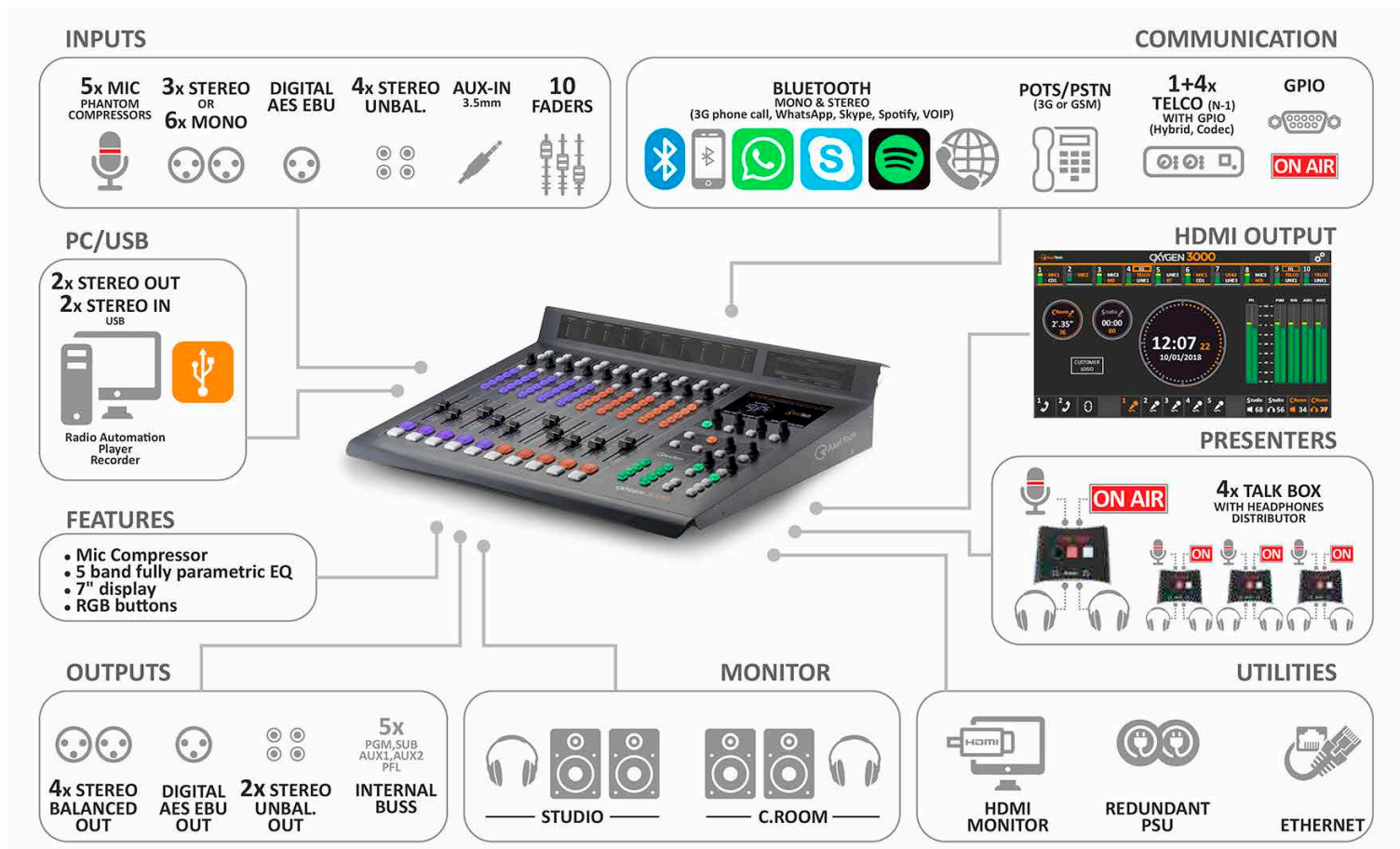
Oxygen 3000
New sound in your Radio

⊗ INPUTS & OUTPUTS

Microphone Inputs:

» Oxygen 3000 allows connection of XLR and RJ45 connector

» Inputs replicated from XLR to RJ45: 2-3-4-5, balanced with + 48V Phantom and GPIO

» Telco: Microphone No. 5 mutually exclusive

Digital input line: 1 AES/EBU Input on XLR

Analogue Outputs:

» Line Outputs: 6

» Balanced outputs: 4 Line out on XLR - PGM, SUB, AUX-1, AUX-2

» Unbalanced outputs: 2 Line out on RCA - REC-1, REC-2

Headphones and local monitor outputs:

» Balanced outputs: 2 line out on RJ45 for Studio Presenter and Studio Guest Headphones

» Unbalanced outputs: 2 Line out on RCA for Control Room and Studio Speaker

» Unbalanced outputs: 2 Lines out on Jack 6.3 for Control Room and Studio Headphones

Analogue inputs lines:

» Line Imputs: 8

» Balanced inputs: 3 Line In on XLR

» Unbalanced Inputs: 4 Line on RCA

» Aux Input: 1 Line In Jack 3.5mm

Telephone hybrid and Telco:

» Telephone Hybrid: 1 POTS/PSTN telephone line with Line.In and Tel.Set connection

» Telco: 1 in/out N-1 to connect external telephone hybrid with control via TLC/GPIO

» 4 inputs/outputs N-1 on inputs STEREO 4/5 and outputs REC 1/2

Digital Output: 1 AES/EBU output on XLR

GPI: 12 in total, for Talk back, Telephone Hybrid or other features

GPO: 10 total, to control OnAir lamps or Telephone Hybrid

// HDMI Output

The HDMI output in OXYGEN 3000 offer the possibility to connect a display monitor FullHD at the console. This feature provides multiple information on settings and operating levels. List of HDMI output display components.

» Audio input source level

» 4+1 BUS output level

» A/B Sources assigned of 10 channels

» Display ON-Air sources

» Microphone On timer (control room & studio)

» Large Clock

» audio output level (Loudspeakers & Headphones)

» OnAir microphone

» Telephone active

The HDMI interface also offers the possibility for radio stations to upload their own logo on the graphic interface.

⊗ DETAILS

The USB audio interface allows to directly connect the PC to the Oxygen 3000, with no need for audio cards: the PC detects the console as a digital audio card with 2 stereo inputs and 2 stereo outputs for simultaneous playout and recording.

The built-in telephone hybrid allows direct connection of a telephone line POTS/PSTN on RJ-11C. The audio is processed via DSP that delivers a state-of-the-art audio processing. It's also available a Telco N-1 in/out, to connect Oxygen 3000 to an external telephone hybrid. The output Telco N-1 is always available on XLR male, while the input receiving line is mutually shared with Mic-5. TLC commands are available on SubD connector with Hook and Ring interface for external telephone hybrid. 4 inputs/ outputs N-1 on inputs STEREO 4/5 and outputs REC 1/2 are also available without GPIO controls.

Oxygen 3000 has a Bluetooth audio connection, this feature allows airing the phone calls via Skype, Viber, WhatsApp or a normal phone calls by a Smartphone and Tablet. Oxygen 3000 has two modes of audio connection, one bidirectional to support phone calls and a second one for streaming high quality stereo audio (A2DP), this last feature allows airing the music from smartphones and tablets.

GPIO: The Oxygen 3000 has 12 GPI and 10 GPO, which allow connections to OnAir signal lamps according the opening of a microphone channel, or provide HOOK and RING commands for external telephone Hybrid.

⊗ TALK BOX

It is a Console dedicated to the presenter or guests: it is possible to connect up to 4 units. The TalkBox offer a direct connection of the microphone and relative On-Air light, it is also possible to directly connect the studio's On-Air Light. The Talk Box has a headphone amplifier with two 6.3 mm outputs.

Through the two large backlit buttons it is possible to activate and deactivate your own microphone (On / Off / Cough) or enable Talk back to the console. This TalkBox is connected to the Oxygen 3000 via 2 RJ45 cables.

OXYGEN 3000 DANTE OPTION:

Oxygen 3000 Dante adds to the standard Oxygen 3000 the Dante connectivity, maintaining all of the specifications.

Specific features:

» 2 Dante Stereo Inputs via dedicated Ethernet connection (RJ45)

» 2 Dante Stereo Outputs via dedicated Ethernet connection (RJ45)

⊗ DISPLAY 7"

The OXYGEN 3000 has a 7" color graphic display for displaying all the airing parameters and for configuring all the device feature.

The large display combined with the 4 rotary knobs allow the fast and intuitive programming of all the mixer parameters. Oxygen 3000 have a very easy and intuitive programming interface has been specially designed.

02. ## Oxygen 3
Broadcast console

⊗ **COMPACT** **BROADCAST** CONSOLE

OXYGEN 3 is a compact broadcast audio console for on air and production studios. Mainly design for medium/small radios (local station, community radios, Web radios) **OXYGEN 3** combines ease of use, flexibility and robustness. **OXYGEN 3** is a best seller product of Axel Technology, leader of its category and installed all over the world in any environmental conditions. Made of high-quality component easily available everywhere, **OXYGEN 3** is the analogue rock-solid console and is a life guaranteed investment.

Main Features

» Compact and rock-solid design
» 3 microphone inputs
» 9 unbalanced stereo inputs
» EQ controls
» 2 built-in telephone hybrids with conference (POTS)
» Balanced output LED meter with memory peak (PFL and Master)
» Easy to operate

Overview

The OXYGEN 3 ST features 8 channels with A/B input selection, 3 microphone inputs, 9 stereo inputs and 2 built-in telephone hybrids. The console integrates all the specific functions required in any radio studios, such as 2 telephone hybrids with conference capabilities, control of On Air studio lamp, CUT-OFF for loudspeaker and Talk-Over facility.

OXYGEN 3 console provides EQ control on each input channels unbalanced inputs and balanced outputs. OXYGEN 3 features unbalanced LINE inputs (PinRca connectors). The frame is inox steel & aluminium made, with wood finishing side panels available as an option. Electronic components have been selected from the best on the market, switchers, faders and potentiometers are by ALPS. 2 large LED meters with memory peak fine control of Master and Monitor signals. The external switching power supply assures maximum reliability and easy maintenance.

// Main Features

8 Channels

OXYGEN 3 has 8 channels, 2 inputs selectable (A/B) for each channel, top quality long fader 100mm for accurate control of audio levels, Gain control, EQ control, PFL and PGM buttons.
EQ controls, BASS, MID and HIGH on each channel.

3 Microphone Inputs:

» The 1st microphone input is the 'priority' channel and its signal is always internally routed to

» TalkBack (pre-fader)

» Telephone channels for 'private' communications with the callers, OFF-AIR (pre-fader)

» TalkOver section for automatic voice/music mix

» The fader also CUT-OFF the monitor output and controls On Air lamp

» As option, the faders of the mic 2 and mic 3 channels can be configured to trigger monitor out CUT-OFF and On Air lamp

9 Stereo Inputs:

» 9 unbalanced stereo LINE inputs on RCA connector

2 Telephone Hybrids (POTS):

» Telephone lines and Telephone set connector

for each line. Output for telephone calls recording available for each telephone line. Notification of incoming calls (phone ringing) via GPO

Monitor Section

Unbalanced stereo output for loudspeakers, with CUT-OFF, for monitoring of PFL, MASTER and EXTERNAL source. 2 headphones output. Talkback output switched between Master / Talkback (from Mic1)

Master Section

» 2 balanced Master outputs with level and balance controls (adapter SUDB15-XLR available as option)

» 1 unbalanced Master outputs with level control (Out 3)

» 2 unbalanced Master outputs mono with fixed level. Talkover function to automatically adjust/ attenuate the music level on master output when presenter talk on mic 1

Power Supply Unit

» External switching PSU 90-260 VAC 50/60Hrz

» Optional Redundant PSU

>>

Oxygen 3 ST
Broadcast console

⊗ COMPACT BROADCAST CONSOLE

OXYGEN 3 ST is a compact broadcast audio console for on air and production studios. Mainly design for medium/small radios (local station, community radios, Web radios) OXYGEN 3 ST combines ease of use, flexibility and robustness.

OXYGEN 3 ST is a best seller product of Axel Technology, leader of its category and installed all over the world in any environmental conditions. Made of high-quality component easily available everywhere, **OXYGEN 3 ST** is the analogue rock-solid console and is a life guaranteed investment.

Overview

The **OXYGEN 3 ST** features 8 channels with A/B input selection, 3 microphone inputs, 9 stereo inputs and 2 built-in telephone hybrids.

The console integrates all the specific functions required in any radio studios, such as 2 telephone hybrids with conference capabilities, control of On Air studio lamp, CUT-OFF for loudspeaker and Talk-Over facility. **OXYGEN 3 ST** console provides balanced inputs and balanced outputs. OXYGEN 3 ST features electronically balanced LINE inputs on Jack 1/4" female connectors.

The frame is inox steel & aluminium made, with wood finishing side panels available as an option. Electronic components have been selected from the best on the market, switchers, faders and potentiometers are by ALPS. 2 large LED meters with memory peak fine control of Master and Monitor signals. The external switching power supply assures maximum reliability and easy maintenance.

// Main Features

8 Channels

OXYGEN 3 has 8 channels, 2 inputs selectable (A/B) for each channel, top quality long fader 100mm for accurate control of audio levels, Gain control, PFL and PGM buttons. Balance control on each channel

3 Microphone Inputs

» The 1st microphone input is the 'priority' channel and its signal is always internally routed to: TalkBack (pre-fader)

» Telephone channels for 'private' communications with the callers, OFF-AIR (pre-fader)

» TalkOver section for automatic voice/music mix.

» The fader also CUT-OFF the monitor output and controls On Air lamp

» As option, the faders of the mic 2 and mic 3 channels can be configured to trigger monitor out CUT-OFF and On Air lamp

9 Stereo Inputs:

» 6 balanced stereo LINE inputs on Jack connector

» 3 unbalanced stereo inputs that can be set as LINE or PHONO, by internal jumper, on RCA connector

2 Telephone Hybrid (POTS)

» Telephone lines and Telephone set connector for each line. Output for telephone calls recording available for each telephone line. Notification of incoming calls (phone ringing) via GPO

Monitor Section

» Unbalanced stereo output for loudspeakers, with CUT-OFF, for monitoring of PFL, MASTER and EXTERNAL source. 2 headphones output. Talkback output switched between Master / Talkback (from Mic1)

Master Section

» 2 balanced Master outputs with level and balance controls (adapter SUDB15-XLR available as option).

» 1 unbalanced Master output with level control (Out 3)

» 2 unbalanced Master outputs mono with fixed level. Talkover function to automatically adjust/ attenuate the music level on master output when presenter talk on mic 1

Power Supply Unit

External switching PSU 90-260 VAC 50/60Hrz

>>

Main Features

» Compact and rock-solid design

» 3 Microphone inputs

» 6 Balanced stereo inputs

» 3 Unbalanced stereo inputs

» 2 Built-in telephone hybrids with conference (POTS)

» Balanced output

» LED meters with memory peak (PFL and Master)

» Easy to operate

Oxygen 4
Modular Broadcast Console

04.

LISTEN
TO THE LIVE

PRODUCT
OVERVIEW

OXYGEN 4 is specially designed On-Air and production console for radio broadcasting, offering an elegant design along with compact dimensions. The console is fully modular, which means flexibility in the configuration. The Mono, Stereo, Telco and Telephone input modules can be placed anywhere in the chassis. Telephone module features a built-in, high quality telephone hybrid and Telco module can be interfaced to any external hybrid. Mono and Stereo modules feature selectable double inputs and three band tone controls (optional).

OXYGEN 4 console is available in three frame sizes: the frame 10, which can contain 10 overall modules, the frame 20 and the frame 30. A script try (10 module wide) is fitted for frame 30 version. The frames are inox steel & aluminium made, with wood finishing touch. Electronic components have been selected from the best on the market. In particular, the parts mostly subject to tear and wear (such as switchers, faders and potentiometers) are by Alps. OXYGEN 4 wide range of functions provides the most immediate and complete control of the emission. All relevant functions are built-in, such as TalkBack two-way communication circuit, the On Air lamp control, Studio - Control Room speakers cut-off, phantom microphone powering. **OXYGEN 4** features 2 output buses (Master and Sub), 2 recording outputs (assignable Mst/Sub) and a versatile Monitor section. All input / output audio connections are balanced on 1/4" jacks. Four Vu / Peak meters come with the equipment.

// Main Features

» Rock Solid Design
» Custom configuration
» Wide range of functions and features
» Inox steel + aluminium frame with wood finishing touch
» Up to four back lit vu-meters showing master, PFL and tuner signals. Built-in peak meter
» Modular structure
» Available in 18 and 26 module versions
» Integrated talk back microphone
» External power supply including 2 relays for on air lamps control

Meter:
» 2 Vu/Peak meter pairs
» 1 pair preset to Master output, 1 user assignable
» High resolution scale: 20 LED for each meter
» Vu/Peak visualization jumper selectable
» Sensibility ranging from – 25 dB to + 5 dB

Mono Module:
» Micro and mono Line switchable inputs (balanced)
» Insert function on microphone input
» Trimmer for Micro level fine adjustment
» Gain control
» Phantom power supply

» Three band parametric equalizer (optional)
» Master & Sub output assignment
» PFL function
» Monitor speaker muting control
» 2 relays activation

Stereo Module:
» Two balanced stereo inputs
» Input B configurable for Line or Phono sources
» Three band equalizer (optional)
» Start / Stop command interface (optional)
» Master e/o Sub output assignment
» PFL function
» Gain Control

Telephone Module:
» Built-in analog telephone hybrid
» Automatic Line compensation
» Send & Receive level controls
» Trimmer for fine adjustment of Receive level
» Master & Sub output assignment
» Ring LED for incoming calls
» Private/ PFL function for 'off-air' communications
» Hook key for line hooking
» Socket for external telephone set

Telco Module:
» Balanced Send output and Receive input
» Send & Receive level controls
» Remote control capabilities of external hybrid (e.g. Boxtel and Macrotel series by Axel Technology)
» Master & Sub output assignment
» Ring LED for incoming calls
» Private/ PFL function for 'off-air' communications
» Hook key for line hooking
» Master-Sub Module
» Balanced Master output (Mono/Stereo switchable)
» Balanced Sub output (Mono/Stereo switchable)
» Sub output fader
» PFL function applied to Sub signal
» Sub output assignable to the Master output
» Two balanced Rec outputs (Mst/Sub switchable)
» Rec output independent level control

Monitor Module:
» Studio + Control Room outputs (separated for headph / spk)
» Independent control sections for Studio and Control Room
» Auxiliary balanced Tuner input
» Tuner input level control
» Talk Back to Studio capability
» Built-in Talk Back microphone
» Selectable source for 2nd Meter couple

05.

Lynx
Broadcast FM Tuner

⊗ **THE QUALITY AND**
ACCURACY OF THE BUILT-IN TUNER

LYNX is an evolved Broadcast Digital FM Tuner, designed for receiving, monitoring and listening to FM radio signals. The built in Web interface allow multiple users to visualize all the parameters and details of the incoming signal. The tuned audio frequency is available on the analog balanced output (XLR), on the digital output AES/EBU (XLR), on the headphone output and via IP streaming at the same time. The quality and accuracy of the built-in tuner allow a very strict analysis of the tuned frequency, modulation and the RDS data decoding.

Main Features

» Real time measurement

» High quality tuner

» Signal analysis of: RF, MPX, AUDIO and RDS

» Built in web server for remote acces

» Decoder RDS with complete data decoding

» Double ports for Net connection

» Analog balanced output and AES/EBU on XLR

» High shielded against strong RF fields

// Display & Parameters:

Receiving:
» RF Level incoming
» Multipath
» Carrier Offset

The front panel:
» IP Ethernet port
» Digital and Analog level output
» Time and treshold alarm
» Headphone level

Receiving status:
» Tuned
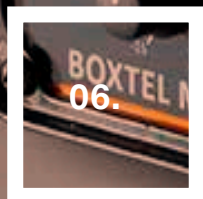» Stereo
» RDS
» Alarms:
Low RD, Low Audio
and RDS Errors.

Deviation:
» MPX
» Audio
» Pilot and RDS

Decoding RDS:
» PS
» PI
» BLER
» TA
» TP
» MS
» DI
» PTY / PTYN
» AF Presence
» RT / RT+
» TMC

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06. # Boxtel MKII
GSM & POTS telephone Hybrid

⊗ # PRODUCT
OVERVIEW

Boxtel MKII is a professional studio telephone hybrid designed to meet the most demanding Radio and TV broadcasting requirements. **Boxtel MKII** is one of the most useful outdoor telephone connection tools ever thanks to his small size, easy installation and operation, and the voltage supply directly provided by the telephone line. **Boxtel MKII** can be easily connected with the most popular mixing consoles, and it is suited both for open-air and studio applications, due to additional remote control feature and balanced connections with automatic line compensation. **Boxtel MKII** comes in a rugged inox steel case in order to be the perfect companion for any live or studio broadcaster. Features like meters, internal PSU, country setting, great S/N ratio and filters make of **Boxtel MKII** the coolest telephone hybrid for its market segment.

// Special Features

Boxtel MKII is a telephone hybrid specially designed to be connected with mixing consoles and to control phone lines.

Boxtel MKII can manage a telephone line POTS/PSTN, while BoxTel GSM can manage a GSM telephone line to ensure telephone connection where hardwire-phone line is not available.

Boxtel MKII and Boxtel GSM have an internal microcontroller that allow to configure via software the working mode.

Internal microcontroller has many other functions such as: telephone impedance according to the region, Send/Receive audio levels visualization (on a front led), line detection (telephone line detection), adjustable buzzer level, AutoHook

Thanks to backlight Hook/Ring button, on front panel, it is possible to hang up after a given number of phone rings.

07. Macrotel X1 - X2

GSM/POTS – Digital Telephone Hybrid Processor

PRODUCT OVERVIEW

Macrotel X1 and **Macrotel X2** are Axel Technology's Telephone hybrid third generation for a supreme audio quality.

Macrotel X1 manages one POTS/PSTN line while **Macrotel X2** can operate on two POTS/PSTN lines.

Moreover, in every landline it is available a switching "land-to-wireless mode" through one or two optional Quad Band GSM module so to establish telephone connection where wired lines are not available.

Macrotel X1 and **Macrotel X2** telephone interface perfectly suits every phone line all over the world. Via software the user sets the country's operation.

// Special Features

The audio treatment via DSP together with the automatic gain control (A.G.C) provides a loud and clear receiving level, always steady even when frequent audio caller conditions changes.

Audio controls available on the **Macrotel X1** and **Macrotel X2** series are: echo canceller with a range from 16 to 32ms, 1 A.G.C stage, 2 Band Equalizer and Attenuator audio feature. Furthermore, the "hold" function allows you to put the caller On Hold before being On Air. **Macrotel X1** and **Macrotel X2** front panel controls allow operators to manage phone calls easily, while the graphic display LCD shows Send and Receive audio levels. The audio inputs / outputs are electronically balanced by XLR connectors; the send input has been designed to be managed as line level or microphone level to match perfectly each user needs. Both telephone hybrids are manageable via USB and Serial connection, or directly from Telco N-1 mixing console modules.

The software manages the phone hybrid operability globally, that means the user can change the working audio parameters and operative mode without any physical action on the equipments. Auto-ranging internal switching power supply allows to use the equipment all over the world. Macrotel X1 and Macrotel X2 fits in 1 standard RU.

08.

Phonex D1-D2
Digital Telephone Hybrid Processor

⊗ PRODUCT
FOR DISTRIBUTION
SYSTEM

Phonex D1 and Phonex D2 are telephone hybrids designed for the broadcast market.

The internal frameworks based on DSP (Digital Signal Processor) hit in real time the highest audio performance , that sets **Phonex D1** and **Phonex D2** as state of the art technology in the telephone interface. PhoneX series allows analog and digital balanced AES/EBU input and output over XLR connectors with "mic/line send" features switched via software.

As in Macrotel X1 and X2, the **Phonex D1** and **D2** equipment allows to manage one or two landlines, shared with GSM Quad Band modem optionally improved, to place phone calls where wired lines are not available. Enhanced audio features exclusively designed for phone calls such as: AGC stage, Echo canceller, De-Noiser, 2Band Equalizer, Ducking and Hold caller/Attenuator.

// Support

Phonex D2 also allows conference calls between different participants. **Phonex D1** and **Phonex D2** facilitate the everyday's operators usage via front panel button, the graphic LCD display sends and receives levels for each phone hybrid, via: software Pc based, any webpage and wireless devices as tablet or smart phone. Available GPIO contact from and to Telco N-1 modules. Available connections via two rs232 serial ports and one USB. By option an Ethernet board to manage LAN connection can be added directly into **Phonex D1** and **Phonex D2**. All audio features and operating mode can be managed locally and remotely via software, without a physical intervention over phone hybrid. Auto-ranging internal switching power supply allows to use the equipments all over the world. **Phonex D1** and **Phonex D2** occupy 1 standard RU.

Main Features:
» AES/EBU digital inputs and outputs
» 1 and 2 line models
» POTS/PSTN and GSM Quad Band (option)
» Integrated Web server for remote control
» Digital AGC processor with 2 band EQ
» Echo canceller and noise gate
» Separate send and receive
» Mulitple units connection (conference)
» LAN and USB ports
» Built-in tone generator
» Auto answer and disconnection
» Balanced XLR I/O (mic/line)
» Remote control software and dialer

RDS E3 & E5

Static & Dynamic RDS with Monitoring

⊗ PRODUCT OVERVIEW

RDS E3 and **RDS E5** are dynamic RDS encoders which support all services and features for advanced RDS applications.

RDS E3 and **RDS E5** support the most advanced RDS dynamic services, including TMC, ODA, IH, TDC, EWS, Radio Text and Radio Text plus.

RDS E3 and **RDS E5** manage up to 8 complete Data Set, each one with 1 Main PS and 10 EON. To assure the best flexibility, any Dataset can be managed via Standard Mode, using UECP commands or via Extended Mode using GPIOs, SNMP commands, REST API commands or ASCII commands.

In addition to standard CENELEC NRSC methods, RDS programming has been enriched with larger PS and RT sets (that are also available in dynamic mode).

RDS E3 and **RDS E5** can interface with various Automation Systems and they offer an ASCII protocol for broadcast song/artist information. In case of alarms, they support SNMP alerting for NMS.

RDS E3 and **RDS E5** satisfy the high-end broadcaster's requirements: UECP system features 4 TCP ports, 4 UDP ports, 2 serial ports and 1 SNMP port.

RDS E3 and **RDS E5** are RDS 2.0 Ready: they manage the 4 RDS subcarriers specified in the standard that is still under definition. A Web interface has been created to control all these functions and it can be used by any browser with any device from the smartphone to the laptop.

RDS E3 and **RDS E5** are SNMP v2c in order to satisfy the most demanding technicians. RDS E3 and RDS E5 have an high resolution colour display that allows the display and insertion of the main machine parameters.
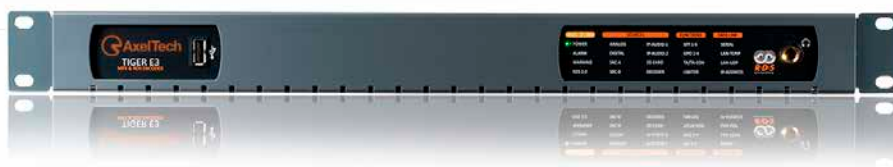
// **Future ready**

RDS E3 and **RDS E5** are RDS 2.0 Ready. Their DSP can generate the multicarrier signal needed for the new RDS standard. Once this standard is defined, with a simple software upgrade the end user will be able to have a RDS 2.0 compliant encoder without any replacement that would vanify the initial investement.

Easy Access

RDS E3 and RDS E5 are fully configurable via WEB interface. Their Web server is compatible with all the available Web browsers (Chrome, Firefox, Edge, Opera, Safari etc.).

RDS E3 and RDS E5 support laptop, tablet and smartphones simplifying the browsing and setting of the device. They have a responsive-kind graphic interface that adapts the viewing mode according to the resolution and position (portrait/landscape) of the current viewing device.

The provided Wi-Fi USB dongle creates a specific Wi-Fi hotspot that enables the access to the device without the need of cabled or wireless net.

RDS E3 and RDS E5 have 3 IPV4 and 3 IPV6 addresses to ensure simultaneous connection to all the broadcasting and monitoring systems.

⊗ **BROADCAST**
ANY INFORMATION

RDS E3 and **RDS E5** are the result of the long-time experience of Axel Technology in RDS encoder development.

RDS E3 and **RDS E5** can simultaneously receive UECP commands through 4 TCP ports, 4 UDP ports and 2 serial ports, enabling the most demanding network operator to connect all the dynamic sources to the RDS encoder.

In addition to the accurate use of the RDS through UECP commands, RDS E3 and RDS E5 enable the end user to benefit from more simple and flexible ways to send information to the encoder by offering: REST API commands, ASCII Parser and SAMBA connection to Radio Playouts.

RDS E3 and **RDS E5** can automatically get information from the Radio Playouts thus eliminating the need of Middleware Software between the Playout and the RDS encoder.

// Easy Maintenance

Any first-time user can benefit from RDS E3 and RDS E5 simplified settings management

QUICK RDS SETUP is the easier way to set the main RDS parameters

IMPORT/EXPORT and PRESET MANAGER are available for RDS E3 and RDS E5's advanced management

These functions can be used for the whole device configuration or only for some selectable modules (SYSTEM, RDS, and TUNER)

RDS E3 and RDS E5 use a SD card to create an automatic copy of all the device data when the user changes something. If the device needs to be replaced or duplicated, the SD card can be used to clone it

⊗ GUI & MONITORING

RDS E3 and **RDS E5** are provided with a modern GUI (Graphical User Interface) that uses clear elements and useful information. The wide range of available banners allows the user to monitor any function. The selected banners are always visible in any menu.

In the RDS section, a specific area is available for on-air RDS group analysis (static and dynamic) to evaluate services balancing.

Thanks to the FM Tuner (as an optional), the FM signal can be received and decoded. With this feature it is possible to check MPX, RDS and Pilot deviations, BLER (Block Error Ratio) and RDS Decoder (PI, PS, RT, PTY, RT+,TP, TA, M/S, CT, AF, TMC, EON).
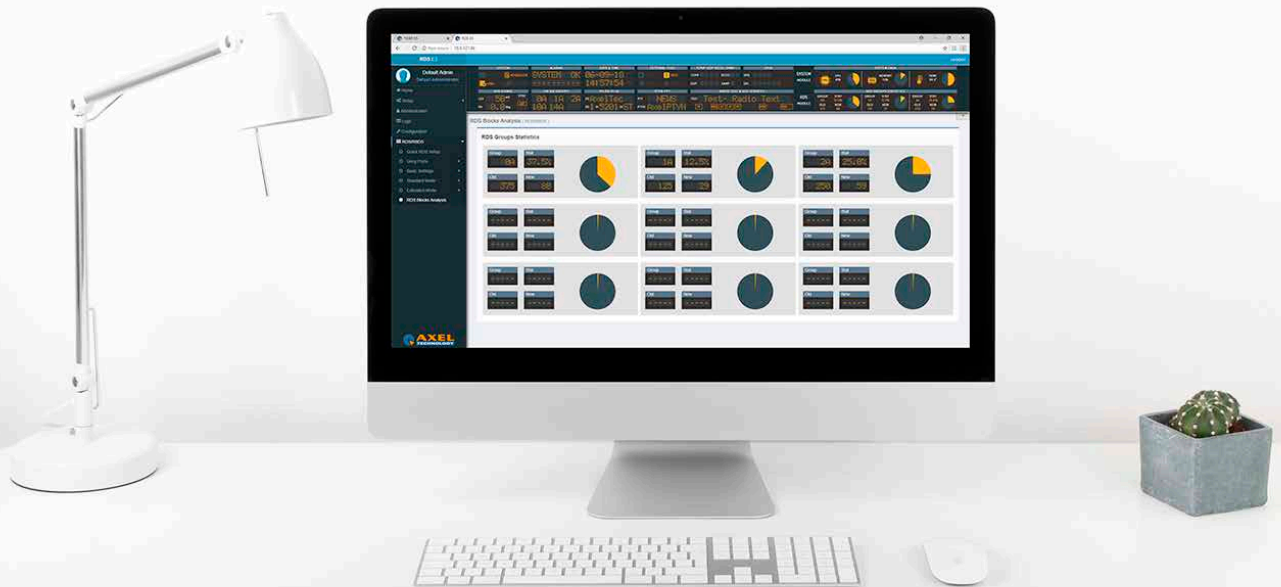
Tiger E3 & Tiger E5

7 in 1 FM Site Control & Monitoring

⊗ **PRODUCT** OVERVIEW

Tiger E5 is a device designed to feed, monitor and control FM Transmission infrastructure by large national FM networks to local stations.

Tiger E5 is a 7 devices in 1, thanks to the power of the digital technology Tiger E5 can fulfill the following functions: IP Audio Codec / Audio Changeover / Audio Limiter / Stereo Generator / RDS Encoder / MPX Changeover / FM Monitoring System with integrated Tuner.

Tiger E5 can manage and decode MPX and RDS signals, receive IP Audio streaming signals, be connected and analyze Analog and Digital audio signals; thanks to the audio 4 channels Audio changeover and MPX Changeover it can handle every kind of received signal in a transmitting site.

Tiger E5 has a double IP streaming receiver and SD card player managed by a multimedia changeover.

Tiger E5 supports the most advanced RDS dynamic services, including TMC, ODA, IH, TDC, EWS, Radio Text and Radio Text plus.

Tiger E5 allows to interface Radio Automation Systems to display song title, artist and other information, but always compliant to the CENELEC (Europe), NRSC (America) and UECP v7.05.

The built-in ITU BS412 multiplex power controller acts on the output to meet even the most strict European government regulations.

To control all these functions, a Web interface has been created that can be used by any browers with any device from the smartphone to the laptop.

To satisfy the most demanding technicians TIGER E5 is SNMP v2c.

// Connect any Kind of Source

Tiger E3/E5 manages different kind of audio sources as Analog & Digital audio, IP-Audio, Backup-Player and MPX, thanks to the 4 channels audio changeover and 2 channel MPX Changeover. The internal delay can be assigned to any source and allows the time alignment of two or more sources.

It is possible to use the internal audio player as a backup if all the external sources fail.

The internal limiter continuously monitors the sources audio levels, allowing the level managing and avoiding any overshoot generated by the satellite or IP-Audio MPEG decompression.

MPX inputs are decoded (L&R) and available to be used as sources for the Audio Changeover or MPX Changeover. MPX Changeover features a UECP filter that allows the regeneration or filtering of any RDS service (PS, RT, RT+, IH, TMC, TA/TP), thus giving the user the chance to maintain, replace or filter any RDS parameter starting from the incoming RDS signal.

Changeover / FM Monitoring System with integrated Tuner. TIGER E5 can manage and decode MPX and RDS signals, receive IP Audio streaming signals, receive and analyze Analog and Digital audio signals. Thanks to the 4 channels Audio changeover and MPX Changeover it can handle every kind of received signal in a transmitting site.

⊗ EASY ACCESS

» **Tiger E3/E5** is fully configurable via Web interface. Its Web server is compatible with all the available Web browsers (Chrome, Firefox, Edge, Opera, Safari…)

» **Tiger E3/E5** supports laptop, tablet and smartphones simplifying the browsing and setting of the device with its responsive-kind graphic interface that adapts the viewing mode according to the resolution and position (portrait/landscape) of the current viewing device

» The provided Wi-Fi USB dongle creates a specific Wi-Fi hotspot that enables the access to the device without the need of cabled or wireless net

» **Tiger E3/E5** features 3 IPV4 and 3 IPV6 addresses to ensure concurrent connection for all the broadcasting and monitoring systems

// Easy Maintenance

» Any first-time user can take advantage of Tiger E3/E5 simplified settings management. EASY CONFIGURATION FUNCTION quickly and easily enables the user to set the working mode, while QUICK RDS SETUP brings the mostly simple way to set the main RDS parameters

» IMPORT/EXPORT and PRESET MANAGER are available for a more advanced management of Tiger E3/E5
These functions apply to the whole device configuration or only to some selectable modules (SYSTEM, RDS, MPX, AUDIO, MULTIMEDIA and TUNER)

» Tiger E3/E5 uses a SD card to create an automatic copy of all the device data whenever the user changes anything. If the device needs to be replaced or duplicated, the SD card can be used to clone it

⊗ GUI & MONITORING

Tiger E3/E5 features an endearing GUI (Graphical User Interface) that makes use of clear elements, rich of information. With a simple and straightforward selection of the available banners, it is possible to keep under control any function. The selected banners are always visible in any menu.

Tiger E3/E5 displays in both graphical and numerical format all the input and output levels as well as the internally generated signals. The visualization can be numerical, bar graph or time related.

In the RDS section, a specific area is available for on-air RDS group analysis (static and dynamic) to evaluate services balancing.

In the MPX section, spectrum analyzers display the MPX+RDS input and output signals.

Tiger E3/E5 provides two independent listening paths for every internal audio source:

Local: using the headphone socket on front panel and the display to select the source

Remote: using the internal IP audio encoder that enables the remote audio receiving with different listening quality choices the MPX decoder let the user listen to the decoded L & R audio for any of the MPX sources, input, output or internal.

11.

Streamer Max MKII

STREAMER MAX ELITE
Digital Audio-Over-IP CODE

AxelTech

⊗ PRODUCT OVERVIEW

STREAMER MAX is an audio encoder/decoder over IP (bidirectional/full duplex).

It is compatible with most of worldwide standards and features an open architecture to support future formats and customizations. It combines application versatility (Studio, STL, Portable) with easiness of use.

STREAMER MAX has both analogue and digital inputs and outputs in order to allow maximum flexibility of installation and connectivity.

Specifically designed for broadcast applications, **STREAMER MAX** is a high quality and high performance device with professional features such as data tunneling for rs232 serial port and GPIO management.

STREAMER MAX is also suitable for consumer applications, from audio stream in point-to-point environments to audio distribution for public addressing. The heavy-duty aluminium body, the battery box

and the universal power supply allow deplyment in any kind of environment.

// Main Features

» Half-duplex and full-duplex audio connection
» Connection via Bluetooth, Wi-Fi, UMTS Modem (*only certified devices)
» 2 GPIn and 2 GPOut with data tunneling operative mode
» Multiple audio codec protocols and bitrates
» Microphone XLR input
» Professional hi-quality analogue and digital in/out with A/D and D/A conversion
» Data tunneling with certified USB interface (like RS232-RS485) to control remote devices
» Web based configuration
» Highly accurate rate and jitter correction in every digital audio paths.

APPLICATIONS:
» Audio over
» Ip distribution
» Point-to-point links (STL)
» Multicast connections
» Radio InStore/Brand Audio Networking
» Audio distribution for P.A

12. # Wolf 1MS & 2MS
FM monitoring system

⊗ **EVERYTHING** **UNDER** CONTROL

Wolf 2MS and **1MS** are state-of-the-art monitoring systems, designed to check FM air signals. Onboard twin tuners allow to accurately scan frequencies, they offer high performances in FM reception, MPX audio encoding and RDS data streaming. This cutting-edge equipment features three main operating modes: continuously reception, bandscan and smart bandscan.

With FM static mode the user can focus on a single channel, selected and monitored exclusively. Thanks to the scan mode up to 32 channels for each tuner can be scanned and supervised in a single analysis. FM static mode also receives up to 64 memories. **Wolf 2MS** and **1MS** allow to manage accurately RF, MPX, RDS, Audio and RDS data dynamic services. In smart mode the channel scan time is adjusted automatically according to instantaneous measurements requirements.

Wolf 2MS and **1MS**, integrate a Network Management System and offer excellent quality. With SNMP protocol, all data and informations captured during FM monitoring are graphically displayed on any kind of Web interface.
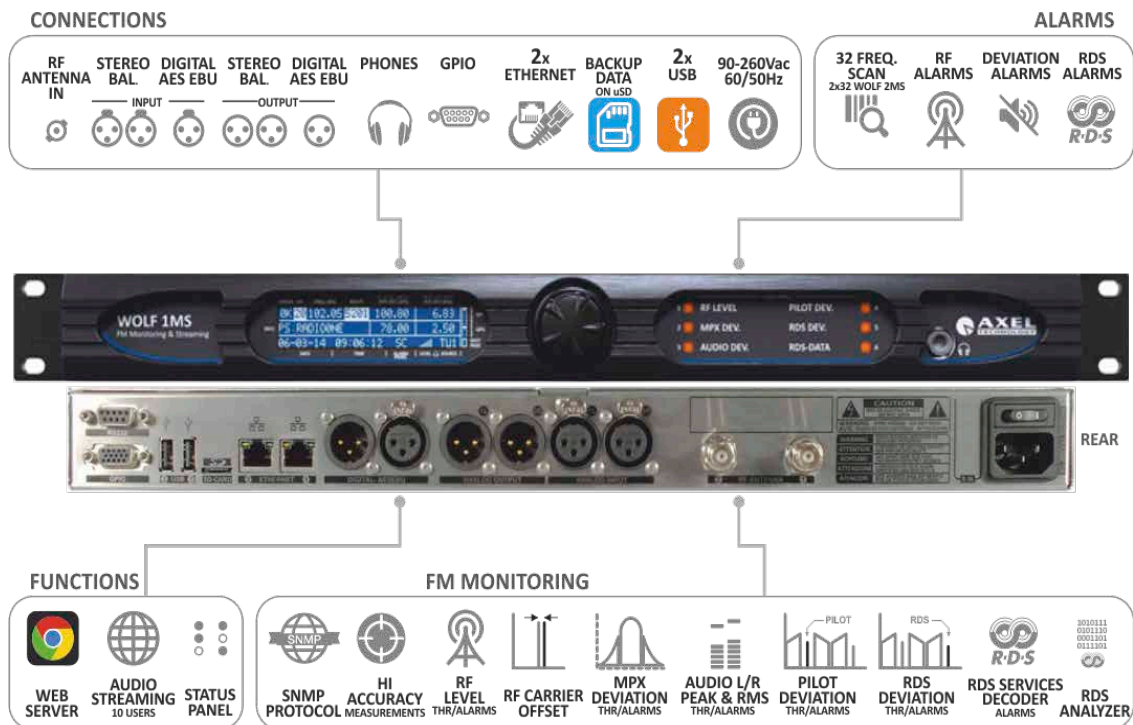
// Models

For simple configurations that do not require NMS software, Wolf 2MS can send via email a daily report of the 24 hours events. Wolf 2MS and 1MS provide a database sheet to manage this information. The two built-in audio streamers are the essential feature of Wolf 2MS (Wolf 1MS has 1 built in audio streamer).

Audio channels can be streamed to a remote logging system that records both, audio and data, coming from the transmitter site. It is also possible to send audio stream to a remote player for audio on-demand purposes. Users can listen to each single FM tuner and streamed audio anywhere, using all Internet browsers.

Two onboard network interfaces provide maximum flexibility in streaming and connectivity processes.

From PCs, tablets and smartphones broadcasters can completely control Wolf 2MS and 1MS and have full access to all data and alarms. When an alarm is trigged, NMS system sends notifications via SMS or email or takes an action to manage any possible issue.

External input sources are available: analog Left + Right and digital AES/EBU inputs. Users can connect audio to the controlled external input sources. These audio inputs are constantly monitored: silence detection, and audio presence. Tests, performed also by end users, have shown that Wolf 2MS circuits are extremely safe and completely free from any kind of radiofrequency interference.

⊗ WOLF 1MS & 2MS

Wolf 1MS and Wolf 2MS are FM monitoring systems designed for FM Off Air signal monitoring purpose. Wolf 1MS is provided with one high quality FM tuner, while Wolf 2MS allows the broadcaster to receive up to two frequencies thanks to an internal double tuner. Tuners are independent and they can operate in three ways: Continuous reception, Bandscan and SmartScan. Internal tuner ensures high performances in FM reception, RF and MPX audio analysis and RDS data stream output. The monitoring made on FM channels can be a basic RF analysis or an advanced RF, MPX and AUDIO measurement.

» Continuous reception: a single carrier is selected and monitored;

» Bandscan mode: 32 FM Channels can be scanned and monitored in Wolf 1MS and 64 FM Channels can be scanned and monitored in Wolf 2MS. The bandscan time is also user definable, in a range from 1 second up to 10 seconds for each channel;

» SmartScan mode allows a smart and variable scan time that is adjusted automatically to fit the instantaneous measurement

⊗ SPECIAL FEATURES

During continuous reception mode, each single tuner checks and completely decodes the multiplexed signal: Mono level, Pilot level, Audio and RDS levels are measured and they are always under control. All datas, captured during FM Channel monitoring, can be sent to a Network Management System (such as Axel Technology's Ranger) or they can be shown in a common password protected Web page. Communication between **Wolf 2MS** and Ranger NMS is SNMP v2C protocol. For all single parameters under monitoring, a threshold can be set. If one or more values go out of range, alarms are delivered.

Once the RF signal is received, audio should be streamed from the transmitter site back to a remote logging system. The streamer input allows to do an internal selection between all inputs available: Tuners, External Analog In, External AES/EBU In.

Wolf 1MS and **Wolf 2MS** are completed with an "External Input" source: analog Left + Right input and Digital Left + Right in AES/EBU format. This audio input is continuously monitored: silence detection (Threshold/time and level), left and right presence, peak left, peak right. Rear-panel audio output always presents the audio decoded from Tuner-1 or Tuner-2 and this setting is user definable, while audio is available on analog or AES/EBU format.

Wolf 1MS and **Wolf 2MS** provide a large variety of connection: double Ethernet port, USB and front panel headphone output, 4x GPIn opto coupled and 4x GPOut over relays. Rs232 serial port for RDS-UECP bridging and rebroadcasting purposes, and rear panel placed SD card to store or recall the complete equipment configuration.

RF antenna inputs are over BNC connectors, a XLR balanced stereo analog input and output, AES/EBU input and output. OS and datas are loaded and stored over solid state memory as SD and flash RAM. Universal switching power supply, 1 rack unit space in fan-less configuration, allows to operate worldwide.
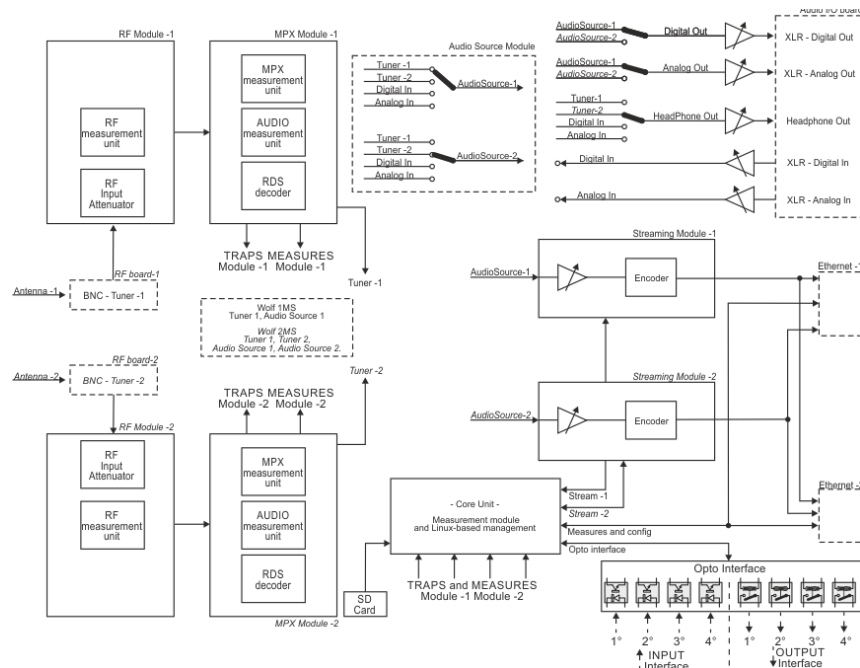
13. Puma
FM re-broadcast receiver and IP encoder

⊗ **PRODUCT**
OVERVIEW

Whenever FM broadcasters requires a cost effective solution to deliver and re-broadcast FM content, **Puma** is the cutting edge, most complete and innovative equipment on the broadcast market. **Puma** is high quality frequency-agile FM Re-Broadcast receiver which sets new industry standards in hardware DSP-based radio equipment.

Puma provides RF-FM monitoring functionalities and an Audio-over-IP encoder in a single equipment. Thanks to its internal digital-based DSP improved FM tuner, **Puma** returns a complete MPX signal from the received FM frequency.

The MPX circuit optimization assures a high quality MPX signal that can be used to feed directly an FM transmitter or a different MPX signal path with amazing MPX performances.

The internal tuner guarantees high performance in FM reception, RF and MPX audio analysis and RDS data stream output.

The monitoring process operated on the FM channels can be a basic RF analysis or an advanced RF, MPX and AUDIO measurement. Mono level, Pilot level, Audio and RDS levels are measured and kept always under control. A threshold can be set for all parameters surveyed; if one or more values drift out of range, alarms are delivered. All captured data during FM channels monitoring can be sent to a Network Management System (such as Axel Technology's Ranger) or shown in a common Web page via SNMP V2 protocol. Once the RF signal is received, audio should be streamed from the transmitter site back to a remote logging system.

Puma is also features an external input source both analog (Left+Right) and AES/EBU. This audio input is continuously monitored: silence detection (Threshold/time and level), left and right presence, peak left, peak right.

Tuner output is available on rear-panel audio connectors on Analog or AES/EBU format .

Puma provides a large variety of additional connections: double Ethernet port, USB and front panel headphone output, 4x GPIn opto coupled and 4x GPOut over relays. RS232 serial port for RDS-UECP bridging and rebroadcasting purposes. MPX signal is output through BNC connector.

Puma was developed with the latest technology in a fanless hardware format and free of wear parts of any kind.

Thorough tests, performed also by end users, showed that **Puma** circuits are extremely reliable and unaffected by any kind of radiofrequency interferences.

14. Falcon 3i
Digital Audio Processor - FM & WEB

⊗ # PRODUCT
OVERVIEW

Falcon 3i is the most cost effective and high performing processor combining Digital Audio Processor, Stereo Generator and RDS Encoder.

The all-in-one solution designed for FM broadcasting, WebRadio and Satellite stations.

Falcon 3i delivers a great sound, loud and clear, thanks to the 4-band architecture, the dual band AGCs, 3-band equalizer, speech detector, and 4 limiters.

The control of each audio parameter allows the broadcaster to achieve a unique tailored sound that before could be achieved only with the most expensive audio processors.

The built-in digital Stereo Generator assures an extremely precise MPX Signal.

The RDS Encoder (optional) is compliant to UECP SPB490, provides 2 DataSet with a wide range of static services, including Radio Text.

Falcon 3i features full connectivity with analogue and digital AES/EBU inputs and outputs (over XLR connectors) and 2 independent MPX outputs, USB, GPI and serial ports.

The hardware bypass circuit is always included to guarantee the presence of audio and continuity of audio programs.

// The soundprint of every station

All features available in the audio processor are complete and fully customizable: 4-band compression control with drive and threshold, a powerful AGC double-band, a three-band equalizer for Low-Middle-High frequency and a brilliance control.

The check of the phases of the monophonic audio signals gives to the sound of the human voice a more natural and pleasant structure; the final limiter drive pushes to maximum the sound presence.

The soundprint of every transmitter can be created starting from one of the ten audio presets already present in Falcon3i and it can be saved on the equipment in order to be able to recall it in a second moment accordingly to the program;

furthermore it is also possible to recall a preset through a command on the GPIn port.

On board of the audio processor there is also a completely digital generator of sample tones with variable frequency and amplitude.

It is available on analogue, digital and MPX outputs for a precise and correct calibration of the network. The Composite Clipper, put on the back side of the stereo generator guarantees the best modulation level, in respect of the deviation limits acknowledged by worldwide standards. Falcon 3i makes every sound unique and artifacts free.

Falcon 3i for all its features is the audio processor and RDS encoder with the best quality/price ratio on the market.

Main Features:

» 4-Band digital stereo audio processor

» Analog and AES/EBU input and output over XLR

» 2 MPX outputs and 2 aux inputs

» Stereo generator with MPX clipper

» Digital RDS encoder, 2 dataset (optional)

» AGC, brilliance control, speech detector, 3-band EQ

» USB, serial, 4 GPIn 4 GPOut

» Front headphone output

» Hardware bypass

15.

Falcon VS
Digital Audio Processor - FM & WEB

⊗ **PRODUCT** OVERVIEW

Falcon VS is the high performing digital audio processor combining also the Stereo Generator and the RDS Encoder. It's the all-in- one solution designed for FM broadcasting, WebRadio and Satellite stations.

Falcon VS provides a great outstanding sound, thanks to the powerful DPSs, 5-band architecture, the dual band AGCs, 3-band equalizer, stereo enhancer, speech detector and 4 limiters. The control of each audio parameter allows the broadcaster to design its favorite audio preset to get a unique branded sound.

The optional LAN port with the built-in Web Server allow to take the control of the processor and tune the audio from anywhere.

The built-in digital Stereo Generator assures an extremely precise MPX Signal. The RDS Encoder (optional) is compliant to UECP SPB490, provides 2 DataSet with a wide range of static services, including Radio Text.

Falcon VS features a full connection/connectivity with analogue and digital I/O (over XLR connectors) and 2 independent MPX outputs, USB, GPI and serial ports. The hardware bypass circuit is always included to guarantee the presence of audio and continuity of audio programs. The features available on the Audio Processor are multiple and fully customizable: 5-band compression control, dual-band AGC, a 3-band EQ and brightness control.

The parameterized Stereo Enhancer command provides to the radio station sound a spacing effect and large stereo horizon openings. The Expander control allows to minimize backgrounds and unwanted noises, while the Overdrive and SuperBass deal to make an important sound at low and medium-low frequencies, creating an impressive sensation of loudness. The phases control of monophonic audio, gives the sound of the human voice a more natural and pleasant listening, while the final limiter drive maximizes the presence of sound. Falcon VS makes the sound of any single broadcaster unique without creating an artificial sound.

// Your sound

The soundprint of each channel can be created from one of ten preset audio files already on Falcon VS, from rock to classical, country, talk show, or preset audio while preserving the original sound; it enhances features and unique details.

It can also recall a preset by the logic state on the port or protocol GPIn ASCII serial / ethernet (on OPT).

The internal RDS encoder -available as an option-, provides two DataSet, each with a wide range of services including 60 static programmable PS messages, 16 RadioText messages, Alternative Frequency (AF) to receive the best frequency as a function of 'coverage area' and Traffic Program (TP) / Traffic Announcement (TA) to listen to traffic information and functions such as EON, M/S, DI, CT, PI, PTY, PIN. The switching between the DataSet can occur by serial commands, GPIO or TCP/IP from a radio automation system.

The RDS encoder complies with UECP SPB490.

The connectivity of Falcon VS is complete and versatile. The rear panel features balanced XLR connectors for the connection of the inputs and outputs, in analog and digital AES / EBU.

As regards the MPX part there are two outputs individually buffered and independent for the signal MPX+RDS, plus two additional inputs AUX (SCA) with different functionalities.

For remote connections there are an Ethernet TCP/IP (as option) a RS232 serial port, a USB port and a connection port GP In and GP Out to optocouplers and open collector representing the operating states and alarms.

Falcon VS can be controlled remotely via Windows-based client software or through a common http thanks to the Web server (on option).

Universal power supply 90-264Vac 47-63Hz included to operate worldwide. Falcon VS occupies 1 19″ unit.

Main Features:
» 5-Band digital audio processor
» Analog and AES/EBU input and output over XLR
» Automatic audio input changeover
» 2 Composite outputs and 2 AUX inputs
» Stereo generator with composite clipper
» Mpx power control - ITU-R BS.412
» Digital RDS encoder with 2 data set
» Multiband AGC, speech detector, 3-band EQ, stereo enhancer
» Brilliance control, expander and superbass enhancer
» Usb, serial, 4 GPIn 4 GPOut

16.

Falcon XT

Digital Audio Processor - FM & WEB

⊗ ## THE POWER
OF THE STATION

FALCON XT is the top class digital audio processor that also features Stereo Generator and RDS Encoder. It's the full optional and most prestigious equipment, designed for those broadcasters that really want to get the best performances.

FALCON XT ensures top quality performances and exclusive audio. It features powerful DPSs, 5-band architecture, dual band AGCs, 3-band equalizer, stereo enhancer, speech detector and 4 limiters. The comprehensive and accurate control of each audio parameter allows to shape perfectly the audio to broadcast unique and exceptional branded sound.

The LAN port and the built-in Web Server allow to control the processor and tune audio from anywhere.

The built-in digital Stereo Generator ensures an extremely precise MPX Signal. The RDS Encoder (optional) is in compliance with UECP SPB490, provides 2 DataSet with a wide range of static services, including Radio Text.

FALCON XT features full connectivity with analog and digital I/O (over XLR connectors) and 2 independent MPX outputs, USB, GPI and serial ports. The hardware bypass circuit is always included to guarantee audio presence and audio programs continuity.

// Process
& Stereo Generator

Falcon XT meets the most demanding broadcasters with extremely sophisticated audio features and high standards voice sounds more natural, the Expander control allows to Overdrive and the SuperBass improve the sound on low frequencies, creating an impressive effect of loudness.

Furthermore, the SuperBass armonizer controls the distortion of bass sound/ low frequency, creating a unique sound effect, increasing the energy transmitted by the low frequency. Listening experience becomes beyond compare.

>>

GUI & Controls:

» Fully programmable by Windows app

» Simple and intuitive Web GUI

» RDS Monitor with DataSet, RT number, PTY, TA, TP, M/S, PS on air

» GUI with led meter

» Headphones output with level control

Falcon XT
Digital Audio Processor - FM & WEB

⊗ PROCESS & STEREO GENERATOR

» 5-Band digital audio processor
» Multiband agc
» Mpx power control - ITU-R BS.412
» Fast DSP Starting time & 5 sec (OS & 30 sec)
» Brilliance control
» Expander control
» Overdrive control
» Super bass harmonizer control
» Speech detector
» 3-Bands EQ control
» Stereo enhancer function
» Limiter lookahead
» Clipper MPX
» Pilot level and Phase control
» ITU BS412 control

⊗ ENCODER RDS SECTION

» Digital RDS encoder
» RDS encoder compliant with UECP EBU SPB490 v7.05,
  CENELEC (Europa) and NRSC (America)
» RDS Level and Phase control
» 2 dataset with 1 Main PS + 10 EON
» Dataset switch managed by UECP/SNMP/ASCII PARSER/GPI.
» Service Groups settings
» UEPC Ports (2 Serials + LAN)
» Access Rights management for each communication port
» RDS Services : PI, AF,PS, RT, CT, M/S, DI, TP,
  TA, PIN, PTY, SLC0-7, LA, EG, ILS, LSN
» AF: 64 AF lists (max 25 Frequencies)
» RT: 16 strings (max 64 chr)
» RDS Scheduler max 64 events

// Communication & Management

» Ethernet/USB/RS232/GPIO connections
» UECP - Individual Address Manager
» SNMP V1
» NTP Address for Time and Date synchronization
» SNMP Manager Address
» N°2 RS232 for UECP commands
» 4 GPI and 4 GPO (DB 15p F HD)
» HTTP, SNMP, TCP support
» External GPS support for Time and Date
  Synchronization (by Sat Time Synchronizer)
» Import and export configuration functions
» PRESET, with load/save/import/export functions
» Easy configuration page setup
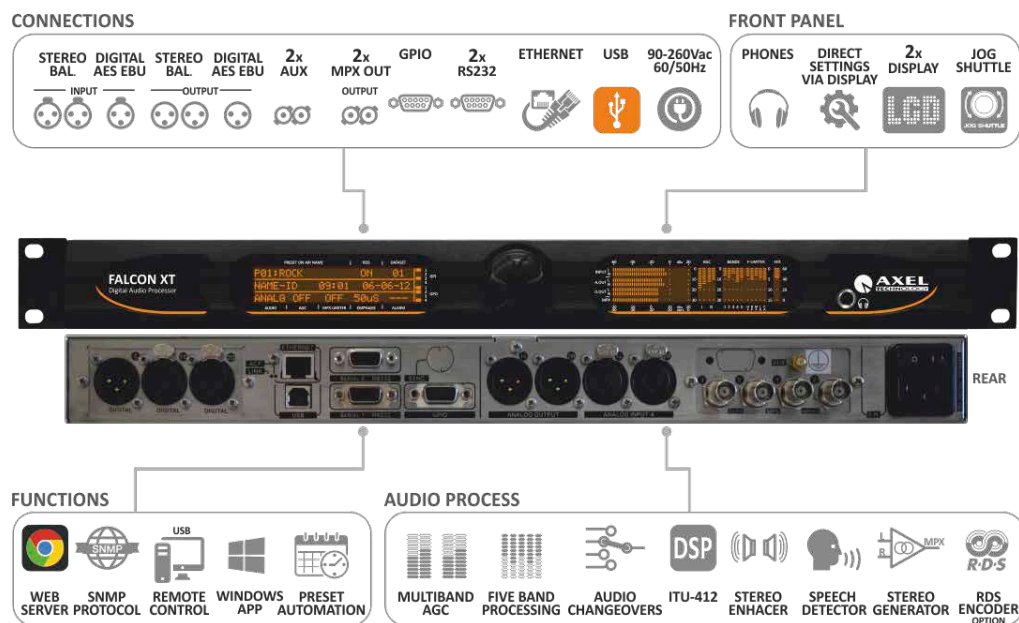» ASCII PARSER interface for easy command line settings

⊗ FEATURES

General
» Main Supply 90-260Vac 50/60Hz. 15W
» Green device - only 25W
» Dual Graphic display
» Rack 1u 19" - Inox steel
» High immunity to strong RF fields, designed for high power TX sites
» Fully Digital

Inputs Outputs
» Analog input on XLR
» Analog Input Settings : Sensitivity, Input Mode, Phase Rotator and High Pass Filter
» Analog Output on XLR
» Analog Output Settings: Level, Preemphasis, Source and Impedance

» Bypass HW on Analog Outputs (Analog Input to Analog Output)
» Digital AES/EBU input on XLR
» Digital AES/EBU Input Settings : Sensitivity, Input Mode, Phase Rotator and High Pass Filter
» Digital AES/EBU Output on XLR
» Digital AES/EBU Output Settings: Level, Preemphasis, Source, Rate, Resolution
» Bypass HW on Digital AES/EBU Outputs (Digital Input to Digital Output)
» Automatic audio input changeover
» Double MPX output with independent and level setting
» Bypass HW on MPX Output (Aux-1 to Out 1&2)
» 2 AUX inputs (MPX/RDS/SCA) wide band

CONNECTIONS

STEREO BAL | DIGITAL AES EBU | STEREO BAL | DIGITAL AES EBU | 2x AUX | 2x MPX OUT | GPIO | 2x RS232 | ETHERNET | USB | 90-260Vac 60/50Hz

INPUT — OUTPUT — OUTPUT

FRONT PANEL

PHONES | DIRECT SETTINGS VIA DISPLAY | 2x DISPLAY | JOG SHUTTLE

FALCON XT
Digital Audio Processor

P01 ROCK   ON   01
NAME-ID   09:01 06-06-12
ANAL3 OFF   OFF   50uS

AXEL TECHNOLOGY

REAR

FUNCTIONS

WEB SERVER | SNMP PROTOCOL | REMOTE CONTROL | WINDOWS APP | PRESET AUTOMATION

AUDIO PROCESS

MULTIBAND AGC | FIVE BAND PROCESSING | AUDIO CHANGEOVERS | ITU-412 | STEREO ENHACER | SPEECH DETECTOR | STEREO GENERATOR | RDS ENCODER OPTION

17. Ranger
Network Management System

⊗ **PRODUCT OVERVIEW**

Ranger is a network management system designed for Broadcasters, to certify the network's quality and efficiency.

Ranger's mission is to reduce costs and time to manage and control the network, always allowing technical intervention from anywhere and successful actions on-site.

Ranger is a software based environment collecting data in real-time from multiple devices, from any vendors, into one single centralized database and providing: Monitoring, Historical log & report, Alarm notifications via e-mail & SMS and Event Automation.

Ranger shows and summarizes global view and status of the network together with details of a single equipment **Ranger** allows 24/7 remote control from the headquarter, to perform successful on-site technical intervention, knowing the exact nature of the problem in advance.

Ranger offers to the technical manager a powerful environment for a complete real time overview, access to any single device, changeover control, force switching, make measure, etc. Everything from his desktop.

Ranger collects incoming data from a huge quantity of sites and variety of equipment, distinguishing type of data (parsing process) and linking priority level and related alarm. All the data are archived into a storage. **Ranger**'s "Time Machine" allows instant access to the data of specific date/time.

// Main Features

» Centralized structure, client-server

» Advanced instruments for data analysis audio and video send and receive

» Multi-level authentication

» SMNP compatible

» Alarm notification (SMS, email, GPIO)

» Advanced logs

18. Fox MKII
Digital Silence Detector & Audio Changeover

⊗ PRODUCT OVERVIEW

Fox is a fully digital audio silence detector and changeover, designed for Radio and TV broadcast marketplaces.

Fox matches the most High-end broadcast use requirements, with two analog inputs, two digital inputs, one analog output and one digital output.

All inputs can be routed to a different audio output thanks to the A/D and D/A converter, so to manage any kind of switch between different inputs.

// Main Features

» Analogue and digital audio changeover, 4 inputs and 2 outputs
» Broadcast digital DSP-based audio
» 4 Analog/digital inputs and 2 analog/digital outputs with SRC converter
» Any kind of commutation managed by the D/A and A/D converter
» Input to output switch and fade with customizable time intervention and restore
» Denoiser module, AGC stage, input delay and tone generator
» Graphic LCD display and front panel button for monitor and control
» Internal DTMF encoder and decoder for automation system
» 1 Ethernet, 1 RS-232 serial port, 1 USB and GPIO port

19. Genius D

Digital Audio Changeover

⊗ PRODUCT OVERVIEW

Genius D is a fully digital audio silence detector and changeover, designed for Radio and TV broadcast markets. **Genius D** allows the connection of 2 analog input sources main and backup and constantly checks the main audio presence. In case of fault, **Genius D** switches the input source from main to backup. The intervention/return time are configurable via software. The input source switch can be automatic or manual via front panel, software or GPIn.

The audio process is fully-digital via DSP, where a special section is dedicated to audio control; the Denoiser module cleans the sound from unwanted noise. The Tone Generator provides a test tone, useful to trim an audio network chain. The DTMF Encoder and Decoder are also available with customizable strings that can be interfaced with radio and TV automation systems.

// Main Features

» Digital DSP-based audio changeover with 2 analog inputs and 1 analog output
» Input to output switch and fade with customizable time intervention and restore
» Graphic LCD display and front panel button for monitor and control
» Internal DTMF encoder/decoder for automation system
» 1 RS-232 serial port, USB and GPIO port

DML AUDIO
Digital Media Logger

⊗ PRODUCT OVERVIEW

Media logging is the process of capturing audio, usually in low quality format, and preserving the recordings for a large number of days, usually 2 or 3 months. In most countries media logging is mandatory by law for all radio broadcasters, but it can also be used for advertisement certification, audio quality surveillance, competition monitoring and media rebroadcasting.

⊗ DML MAIN SPECS

» Archive any logging period 30, 60, 90, 180, 365 days …
» Single channel and multiple channels configuration
» Compatible with WDM audio cards and AoIP drivers (Dante Livewire, etc)
» Compatible with FM and AM tuner cards
» Ip input in UDP, RTP, RTSP, RTMP, HTTP, Shoutcast, Icecast
» Capture sampling 32,44.1 and 48 khz mono or stereo
» Continuous 24/7 recording without any sample loss between file segments

» Formats MP1, MP2, MP3, WAV, WMA, AVI (DivX), ASF (Windows media), MPEG1, MPEG2, MP4 (H264 and AAC), FLV with logo on video
» Customizable audio bitrates and advanced parameters
» Custimizable segmentation per file duration (typically 60 min), file size or at midnight
» Automatic delete of oldest files when disk space is low
» Ip streaming in WMA
» Volume adjustment with compressor and AGC
» Alarm notification via E-mail and SMS for black video, freeze, no audio, archive length, etc
» Accurate statistics on capture process and datarates
» Accurate GPS (receiver optional) Date and Time synchronization
» Data security featuring RAID architecture or software mirror, content is preserved in case of disk failure
» Remote system monitoring from any LAN or Internet connected PC
» Easy content export/conversion with Mark-In and Out points
» Flexible transcoding to most of video formats

//Non Stop Audio Logging

DML records audio contents coming from the widest variety of sources (unbalanced, balanced, digital AES/EBU, Dante, Livewire, Antenna, SAT, DVBT, DVBC, ATSC, IP, etc) and stores them on Hard Disk (recordings stay on line depending on hard disks capacity, usually: 30/60/90 days as required by laws in many countries).

DML system is totally maintenance free and oldest recordings are overwritten by the newest ones automatically.

Audio format and compression/quality vary according to the archive space and the logging period chosen. Recording quality may be as high as uncompressed wav WAV files.

Content is accessible from the DML as well from any networked computer, never stopping the recording. System status is constantly monitored either locally, thanks to DML-embedded tools, as well as from any networked computer running the DML Monitor free software. Whenever rising, alarms may be notified via email or SMS.

DML Recorder supports a large variety of video formats, compressions and resolutions, from MP1-2-3 to WAV, but also many video formats allowing to superimpose a logo on video and take advantage of the overlay datestamp captured onto the video stream, for accurate and tamper proof date time certification.

DML files are standard multimedia files, which can also be played on any ordinary multimedia player.

Accurate date and time certification is guaranteed through synchronization to GPS satellites time reference with Axel Technology's Sat Time Synchronizer receiver.

DML Recorder status is constantly monitored by auto-diagnostic tools. In case of alarms, the operator is warned via email or SMS.

Monitored parameters: Disk activity / video presence / video freeze / audio presence / instant data-rate / average data-rate / audio stream integrity.

With the free DML Player software, content can be easily edited and downloaded on external media and converted to the most popular audio formats.

// DML Player

CONTENT SEARCHING, BROWSING AND CONVERSION DML Player is a free software application for real time content browsing from any networked PC. Exclusive simultaneous multi-channel playback allows accurate audio temporal comparison. The calendar window shows the available recordings. Just 'click' on desired date and time to start playout. Play speed is variable from 0.5x to 16x.

Go To date / time function allows direct playback to specific recorded events. Capability to jump to specific date and time using generic automation Log files.

Mark-in & Mark-out tools along with additional basic editing tools allow extraction of audio segments.

Fast export or conversion in native or popular formats to fit all distribution and storage needs.

Mark point positioning is frame-accurate using handy scroll & drag bars, along with keyboard shortcuts.

⊗ CONTENT SEARCHING
AND BROWSING VIA WEB

DML Web Viewer is a free server application for real time viewing from any Internet browser and works on windows, linux, mac or any handheld device. The calendar widget shows the available recordings. Just 'click' on desired date and time to start listening. Configuring main router ports allows viewing from internet from any remote location.

⊗ REMOTE
MONITORING VIA WEB

System requirements may vary on number of captured channels and video quality. Intel i-7 8 GB RAMW in 10 Separate disk partition for each channel 1 TB per 1 channel 90 days 1 Mb/s

// DML Supervisor

Supervisor is an optional software which monitors multiple unit status and connected devices, managing hierarchical alarm levels and notification via email, SMS, fax, etc. Suggested for multichannel environments. Featuring automatic system recover and emergency intervention (such as spare units activation, audio routing, remote control of audio matrix, asynchronous serial communication and GPI, etc.)

// XMAM

XMAM is an optional archiving and catalogue system which provides fast and simple integration with DML allowing perpetual archiving of selected media. XMAM is a Web-based, user focused interface that supports access and processing of digital assets like video, audio, images, documents and presentations. XMAM supports standard Web browser navigation without additional client software needed.

// Sat Time Synchronizer

STS is the optional antenna receiver and software which allows an extremely accurate synchronization of PC clock to GPS satellite reference. Recomended for tamper-proof date / time certification.

// Multiple Channel Turnkey Solutions

Axel Tech can provide multiple channels turnkey systems with DML capture units, file servers with redundant storage, LAN infrastructure, KVM switches, completely precabled and configured in Axel Tech's laboratories. Monitoring and editing desks are customized according to customer needs allowing coroporate and government organizations to take advantage of a fail proof solution. Local installation, training, and after sales support is provided directly by Axel Tech.

Soundtrack Studio

21.

Radio Automation Software All-in-one

⊗ PRODUCT
OVERVIEW

Soundtrack Studio is the radio automation software featuring on air and production facilities covering all the needs of the radio station.

Soundtrack Studio combines ease of use, broadcast quality and cost effectiveness. No need for specific training or skilled technicians, it provides complete functionalities and reliability of its rock solid audio engine.

Soundtrack Studio can operate only in stand-alone configuration.

Soundtrack Studio operates in live assist and/or 24/7 automation.

Thanks to its automatic intelligent playlist generation, **Soundtrack Studio** always keeps playing even if no playlist has been created at all, guaranteeing the continuity of broadcasting.

ON-AIR WEB VIEWER: The playout window displays information about the song being played including album artwork, bibliography and news regarding the artist/group, etc. which are automatically retrieved from the Internet in real time.

SIMULCAST, WEB & RDS: All information related to the running playlist and song can be easily exported to the Web or RDS encoder in realtime,

to display title and author details to the audience. Three simple ways to insert audio files in SOUNDTRACK: recording by the audio card, importing from files (through network, internet, flash drive, etc.) and grabbing from CD.

PLAYLIST SCHEDULING: SOUNDTRACK features an easy and powerful playlist scheduler that includes an automatic playlist generator. Its algorithm selects the music and fills the playlist accordingly to user defined criteria (category, event type, etc.).

ADVERTISING: SOUNDTRACK integrates a smart advertisement manager, which automatically creates the advertisement schedule.

RADIO SYNDICATION: SOUNDTRACK can automatically switch from its own playlist to an external source and viceversa to match the needs of groups of radio stations that have to share live programs.

AUDIO FORMATS: The modern audio engine supports the most common audio broadcast formats such as WAV, MPG, AIFF, OGG, MP1, MP2, MP3, MP4.

// Main Features

» Playlist and advertisement management

» Simultaneous playout and Web streaming

» Designed for FM stations, community radios, Web
   radios, syndications and Public Address

» Automatic music selection based on user defined criteria

» Album artwork, title, artist, etc, from internet

» Playlist info publishing for the Web

» Hotkeys for instant replay

» Music & programs, advertisement, jingle and time signal management

» Playlist Web viewer for speakers and guests

» Social network and SMS options

DJPro Classic
Radio Automation

⊗ PRODUCT OVERVIEW

DJPro Classic is a complete RADIO ON-AIR SYSTEM. DJPRO perfectly matches the needs both of big structured radio networks and of regional and local ones. More than 1500 radio broadcasters all over the world have chosen **DJPro Classic** for their private and public radio stations.

DJPro Classic is a powerful and reliable playout software ensuring the maximum stability and safety on-the-air. It matches all requirements a broadcaster needs during the daily radio workflow, maximizing all tasks to save time and resources.

DJPro Classic can manage more than one radio station, with simultaneous or multiple playouts improved by different advertisement area networks (advertisement splits). At the same time, **DJPro Classic** can also broadcast different newscasts in different areas.

The On-Air module is the result of several years of research on the ergonomic use. The GUI displays the main on-air playout channel, and other information are displayed simultaneously, the advertisement block-time, as well as the preparation and helper tools: cue/pfl auxiliary input monitoring, playlist real-time modification, auto-recorder and time signal announcement.

It can be configured with different redundancy levels to manage one or more servers using the "Automatic Auto-change Network Connection" without any on air interruption.
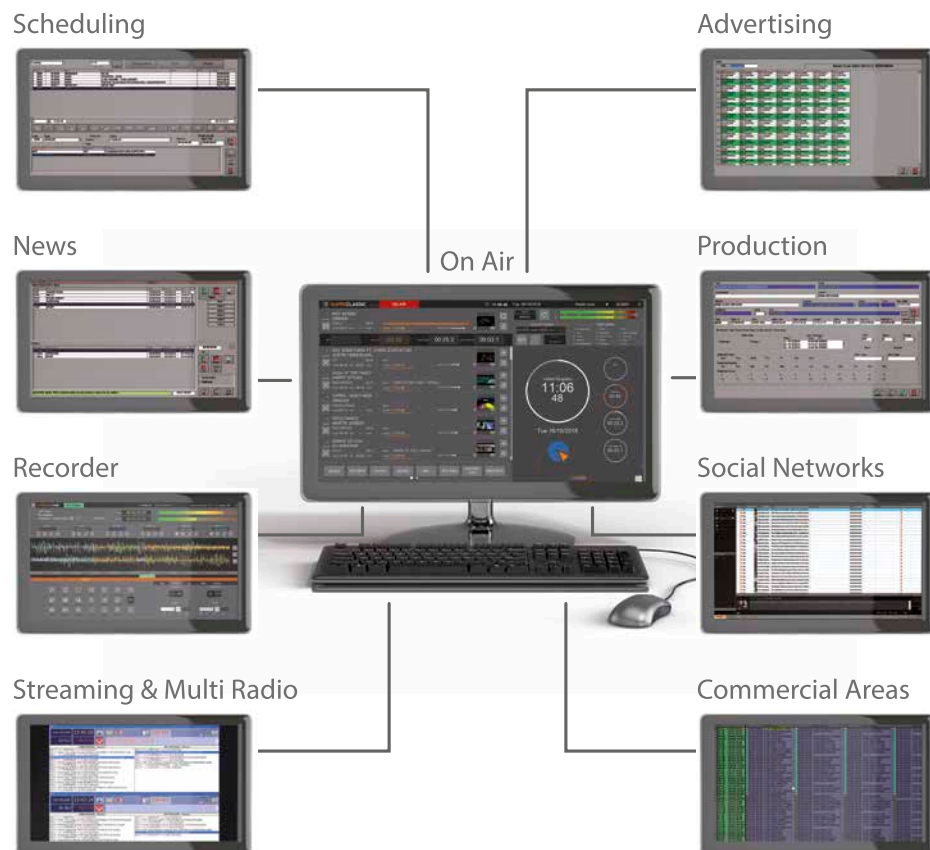
Thousands of workstations can be managed via LAN.

DJPro Classic manages the LogIn and the LogOut of each user, Password protected, with different access levels. The Playout is compatible with multiple audio formats, such as WAV. MP3. MP2. MPG.

DJPro Classic offers a wide range of features for OB applications.

// Main Features

» Complete Radio automation system for network and regional radio stations
» Stand-alone, networked and multi servers operation; manual, live assist and automation modes
» Multiple on-air playout and advertisement management areas
» Advanced scheduling of music and commercials
» Printable advertisements, songs, authors and news

reports
» Nonstop schedule management of external feeds
» Hotkeys for instant replay and jingle machine
» Any kind of audio boards and multiple formats supported
» Streaming, RDS, SMS and Web/social media interface
» 10+ Languages supported and unicode format

>>

Scheduling

Advertising

News

On Air

Production

Recorder

Social Networks

Streaming & Multi Radio

Commercial Areas

TITLE
WELCOME TO THE JUNGLE
ARTIST
GUNS N' ROSES

CATEGORY HARD ROCK | INTRO DJ --:--:-- | LENGTH 00:04:33 | YEAR 2008

RESTART | PAUSE | STOP
STOP FADE | PFL | GRAPH

00:01:14   00:04:33

LOOP OUTTRO 2.0

INTRO DJ:	COUNT UP:	COUNT DOWN:	POST MARK OUT:	NEXT BLOCK:	DELAY:
03:03.8	01:14.3	03:18.9	00:00.3		

2 AIR TIME 16:26:37 | SCHEDU. 00:00:00 | DELAY
TITLE I SHOT THE SHERIFF
ARTIST ERIC CLAPTON
CATEGORY BLUES ROCK | INTRO DJ --:--:-- | LENGTH 00:04:15 | YEAR 2008
DELETE | CHANGE | INSERT | PFL | GRAPH

3 AIR TIME 16:30:53 | SCHEDU. 00:00:00 | DELAY
TITLE JINGLE 02 #1
ARTIST JINGLES
CATEGORY JINGLE
DELETE | CHANGE | INSERT | PFL | GRAPH

4 AIR TIME 16:31:01 | SCHEDU. 00:00:00 | DELAY
TITLE SUNRISE
ARTIST EXTREME
CATEGORY HARD ROCK | INTRO DJ 00:00:44 | LENGTH 00:05:46 | YEAR 2008
DELETE | CHANGE | INSERT | PFL | GRAPH

5 AIR TIME 16:36:47 | SCHEDU. 00:00:00 | DELAY
TITLE TUBE SNAKE BOOGIE
ARTIST ZZ TOP
CATEGORY BLUES ROCK | INTRO DJ 00:00:31 | LENGTH 00:02:58 | YEAR 2009
DELETE | CHANGE | INSERT | PFL | GRAPH

6 AIR TIME 16:39:46 | SCHEDU. 00:00:00 | DELAY
TITLE RADIO AUTOMATION
ARTIST JINGLES
CATEGORY JINGLE | INTRO DJ --:--:-- | LENGTH 00:00:02 | YEAR
DELETE | CHANGE | INSERT | PFL | GRAPH

DJPro Enterprise
The Comprehensive Radio's on-air system

23.

⊗ PRODUCT OVERVIEW

DJPro Enterprise is an evolution version of **DJPro Classic** software designed to accomplish radio's live assist and automation for all the workflow processing, from ingest to audio recording, editing, scheduling, final on-air broadcasting, logging and certification of all the audio/data operations.

DJPro Enterprise has a fully-customizable structure made of several modules that can match the requirements of any radio station, adapting to the technical-productive environment and to the internal organization.

Stations equipped with **DJPro Enterprise** do not need any further external tool to manage studio, newsroom, advertisement automation and Radio administration. It isn't just a software, it is a complete broadcast-grade solution, chosen by more than 1300 Radio Stations all over the world.

⊗ SPECIAL FEATURES

» Fully modular server-client based Radio On-Air System

» Multiple on-air networks and multiple advertisement areas

» Automatic/manual and live assist on air mode

» Multiple hotkeys with customizable layout

» Powerful tools for talent and live staff

» Voice tracking, auto recorder, tasks automation system

» Multiple on-air tracks with crossfade and link

» Fully remotely with audio routing management

» Multiformat playout and multi language

» No on-air failure with multilevel redundancy system

Network ■ ■ ■ ■ ■ ■ ■ ▮

Audio ▬▬▬▬▬▬

Video ▬▬▬▬▬▬

PLAYLIST & COMMERCIAL SCHEDULING

RAM-COMM
- Advanced Advertising Schedule & Billing
- Multiple channels and areas management
- Commercial reports and statics
- Advertising certification

DJ PRO
ADVERTISING MANAGER:
- Advertising schedule
- Advertising certification
SCHEDULE MANAGER
- Music
- Events
- Sequences

Digiware
- Advanced Music Schedule
- PlayList management
- Multi-track view
- Transmission Logs & reports

CENTRAL SHARED STORAGE
XMAM
- Multimedia Archiving
- Catalogue & Asset Management

PRODUCTION

OFFLINE RECORDER
- Multiple instances
- External audio feeds
- Scheduled Start/Stop
- GPI/UDP commands
- VOX control (threshold level)
- Timeshifting playout

DJ PRO
- SONG MANAGER
- AUDIO MANAGER
- AUDIO IMPORT
- RECORDING

DJ DOWNLOADER
- Scheduler
- HTTP, FTP and LAN downloads
- Audio conversion

ON AIR

External Feed

Social Hub

DJ PRO

OnAir

Presenter Board
- Anchorman monitor
- Studio monitor

VJ PRO
Visual Radio
- Complete Radio/TV integration.
- No need of skilled operators
- No change in the radio workflow
- Automation and live assist modes
- Synchronous scheduling
- Graphics layouts

DJ Streamer
- Audio streaming
- Compatible with SHOUTCast, IceCast and WMACast server
- Dynamic metadata (TITLE, ARTIST, YEAR, ...)

DJ Split
- Simultaneous transmission of Advertising and News on different areas

DJ Live Remote
- Live audio connections from a remote site to the main Radio studio
- Remote commands

Audio / Dynamic data
Web Streaming & Podcast

TV Broadcast

R·D·S
FM / AM / DAB

24/7 LOGGING - MONITORING
Digital Media Logger
- Single & multi-channel audio recording
- Capture in Mp1, Mp2, Mp3, Wma, Wav ECC...
- Free player with calendar for audio retrieving
- Alarm notification via e-mail and SMS

24. # SocialHub
Social Network Contents Manager

⊗ ## PRODUCT
OVERVIEW

Socialhub is a software based solution that retrieves social network messages and texts from mobile phones, organizes them for DJs/TV presenters and sends them to CG softwares.

The system manages accounts from multiple social networks at the same time; it catalogues incoming content sleaving to user full flexibility to edit and select which message is most suitable for the broadcasting. The full integration with CG softwares such as DLGPLUS and CGLIVE, allows to customize any graphical appearance of the message, showing it as a ticker, crawl, static text and combine it with elements

like logos, lower thirds, animation for channel branding and live graphic templates.

The automatic retrieving and broadcasting function has been designed to use **Socialhub** also in MCR environment for themed channels like music televisions and sport channels, displaying on air messages 24/7 or according to the automation playlist without any manual operation. TV stations can take advantage of this feature to give a "live" look to recorded programs letting people comment music videos, request songs and send on TV their favourite photos.

// **Main Features**

» Receives text messages from mobile phones

» Receives images from Flickr®

» Displays on-air Facebook®, Twitter®, Flickr®, Whatsapp®, Instagram®, Chrome®, Line®, OpenWheaterMap®, Skype® posts with thumbs, profile name and texts

» Automatic and manual receiving & broadcasting of specific contents

» Add-on modules to connect more social networks

type & profiles

» Organizes "tweet" messages filtering by #hash-tag keywords

» Allows audience to instantly post on screen messages, request songs

» Easy configuration interface and logs section with report generation

» "Modify" area to edit text with "blacklisted" words or junk post

>>

25. Digiware Radio
Playlist Management and Schedule Creation

⊗ **HI-END**
MULTI PROGRAMMING

Digiware Radio is an innovative software for playlist management and schedule creation that integrates more intelligence power and many additional features into the DJPRO on-air system. Specially designed to be interfaced with DJPRO, **Digiware Radio** is a quick, effective way to get the job done. Schedules can be modified in real time up to a few seconds before broadcasting. **Digiware Radio** is the comprehensive software for music and audio programming and it is available both for multi-user and multi- station setups or single-user and single-station use; there's a **Digiware Radio** for any station. The software is an innovative and effective solution even when it comes to high- end multi-programming, when several Radio stations possibly distributed over many commercial split-zones must be programmed daily and/or at the same time.

// Support

DIGIWARE RADIO graphical user interface has been particularly considered: multiple channel schedule with differential commercial split-zone management will result very easy to handle. **DIGIWARE RADIO** supports the management of the station's library composed by songs, promos, pre-recorded programs, news and any bit of audio; the software is also created to assist the integration of live sources, timed events and GPI commands. The PLAYLIST management is basically achieved thanking to Categories that are used to organize songs and to set their rotation priorities and rules. Categories are then placed into the **DIGIWARE RADIO**'s Clocks that are among the most flexible in the Radio industry as they can handle any duration and are not limited by the 60 minutes typically fixed hour. Planning strategies is simple and effective so that powerful rules reflect the actual needs. **DIGIWARE RADIO** helps to create the best mix between consistency and variety for the desired format as a balanced music flow keeps the audience tuned.

Efficiency and productivity are also increased, allowing more time to focus on further and core aspects of operations, such as selecting music and audio. **DIGIWARE RADIO** has been specially designed for the Radio Programmer's needs; it helps to create Radio schedules automatically and/or edit them manually while it is possible to customize and keep control of all the process steps. **DIGIWARE RADIO** assists on programming in the smartest way, creating scheduling that contains audio media totalling up to 24 hours in duration organized in tasks, programmed in a daily, weekly, or season-long airshifts. The scheduler has been created using a "least objectionable" concept via step by step refining, considering also the unavailability of media and the logs created and available at the time of the scheduling creation. **DIGIWARE RADIO** is the software partner for those who work in the Music Office of a Radio station or a Radio group. Its services are essential to the workflow; the report section is powerful and contains industry-based licensing forms which saves time and efforts. Alerts, archive utilities, interface control, backup functions, full setup; **DIGIWARE RADIO** has them all.

Main Features:

» Powerful software to manage the complete schedule process
» Excellent control of Song, Artist and all possible segue/rotation Rules
» Intuitive creation of format/clocks for any on-air duration.
» Winning tools for both program-driven and flux-based Radio stations
» Perfect for public or commercial stations, multi-user access with full access-control
» Graphical user interface with icons, CD cover and thumbnails
» Edit, preview, cue and set marker point runtimes of audio
» Library, policies, clocks and scheduling quickly by using pre-scheduled elements
» Charts by rotation, themes, timing or category
» Import and export features from Axel Technology's automation system or from 3rd-party schedulers
» Audio database direct link with DJPRO CLASSIC and DJPRO ENTERPRISE
» Copyright and performance printed reports, using customizable or preset formats

Ram-Comm

The Complete Traffic & Business Software for Radio Stations

⊗ **PRODUCT** OVERVIEW

Ram-Comm Radio is a multi-station and multi-user software that manages all business processes of the Marketing & Sales department, from customer contact to invoicing and billing by Management/Administration.

Ram-Comm Radio is able to manage several users, with full administration control of the different rights associated to each single user; the software is also suitable to small stations as well as large publishing groups; multiple channels and advertising areas, the so called "splits", are active. **Ram-Comm Radio** offers special features to allow the best focus on customers' contact information, on media Import/Export from agencies; same voice separation on spots and business and sales accurate reporting are on; the software also handles sales reps' commissions and sales accounts, business contracts and invoicing/billing.

// Main Features

Multi-user architecture with rights management. Complete customer and contract management Automatic invoice generation Advertising scheduling: duration, rotation, priority, category conflict management Advertising splitting according to areas/territoriesAgents and areas management Commercial reports and statistics for customer and boardAdvertising certification **RAM-COMM RADIO** has a very effective built-in and multi-purpose scheduler developed thanking to AXEL TECHNOLOGY programming experience in order to create the best possible log of Radio for any sort of advertising on-air element or segment:

» Spots
» Billboards/Sponsorships
» Commercial Announcements
» Promos
» And more…

The software is strongly recommended in the scheduling process as it saves time for the advertising log creation. Thanks to advanced automatic practices **RAM-COMM RADIO** provides a complete planning with crucial controls:

» Automatic fill of the hour selected points/clusters
» Automatic rotation
» Priority control
» Subject rotation
» Automatic managing of the "tails"
» Product conflicts
» Pre and post spot insertion
» Manual Edit

Another advanced feature of **RAM-COMM RADIO** is the automatic fill of the split-zone clusters; this is achieved using

» Premium spots
» Stand-by spots
» Promos
» Audio fillers selected by duration

>>

RAM-COMM is the essential tool for the company's management to keep the business always under control. Due to the vast availability of its specific electronic and printed reports and statistics, **RAM-COMM RADIO** is the best tool to manage and to optimize the business of your company; it provides a clear, updated and objective outlook in order to allow the sales manager to take all the most effective commercial initiatives and policy decisions. It provides the best tools to major reports such as:

» Number and typology of scheduled contracts
» Present and future outcomes
» Expiring contracts for the forthcoming period
» Business potential of the representatives
» Agent areas and management
» Contracts to be invoiced next month
» And many more..

FIND YOUR MEDIA
WHEREVER YOU ARE

XMAM is a completely new and reinvented concept of MAM, a multipurpose solution to archive and manage any kind of media. **XMAM** gives a high added value to your archive, extends its availability from anywhere and expands your power to share, access, preserve, distribute and sell multimedia contents, inside and/or outside of the company.

XMAM has been designed to be suitable for several purposes, such as multimedia archive and catalogue, newsroom or NLE, and can be naturally integrated into any kind of existing workflow. **XMAM** is the perfect solution for TV broadcasters, radio stations, post production studios, advertisement agencies, government organizations and media distribution agencies which desire to archive, catalogue, share and deploy their media with a simple and user friendly, yet powerful, media management system.

// Archiving and Catalogue

- » Web graphical user interface
- » No software installation required
- » Google and YouTube style search and preview
- » Access and use through any Web browser
  (Chrome, Firefox, Safari and others)
- » Compatible with any Operating System
  (Windows, macOS, Linux and others)
- » Compatible with any Smartphone
  (Android, iOS and others)
- » Multimedia: Video, Audio, Photo, Document

- » Supports most popular file formats
- » Content sharing over Internet and LAN
- » Content upload from anywhere
  (Web, LAN, and others)
- » Proxy Files Generation
- » Workflow integration & customization
- » Integration with 3rd party software
- » Support Google Vision API (plugin)

>>

AUTOMATIC
KEY-WORDS &
CONTENT INDEXING

All uploaded files are automatically indexed, based on file name and metadata contained in the file. Technical metadata (i.e. resolution and format for video files, title and artwork for songs, camera model and geolocalization for pictures, etc.) are imported automatically. PDF and MS Word text are extracted and indexed automatically.

// Share any contents with the audience

Powerful Access Right Management to define capability for each single user/group. Sharing of archived content with third parties is easy and fast: just select single item or collections to share and send a link by email. The system automatically creates a customized Web page where the user can access the shared contents, with expiration date if needed.

// Content upload

XMAM Allows broadcast tools to record and ingest audio and video live feeds directly on main storage. File based media upload can be done via browser, with approval of pending upload. Alternatively, file media upload is achieved copying media into watch folders, taking advantage of the full speed of LAN architecture.

⊗ MAIN FEATURES

Gallery Preview, Snapshot & Thumbnails
XMAM automatically generates previews and proxies for all known file types. JPG images, MP3 audio and MP4 low quality video copies are created for the Web GUI so there is no need to download the original media to view its content.

Synch With Broadcast RADIO & TV Automation
Thanks to its customizable synch interface, XMAM can connect to AXEL and third party playout automation systems in order to publish the content of the storage. Media files, saved in defined folders of the automation, will be automatically synchronized (linked or copied) and accessible for XMAM users from anywhere.

Distribution & Commerce
XMAM allows media resources to be distributed and monetized with ecommerce style shopping cart.
A wide range of sale policies is included in order to automatically manage users request of contents, payment and delivery.

Logs & Statistics
A wide range of logs and statistics is built-in, allowing to track any action: user session, keywords usage, most seen content, most required content, etc.

Database & Report
The database is SQL based, allowing any kind of query and report. This makes XMAM fully configurable and customizable to match any market and application needs.

LDAP
User authentication can be defined in internal groups with individual rights policies.
It can be alternatively read from a local domain in LDAP format.

Easy install and deploy
XMAM uses IIS, PHP and MYSQL and works on Windows Server operating system. Typical configurations include 1 or 2 rack unit XEON server with multiple LAN cards and an external storage from 48TB to 1.2PB with RAID 6 redundancy and hot spare drives. Just connect to existing LAN architecture and start using it. NAS devices are supported, If the server is connected to the internet with router configuration, XMAM can be easily accessed from outside the company and media sharing through email links is supported.

// Powerful Options

Fingerprinting
Audio fingerprinting allows fast retrieval of media which contains specific audio segments. Particularly useful for advertisement certification where the system can be fed with a specific spot and immediately all instances in the database are displayed.

Speech to Text
A special speech to text engine is available in various languages, allowing up to 70% of words to be recognized and indexed for searching purposes.

Deep archiving on LTO and Cloud
LTO and CLOUD based deep storage can be added to free up on line storage space. Whenever new media is uploaded to XMAM, it is automatically backed up to the LTO tape library or Cloud archive. When space limits are reached on the main storage, oldest media is deleted preserving thumbnails and proxies, thus allowing to continue to use the Web interface seamlessly. Original media is restored automatically upon user request if the LTO tape containing it is online or in the Cloud backup, otherwise a mail is sent to system manager for request of the tape. All LTO models starting from LTO-3 supporting MTF are compatible.

XTimeline
XTimeline allows proxy editing of media contained in XMAM archive directly in your favorite browser. It's a simple cut only editor with timeline video segmenting and audio track for rough cut purposes. Journalists can pre-edit raw material and export NLE edit lists for later craft editing on third party systems, or alternatively a high quality clip can be rendered directly by XMAM.

Plug-Ins
Custom plugins are developed upon request to achieve vertical and specific workflows.

Peacock Supervisor
System Dashboard

YOUR SYSTEM UNDER CONTROL

Peacock Supervisor is the global control engine to keep always under control the health-status of your automated system or structured network. An Information Technology infrastructure generates massive amounts of data and **Peacock Supervisor** collects all the workstation status data in realtime, whether physical, networked or via remote. Data comes to **Peacock Supervisor** as files, serial data, TCP/IP, devices and GPIO logic status.

// Peacock workflow

Each controlled parameter must be into pre-setup average values, in case an alarm is rising up, this is graphically reported and notified via email/sms. Furthermore a fault recovery can be performed by Peacock Supervisor as first aid intervention over the automated system. **PEACOCK SUPERVISOR** indexes the entire workflow process, workstations, servers and storages to the core activity. The aim is to create graphic reports and provide deep visibility to all network status, forensics and troubleshooting.

PEACOCK SUPERVISOR generates reports in order to identify trends or prove compliancy controls. All data managed comes as .txt .xml .xls .csv files.

In case of fault detection, **PEACOCK SUPERVISOR** shows in real-time the alarm into a graphic layout. The controls that can be made over a complex radio, TV playout and media logging system should be multiple: media air time advance/delay, checks of files update, audio / video presence.

Secure and Reliable

PEACOCK SUPERVISOR provides a password-protected Web server, to keep the automated system under control using smartphones or tablets. Moreover in case of fault detection, **PEACOCK SUPERVISOR** can perform a recovery interventionon the automated system.

// Main Features

» Software-based solution for system status monitoring
» Real time alarms detection from multiple data sources
» Emergency intervention and fault recovery
» Web page for anywhere monitoring
» For attended or unattended automation system
» System dashboard with real-time alarm notification
» Graphic interface with customizable layout
» Data storage and report

29. Vj-Pro Console
Visual Radio TV Automation

⊗ SIMULCASTING RADIO ON TV

RADIO is the most flexible and resilient medium. Both the traditional and the digital media markets are competitive, but Radio has a unique chance to increase its share, thanking to **Visual Radio**. Simulcasting Radio on a TV channel is a new frontier that allows stations to conquer a better reach into homes, casting to television sets, and into malls, feeding large monitors. Being Radio the king of media for mobility, **Visual Radio** strengthens stations where needed, at fixed locations. Visual Radio means that your station can be seen. Radio programming and shows will be aired simultaneously both on Radio and TV without bearing the costs and efforts required by a traditional TV production. It is possible to run a **Visual Radio** with the same technical staff and talent used at the base station. Radio does not need to change its workflow or its equipment. There is no need for TV expertise, near zero cost for TV production and it is a one-time minimum investment. **VJ-PRO** by AXEL TECHNOLOGY can be interfaced to any On-Air Radio system and to any digital mixing console. It allows to manage the graphic personality of the station with the highest care.

There are separate rules for:

Impressive graphics can be generated within the system thanking to the CG Editor. The most common setup of a **VJ-PRO** is playing the video of the song while it is on the air and switch on cameras while hosts activate microphones or journalists air the news. **VJ-PRO** does it at best with both simplicity and accuracy. Auxiliary sources from Web or Desktop can be imported, such as video calls from Skype, clips from YouTube, etc. It is also possible to have a social network integration into the Visual Radio displaying contents from Facebook, WhatsApp, Twitter and more.Cameras have an intelligent switching that can be manual or automatic according to the many criteria and combination of status; for example, they can be controlled by the fader status or by the microphone levels on the Radio mixer. The **VJ-PRO** Console is the control panel and the engine of integration of whatever happens or can happen to the Visual Radio and connected devices. **VJ-PRO** is informed about any audio played by the Radio automation system (song, jingle, ads, news, recorder program, etc.) or live programs (talk shows, news, feeds, etc.), or action on the audio mixer (fader, GPI, etc.) that activate the related video content and graphics.The Radio channel will always run as it normally does while the **VJ-PRO** Console takes care of the synch between the TV and the Radio stream. The behavior of the system in any condition can be defined in the settings panel of the **VJ-PRO** Console by the Station manager or system administrator, who delineate the style of the channels.

// Main Features

» Radio On-Air System integration - Native integration with DJPRO. Custom modules to integrate third party Radio automations (RCS, Netia, etc.)

» Radio Console integration - Native integration with OXYGEN 3000 digital radio console. Custom modules to integrate third party mixing console (Studer, Axia, Lawo, DHD, Wheatstone, etc.). GPIO management

» Video Playout and Capture - 2 channels playout with video mixing/cross fade/effects. Perfect Audio/Video synch. 1 channel recording

» Graphics engine - Multi-layer CG for graphic generation with Fill and Key. Automatic titling (song author and title). Animations, logo, Ticker, Clock, etc. RSS feeds, Weather information, News, etc.

Social Network content integration (using "Social Hub" software from Axel Technology). Free CG composer software for graphic layout creation

» User Interface - Smart GUI for manual control of graphics, layouts, video switcher, cameras, recorder, studio switch. Hardware Instant keyboard with 64 hotkeys

» Video Switcher control - Native integration with Atem, VMIX, Tricaster, etc. Connection: SDI/NDI/Stream (according to video switcher features). TCP/IP and serial connection

» Cameras integration - Camera control (Sony/Visca/Panasonic protocols). Intelligent switch for automatic camera switch (multiple configurations and rules)

// Widgets:

Players | Status | Cameras | Graphics | Switcher | Layouts

The video format can be selected between PAL or NTSC. The resolution can be standard (SD) or high resolution (HD); in case of SD, 4:3 or 16:9 can be chosen while in case of HD, vertical 1080 or 720 pixel can be switched.

Television
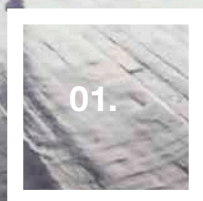
XTV Suite

Sun always shines on XTV Suite TV Automation

01.

4K ULTRA HD

⊗ # ONE FOR ALL
ALL FOR ONE

XTV Suite is a professional complete set of software tools for TV stations which manages video capture, trimming, scheduling and playout. Completely automatic and unattended efficiency 24/7.

XTV is perfect for TV stations, Satellite Channels, Cable TV, News Room, Web TV, CCTV, Corporate TV, Presentation, hotel pay TV channels, museums info channels and video wall display, which can take advantage of its user-friendly interface.

⊗ # DESIGNED
TO ACHIEVE
A TRUE UNIVERSAL
FORMAT COMPATIBILITY

At the same time, multi-channel TV stations and TV networks can enjoy XTV's scalable structure and universal file compatibility. XTV is designed to achieve a true 'universal format' compatibility. XTV ties together all production departments allowing direct playout of DV, HDV, MPEG-2, MPEG-4, H.264, H.265, QuickTime, AVI, MXF, XDCAM, PRORES, DNXHD, GXF, LXF, etc, in any resolution or framerate with automatic adaption.

XTV Suite is able to satisfy those customers looking for second generation CIAB - Channel In A Box - able to provide traditional playout deployment reliability and functionalities with the typical CIAB TCO.

MP4 AVI MOV FLV MKV WMV MXF MPG TS DV

MEDIA COMPATIBILITY
AND MULTIFORMAT
BENEFIT

XTV plays out any kind of media in any resolution:

» DV, HDV, MPEG-2, MPEG-4, MPEG-1, H.264, QuickTime, MXF, XD CAM, PRORES, DNXHD, GXF, LXF, etc

» XTV allows to play and mix any media format according to broad caster's production workflow and pros and cons of each AV codec

» Hardware Compatibility: BlackMagic, AJA, BlueFish Dynamic Playlist: Real time playlist management without black frames nor freezes.

» Advanced Scheduler: Unlimited playlist length with automatic clip skipping and cutting when late

» Duration stretching when ahead of time. Sequence loop

» Automatic filler insertion for gap handling

» Log Report: Status and playout logging, with XML export for easy processing and printing

» No Database: Metadata is saved directly into media file, allowing file rename, copying and moving

XTV
SUITE
INCLUDES

» XPlayout > 24/7 Automation

» XIngest > Real-time capture from SDI-NDI-IP

Additional software modules not included in XTV Suite

» XMirror > Playlist media cache copier

» XMusic > Automatic musical playlist creator

Free apps

» XTrimmer > Metadata injector and quality control

» XScheduler > Offline playlist management

» CGComposer > CG template creator

» XLogsViewer > As run logs viewer

» XInfo > Playlist information display

» XRouter > Routing switcher sharing on LAN

» XRemote > Remote control or routing switcher

» XEmergency > N+1 playout redundancy (needs Xplayout licence)

⊗ XTRIMMER

XTrimmer is the free app for quality control and metadata insertion. It allows to mark the clips for in and out points, segment the clip for advertisement interruption, but also modify the clip's video and audio parameters to exactly match the desired output. Parameters include aspect ratio correction modes, vertical and horizontal crop to minimize letterbox on air, field dominance inversion, but also precise audio level correction with automatic loudness calculation. **XTrimmer** allows secondary CG events insertion to air graphics precisely superimposed and timed with the playlist also defining crossfade/wipe effects between clips. Video file is leaved untouched as an original, while all parameters are saved as metadata, invisibly piggy-backed to the video file, so you can copy, move and rename the file, as the metadata follows automatically. **XTrimmer** is a completely free application allowing to be installed on any networked computer and so participating effectively to the automation workflow. **XTrimmer** can be used with the computer screen and loudspeakers, but also features video outputs on most Blackmagic or AJA video devices and/or NDI output, allowing quality control in full video resolution, also with CG and graphics.

⊗ XSCHEDULER

XScheduler is the free app for offline playlist creation. It allows to manage and edit playlist simply dragging and dropping video files on the GUI, defining starting dates and times, and allowing to modifiy the clip parameters individually, such as aspect ratio correction modes, vertical and horizontal crop to minimize letterbox on air, field dominance inversion, but also managing secondary events like GPI and character generation and graphics. Clips are highlighted by color matching the clips's gender. Live sources and URLs can be inserted directly in the playlist, and, like XTrimmer, realtime video preview with graphics is available on the computer screen and also as a video output on most Blackmagic or AJA video devices and/or NDI output, allowing quality control in full video resolution, also with CG and graphics. **XScheduler** is a completely free application allowing to be installed on any networked computer and so participating effectively to the automation workflow.

// Future-proof IP workflows

Support of IP I/O such as NDI, SMPTE 2022 & SMPTE 2110 (only with specific video cards) turns XTV Suite to a game changer. Public and Private Cloud deployment is welcome. NDI and IP sources are also supported directly on the playlist, allowing playout of NDI, UDP, RTP, RTSP, RTMP, HTTP streams and setting parameters specifically, such as aspect ratio correction modes, vertical and horizontal crop to minimize letterbox on air, field dominance inversion, etc. An internal IP encoder allows sending playout output via UDP to external multiplexers, or via RTMP, HLS, RTSP,IIS Live smooth, or windows media streaming to cloud servers for media distribution on internet. GPU accelerated compression allows to use H264 and H265 codecs without affecting the computer's CPU

⊗ INTEGRATE
MULTI-LAYER CG

Advanced graphics can be overlayed on top of the playlist and can be used for simple channel branding or may include complex multi layered objects with tickers, rolls, crawls, time, countup/down and slideshows. The free app CG composer allows creation of graphics templates to be aired manually or associated as secondary events in the playlist for automatic workflows. CGcomposer allows importing of any bitmap file format, sequence of bitmaps or video file, and manages alpha channel for perfect transparencies. TGA or PNG sequences, animated GIF, Quicktime Anim and Prores 4:4:4:4 are fully supported for animations with alpha channel. Text and file paths for graphics can be specified in XTrimmer, XScheduler or XPlayout for dynamic text workflows like song info animations for music TVs, for example. Data source for text, rolls, crawls and tickers can be imported from TXT files, CSV or XLSX, updating automatically on content changes. Front color, back color, font and alignment are imported from XLSX files allowing rich text format for tickers, rolls and crawls. Animations can be inserted into cells as hyperlinks and aired seamlessly for a really professional look. XLSX formulas, macros and database connectors can be used to create your own custom application for CG management. In XPlayout the CG layer can optionally be output as a separate KEY and FILL SDI signal for external DSK insertion, or a NDI stream with alpha for Video over IP usage.

⊗ CG COMPOSER
AMAZING SQUEEZEBACKS

The built-in 2D DVE and an additional multi-layer CG backround allow smooth squeezbacks on top of customizable animated graphics with tickers, rolls, crawls and time with dynamic text and countdowns for your "Now showing", "Up next" and "Coming back in .." workflows. Video files in any format can also be added to the backround layer as Picture in Picture objects. Squeezebacks can be associated to playlist items, like normal CG pages, and used as secondary events to be aired automatically following exact timing.

⊗ REMOTE CONTROL
OF EXTERNAL DEVICE
AND LIVE EVENTS

XPlayout is a modern IP based - any file format - automation, but also allows traditional remote control of external devices such as Cart machines, VCRs, logo generators and especially GPIs and master controls, video mixers and routing swicthers, such as Blackmagic Atem, Videohub, Newtek Tricaster or any device with RS232/422 control. Live events can be inserted directly on the playlist and TCPIP or serial commands will be automatically sent to the external devices. Alternatively, live sources can be aired in "AV bypass mode" connecting them to capture card inputs of the system. In this case a delay from 3 seconds to several days can be applied to accomplish a time shifter mode, very handy when managing country time zone differences.

Secure and Reliable 24/7 with redundancy
XPlayout is among the most reliable automation systems on the market, offering a variety of redundancy options:
1+1 Master and Slave workflow is built in the automation. Whatever the master XPlayout does, the slave follows automatically. If a changeover is used, it can send a GPI signal to the slave, transforming it into the master. (Axel Tech DML can be used as a sw changeover)
N+1 with the free app XEmergency. XEmergency monitors the audio coming from up to 8 XPlayout systems using add-on audio capture cards. Whenever audio levels drop for a specific length of time, XEmergency fires up a local XPlayout, resuming the playlist from the point of interruption and blacklisting the failing system to the routing switcher. Alarm notification is achieved through SMS or email.
Media redundancy is built in the XPlayout, allowing to define a main media path to a networked NAS for example, a backup media path to a secondary NAS, and a preferred media path to a local hard disk copy of the media. Switching from one path to the other is completely automatic, and, in case of main media path failure, resume from backup path is available after just a few frames.
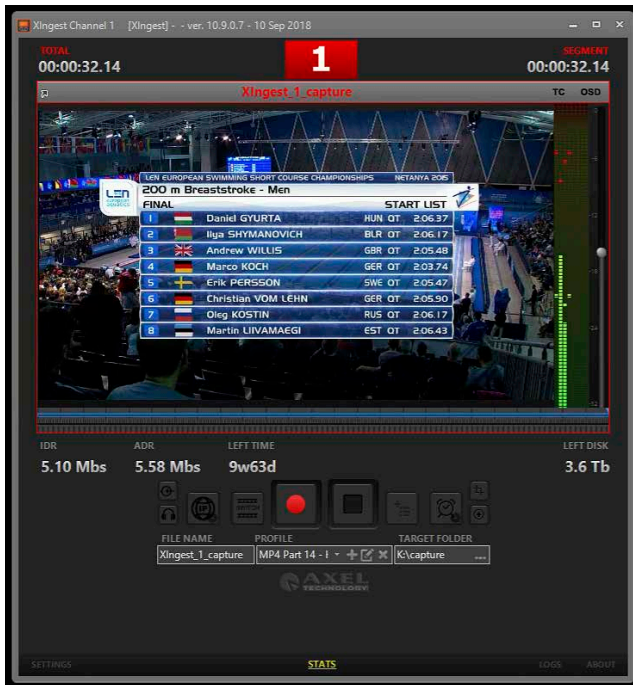Media redundancy is also achieved with the optional app XMirror, the media cache software, which keeps a copy of the media on local hard disks.

⊗ XTV COMPACT VERSION

⊗ XTV SERVER SOLUTION

⊗ XMIRROR AND XMUSIC, OPTIONS FOR XPLAYOUT

XMirror is a great feature when using a network NAS workflow. **XMirror** copies all files which populate the playlist from the big NAS onto a small local hard disk. Copies are performed slowly (to avoid saturating LAN bandwidth) and constantly (any modification to the playlist will trigger the copy process). Old files are deleted automatically to preserve disk space. If LAN or NAS fails, files will be played automatically from the local disk. If Local hard disk path is specified as a preferred path, media will always be played locally.

XMusic is the add-on which allows automatic playlist creation following rules that are typical of the radio world. Daily schedule is divided into "clocks" where musical genders can be listed according to the time of day. Then **XMusic** chooses the songs automatically, not repeating same songs and same authors, thus creating comfortable and pleasant musical selection. **XMusic** is great for MUSIC TVs, or for channels which need a random, not repetitive, automatic media selection.

// XMAM option: archive and catalogue

XMAM is Axel Tech's Web based Media Asset Management system to organize video and audio files, photos and documents. It integrates seamlessly with XPlayout and XScheduler allowing to Drag & Drop any media directly from the Web browser to the playlist.

⊗ MAIN FEATURES

» All in one broadcast 4K - 2K - HD - SD playout

» Complete workflow management tools: scheduling, trimming, graphic composer

» Multiple codec playout in the same playlist with resolutions and framerates automatic adaption

» Multiple formats playout, automatic up/down scaling and aspect ratio adjustment (16/9, 4/3, etc.)

» File sharing on LAN architecture

» Direct file playout from NLE (no transcoding)

» Up to 16 audio channels management

» Simultaneous NDI output

» Direct streaming output transport stream MPEG2 and H.264 codec, or RTMP.

» Automatic management of time during playout (delay/ ahead) with filler

» Live source full handling inside the playlist control of VTR, Switcher, GPI to Cart Machine

» Multichannel and high availability configurations

» Hot Key feature for instant videos playout

» Graphic overlay: logos, clocks, tickers, animations

» High quality sqeezebacks with animated background

» Subtitles in overlay and Closed caption

» Clip trimming and Metadata for advertisement intentioned graphic contents

» User friendly playlist view with explicative colour scheme

» As run and system logs for certification

02. DIGI-TV
Complete Television Automation System

⊗ # PRODUCT OVERVIEW

DIGI-TV is a complete broadcast system for TV automation.

DIGI-TV system is the most scalable, reliable and cost effective architecture for TV automation.

DIGI-TV manages and controls the whole TV workflow, providing application and integration between the productive departments.

DIGI-TV's architecture is based on the shared central storage system, for media (SD/HD) and databases, with attached workstations, softwares and devices performing: Playout, Ingest, Playlist Scheduling, Advertisement, Archive and media distribution, Logging, Streaming, System Supervisor.

RELIABILITY: Several levels of redundancies and configurations to match any customer needs: mirror, RAIDs, N+1 or N+M structure, etc.

SCALABILITY: The structure can be easily expanded to follow the growth of the company/business: from single to multiple channels system, scale of storages and redundancies.

DIGI-BROADCAST: It is the module managing play out and recording functions.

On the emission side, DIGI-BROADCAST drives the video server, features splitting management, assures the quality of emission.

On the recording side, DIGI-BROADCAST drives the Digi-Cart machine, controls external video switchers, allows automatic or manual recording from external sources (like satellite, VTRs, live, etc.).

// Digi Broadcast
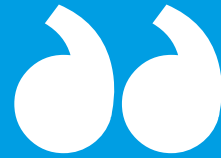
MAIN FEATURES

» Scalability

» Reliability & Redundancies

» SD/HD, PAL/NTSC

» Any File Format: Dv, Hdv, Mpeg-2, DVD, Divx, Mpeg4, Mjpeg, Mpeg1, H.264, Wmv, Quicktime, Mxf, etc...

» Graphics Automation: Logos, Clocks, Tickers, Animation, Titling

» NLE / Production Integration

» Workflow Monitor and Supervisor

FEATURES ALSO:

» External VTR control for tape-based last-minute, 'on the fly' emissions.

» Video switcher control

» Automatic management of time during playout: delay/ahead

» Automatic filler insertion for ahead of time handling

» Manual and full automatic operating of emissions

» Jingle Function: live assist mode for semi-automatic broadcasting (i.e. Jingle-Machine)

» Logo and graphics overwriting managemen

03. Time Shifter TV
Powerful re-broadcast transmission system

PRODUCT OVERVIEW

Axel Technology's **Time Shifter** is a powerful automatic system that manages ingest and playback of TV transmission to be re-broadcasted with time delay.

All in 1 compact rackmount unit to easily create new channels (+1h,+2h…+24h etc.) or to re-broadcast the transmission in different time zones.

TimeShifter also features a high quality logo generator to add graphical content like station ID, clock and tickers.

The autofill feature allows to air media from a specific folder during startup-recording time, while waiting for the desired delay to be captured from the input.

The system is fully automated, no needing user intervention, to produce new channels at zero cost.

// Main Features

» Re-broadcast for different time zones
» Additional channels at zero production cost
» Automatic ingest and playback with time delay in real time
» User definable time delay: +1min, +1h, +2h … +24h and more
» Graphic insertion: logo, clock, SMS, ticker, RSS feeds
» Autofill at startup
» SDI & analog input/output
» SD/HD, PAL/NTSC configurations available

04.

YouPlay
TV Production Playout

⊗ A SMART VIDEO PLAYER
FOR TELEVISION PRODUCTION

Tapeless workflow finds in **YouPlay** the cleverest way to play video during live production: on-air video contributions for news, talk shows, events coverage.

YouPlay is also the ideal assistant to play background animations or to videowalls, featuring also loop of clips or playlists, play/stop from still frame.

YouPlay has been designed to be a real multiple-formats player with a user-friendly interface that fits perfectly into live production with no need of training or skilled operators.

YouPlay supports DV, HDV, DVCPRO, MJPEG, MPEG-2, TS, MPG, VOB, H.264, H.265, AV1, MP4, QuickTime, PRORES, DNxHD, AVI, WMV, ASF, MXF, XDCAM, IMX, GXF, LXF, FLV, MKV, WebM, HuffYUV, VP8, VC3, JPEG2000, DPX, including any audio or bitmap file format.

Support of SDI and IP I/O NDI, SMPTE 2022 & SMPTE 2110 (only with specific video card) allows to deploy **YouPlay** both in traditional and IP based production facilities.

// Main Features
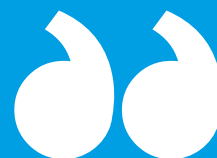
- » SDI/NDI/IP 4K/2K/HD/SD playout & ingest (YOUPLAY SERVER model)
- » Virtually any video and file format compatibility (SD/HD/2K/4K): up to 16 Audio channels (Dynamic selection of enabled audio channels)
- » Automatic up/down scaling and aspect ratio adjustment (16/9, 4/3, etc.)
- » Hardware Compatibility: BMD (SDI), AJA (SDI, SMPTE 2022 & SMPTE 2110), BlueFish (SDI, SMPTE 2022 & SMPTE 2110)
- » Key output on SDI with 32 bits Bitmaps sequence, QuickTime Animation and ProRes 4:4:4
- » Timecode RP188-VITC-LTC

- » Crop, field swap, aspect correction mode (Letterbox, no Letterbox, stretch)
- » Free CGComposer app for CG template creation
- » Timed CG on playlist with dynamic text metadata.
- » Frame accurate single clip loops.
- » Slow-motion up to -2x/+2x
- » Play while ingest
- » Remote control with BMD ATEM, NEWTEK TRICASTER, BMD HYPERDECK emulation, VDCP mixer, RS422 controller
- » MOS integrations for NEWSROOM with multiple channel gateway

>>

// Specifications

- » Supported Video Cards: BMD DeckLink and Intensity, AJA Corvid, Bluefish
- » Resolutions: SD, HD, 2K, 4K (depending on AV card)
- » Simultaneous NDI output
- » Up to 16 Audio channels
- » 10 Bit video output for CC over SDI and ancillary data
- » KEY and FILL output (if supported by video card)
- » Timecode rp188 and LTC
- » SDI inputs, NDI sources and URLs on the playlist MOS, RS422, BMD ATEM, NEWTEK TRICASTER, BMD HYPERDECK emulation

YouPlay
TV Production Playout
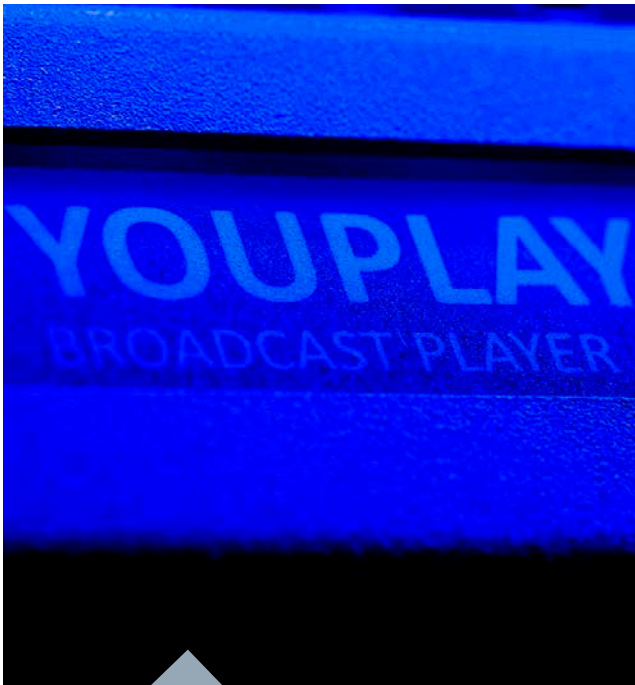
⊗ GUI

» Channel alias, icon and color
» Preview framerate adjust for RDP optimization
» Customizable shortcuts for CUE, PLAY, FIRST FRAME
» CC on preview
» Drag and Drop of multiple files
» Drag and Drop between Channels
» Single clip position duration and position display
» Total playlist duration and remain display
» First frame positioning
» OSD vu-meters and waveform
» Customizable number of vu-meters
» Realtime video preview
» Customizable skins
» Customizable drag and drop file sorting
» Simple player or graphical/grid playlist GUI
» Independent and sizable GUI for each channel
» 4 channel GUI scaled for 1920x1080 screen

// Main Features

» Virtually any video and file format compatibility
» DV, HDV, DVCPRO, MJPEG, MPEG-2, TS, MPG, VOB, H.264, H.265, AV1, MP4, QuickTime, PRORES, DNxHD, AVI, WMV, ASF, MXF, XDCAM, IMX, GXF, LXF, FLV, MKV, WebM, HuffYUV, VP8, VC3, JPEG2000, DPX, in any resolution or framerate with automatic adaption
» NVidia GPU decoding for H264 and H265
» Automatic upscale, downscale, framerate adaptation and aspect ratio correction
» CG overlay
» Log files
» As run log files
» MarkIn and MarkOut management
» Frame accurate loops
» Slow motion also with RS422 and VDCP controllers
» REC while PLAY (for specific formats) with endless MarkOut
» Realtime Vertical and Horizontal Crop

» Realtime field swap: top bottom progressive
» Realtime aspect ratio correction mode: Letterbox, no letterbox, stretch
» Realtime Mirror and rotate
» Automatic load of last playlist at start-up
» Advanced CG with clocks, tickers, rolls, crawls, bitmap animations, any video file format
» All CG graphics as secondary events
» GPI in/out with MOXA and JLCOOPER for play and stop commands
» Ableton Launchpad hotkeys Free CG composing app for template creation
» SDI preview output with OSD (timecode)
» Free XTrimmer Quality control app with SDI/NDI output, metadata insertion and loudness control
» Watchfolder with GUI notification and 1 button load
» Default behavior for duration, stop mode, aspect ratio, fields swap and stretch mode

» Automatic use of external audio files with same filename
» Multiple channel control from main channel for play, stop, pause, rec and stoprec
» Remote control of BMD ATEM and NEWTEK TRICASTER
» MOS protocol for multiple channel gateway
» Protocols supported : SONY RS422,VCDP RS422, VDCP TCP/IP, BMD HYPERDECK
» Integration for 3rd party RS232 RS422 routing switchers
» RESTAPI commands
» SNMP MIB, TRAPS and Alerts
» XMAM integration with drag and drop from Web browser
» Audio preview on windows audio
» Audio master volume and single clip volume
» Start time code can be modified for each clip
» Simple scheduling tool for automatic playout

⊗ YOUPLAY INGEST MODE

Specifications
» Supported Video Cards: BMD DeckLink and Intensity, AJA
» Corvid
» NDI input
» SD, HD, 2K, 4K
» Up to 16 Audio channels
» Time code from SDI or Analog audio card
» VANC and CC from SDI
» SD IMX 32 lines padding
» GPI devices: MOXA ioLogik 1214 or similar, JLCooper GPI, any serial port as 2 GPI in device

GUI
» OSD vu-meters and waveform
» Counters for total and segment
» File code and Timecode counters
» Taskbar miniplayer
» User definable shortcuts
» WEB GUI
» Channel label
» Sizable GUI
» Realtime video preview
» Average and instant data rate monitoring
» Space and time left on disk real time calculation

» NDI source selection on main GUI
» OSD display for counters
» Customizable 2-16 channel vu and peak meters

Video Codecs
» MPEG 4 part 2
» Cisco OpenH264
» Intel Quicksync H264
» Nvidia NVEnc H264, Nvidia NVEnc H264 lossless, Nvidia
» NVEnc H265
» MPEG 1, MPEG 2
» DV, DVCPRO
» MJPEG
» FLV Sorenson
» HuffYUV
» WMV 8
» Google VP8
» Apple Prores proxy, LT, 422, HQ
» QuickTime ANIM
» Uncompressed 422 8-bit, Uncompressed 422 10-bit
» DNxHD
» VC3
» OPEN JPEG2000
» DPX

FILE FORMAT WRAPPERS
» Mpeg Program (MPG), Mpeg Transport (TS) ,MPEG4 part 14 (MP4)
» QuickTime (MOV)
» DNxHD (MOV)
» IMX MPEG4
» MXF, MXF D-10 (IMX)
» GXF
» DV
» FLV
» DVD VOB
» ASF
» iPod Mp4
» AVI
» Matroska (MKV)
» WebM
» Image Sequence (DPX, PNG, JPG)

DIGITAL MEDIA LOGGER

YOUPLAY
BROADCAST PLAYER

05.

EX2-2200
HD Broadcast encoder MPEG-2 / H.264

PRODUCT OVERVIEW

EX2-2200 MPEG-2/H.264 Broadcast HD Encoder has been developed around Premium High Quality Magnum chipset, to improve encoding efficiency, decrease encoding time delay, optimize algorithm, increase the anti-bit-error ratioand enhance the image quality to enable it to realize better image compression effect with lower bit rate. With advanced video preconditioning technique and high efficient video encoding algorithm, it is able to effectively promote use of the available band width and greatly reduce the DTV transmission cost for the operators.

MAIN FEATURES

- » Low latency MPEG-2 HD/SD and MPEG-4 AVC/H.264 HD/SD Broadcast video encoder
- » Video Inputs: SDI, CVBS, YPbPr and HDMI
- » Audio Inputs: AES, RCA and XLR
- » QR code, LOGO, OSD inserted
- » 1080I, 720P, 480I, 576I video resolution and downscale transform
- » MPEG1 Layer II, HE-AAC (v1&v2), LC-AAC and DD AC3 audio encoding
- » DD AC3 audio passthrough (for SDI in)
- » Video buffer, free to switch video sources (all video interface available)
- » CC (closed caption), EIA 608 and EIA 708 (for CVBS and SDI in)
- » ASI output and IP over UDP and RTP output
- » Remote network control supported
- » Web GUI

// Highlights

EX2-2200 MPEG-2/H.264 Broadcast HD Encoder supplies high quality but low bit rate video and audio signal for digital TV broadcasting system, mobile telephone TV system and IPTV system. Multiple video and audio encoding formats available. It supports 4 stereo/8mono or one DD 5.1 (AC3) audios embedded to mix with the video and created output TS through ASI/IP port.

Ex2-2200 has QR code, LOGO and OSD inserted function. It will show 3 functions at the same time. User can insert advertisement picture, LOGO, special QRcode, OSD content on encoding process independent of STB.
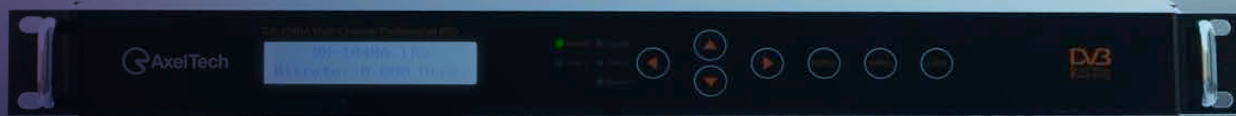
06.

DX2-1040A S/T/C
Two Channel Professional IRD

⊗ ## PRODUCT OVERVIEW

DX2-1040S (for DVB-S) and **DX2-1040T** (for DVB-T) **DX2-1040C** (for DVB-C) are Two-Channel Professional IRD in a high-density (1 RU) and flexible device, integrating broadcast receiver, demodulation, decrypting and decoding function, along with IP/ASI conversion and multiplexing.

It supports ASI, IP and dual tuner inputs which can be selected respectively from DVB-S/S2, DVB-T/T2, and DVB-C, also capable of receiving lots of programs from different multiplexers. Meanwhile, it delivers reliable video quality program source with advanced video decoding (H.2 64 &MPEG-2) technology, outputs: 2 TS ASI (1 for backup) +IP (1MPTS or 8 SPTS with UDP/RTP/RTSP) and deconding in composite, YUV, HDMI and SDI for video, analog unbalanced, balanced and AES/EBU for audio. With its 2 DVB common interface slots and BISS decryption, capable of working with most of well-known CAS in the market to decrypt multiple TV pay services.

DX2-1040AS/T/C is the right product for distribution system, IPTV applications, digital TV head-end system for DTV operators, broadcast service providers and IPTV integrators etc.

// Main Features

» Support 2 Tuner input modules selectable from DVB-T/T2, DVB-C, DVB-S/S2
» Capable of demodulation, CI & BISS decryption and decoder
» Support HD/SD MPEG-2, H.264 video decoding, Close Caption, Subtitle and Teletext
» Audio output supports MPEG 1 Layer II, LC-AAC, HE-AAC, Dolby Digital AC3
» One channel Digital Dolby 5.1 surround stereo output
» Support multiple programs from tuner, ASI and IP decryption via the CAM card CVBS/YPbPr/HDMI/SDI output
» Support 1+1 ASI and IP (1 MPTS or 8 SPTS with UDP/RTP/RTSP) multiplexing output
» Providing 2 LNB input and 2 LNB loop output
» Support auto-preserving programs
» Support NTSC and PAL modes available
» One input can support Max.128 PID re-mapping
» Management of support Web browser via Ethernet interface
» Support software upgrading by Ethernet interface
» Power-off memory function

07. XEPG
Eletronic Program Guide (EPG)

⊗ PRODUCT OVERVIEW

Electronic Program Guide (EPG), the technology to publish on the user decoder, in a fairly standard way, the program schedule.

XEPG can be interfaced with third-party playout server to automatically retrieve info from external data sources (e.g. automations, XML, etc..). **XEPG** runs on a solid state Linux platform. **XEPG** feeds data/info to the multiplexer via IP or ASI interface, the built-in Web server allows remote control via IP using Web browsers (ssh, ftp).

XEPG is a DVB network service, that runs on PID 18 and can send also TOT/TDT on PID 20 for proper event synchronization.

XEPG feeds the network with "now and next event info" for all the programs on the same multiplexer and/or multiplexers of the same bouquet.

XEPG manages event rating for parental control to work, as provisioned by law in many countries.

// Main Features

» Remote control via Web
» IP or ASI output
 (ASI with optional converter)
» External data sources
 (playout, automations, XML, etc.)

DLG Plus
Advanced Channel Branding

08.

⊗ PRODUCT OVERVIEW

CG Turnkey Unit

Modern TV channels require an increasingly sophisticated graphic characterization and, at the same time, easily managed. DLG Plus is born to satisfy such need by means of an intuitive GUI and a powerful graphic engine.

Best of Breed

DLG Plus is the most cost-effective advanced logo generation and channel branding product on the market. The solution is ideal to display graphical contents, such as text, logos and animations, crawls, tickers and rolls with dynamic contents/metadata retrieved from external data sources, like RSS, txt, Microsoft Excel files and more. Top broadcast quality and easy of use allow DLG Plus to be used also for live production in talk shows, sports and entertainment.

Easy integration

Axel DLG Plus can receive commands from external devices for hot keys functions (MOXA boards, RS232, custom Keyboards) to load and play multiple pages.

The simple Composer platform gives a wide range of possibilities to set position, transparency, static effects (blur, glow, shadow, etc.) and in & out transition effects for each object. The interactive Axel DLG engine allows switching from different templates with smooth transitions recognizing same elements and adding just new ones. This smart solution allows infinite layers of graphic.

// Top results, effortlessly

DLG Plus is very simple to use and does not need any specific training. The user interface of the main playout section is displayed as a video mixer-like control with preview/program button bar and preview/program video windows allowing users with basic video mixer knowledge to immediately get confident with the CG and graphics operability. Page compositing is also very user friendly and allows to add multiple object like texts, clocks, crawls, rolls and media (audio, bitmaps, video and animations) e and define their specific aspect in detail.

// Uses Excel as an app

DLG plus imports data automatically from TXT, CSV, RSS feeds and especially Excel files, so whenever data is updated, it goes straight on air. DLG Plus respects fonts, colors and alignment specified in the Excel files selecting from which sheet and cells to acquire the data. Hidden or unprintable cells will not air, very handy fro comments and remarks to the user inputting the data. DLG plus also respects the formulas and database connections specified in the Excel files, allowing to create custom applications with macros and VBA scripting.

>>
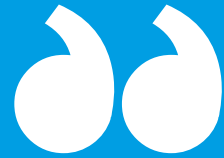
// Broadcast quality

DLG Plus delivers top quality antialiased text, smooth interlaced crawls, tickers and rolls over SDI or NDI output. All layers are managed in 32 bits allowing precise alpha channel and transparency compositing.
Text and media can be updated on the fly allowing to perform in live production environments.

DLG Plus
Advanced Channel Branding

⊗ WHAT IS THE DIFFERENCE BETWEEN DLG PLUS AND CG LIVE?

DLG Plus is a turnkey rack mountable unit (hardware and software) with an easy to use videomixer-like user interface. It can be used in master control environments as an advanced logo generator or in a production room for live CG. CG Live is a software bundle which features a more traditional user interface for live production, but It also includes the DLG Plus software so user can choose which ever fits best. CG Live is also available as a 4 rack unit turnkey system. DLG Plus and CG Live share the same multimedia engine, allowing interchange of templates and projects.

// Main Features

- » HD/SD static and animated graphics and logos
- » Antialiased text with gradients, borders and shadows
- » Clock, countup/down, date, crawl, ticker and roll
- » Page composer with multiple layers
- » Preview channel over VGA and SDI/NDI
- » 1, 2 and 4 SDI/NDI channels versions
- » Interface/integration with TV automation TGA, BMP, PNG, TIF, JPG bitmap sequences
- » Smooth IN/OUT transition: fade, move, zoom
- » 32 Bit images processing with alpha and transparencies
- » GPI on TCP/IP (or Rs-232 as option)
- » Effects: shadow, blur, motion blur, smooth edge (deflicker)
- » Intuitive video mixer-like GUI
- » REST APIs for 3rd party remote control
- » Internal key mode (video in – video out) or external key mode (Key and fill outputs)

- » Audio output over SDI/NDI in external key mode
- » Master/slave mode for multichannel triggering
- » Ableton Launchpad integration
- » GPI with MOXA and JLCOOPER TCP/IP
- » Numeric keyboard as Launchpad
- » Single channel and multichannel GUI
- » Infinite layers on each page
- » Single page push-button selection and 26 multipage push-button selection
- » Remotely triggered graphics on separate and independent pages/layer
- » Social media integration with Social Hub (sold separately)
- » Technical logs and As-Run logs
- » Customizable shortcuts for each page
- » Built-in scheduler with start/end time and repetition

⊗ MAIN FEATURES

» Built-in playlist with loop on separate page/layer
» Safe area on page composer
» Checkered background on page composer for transparancies highlight
» Free Page CGComposer app for offline template creation
» Infinite undo /redo
» On the fly text and media change from
» UNICODE texts with double byte language support
» Right to left language support
» Automatic text size adaptation to areas
» TTF fonts support
» Top/bottom/left/right/middle text alignment
» Text foreground, border and backrgound with 10 point color and alpha gradients with custom
» Angle
» Custom identation for precise background alignment
» Fade in/out, move left/right/top/bottom, squeeze X/Y/XY transitions
» Shadows with color, offset and blur which follow animation alpha
» Video file animations in bitmap sequences, GIF, quicktime ANIM and Prores 4:4:4:4
» Video files import in DV, HDV, DVCPRO, MJPEG, MPEG-2, TS, MPG, VOB, H.264, H.265

» AV1, MP4, QuickTime, PRORES, DNxHD, AVI, WMV, ASF, MXF, XDCAM, IMX, GXF, LXF
» FLV, MKV, WebM, HuffYUV, VP8, VC3, JPEG2000, DPX
» Animations and video files in loop/stop at end/ stop at end and hide modes
» Automatic upscale/downscale of media as background
» Media on background outputs audio in external key mode
» Slideshow of media with timing and transitions for each item
» Smooth crawls with area and speed selection
» Text, Crawl, roll and ticker datasource from text, CSV, RSS and excel files
» Automatic update of graphics on datasource change
» Excel file support of font, front/back color, alignment and hyperlinks to media
» Smooth tickers with number of lines, timing and transition type
» Multiple shapes with color gradients, outlines and rounded corners
» Date and clock with customizable formatting
» Count up and count down with pause command
» Special table object for display of complete excel sheet with single cell updates on file change
» Object layering with priority management

// Hardware specs

» Rack mountable server (1 RU for 1 and 2 channels configurations, 4 RU for 4 channels configurations)
» Windows 10
» Intel i7 technology
» 16 GB RAM
» BMD Decklink Duo 2 for 1 and 2 channels configurations
» BMD Decklink Quad 2 for 4 channels configurations
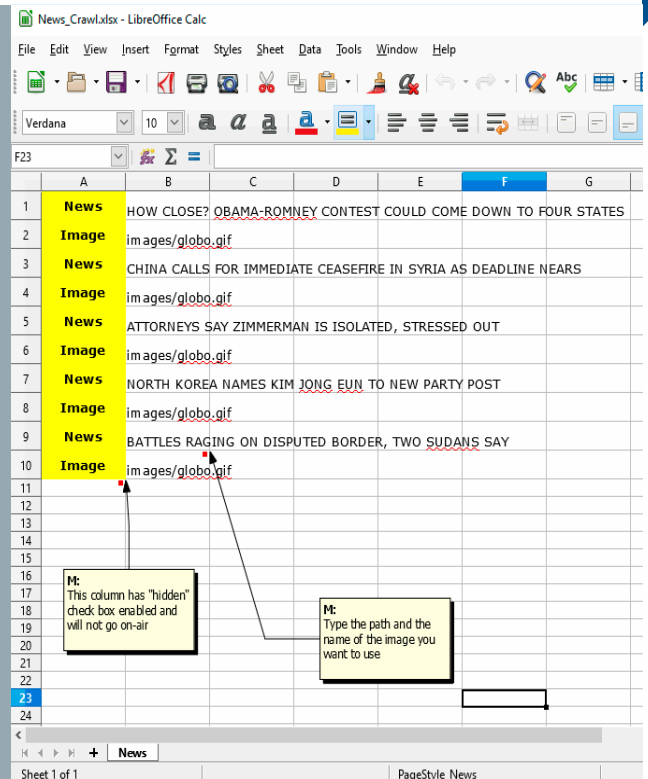
09.

CG Live
Live Graphics & CG Generator

⊗ AMAZING GRAPHICS

CG Live is a software based solution for real time character generation. **CG Live** features animated backgrounds, movements and effects on text, images, clocks, animated logos, dates, crawl and news tickers. **CG Live** works via both SDI video boards and via NDI. The solution is ideal to display graphical contents, such as text, logos and animations, crawls, tickers and rolls with dynamic contents/metadata retrieved from external data sources, like RSS, txt, Microsoft Excel files and more. Top broadcast quality and easy of use allow **CG Live** to be used for live production in talk shows, sports and entertainment. **CG Live** is very simple to use and does not need any specific training.

Page compositing is also very user friendly and allows to add multiple object like texts, clocks, crawls, rolls and media (audio, bitmaps, video and animations) e and define their specific aspect in detail.

⊗ USES EXCEL AS AN APP

CG Live imports data automatically from TXT,CSV,RSS feeds and especially Excel files, so whenever data is updated, it goes straight on air. CG Live respects fonts, colors and alignment specified in the Excel files selecting from which sheet and cells to acquire the data. Hidden or unprintable cells will not air, very handy fro comments and remarks to the user inputting the data. CG Live also respects the formulas and database connections specified in the Excel files, allowing to create custom applications with macros and VBA scripting.
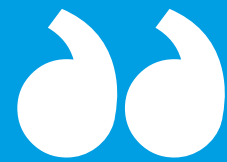
// Social media

CG Live integrates with Social Hub (optional), which allows retrieving text, images and video clips from your favourite social media sources, such as Whatsapp, Facebook, Instagram, Skype, Email, Sms, Openweathermap, line and rss feeds. User can select and edit messages before airing or create them from scratch. If your favourite social media is not among the supported plugins, a special Google Chrome plugin allows capturing text and images directly from the browser window and send them on air. Social Hub is a great add-on for any live program to add dynamic graphical content to the production and engage more efficiently with the audience.

// Broadcast quality

CG Live delivers top quality antialiased text, smooth interlaced crawls, tickers and rolls over SDI or NDI output. All layers are managed in 32 bits allowing precise alpha channel and transparency compositing. Text and media can be updated on the fly allowing to perform in live production environments.

// Best of both worlds

Included in the **CG Live** package is also the **DLG Plus** software, which share the same multimedia engine, allowing interchange of templates and projects. **DLG Plus** features an easy to use videomixer-like user interface so it can be used both in master control as in production environments. According to the type of interactivity which is needed for a specific production, you can choose which application to deploy.
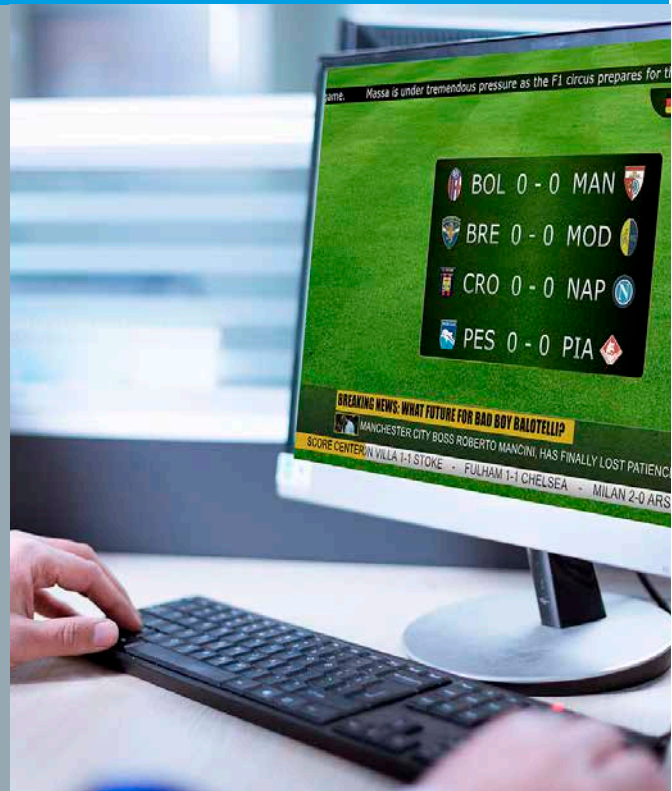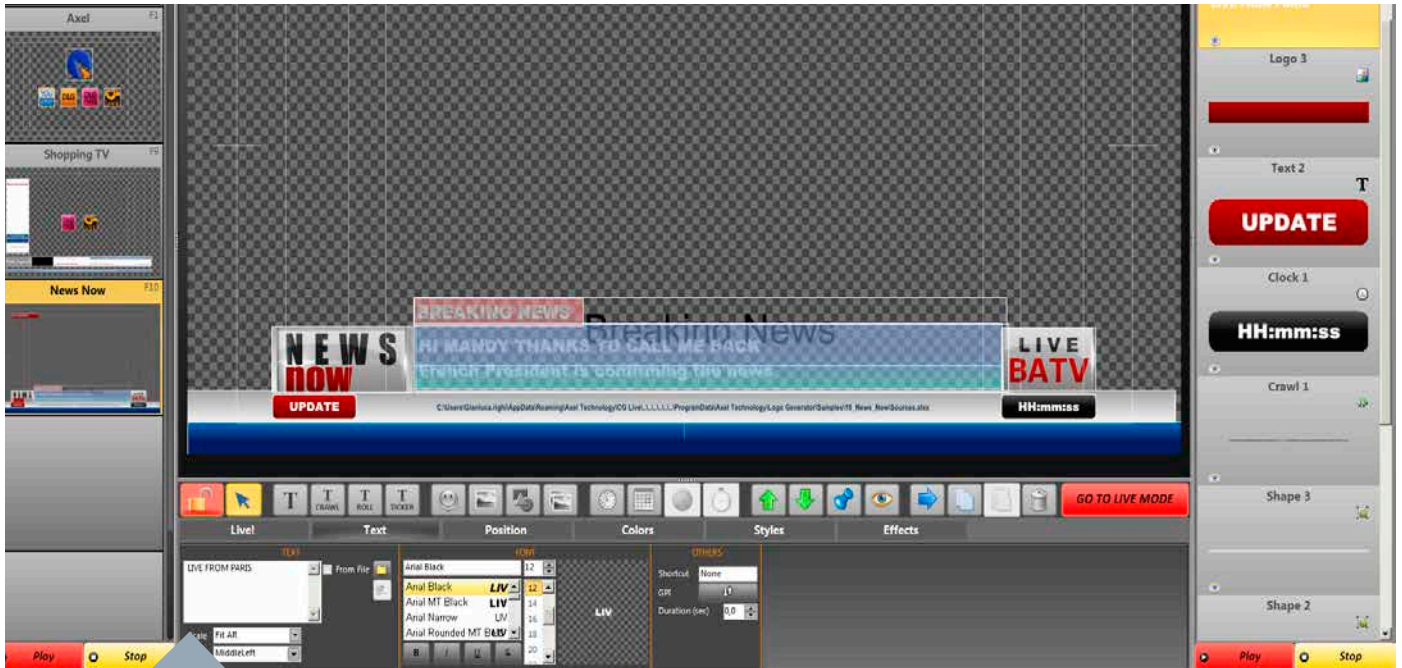
CG Live
Live Graphics & CG Generator

// Main Features

» HD/SD static and animated graphics and logos
» Antialiased text with gradients, borders and shadows
» Clock, countup/down, date, crawl, ticker and roll
» Template editor with multiple layers
» Preview channel over VGA and SDI/NDI
» TGA, BMP, PNG, TIF, JPG bitmap sequences
» Smooth IN/OUT transition: fade, move, zoom
» 32 Bit images processing with alpha and transparencies
» GPI on TCP/IP (or Rs-232 as option)
» Effects: shadow, blur, motion blur, smooth edge (deflicker)
» Internal key mode (video in – video out) or external key mode (Key and fill outputs)
» Audio output over SDI/NDI in external key mode
» Infinite layers on each page
» Social media integration with Social Hub (sold separately)
» Customizable shortcuts for each page
» Safe area on page composer
» Checkered background on page composer for transparancies highlight
» On the fly text and media change from user lists
» UNICODE texts with double byte language support
» Right to left language support
» Automatic text size adaptation to areas
» TTF fonts support
» Top/bottom/left/right/middle text alignment
» Text foreground, border and backrgound with 10 point color and alpha gradients with custom angle
» Custom identation for precise background alignment
» Fade in/out, move left/right/top/bottom, squeeze X/Y/XY transitions
» Shadows with color, offset and blur which follow animation alpha
» Video file animations in bitmap sequences, GIF, quicktime ANIM and Prores 4:4:4:4
» Video files import in DV, HDV, DVCPRO, MJPEG, MPEG-2, TS, MPG, VOB, H.264, H.265
» AV1, MP4, QuickTime, PRORES, DNxHD, AVI, WMV, ASF, MXF, XDCAM, IMX, GXF, LXF, FLV, MKV, WebM, HuffYUV, VP8, VC3, JPEG2000, DPX
» Animations and video files in loop/stop at end / stop at end and hide modes
» Automatic upscale/downscale of media as background
» Media on background outputs audio in external key mode
» Smooth crawls with area and speed selection
» Text, Crawl, roll and ticker datasource from text, CSV, RSS and excel files
» Automatic update of graphics on datasource change
» Excel file support of font, front/back color, alignment and hyperlinks to media
» Smooth tickers with number of lines, timing and transition type
» Multiple shapes with color gradients, outlines and rounded corners
» Date and clock with customizable formatting
» Object layering with priority managemen

YouMix

10.

Production Video Mixer

service by Marco Parisini
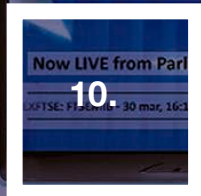
⊗ # PRODUCT
OVERVIEW

YouMix is the ideal companion for any Production Video Mixer, allowing to add different and innovative features. **YouMix** generates a complete video signal with multiple picture-in-picture (DVE) and multiple layers of complex graphics.

Traditional video mixers do not allow to play files, decode IP streams, or generate complex graphics: with **YouMix** you can fulfil complex effects with a broadcast look without extra equipment and with no limit of DVE channels for PIP. Each PIP window can display any SDI or NDI source, any IP stream or desktop video capture with smooth zoom in and out. All graphics are also generated by **YouMix**, delivering a ready to use video signal output, freeing up other resources of your production video mixer.

In each DVE or background user can add: live sources coming from a capture card IP streams coming from LAN/Internet **Desktop grabs (defining the captured area)**Video files in loop **Overlay graphics on background and PIPs** NDI inputs and outputs.

// Main Features

» Grab desktop and incoming video calls from any PC or mobile device

» Broadcast quality composite/SDI output

» CG titling with animated backgrounds, crawls, rolls, lowerthirds, and logos

» Skype®, Msn® and Yahoo® messenger compatible

11.

Ultra Cross Converter
PC Video Cross Converter

PRODUCT OVERVIEW

Ultra Cross Converter is a PC based video cross converter, which is able to convert between SDI, NDI or IP sources simultaneously to SDI, NDI and IP in same or different resolution/or framerate. The video input can be scaled in PIP with squeezeback effect and a CG Background applied. There also a CG layer inside the PIP and on a overall layer.

Audio follows video with downmixing. All CG layers include tickers, crawls, tables, logos, animations, clocks, news alert and commercial bugs insertion. SDI input and ouput can be up to 1080p. NDI input and output in any format. IP inputs in RTMP, UDP, RTP, RTSP, HTTP, FTP etc. IP output in RTMP, UDP, IIS smooth, WM streaming.

THE MOST COST-EFFECTIVE SOLUTION

Typical applications are IP decoder/encoder, NDI/SDI converter, or broadcast TV channel branding with PIP DVE for delivering SD/HD themed channel applications.

Delay between input and output 3 frames aprox. Ultra Cross Converter is the most cost-effective solution for broadcast TV channel branding, that combines high-impact graphic design with 2D DVEs picture in picture of your program output, delivering SD/HD themed channel. It is used to compress live TV Channel into a 2D PIP and add graphics in news 24 style.

Ultra Cross Converter is the key tool to catch audience and characterize your TV channel, fully integrated with Axel automations and playouts, delivering and managing all TV branding aspects.

// Built-in CG

As an advanced character generator system, Ultra Cross Converter provides tickers, crawls, tables, logos, animations, clocks, news alert and commercial bugs insertion with squeezeback DVE on a live input. All graphic elements can be inserted on three different layers: on the background, inside the PIP (following 2D/3D zoom & compress FX), and on top of them for channel branding. Ultra Cross Converter allows you to have a LIVE approach or SCHEDULED approach for Graphics Airing.

>>

// Main Features

» Advanced cost-effective branding solution

» SD/HD input & output

» Real 2D DVE PIP with squeezeback

» Real-time data insertion from RSS, .txt, .xlsx, etc..

» Graphic insertion of logos, animations, crawls, tables, tickers, slideshows, etc

» User friendly broadcast & template editor interface

» 99 quick easy recall DVE presets & graphic templates

» Internal scheduler

» Integration with automation systems

» Programmable GPIs for external controls

12.

MXC-Multi Cross Converter

Multichannel Video Cross Converter

⊗ PRODUCT OVERVIEW

Multi Cross Converter is a PC based multichannel video cross converter, which is able to convert between SDI, NDI or IP sources simultaneously to SDI, NDI, WebRTC and IP in same or different resolution/or framerate. Audio follow video with downmixing. SDI input and ouput can be up to 1080p. NDI input and output in any format. IP inputs in RTMP, UDP, RTP, RTSP, HTTP, FTP etc. IP output in RTMP, UDP, IIS smooth, WM streaming. Typical applications are IP decoder/encoder, NDI/SDI converter, low delay video over WebRTC. Multi Cross Converter has a multiviewer configurable graphic user interface on the PC display adapter. Delay between input and output 3 frames aprox.

// Main Features

» SD/HD input & output
» Hybrid NDI environments,
   convert SDI-NDI and viceversa
» IP decoder for receiving streams from internet
» IP encoder to send TS to IP MUX
» Send data to AOIP to IP Audio Mixers

LIVE FROM RED CARPET 17:21:15

POST ON TV YOUR TWEET ABOUT THE STARS   #STAR

Steven Johnson
We are all waiting to see Cameron Diaz in his pink dress!

13.

SocialHub
Social Network Contents Manager

⊗ PRODUCT OVERVIEW

SocialHub is a software based solution that retrieves social network messages and texts from mobile phones, organizes them for DJs/TV presenters and sends them to CG softwares. The system manages accounts from multiple social networks at the same time; it catalogues incoming contents leaving to user full flexibility to edit and select which message is most suitable for the broadcasting. The full integration with CG softwares such as DLGPLUS and CGLIVE, allows to customize any graphical appearanceof the message, showing it as a ticker, crawl, static text and combine it with elements like logos, lower thirds, animation for channel branding and live graphic templates.

The automatic retrieving and broadcasting function has been designed to use **SocialHub** also in MCR environment for themed channels like music televisions and sport channels, displaying on air messages 24/7 or according to the automation playlist without any manual operation. TV stations can take advantage of this feature to give a "live" look to recorded programs letting people comment music videos, request songs and send on TV their favourite photos.

// Main Features

» Receives text messages from mobile phones
» Receives images from Flickr
» Displays on-air Facebook®, Twitter®, Flickr®, Whatsapp®, Instagram®, Chrome®, Line®, OpenWheaterMap®, Skype® posts with thumbs, profile name and texts
» Automatic and manual receiving & broadcasting of specific contents
» Add-on modules to connect more social networks type & profiles
» Organizes "tweet" messages filtering by #hash-tag keywords
» Allows audience to instantly post on screen messages, request songs
» Easy configuration interface and logs section with report generation
» "Modify" area to edit text with "blacklisted" words or junk post
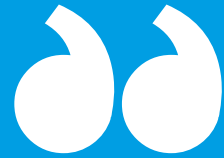
14. Digiware TV
Playlist Management and Schedule Creation

⊗ HI - END MULTI
PROGRAMMING

DIGIWARE TV is an innovative software for playlist management and schedule creation that integrates more intelligence power and many additional features into the DJ-Pro on-air system. Specially designed to be interfaced with DJ-Pro, **DIGIWARE TV** is a quick, effective way to get the job done. Schedules can be modified in real time up to a few seconds before broadcasting. **DIGIWARE TV** is the comprehensive software for music and audio programming and it is available both for multi-user and multi-station setups or single-user and single-station use; there's a **DIGIWARE TV** for any station. The software is an innovative and effective solution even when it comes to high-end multi-programming, when several Radio stations possibly distributed over many commercial split-zones must be programmed daily and/or at the same time.

// Overview

DIGIWARE TV graphical user interface has been thoroughly studied: multiple channel schedule with differential commercial split-zone management will result very easy to handle. **DIGIWARE TV** supports the management of the station's library composed by songs, promos, pre-recorded programs, news and any bit of audio; the software is also created to assist the integration of live sources, timed events and GPI commands. The PLAYLIST management is basically achieved thanking to Categories that are used to organize songs and to set their rotation priorities and rules. Categories are then placed into the **DIGIWARE TV**'s Clocks that are among the most flexible in the Radio industry as they can handle any duration and are not limited by the 60 minutes typically fixed hour. Planning strategies is simple and effective so that powerful rules reflect the actual needs. **DIGIWARE TV** helps to create the best mix between consistency and variety for the desired format as a balanced music flow keeps the audience tuned.

Efficiency and productivity are also increased, allowing more time to focus on further and core aspects of operations, such as selecting music and audio. **DIGIWARE TV** has been specially designed for the Radio Programmer's needs; it helps to create Radio schedules automatically and/or edit them manually while it is possible to customize and keep control of all the process steps. **DIGIWARE TV** assists on programming in the smartest way, creating scheduling that contains audio media totalling up to 24 hours in duration organized in tasks, programmed in a daily, weekly, or season-long airshifts. The scheduler has been created using a "least objectionable" concept via step by step refining, considering also the unavailability of media and the logs created and available at the time of the scheduling creation. **DIGIWARE TV** is the software partner for those who work in the Music Office of a Radio station or a Radio group. Its services are essential to the workflow; the report section is powerful and contains industry-based licensing forms which saves time and efforts. Alerts, archive utilities, interface control, backup functions, full setup; **DIGIWARE TV** has them all.

Main Features:

» Powerful software to manage the complete schedule process
» Excellent control of Song, Artist and all possible segue/ rotation Rules
» Intuitive creation of format/clocks for any on-air duration
» Winning tools for both program-driven and flux-based Radio stations
» Perfect for public or commercial stations, multi-user access with full access-control
» Graphical user interface with icons, CD cover and thumbnails
» Edit, preview, cue and set marker point runtimes of audio
» Library, policies, clocks and scheduling quickly by using pre-scheduled elements
» Charts by rotation, themes, timing or category
» Import and export features from Axel Technology's automation system or from 3rd-party schedulers
» Audio database direct link with DJPRO CLASSIC and DJPRO ENTERPRISE
» Copyright and performance printed reports, using customizable or preset formats
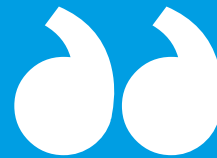
15.

Ram-Comm TV
The Complete Traffic & Business software

⊗ PRODUCT OVERVIEW

RAM-COMM TV is a multi-station and multi-user software that manages all business processes of the Marketing & Sales department, from customer contact to invoicing and billing by Management/Administration. **RAM-COMM TV** is able to manage several users, with full administration control of the different rights associated to each single user; the software is also suitable to small stations as well as large publishing groups; multiple channels and advertising areas, the so called "splits", are active. **RAM-COMM TV** offers special features to allow the best focus on customers' contact information, on media Import/Export from agencies; same voice separation on spots and business and sales accurate reporting are on; the software also handles sales rep's commissions and sales accounts, business contracts and invoicing/billing.

// Main Features

Multi-user architecture with rights management. Complete customer and contract management automatic invoice generation advertising scheduling: duration, rotation, priority, category conflict management advertising splitting according to areas/territories agents and areas management commercial reports and statistics for customer and board advertising certification **RAM-COMM TV** has a very effective built-in and multi-purpose scheduler developed thanking to AXEL TECHNOLOGY programming experience in order to create the best possible log of TV for any sort of advertising on-air element or segment:

» Spots
» Billboards/Sponsorships
» Commercial Announcements
» Promos
» And more…

The software is strongly recommended in the scheduling process as it saves time for the advertising log creation. Thanks to advanced automatic practices **RAM-COMM TV** provides a complete planning with crucial controls:

» Automatic fill of the hour selected points/clusters
» Automatic rotation
» Priority control
» Subject rotation
» Automatic managing of the "tails"
» Product conflicts
» Pre and post spot insertion
» Manual Edit
  Another advanced feature of **RAM-COMM TV** is the automatic fill of the split-zone clusters; this is achieved using
» Premium spots
» Stand-by spots
» Promos
» Audio fillers selected by duration

>>

RAM-COMM is the essential tool for the company's management to keep the business always under control. Due to the vast availability of its specific electronic and printed reports and statistics, **RAM-COMM TV** is the best tool to manage and to optimize the business of your company; it provides a clear, updated and objective outlook in order to allow the sales manager to take all the most effective commercial initiatives and policy decisions. It provides the best tools to major reports such as:

» Number and typology of scheduled contracts
» Present and future outcomes
» Expiring contracts for the forthcoming period
» Business potential of the representatives
» Agent areas and management
» Contracts to be invoiced next month
» And many more..
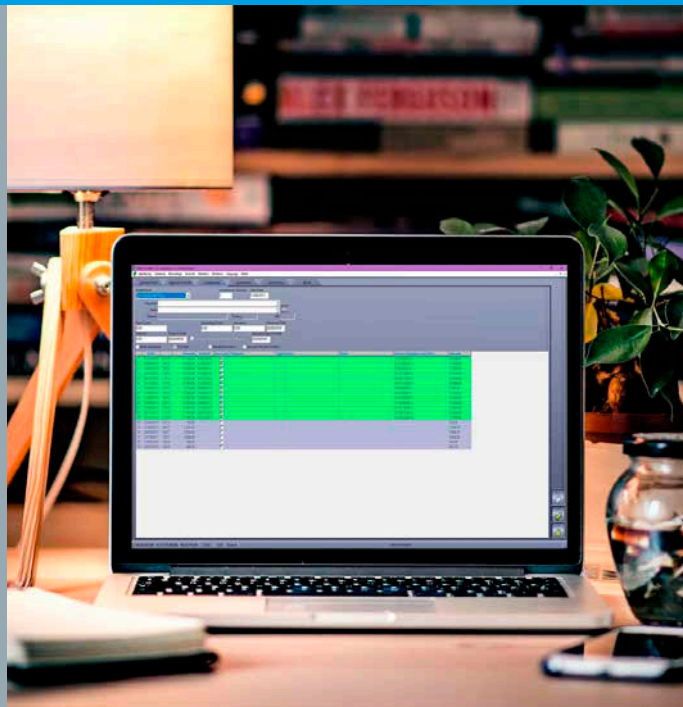
DML Video
Digital Media Logger

⊗ DIGITAL **VIDEO** LOGGER

Media logging is the process of capturing audio and video, usually in low quality format, and preserving the recordings for a large number of days, usually 2 or 3 months. In most countries media logging is obligatory by law for all TV broadcasters, but it can also be used for advertisement certification, audio/video quality surveillance, competition monitoring and media rebroadcasting.

DML Video Recorder: Non stop A/V Logging and IP Streaming
DML records A/V contents coming from the widest variety of sources (composite, Y/C, SDI, HDMI, Antenna, SAT, DVBT, DVBC, ATSC, IP, etc) and stores them on Hard Disk (recordings stay on-line depending on hard disks capacity, usually: 30/60/90 days as required by laws in many countries). DML system is totally maintenance free and oldest recordings are overwritten by the newest ones automatically. Video compression/quality vary according to the archive space and the logging period chosen. Recording quality may be as high as HD BROADCAST quality. Content is accessible from the DML as well from any networked computer, never stopping the recording. System status is constantly monitored either locally, thanks to DML-embedded tools, as well as from any networked computer running the DML Monitor free software. Whenever rising,

alarms may be notified via email or SMS. DML Recorder supports a large variety of video formats, compressions and resolutions, from the efficient DIVX and MP4 in H264 and AAC, to the more traditional MPEG-1, MPEG-2. DML files are standard multimedia files, which can also be played on any ordinary multimedia player. Simultaneous capture and Windows Media or RTMP Flash streaming allows viewing of encoded A/V signal from anywhere through Internet. Date and time display are superimposed onto video signal or embedded into the A/V data stream. Accurate date and time certification is guaranteed through synchronization to GPS satellites time reference with Axel Technology's Sat Time Synchronizer receiver. DML Recorder status is constantly monitored by auto-diagnostic tools. In case of alarms, the operator is warned via email or SMS.Monitored parameters: Disk activity / video presence / video freeze / audio presence / instant data-rate / average data-rate / A/V stream integrity. DML architecture is future-proof and conceived for the easiest integration of any new video format. With the free DML Player software, content can be easily edited and downloaded on external media and converted to the most popular video formats.

// DML Player
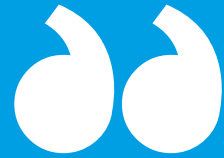
CONTENT | SEARCHING | SEARCHING | BROWSING AND CONVERSION

DML Player is a free software application for real time content browsing from any networked PC. Exclusive simultaneous multi-channel playback allows accurate audio temporal comparison. The calendar window shows the available recordings. Just 'click' on desired date and time to start playout. Play speed is variable from 0.5x to 16x. Go To date / time function allows direct playback to specific recorded events. Capability to jump to specific date and time using generic automation Log files. Mark-IN & Mark-out tools along with additional basic editing tools allow extraction of audio segments. Fast export or conversion in native or popular formats to fit all distribution and storage needs. Mark point positioning is frame-accurate using handy scroll & drag bars, along with keyboard shortcuts.

DML MONITOR: REMOTE MONITORING VIA WEB

is a free software tool which allows monitoring in real time through LAN and Internet of one or more DML units. System and recording supervision will be available from anywhere. DML Monitor displays current video frame for each recorder, together with status info, systems logs, streaming audio and the upcoming of alarms or parameters out of range.

// DML Web Viewer

CONTENT SEARCHING AND BROWSING VIA WEB

is a free server application for real time viewing from any Internet browser and works on Windows, Linux, Mac or any handheld device. The calendar widget shows the available recordings. Just 'click' on desired date and time to start listening. Configuring main router ports allows viewing from internet from any remote location.

⊗ DML **COPY**

DML Copy is an optional software which copies files from multiple DML recorder units to centralized storage systems. In multiple channel systems it is advised to deplay a central storage unit with RAID 5 or 6 redundancy rather then on the single capture units. **DML Copy** will provide a "slow" and controlled copy service to avoid saturating LAN bandwidth.

⊗ MINIMUM **SYSTEM** REQUIREMENT

System requirements may vary on number of captured channels and video quality. Intel i-78 GB RAMWin 10 Separate disk partition for each channel 1 TB per 1 channel 90 days 1 Mb/s

// DML Supervisor

Supervisor is an optional software which monitors multiple unit status and connected devices, managing hierarchical alarm levels and notification via email, SMS, fax, etc. Suggested for multichannel environments. Featuring automatic system recover and emergency intervention (such as spare units activation, audio routing, remote control of audio matrix, asynchronous serial communication and GPI, etc.)

// XMAM

XMAM is an optional archiving and catalogue system which provides fast and simple integration with DML allowing perpetual archiving of selected media. XMAM is a Web-based, user focused interface that supports access and processing of digital assets like video, audio, images, documents and presentations. XMAM supports standard Web browser navigation without additional client software needed.

// Sat Time Synchronizer

STS is the optional antenna receiver and software which allows an extremely accurate synchronization of PC clock to GPS satellite reference. Recomended for tamper-proof date / time certification.

// Multiple channel turnkey solutions

Axel Tech can provide multiple channels turnkey systems with DML capture units, file servers with redundant storage, LAN infrastructure, KVM switches, completely precabled and configured in Axel Tech's laboratories. Monitoring and editing desks are customized according to customer needs allowing coroporate and government organizations to take advantage of a fail proof solution. Local installation, training, baby sitting and after sales support is provided directly by Axel Tech.

Converter Studio

17.

Easily and Automatically Convert

UNIVERSAL CONVERTER

Axel Converter Studio is the broadcast transcoding software to easily and automatically convert any media to be used by different platforms and environments.

It's a universal converter, supporting all most popular formats and typically integrated in systems to convert media files for ingest, NLE, playout, Web, mobile, and rendering farms.

Converter Studio is available in stand-alone and multi-node configuration.

BENEFIT

» Broadcast quality formats
» Optimize file-based production workflow
» Automatic process to save time and avoid errors

// Main Features

» Formats: DNxHD, XDCAM, DV, HDV, MOV, MPEG-2, MPEG-4, MPEG-1, H.264, H.265, DIVX, WMV, QuickTime and many more
» SD/HD/4K conversion
» PAL/NTSC conversion
» Color space conversion
» Audio track extraction
» Preset transcoding profiles
» Customizable transcoding profiles
» Watch folders
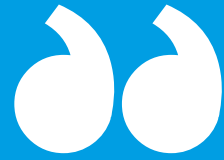» Cue list management
» Email and SNMP notification
» Log

Themes

You found:
1,000 resources

Display:
Large | **Small** | List

Sort Order:
As added | Random | Popularity | Colour | Date

Results Display:
24 | **48** | 72 | 120 | 240

< Previous | Page 4 of 21 | Next >

Simple Search

Search

> Go to Advanced Se
> View New Material

Recent 1000

+ Search within these results

18.

XMAM
Media Asset Management

My Collections
Current Collection (**0** items):
Before I Self-Destruct (Bonu
> Manage 'My Collections'
> Edit   > View all

⊗ # FIND YOUR MEDIA
WHEREVER YOU ARE

XMAM is a completely new and reinvented concept of MAM, a multipurpose solution to archive and manage any kind of media. **XMAM** gives a high added value to your archive, extends its availability from anywhere and expands your power to share, access, preserve, distribute and sell multimedia contents, inside and/or outside of the company.

XMAM has been designed to be suitable for several purposes, such as multimedia archive and catalogue, newsroom or NLE, and can be naturally integrated into any kind of existing workflow. **XMAM** is the perfect solution for TV broadcasters, radio stations, post production studios, advertisement agencies, government organizations and media distribution agencies which desire to archive, catalogue, share and deploy their media with a simple and user friendly, yet powerful, media management system.

// Archiving and Catalogue

- » Web graphical user interface
- » No software installation required
- » Google and YouTube style search and preview
- » Access and use through any Web browser (Chrome, Firefox, Safari and others)
- » Compatible with any Operating System (Windows, macOS, Linux and others)
- » Compatible with any Smartphone (Android, iOS and others)
- » Multimedia: Video, Audio, Photo, Document

- » Supports most popular file formats
- » Content sharing over Internet and LAN
- » Content upload from anywhere (Web, LAN, and others)
- » Proxy Files Generation
- » Workflow integration & customization
- » Integration with 3rd party software
- » Support Google Vision API (plugin)

XMAM
Media Asset Management

⊗ AUTOMATIC KEY-WORDS & CONTENT INDEXING

All uploaded files are automatically indexed, based on file name and metadata contained in the file. Technical metadata (i.e. resolution and format for video files, title and artwork for songs, camera model and geolocalization for pictures, etc.) are imported automatically. PDF and MS Word text is extracted and indexed automatically.

// Share any contents with audience

Powerful Access Right Management to define capability for each single user/group. Sharing of archived content with third parties is easy and fast: just select single item or collections to share and send a link by email. The system automatically creates a customized Web page where the user can access the shared contents, with expiration date if needed.

// Upload Of Content

XMAM Allows broadcast tools to record and ingest audio and video live feeds directly on main storage. File based media upload can be done via browser, with approval of pending upload. Alternatively, file media upload is achieved copying media into watch folders, taking advantage of the full speed of LAN architecture.

⊗ MAIN FEATURES

Gallery Preview, Snapshot & Thumbnails

XMAM automatically generates previews and proxies for all known file types. JPG images, MP3 audio and MP4 low quality video copies are created for the Web GUI so there is no need to download the original media to view its content.

Synch With Broadcast RADIO & TV Automation

Thanks to its customizable synch interface, XMAM can connect to AXEL and third party playout automation systems in order to publish the content of the storage. Media files, saved in defined folders of the automation, will be automatically synchronized (linked or copied) and accessible for XMAM users from anywhere.

Distribution & Commerce

XMAM allows media resources to be distributed and monetized with ecommerce style shopping cart.

A wide range of sale policies is included in order to automatically manage users request of contents, payment and delivery.

Logs & Statistics

A wide range of logs and statistics is built-in, allowing to track any action: user session, keywords usage, most seen content, most required content, etc.

Database & Report

The database is SQL based, allowing any kind of query and report. This makes XMAM fully configurable and customizable to match any market and application needs.

LDAP

User authentication can be defined in internal groups with individual rights policies.

It can be alternatively read from a local domain in LDAP format.

Easy install and deploy

XMAM uses IIS, PHP and MYSQL and works on Windows Server operating system. Typical configurations include 1 or 2 rack unit XEON server with multiple LAN cards and an external storage from 48TB to 1.2PB with RAID 6 redundancy and hot spare drives. Just connect to existing LAN architecture and start using it. NAS devices are supported, If the server is connected to the internet with router configuration, XMAM can be easily accessed from outside the company and media sharing through email links is supported.

// Powerful Options

Fingerprinting

Audio fingerprinting allows fast retrieval of media which contains specific audio segments. Particularly useful for advertisement certification where the system can be fed with a specific spot and immediately all instances in the database are displayed.

Speech to Text

A special speech to text engine is available in various languages, allowing up to 70% of words to be recognized and indexed for searching purposes.

Deep archiving on LTO and Cloud

LTO and CLOUD based deep storage can be added to free up on line storage space. Whenever new media is uploaded to XMAM, it is automatically backed up to the LTO tape library or Cloud archive. When space limits are reached on the main storage, oldest media is deleted preserving thumbnails and proxies, thus allowing to continue to use the Web interface seamlessly. Original media is restored automatically upon user request if the LTO tape containing it is online or in the Cloud backup, otherwise a mail is sent to system manager for request of the tape. All LTO models starting from LTO-3 supporting MTF are compatible.

XTimeline

XTimeline allows proxy editing of media contained in XMAM archive directly in your favorite browser. It's a simple cut only editor with timeline video segmenting and audio track for rough cut purposes. Journalists can pre-edit raw material and export NLE edit lists for later craft editing on third party systems, or alternatively a high quality clip can be rendered directly by XMAM.

Plug-Ins

Custom plugins are developed upon request to achieve vertical and specific workflows.
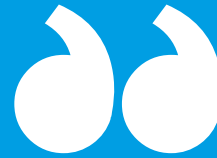
Peacock Supervisor

Multipurpose System Dashboard

YOUR SYSTEM
UNDER CONTROL

Peacock Supervisor is the global control engine to keep always under control the health-status of your automated system or structured network. An Information Technology infrastructure generates massive amounts of data and **Peacock Supervisor** collects all the workstation status data in realtime, whether physical, networked or via remote. Data comes to **Peacock Supervisor** as files, serial data, TCP/IP, devices and GPIO logic status.

// Peacock workflow

Each controlled parameter must be into pre-setup average values, in case an alarm is rising up, this is graphically reported and notified via email/sms. Furthermore a fault recovery can be performed by Peacock Supervisor as first aid intervention over the automated system. **PEACOCK SUPERVISOR** indexes the entire workflow process, workstations, servers and storages to the core activity. The aim is to create graphic reports and provide deep visibility to all network status, forensics and troubleshooting.

PEACOCK SUPERVISOR generates reports in order to identify trends or prove compliancy controls. All data managedcomes as .txt .xml .xls .csv files.

In case of fault detection, **PEACOCK SUPERVISOR** shows in real-time the alarm into a graphic layout. The controls that can be made over a complex radio, TV playout and media logging system should be multiple: media air time advance/delay, checks of files update, audio/ video presence.

Secure and Reliable

PEACOCK SUPERVISOR provides a password-protected Web server, to keep the automated system under control using smartphones or tablets. Moreover in case of fault detection, **PEACOCK SUPERVISOR** can perform a recovery interventionon the automated system.

// Main Features

» Software-based solution for system status monitoring
» Real time alarms detection from multiple data sources
» Emergency intervention and fault recovery
» Web page for anywhere monitoring
» For attended or unattended automation system
» System dashboard with real-time alarm notification
» Graphic interface with customizable layout
» Data storage and report

20. Boxtel MKII
GSM & POTS telephone Hybrid

⊗ PRODUCT OVERVIEW

BOXTEL MKII is a professional studio telephone hybrid designed to meet the most demanding Radio and TV broadcasting requirements. **Boxtel MKII** is one of the most useful outdoor telephone connection tools ever thanks to his small size, easy installation and operation, and the voltage supply directly provided by the telephone line. **Boxtel MKII** can be easily connected with the most popular mixing consoles, and it is suited both for open-air and studio applications, due to additional remote control feature and balanced connections with automatic line compensation. **Boxtel MKII** comes in a rugged inox steel case in order to be the perfect companion for any live or studio broadcaster. Features like meters, internal PSU, country setting, great S/N ratio and filters make of **Boxtel MKII** the coolest telephone hybrid for its market segment.

// Special Feature

Boxtel MKII is a telephone hybrid specially designed to be connected with mixing consoles and to control phone lines.
Boxtel MKII can manage a telephone line POTS/PSTN, while BoxTel GSM can manage a GSM telephone line to ensure telephone connection where hardwire-phone line is not available.
BoxTel MKII and BoxTel GSM have an internal microcontroller that allow to configure via software the working mode.
Internal microcontroller has many other functions such as: telephone impedance according to the region, Send/Receive audio levels visualization (on a front led), line detection (telephone line detection), adjustable buzzer level, AutoHook
Thanks to backlight Hook/Ring button, on front panel, it is possible to hang up after a given number of phone rings.

Boxtel Digital
Available Q3 2019

⊗ PRODUCT OVERVIEW

BOXTEL is a professional, studio telephone hybrid designed to meet the most demanding Radio and TV broadcasting requirements.
Available in three versions: VoIP, POTS and Bluetooth.
The small size, together with the easy installation and operation, make **BOXTEL** one of the most flexible telephone hybrid on the market.
BOXTEL can be easily connected with the most popular mixing consoles and it can be suited both for RADIO & TV applications, featuring remote control and balanced connections with automatic line compensation.
BOXTEL comes in a rugged case to be the perfect device for any live or studio program. Features like meters, internal PSU, country setting, great S/N ratio and filters make of **BOXTEL** the coolest telephone hybrid in its market segment.

// Main Features

» Pro & Cost effective
» POTS/PSTN and GSM (version)
» Clear audio and natural sound
» Compact & heavy-duty
» Remote control from any mixing console
» Automatic line compensation
» Software remote control with USB port
» Send/Receive audio level adjustment
» Auto-answer/disconnect
» Balanced audio input & output
» Remote control interface

Macrotel X1 - X2

GSM/POTS – Digital Telephone Hybrid Processor

⊗ PRODUCT OVERVIEW

Macrotel X1 and **Macrotel X2** are Axel Technology's Telephone hybrid third generation for a supreme audio quality. **Macrotel X1** manages one POTS/PSTN line while **Macrotel X2** can operate on two POTS/PSTN lines.

Moreover, in every landline it is available a switching "land-to-wireless mode" through one or two optional Quad Band GSM module so to establish telephone connection where wired lines are not foreseen.

Macrotel X1 and **Macrotel X2** telephone interface perfectly suits every phone line all over the world. Via software the user sets the country's operation.

// Special Features

The audio treatment via DSP together with the automatic gain control (A.G.C) provides a loud and clear receiving level, always steady even when frequent audio caller conditions changes. Audio controls available on the Macrotel X1 and Macrotel X2 series are: echo canceller with a range from 16 to 32ms, 1 A.G.C stage, 2 Band Equalizer and Attenuator audio feature. Furthermore, the "hold" function allows you to put the caller On Hold before being On Air. Macrotel X1 and Macrotel X2 front panel controls allow operators to manage phone calls easily, while the graphic display LCD shows Send and Receive audio levels. The audio inputs / outputs are electronically balanced by XLR connectors; the send input has been designed to be managed as line level or microphone level to match perfectly each user needs. Both telephone hybrids are manageable via USB and Serial connection, or directly from Telco N-1 mixing console modules.

The software manages the phone hybrid operability globally, that means the user can change the working audio parameters and operative mode without any physical action on the equipments. Auto-ranging internal switching power supply allows to use the equipment all over the world. Macrotel X1 and Macrotel X2 fits in 1 standard RU.

23. Phonex D1 - D2
Digital Telephone Hybrid Processor

⊗ PRODUCT FOR DISTRIBUTION SYSTEM

PhoneX D1 and **PhoneX D2** are telephone hybrids designed for the broadcast market.

The internal frameworks based on DSP (Digital Signal Processor) hit in real time the highest audio performance, that sets **PhoneX D1** and **PhoneX D2** as state of the art technology in the telephone interface. PhoneX series allows analog and digital balanced AES/EBU input and output over XLR connectors with "mic/line send" features switched via software. As in Macrotel X1 and X2, the **PhoneX D1** and **D2** equipment allows to manage one or two landlines, shared with GSM Quad Band modem optionally improved, to place phone calls where wired lines are not available. Enhanced audio features exclusively designed for phone calls such as: AGC stage, Echo canceller, De-Noiser, 2Band Equalizer, Ducking and Hold caller/Attenuator.

// Support

PhoneX D2 also allows conference calls between different participants. **PhoneX D1** and **PhoneX D2** facilitate the everyday's operators usage via front panel button, the graphic LCD display sends and receives levels for each phone hybrid, via: software PC based, any webpage and wireless devices as tablet or smart phone. Available GPIO contact from and to Telco N-1 modules.Available connections via two rs232 serial ports and one USB. By option an Ethernet board to manage LAN connection can be added directly into **PhoneX D1** and **PhoneX D2**. All audio features and operating mode can be managed locally and remotely via software, without a physical intervention over phone hybrid. Auto-ranging internal switching power supply allows to use the equipments all over the world. **PhoneX D1** and **PhoneX D2** occupy 1 standard RU.

PHONEX D1 - D2
Two Channel Professional IRD
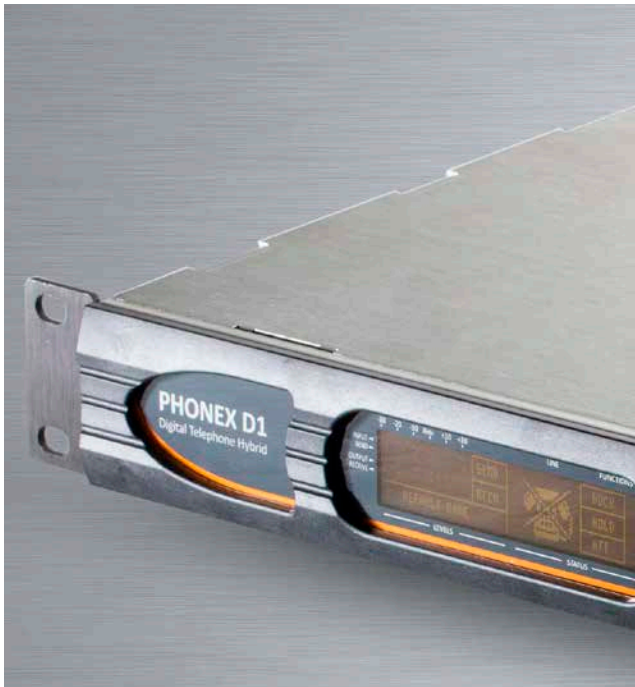
⊗ **MAIN FEATURES**

» AES/EBU digital inputs and outputs
» 1 and 2 line models
» POTS/PSTN and GSM Quad Band (option)
» Integrated Web server for remote control
» Digital AGC processor with 2 band EQ
» Echo canceller and noise gate
» Separate send and receive
» Mulitple units connection (conference)
» LAN and USB ports
» Built-in tone generator
» Auto answer and disconnection
» Balanced XLR I/O (mic/line)
» Remote control software and dialer

24.

Falcon Three TV SDI

TV Digital Audio Processor & Loudness Control

⊗ PRODUCT OVERVIEW

FALCON THREE TV SDI is a 3-Band fully digital audio processor, resulting from a long-time experience of a team made up of TV technicians, psychoacoustic experts and designers specialized in the development of professional audio equipment based on DSP technology.

FALCON THREE TV SDI is a full digital, stand-alone mono and stereo TV audio processor controlling the TV audio loudness, dynamics and equalization to provide an always pleasing and highly intelligible TV listening.

In all the TV purposes on field, all audio is applied to a single transmission audio processor that automatically controls the average modulation and the peak-to-average ratio while smoothing out transitions between program elements while a simple compression and peak limiting cannot do this effectively.

// Process

Based on a powerful and effective Automatic Gain Control, **FALCON THREE TV SDI** processor acts also in the full respect of original audio levels by avoiding, at the same time, the over modulation peaks and the tiresome loudness drops between different programs. The **FALCON THREE TV SDI** allows an effective automatic loudness control under ITU-R BS1770, and offers new input and output capabilities: Analog Left+Right balanced over XLR connectors, Digital Aes/Ebu over XLR connector and the support for SDI over BNC connector. The input pre emphasis is selectable between 0, 50 or 75 usec.

Moreover, the audio input signal coming from Analog or Digital path, can be routed and embedded into the SDI video signal.

// Perfect harmony
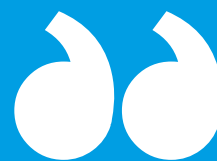
FALCON THREE TV SDI is an audio processors specially designed for TV, DVB-T and DVB-S and Web broadcasting.

FALCON THREE TV SDI features the most up-to-date technologies, digital multiband processing architecture.

FALCON THREE TV SDI manages the audio/video sync fine tuning and guarantees perfect audio and video sync.

Fine adjustments on audio delay enable perfect audio video alignment.

A powerful software comes free of charge, giving total control over all parameters such as input gain, ITU control, delay lip-synch, output level, pre emphasys etc.

The comprehensive communication features of these processors can be operated by simple local Rs232 connections, telephone pstn/pots modem, or via Lan/wan.

The password protected built-in Web server displays operations in real-time directly in your Lan or all over the world.

FALCON THREE TV SDI allows HTTP, TCP/IP, UDP/IP, Telnet and SNMP protocol.

The front panel features 1 LCD displays, a rotative encoder and a headphone monitor output, everything carried in a 1 rack unit rugged box.

Power supply designed for worldwide operation 110Vac 60Hz or 230Vac 50Hz.

>>

// Main Features

» Best price / features

» Digital TV Audio Processor 3-Band

» Powerful AGC on the entire audio band

» Protection against audio over modulation

» LOUDNESS Control: ITU-R BS1770 Compliant

» Analog and AES/EBU

» SDI Input and Output

» Real Lip-Sync audio/video

» Flexible, dynamic and user friendly

» Remote control via Serial

Turnkey

01. TV MCR
Turnkey Master Control Room

⊗ TV MASTER CONTROL ROOM

The **Turnkey TV MCR** is the TV Master Control Room designed by Axel Technology to integrate all the tools necessary for TV channels to have the best quality and versatility of modern technology. The Turnkey TV MCR is fully digital and tapeless, able to broadcast in SD/HD/4K, fits any video format, logo & graphics, loudness control, video mixer, social networking interactivity, 8 TB storage, satellite clock synchronization and all integrated into a technical furniture.

⊗ BENEFITS

Our aim is to provide complete "plug & play" TV turnkey solution ready to go on air for any broadcaster and channel. Components and integration level are defined to offer the best functionalities /price ratio according to customers' needs:
» Ease of use
» Easy maintenance
» Scalability
Based on these points, here below the description of our approach to configure a turnkey solution.

// Features

- » Technical furniture with 19 units rack
- » Video Switcher with Multiview
- » XTV Suite (capture, schedule and playout)
- » DLG Plus advanced logo generator and graphics
- » Advanced Graphics with Social Network integration
- » 24/7 Logging and Web Streaming unit
- » TV Audio Processor & Loudness Control
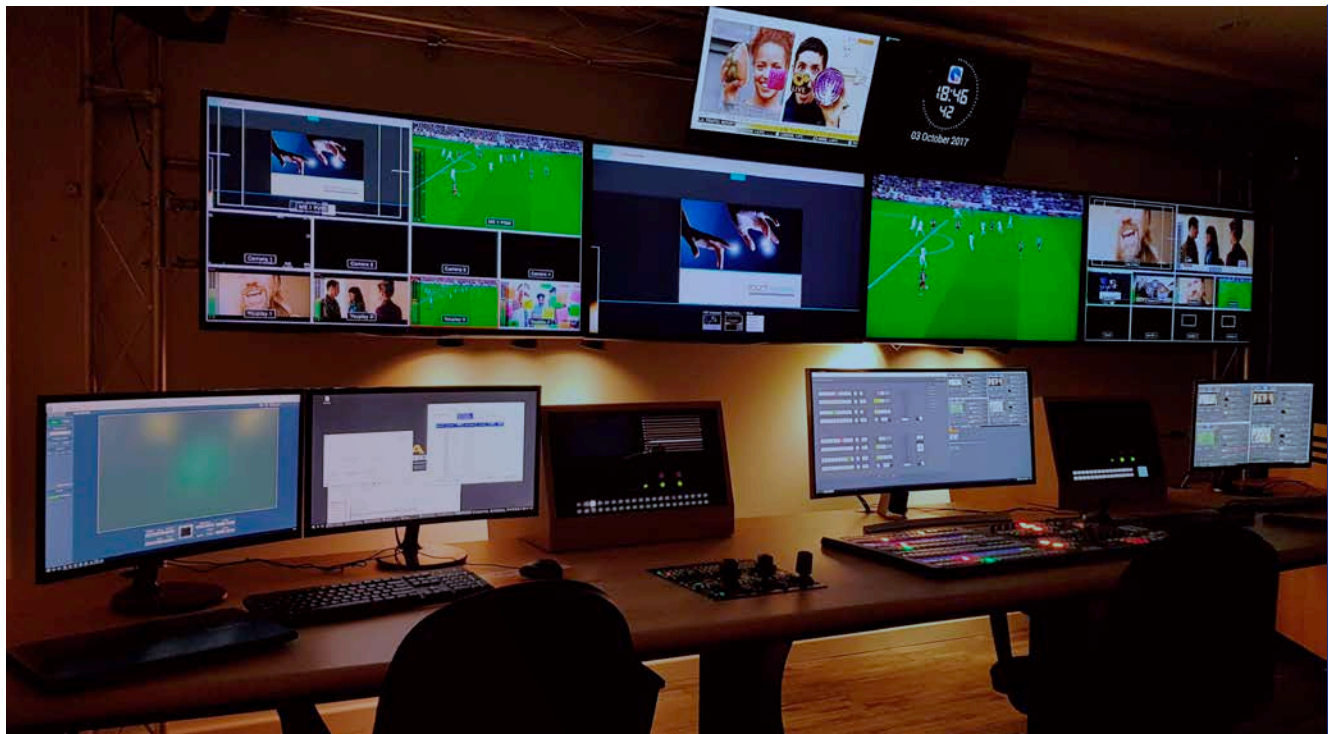- » Loudspeaker and Monitors
- » Cabling

⊗ # TRANSMISSION

The solution is suitable for any kind of transmission: DVB-T, DVB-T2, Satellite, Web TV and visual radio.

⊗ # PROGRAMS TYPE

Generalist and thematic channel such as music, sports, news, movie TV

» 24/7 fully automated/manual playout

» Playout of files from the storage

» Broadcasting of live programs (news, talk show) from production studio (NOT included)

» Rebroadcast of incoming feed (satellite)

02. TV PCR and Studio

⊗ TURNKEY SOLUTIONS PROVIDER

Axel Technology is top supplier of professional, tailor-made television studio systems providing broadcast and production equipment with a broad range of services. We can help renovate existing facilities or build an entirely new production studio. We take care of the system design, wiring, installation, commisioning and training, anywhere in the world.

// Equipment

» Technical furniture with 19 units rack
» Video Mixer with Multiview
» Audio Mixer
» YouPlay Server (capture and playout)
» CG Live - Live Graphics & CG Generator
» Cameras
» Microphones
» Intercom
» Special EFX
» Videowall
» Green Screen
» Loudspeakers and Monitors
» Cabling

03. OB Van

OUR TURNKEY
BENEFITS

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» Easy maintenance

» Scalability

Based on these points, here below the description of our approach to configure a turnkey solution.

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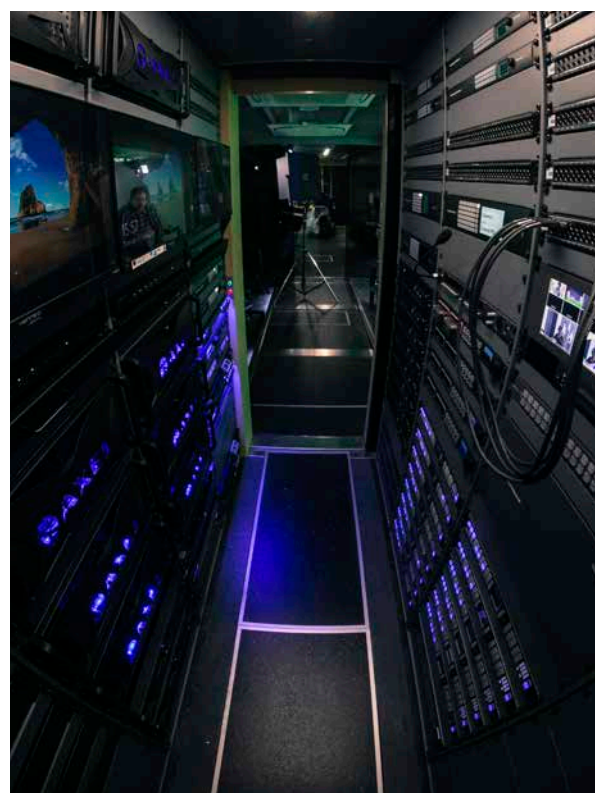
⊗ **TURNKEY** RADIO STUDIO

The Turnkey Radio Studio is the comprehensive digital studio setup design by Axel Technology that integrates all the essential equipment for a Radio Station, offering broadcast quality, latest digital technologies and complete functionality.
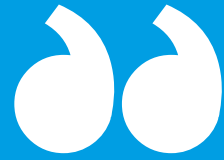
The Turnkey Radio Studio is the best investment for the Broadcaster that wants to start o renew his radio station.

Is a plug and play solution, customizable for any radio station (FM, Web, etc.), perfectly integrated into a compact technical furniture, pre-assembled, wired and granted by Axel Technology.
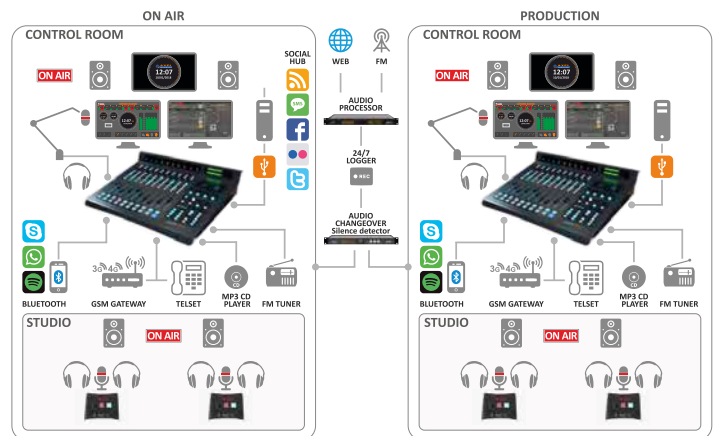
// Plug and play turnkey setup

The **LITE EXA Radio Studio** delivers broadcasters a complete "plug and play" solution ready to go On Air.
It's a complete ON AIR STUDIO, where any single component has been selected to offer the best functionality/price ratio, according to the following fundamental point:

» Complete digital solution

» Customizable

» Cost effective budget

» Easy of use

» Easy maintenance

» Scalable

   The solution is suitable for:

» FM, AM, Satellite and Web radio station

» Community radios

» P.A. (Public Addressing)

» Automatic and/or manual playout

» Live programs with speakers (talk show)

» Radio with Control Room and studio (speaker booth)

» Radio with technician and speaker sharing the same room

>>
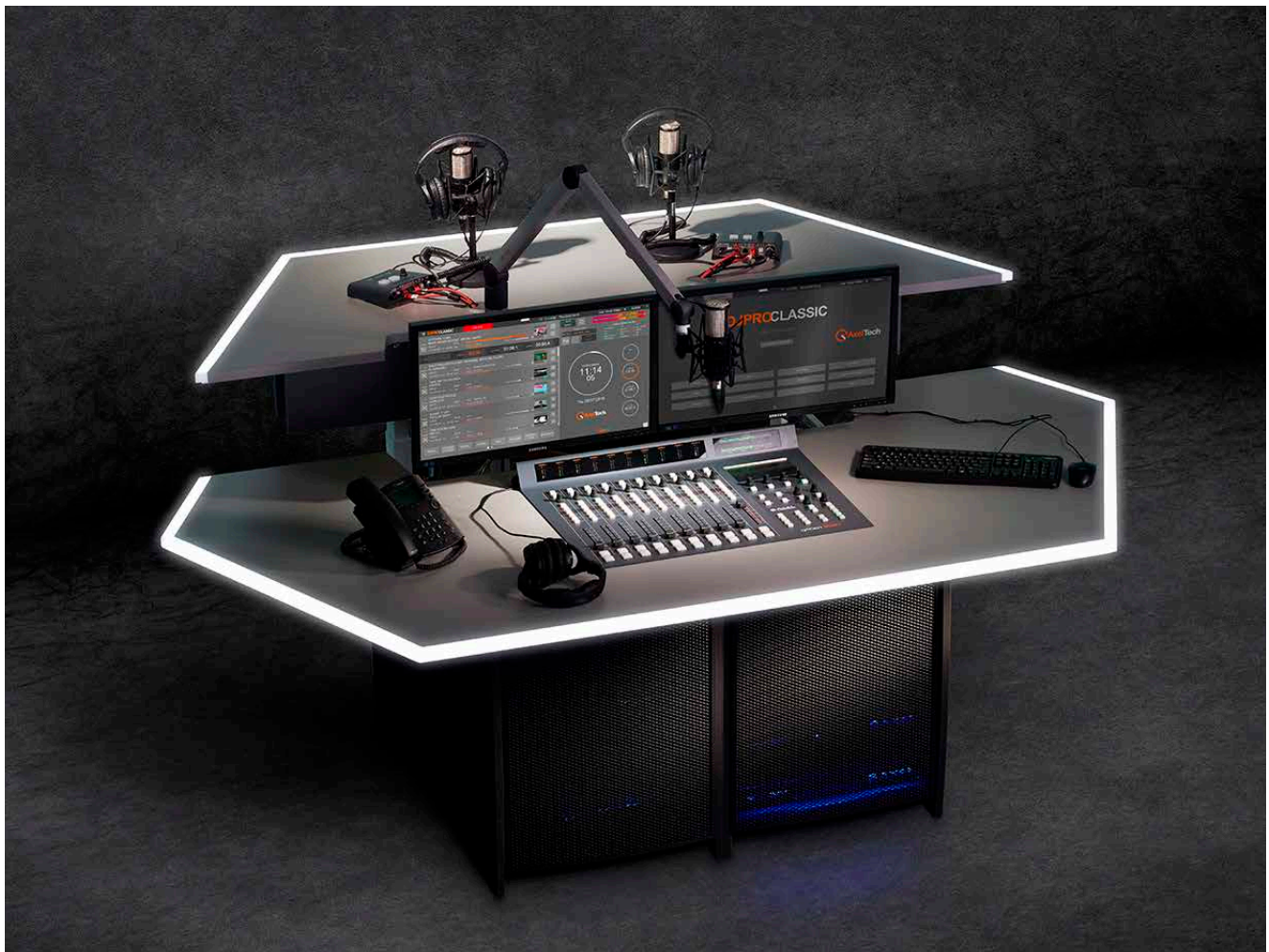
⊗ FURNITURE

The furniture is designed to host 2/3 operators (technician, speaker and guest) to work together. It includes the rack units 19" to fit all the necessary rackmount equipment, cable tray and mechanical accessories.

The broadcast furniture grant perfect assembling and test of the system at Axel Technology labs, to deliver a 100% working solution that can be quickly installed and turned on in less than 4 hours, following the attached instructions and schematics.

⊗ RADIO AUTOMATION

DJPRO CLASSIC and Soundtrack Studio are Radio automation suites that provide broadcast tools for On Air and production.

⊗ FM DIGITAL AUDIO PROCESSOR & RDS ENCODER

FALCON 3i is a 4 band digital Audio Processor, Stereo Generator and RDS Encoder all in one, designed for FM, Web and Satellite transmission.

⊗ 24/7 AUDIO LOGGING & WEB STREMING

Logging is the 24/7 non-stop audio recording of main program output, which today is extremely important for multiple purposes:
» Law obligations
» Customer advertisement certification (time stamp)
» Real time monitoring of radio programs
» Audio quality surveillance
» Streaming over Internet
» Competitor surveillance

⊗ DIGITAL BRADCAST CONSOLE

The broadcast console Oxygen 3000 is a digital compact unit that combines all the modern functionality, mandatory for any On Air studio.

⊗ SYSTEM INTEGRATION & SERVICES

The system is delivered to be easily installed and maintained also by not skilled technicians. Axel Technology provides detailed system project, technical drawings and manual.

// On Air Studio Setup
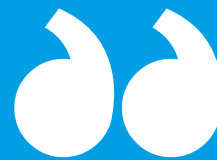
Compare some of our standard setups
and contact us to get your own
configuration.
Setups can be combine to design
Radio Station with multiple studios.
Each solution can be customize in
every single detail and component.

>>

	SOLO	DUETTO	TRIO
Turnkey On Air Studio	●	●	●
Presenters (Mics & Headphones)	1	2	3
Furniture (table, wiring & integration)	LITE-EXA	LITE-EXA	LITE-EXA
Radio Automation	SOUNDTRACK STUDIO	SOUNDTRACK STUDIO 2 Monitors	DJPRO CLASSIC 2 Monitors
Digital Console	OXYGEN 3000 DIGITAL	OXYGEN 3000 DIGITAL	OXYGEN 3000 DIGITAL 2 TALK BOX
FM Audio Processor	Falcon 3i + RDS	Falcon VS + RDS	Falcon VS + RDS
Support & Updates services	1 Year	1 Year	1 Year
	from 12.000 €	from 15.000 €	from 19.000 €

AXELTECHNOLOGY.COM

05. # Flight Case

PORTABLE TV PCR IN A FLIGHT CASE

Sometimes it may be convenient to have a production suite that allows to work also away from the television headquarter, easy to transport and setup but easier and cheaper than a OB Van. Luckily now equipment is more and more compact and lightweight, and we can enclose an whole production suite in a couple of flight cases.

Inside we can find everything needed for a small video production, up to three or four cameras. For long distance camera connection (i.e. in sports arena) we can use fibre optics cables.

We can broadcast live to headquarter via Web streaming or satellite uplink.

// Key Concepts

» Lightweight and compact flight cases
» Fibre optics links for fast and reliable connections
» Web streaming or Satellite broadcasting

Add on

Sat Time Synchronizer

01.

Time Synchronizer

⊗ **ALWAYS USEFUL**

SAT TIME SYNCHRONIZER is the cost effective solution to automatically synchronize the PC clock with exact and absolute time broadcast by GPS satellites (GMT – Greenwich Mean Time).

SAT TIME SYNCHRONIZER is very useful in all those applications where it is necessary to have the precise and reliable current time (f.i. Time Code generation, A/V recording monitoring and certification for law obligations and data logging, time signalling in TV and radio stations, etc.).

The software and hardware installation is fast and easy and even not skilled technicians can operate it correctly.
Normally you just need to place the receiver next to a window and connect it to a PC through a serial cable.

SAT TIME SYNCHRONIZER doesn't need external power supply: it is powered directly by the PC power supply through a special adapter (supplied).

// Main Features

The control software can be installed on any PC running Windows o.s. and featuring a free serial port. The interface shows the main time data and, in graphic mode, the strength of various signals received by GPS. Thanks to the low resources required, the **Sat Time Synchronizer** software can be installed even on "on-air" PC and workstations.

The current time reference can also be shared among all the PC connected to a LAN.

For this aim, **SAT TIME SYNCHRONIZER** software features a double operating mode and it is able to work both in a "server" version (i.e. for the PC physically connected to the receiver) and in a "client" version (for the networked PCs).

» PC clock synchronization from GPS satellite time
» Just a Sat Time Synchronizer unit for the whole PC local network
» Very easy to install

>>

Main Ethernet Switched Network

02.

Mr. Light RGB
The Light of Silence

⊗ STUDIO LAMP

MR. LIGHT RGB is the new multipurpose signal lamp designed for Radio, TV, on air, production and recording studios. The lamp is also ideal for any other environment where a signalling light is required such as audio booths, meeting rooms and offices.

It's highly configurable to match customer's needs: colour, wording, graphics, brightness and operating mode.

MR. LIGHT RGB has been designed to be easily installed in any environment and condition.

MR. LIGHT RGB is made of high quality components and material that guarantee modern design and no need for maintenance.

// Highlights

» Multi-coloured RGB LEDs

» Operating mode: blink, blink 2-colours, pulse always on.

» Supplied with mounting kit: wall and ceiling

» Just 1 cable

» GPIs for remote control

» Easy setting for colour and switching mode

» High availability and low power consumption

» 12V DC power supply included

» Customizable wording with Text and graphics (logos, icons, symbols and ideograms)

ON AIR CLOCK
Studio Time Display

⊗ **THE FINAL**
COUNT - DOWN

ON AIR CLOCK displays on standard TV Monitor current time, in six digits HH:MM:SS with circleline seconds. It is used in radio studios, TV studios and master control rooms for correct time display and messaging. Clocks are something you're always glancing at.

ON AIR CLOCK also displays custom messages, such as "**ON-AIR**", "**INCOMING TELEPHONE CALL**", "**APPLAUSE**", "**SILENCE**", providing an additional communication tool besides classic headphone intercom and studio talk-back. **ON AIR CLOCK** offers an unrivalled flexibility of operation, the widest number of functions modes and user display settings. In addition to Time and Date info, two major features are available. Count-down timer for end of live programs signalling and advertisement interruption during productions. Count-up timer for live program simulation during recording or just as time elapse display.

On air clock features an android device with HDMI output to connect to a standard TV monitor. Time data and messages are pushed to multiple devices from a central server were the On air clock server is installed.

Axel Technology's Sat Time Synchronizer (optional) may be used as GPS time reference, allowing 1/100 of second accuracy on all ON AIR CLOCK displays.

// Highlights

» Simultaneous time and date display
» Fits to any LCD / plasma / TV screen
» GPS time synchronization for 10 msec accuracy (optional)
» Automatic daylight savings change
» Clock / countup timer / countdown timer / message
» Easy signal distribution over cat 5, VGA and coaxg
» GPO alarm triggering / GPI messaging
» User-definable colors and fonts

AxelTech
The shape of broadcasting to come

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Thank you.

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The shape of broadcasting to come