



AEQ VisualRplus Visual Radio System Owner's Manual

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AEQ VisualRplus Visual Radio System



Specifications

- **Integration:** AEQ Consoles and VisualRplus
- **Automation:** Full automation for Visual Radio or TV broadcast
- **Inputs/Outputs:** IP, HDMI (optional: SDI, analogue)
- **Cameras:** HD IP NDI cameras in PTZ format recommended
- **Functions:** Camera pan, tilt, zoom automation

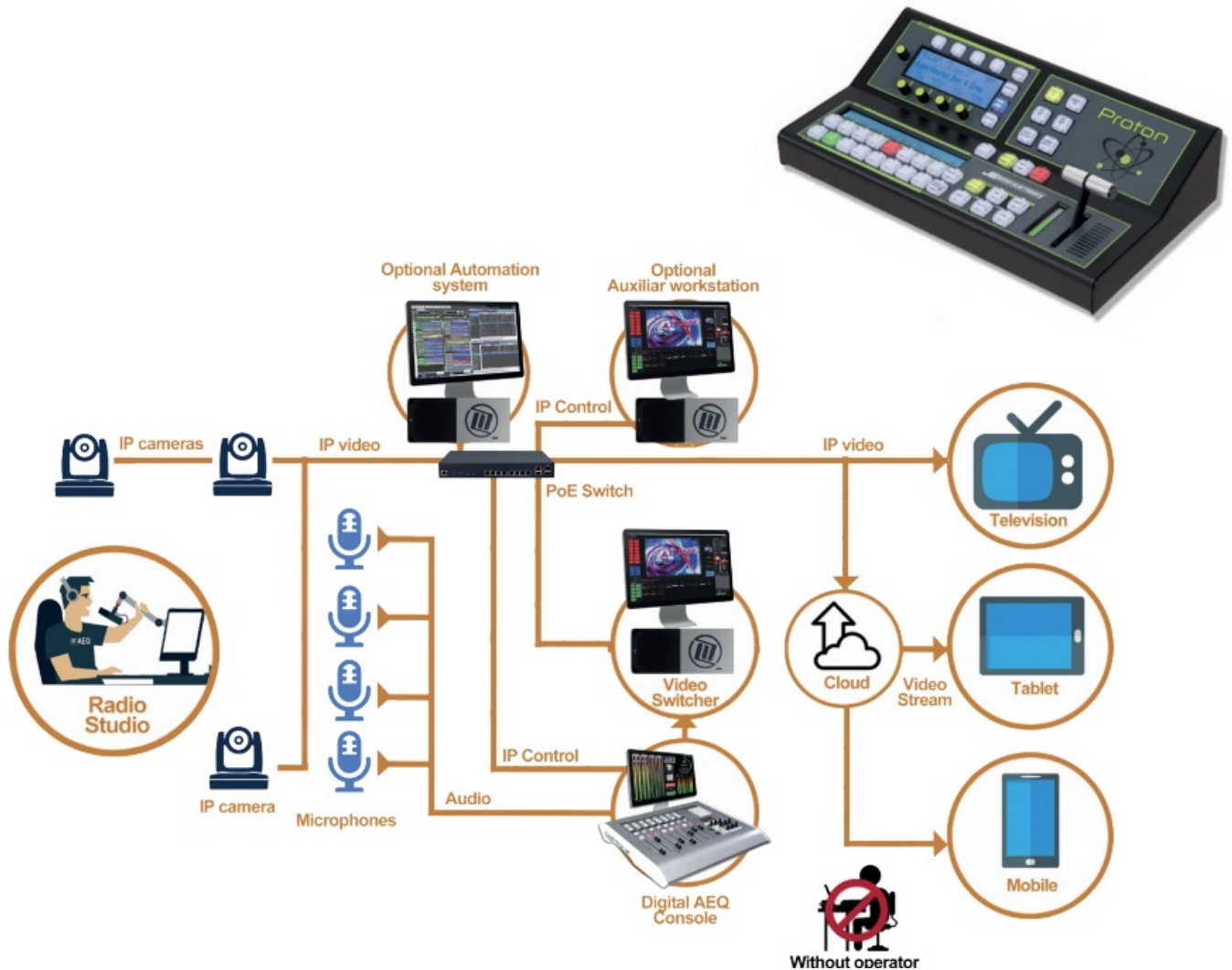
AEQ VisualRplus is a Visual Radio system consisting of a group of cameras and a powerful video switcher. It allows you to further capitalize on your investment and reach an alternative and viewing audience to your regular Radio Programming through an additional broadcast channel. The addition of content to your regular radio broadcast when streaming over the internet allows you to reach and attract an alternative and dynamic audience. Further, the combination of a general video stream with other video content will allow you to benefit from additional advertising revenues. The seamless integration with, for example, AEQ's consoles and AoIP Network interfaces, provides full automation of the camera controls through the powerful Video switcher. The programming of the switcher can virtually be as complex as one wants it to be in regards to transitions, camera angles, tilt, zoom, etc., providing a fully automated Video production that will follow the Audio for the regular Radio Program. This automation is aiming at not adding any extra workload to production but can, of course, be overridden at any given moment, allowing the producer to take control if for example, the talent so requests. The engineering, configuration, and programming and training of AEQ's VisualRplus systems can be customized online or, with sufficient definition data, delivered as a turnkey project.

EXPAND AND DIVERSIFY YOUR AUDIENCE INCREASE YOUR REVENUES

How it works

VisualRplus generates visual contents in parallel with the regular radio production and combines for a program that can be streamed online or broadcasted as a traditional Television feed. The content creation for Radio is increasingly demanding and becoming similar to the production for a TV channel. VisualRplus is in reality, the typical system setup and is employed for small and medium-sized TV stations that need a high level of automation for their production. It offers the same and a great amount of resources for content production and has all the tools that make it ideal for visual radio and smaller TV Broadcasting stations. The difference between the production for TV stations and Radio stations is that radio usually doesn't employ specific TV production personnel for visual Radio but relies on the capacity of the Video Switcher automation and the Video following Audio for the production. VisualRplus allows, through its camera control software, for the automatic programming of macros

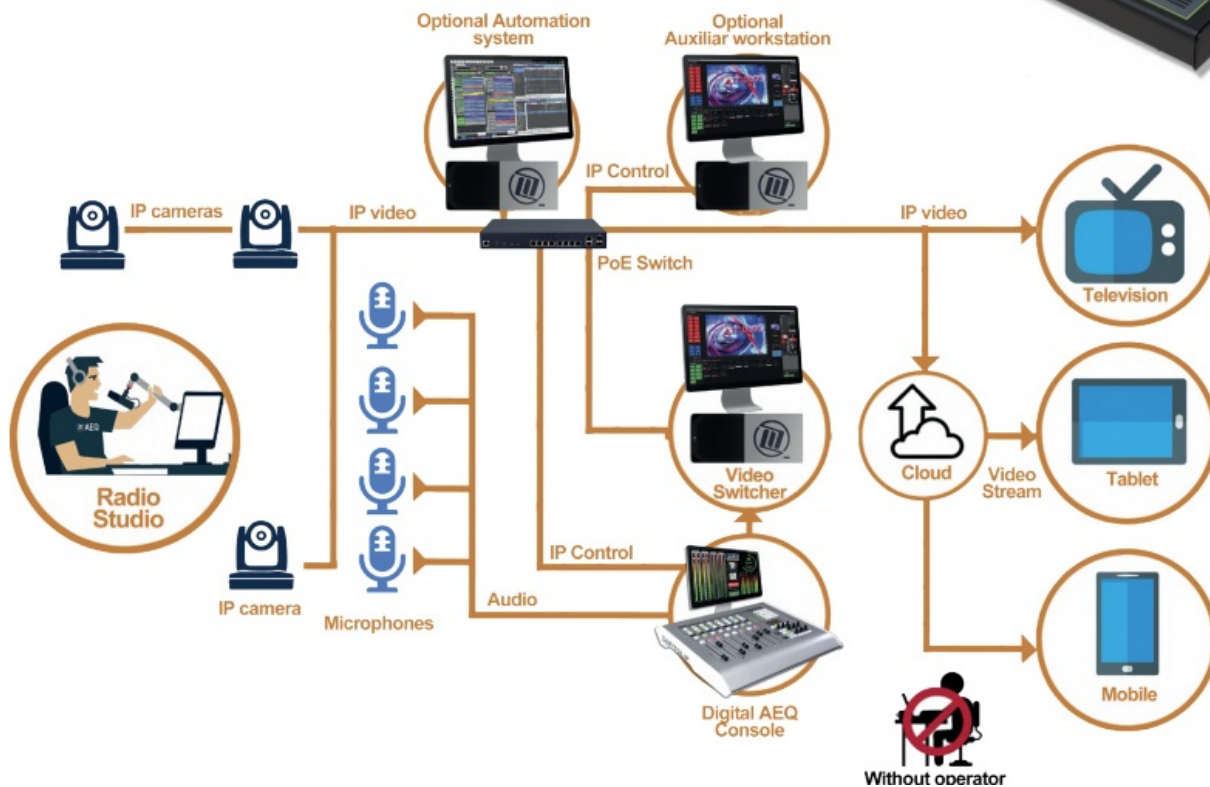
based on external events, which turn, will automate the production of the broadcast video signal.



Adding the MIX PLAYOUT option, the device turns into a complete TV head-end with broadcast automation for the video content based on play-lists that can be programmed to cover any schedule 24/7. The VisualRplus video production systems integrate seamlessly with AEQ's mixing consoles. Via IP, the consoles will provide the Video Switcher with information about what microphones are open and at what level. If no AEQ Mixer is available in the setup, an AEQ AoIP Interface such as the Netbox 8V or 32V can be used to provide the necessary information regarding open microphone and levels to the video switcher. Additionally, instructions to the video production system can be provided from the programmable keys of the Atrium, Forum, and Capitol IP Mixing Consoles and via control objects in the AEQ AudioPlus radio automation system. That way, the video production system's control is integrated into the mixing console and automation system, so the control technician can send instructions to the system without the need for any additional device. AEQ VisualRplus Visual Radio system is based on a video switcher/processor that manages the signals, switches between and mixes them, and provides a final program to be broadcasted in both high-quality IP and in compressed IP format adequate for streaming. It can also record its own produced signal. It has IP and HDMI video inputs and outputs, and optionally, SDI and analogue.

The cameras are connected to the IP inputs. We recommend and offer HD IP NDI cameras in PTZ format. The camera pan, tilt, and zoom functions are automated, following the defined programming for input priorities, levels, attack and release times of the microphone signals, and transitions. This allows the production personnel to focus on the different guests and speakers in the studio. Here comes into play AEQ's consoles or IP Interfaces themselves. Upon receiving the audio signals from the different microphones or other sources, this equipment will provide the information of the active ones to the video switcher, which will then produce the program signal as per the previously mentioned defined programming. Apart from this information, AEQ's mixing consoles and automation systems, can send different instructions using their program-mable function keys: launch clips, insert logos, introduce messages with the character generator, override macros, switch camera or even directly changing the complete programming created for a specific radio programme giving way to a different one with a modified programming. This becomes key when integrating the operation of a visual radio system into the radio's traditional technical workflow.

When the audio-visual media has radio and TV channels, there are times when the video signal produced in the radio studio turns into very valuable content for TV itself. In such cases, a more sophisticated production of the signal may be required. AEQ's system can also be operated by a traditional video producer, obtaining a more creative and bespoke result that allows sharing the signal generated for its Visual Radio broadcasting with the TV channel. It allows for the connection of external video switcher control panels with physical keys and T controllers to switch the on-air signal.



Components



AEQ VisualRplus Video Switcher

The Visual Radio system proposed by AEQ is based on the AEQ VisualRplus switcher, a compact system that integrates all of the features required for the generation of a professional video signal. The configuration is based on a type Z1 Workstation with an Intel Core i9 processor with 32 GB of RAM, 1 TB SSD system disk, and a 4 TB HDD storage disk. A second network card allows you to separate the audio and video control. It incorporates Dante Virtual Soundcard for AoIP reception. With Windows 11 Pro. It includes a 28" monitor with 4K resolution. Its dimensions make it installable as a minitower or horizontally on a tray in a 4U-high standard rack. Visual Radio Software license in the ALL IN ONE mode is included. Includes Audio/Video Production Mixer with 8 inputs in SDI formats (installing optional card), HDMI, NDI®, STREAMING (RTSP or RTMP), Images or USB. Multi-layer Character Generator, Streaming, A/V PLAYER. File and Base Band input, 12 Audio channels Mixer, PTZ Camera Control, Effect Mixer, Recording Mixer, Capture Screen, Logo Insertion, Hour, Temperature and Humidity Insertion, Stopwatch, etc.

Optional Video Cards

If SDI video inputs and outputs are required, it can be equipped with a card offering 4 or 8 inputs and outputs.



AEQ BA20NDI professional cameras

Professional camera with PTZ/ NDI system and 20x optical zoom. With a high quality 1/2.7 inch CMOS HD sensor, it offers a 20x optical zoom plus a 16x digital one. The high SNR CMOS sensor with digital 2D and 3D noise reduction works well even under low light conditions, down to 0.5 Lux. It offers horizontal (-1700 to 1700) and vertical rotation (-300 to 900). Multiple control ways, IP with NDI protocols among them. It's a live transmission professional Full HD camera which can simultaneously produce video with resolution up to 1080p at 60 fps in 3G-

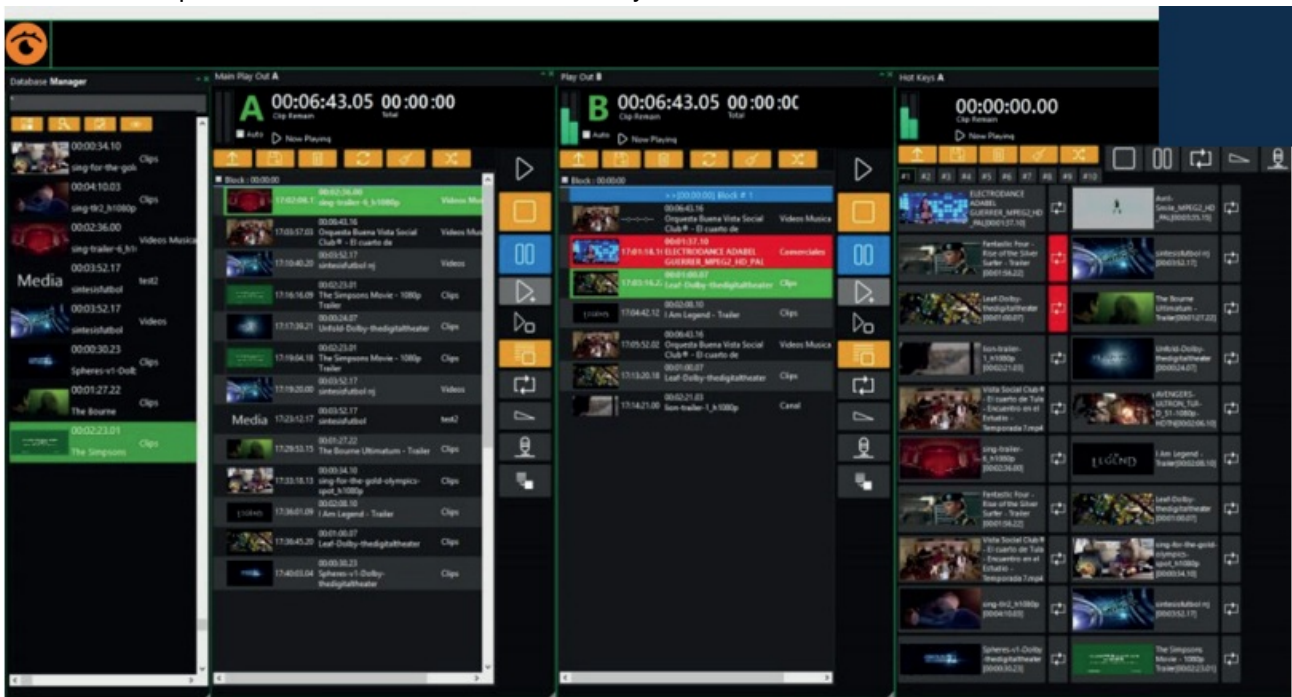
SDI & HDMI, and IP streaming flows (MJPEG & H.264 & H.265). Compatible with PoE (802.3af), RTSP, RTMP, SRT, and other technologies.



Complementary Licences

AEQ MIX PLAYOUT

PLAYOUT PLUG IN, Multiformat playout system for automated 24/7 video broadcasting. With customizable SQL Databases, Metadata definition, automatic and Live Work functions, Configurable Broadcasting Programming Grids, Various Reports, User Control, Schedule, Hot Key, Video Trim, etc.



AEQ MIX CHROMA

MIX CHROMA PLUG IN. Allows you to create Chroma Key from 1 to 4 inputs simultaneously.

AEQ MIX RRSS1 (Social Networks)

PLUG IN for AEQ VisualRplus for Social Media integration allows you to send VisualRplus, Facebook, Twitter content, RSS or XML feed automatically or manually. Totally customizable, with styles, text, graphics, and user-

defined filters to avoid non-desired data. This module works remotely on any PC in the network and does not require internet access in the AEQ VisualRplus switcher license valid for the first year of use. Includes updates released during the first year.



AEQ MIX RRSS+

Usage time extension of the PLUG IN AEQ MIX RRSS1 for an additional year since the end of the initial or previous license. Includes updates released during that year.

AEQ MIX CAL

CAL (Client Access License). Each CAL allows you to perform functions such as file input, executing the Character Generator, etc. from a different Microsoft Windows® or MAC® device in the network.

Hardware and complementary

RECOMMENDED PC

Additional PC recommended for programming from outside the Video Switcher. Compatible with the AudioPlus automation system. Includes 24" monitor. Allows for the installation of AEQ MIX CAL or AEQ MIX RRSS plug ins to prepare work outside the Principal WS.

AR2100X01

24-port Ethernet switch with PoE.

CAMERA CONTROL THROUGH AUDIO

Depending on the audio console used in your system, it should include one of the following options to be able to provide information about each microphone level to the camera controllers. ATX VX, FORUM VX, CAPITOL VX: Audio level detector license for AEQ ATRIUM, FORUM y CAPITOL consoles, respectively.

NETBOX 8 AD VX



Interface and 16 channel audio level detector. It works as a multichannel level detector for camera selection in Visual Radio systems. It reads the audio levels at its 4 analog, 4 digital and 8 Dante inputs and sends the reading to the AEQ VisualRplus Visual Radio system through the IP network. Dimensions: 1U x 1/2 19", (207x41mm).

NETBOX 32 AD VX

Interface and 64 channel audio level detector. It works as a multichannel level detector for camera selection in Visual Radio systems. It reads the audio levels in its 16 analog, 16 digital and 32 Dante inputs and sends the reading to the AEQ VisualRplus Visual Radio system through the IP network. Dimensions: 1U x 19 “.



Operative Description

Basic System

Integrated multi-application system developed and integrated for Visual Radio, also valid for multimedia programming for TV, social, corporate or institutional events, etc. In the “All in One” mode, it integrates audio and video mixer, video broadcasting templates, streaming, IP or base-band video input, file input, etc. Configurable on a single PC or using distributed workflow between multiple systems in the network.

Includes broadcast-performance Character Generator Editor (CG)

Multilayer CG, Graphics and Titling in Real Time, Compatible with AVI files with Alpha Channel, TGA and PNG file types, Multiple Crawl broadcasting, Rolls, Branding, Videos, Stopwatch, Time, Temperature and Humidity, Logos, etc.



Operating capabilities

VisualRplus' flexibility allows you to perform multiple operations, depending on its configuration:

- Up to 8 inputs mixer.
- Operating Resolution up to 1920x1080px.
- Compatible with NDI@ protocol.
- Up to 8 SDI, HDMI, NDI@, STREAMING (RTSP or RTMP),
- USB or image inputs.
- 2 SDI or HDMI or NDI' outputs + RTMP STREAMING.
- Live video Streaming Encoder.
- Fx MIXER with up to 4 Channels for Picture In Picture.
- 6 superimpose graphic layers.
- 1 Recording Channel.

- Multiformat AV-Player with individual playback.
- Definition of multiple PiP Preset.
- Up to 8 simultaneous videocalls via NDI@ or STREA-
- MING (RTSP or RTMP).
- iOS or ANDROID remote control.
- Touch Screen Monitor Option.
- PTZ, WEB, HDMI y SDI camera support.
- Unlimited transitions.
- Macro programmer.
- On-screen preview.
- Real-time Time Capture Screen.
- Audio Mixer.
- Control surfaces.
- IP Integration with AEQ consoles.
- IP integration with AEQ AudioPlus automation system.
- GPI/GPO.

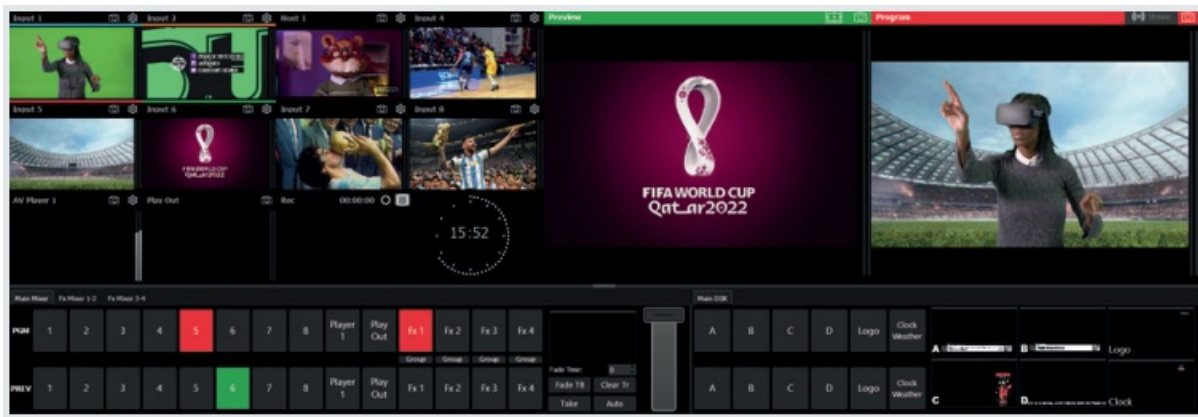
AEQ MIX PLAYOUT Option

For automatic muliformat video playout and broadcasting on a 24/7 basis. Metadata Definition, Automation and live broadcasting functions, configurable playout grids, Various Reports, User Control, SQL Database, Scheduler, Hot Key, Video Trim, etc.



AEQ MIX CHROMA Option

Allows you to create Chroma Key from 1 to 4 inputs simultaneously.

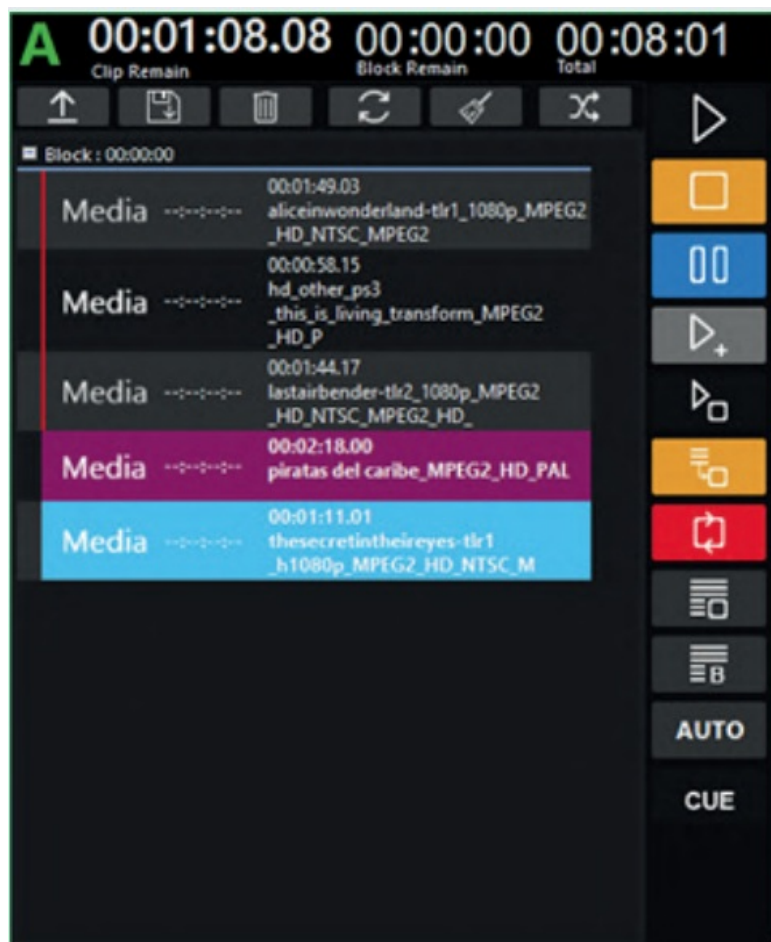


AEQ MIX RRSSI Option

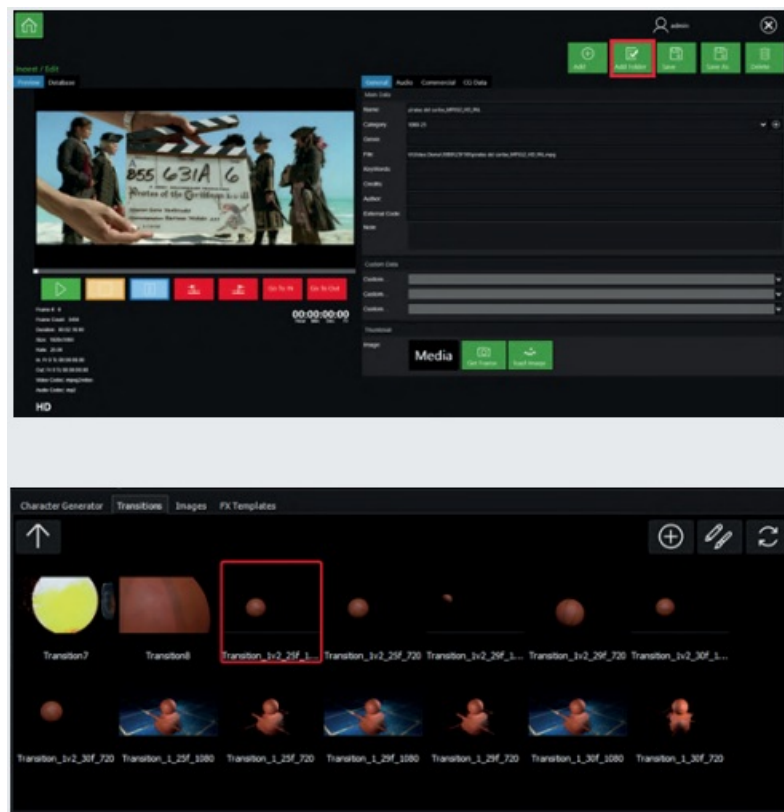
Allows content from Facebook, Twitter, RSS feed or XML to be sent to VisualRplus automatically or manually, fully customisable, with user/defined styles, text, graphics, filter to avoid unwanted data.

Application Functions

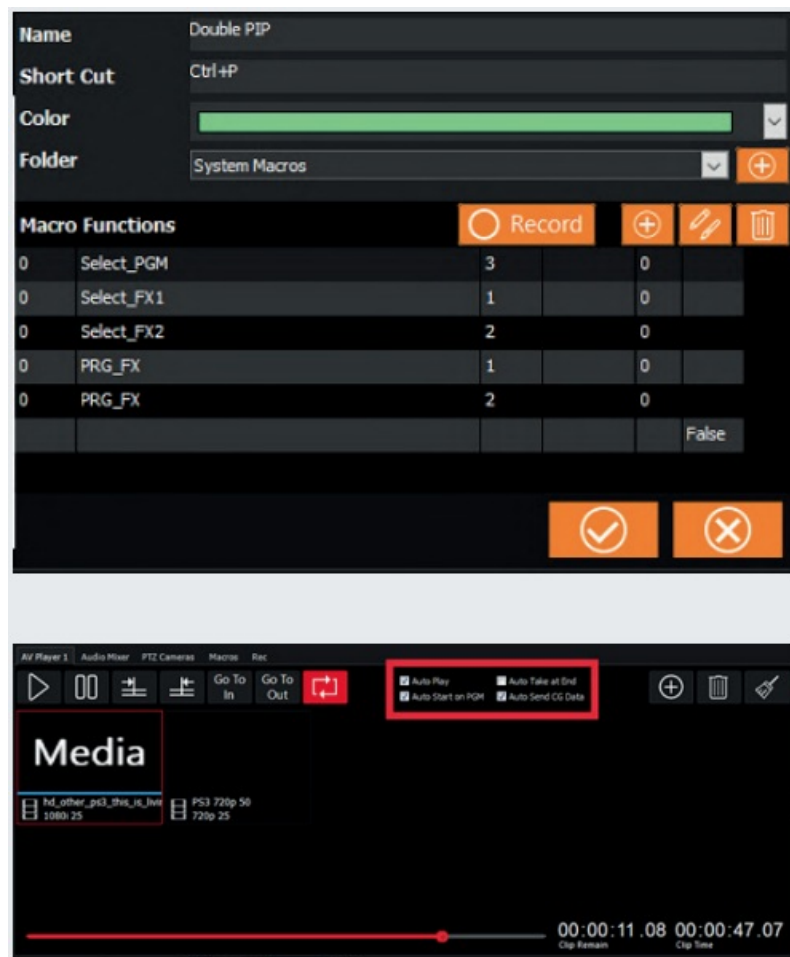
- Video File Intake.
 - Video image extraction.
 - Video crop.
- AV mixer module.
 - Input assignment.
 - Choice of input images.
 - Input delivery to PRV and PGM.
 - Automatic and manual transition generation.
 - Picture in picture (PIP) management.
- PTZ camera control.
- AV player playlist management.
- Macro management: programming, execution, edition.
- Recording from an input, preview or program.
- Creation and modification of screen templates. CG (Computer graphics edition) with automatic filed information insertion.
 - Template generation with element placement.
 - Generation of transitions between templates.
 - Adjustment and sorting of images and other objects on the templates.
 - Image edition from inside the template.
 - Video insertion with loop playback option.
 - Insertion and formatting of still and moving texts.
 - Date, time, temperature, humidity, thermic sensation, and score data insertion.



- Selection and adjustment of the program's audio.
- Database module with:
 - Users and access privileges.
 - Clients and their characteristics.
 - Management of content categories and subcategories.
 - Management of customized databases.
 - Artists management.
 - Management of playback registries and reports exportation.
- General configuration module.
 - Operation video and audio formats.
 - Activation of video and audio output devices and formats.
 - Activation of video and audio input devices and formats.
 - Integration of additional SDI video cards.
 - Camera configuration: USB, 1B SDI.



- Auxiliary audio inputs.
- Streaming profiles.
- Input distribution between monitors.
- Recording characteristics.
- Mixer sessions or instances.
- License control.
- MIX PLAYOUT option for playlist management with:
 - Video search and insertion.
 - Playlist creation with sequential or random reproduction.
 - Playout events insertion.
 - Insertion and removal of external programs in the playout.
- ON AIR MIX CHROMA Option. Allows you to create Chroma Key from 1 to 4 inputs simultaneously.
- MIX RRSS option.
 - Allows you to send Facebook, Twitter, RSS or XML feed contents automatically or manually to VisualRplus.
 - Totally customizable styles, text and graphics.
 - Includes user-defined filters to avoid undesired data.



Get a wider audience

- Give your programmes more dynamism
- Maximize your channel's revenue opportunities

AEQ – HEADQUARTERS

Margarita Salas, 24 28919 Leganés • Madrid • Spain

- **Tel.:** +34 91 686 13 00
- **Fax:** +34 91 686 44 92
- **website:** www.aeq.eu
- **e-mail:** aeqsales@aeq.es

AEQ CATALUNYA

- Tel.: +34 93 414 03 96
- e-mail: nolivella@aeq.es
- AEQ – PORTUGAL
- Tel.: +351 917 529 243
- e-mail: apicarra@aeq.es

Frequently Asked Questions

Q: What type of cameras are recommended for use with AEQ?

A: HD IP NDI cameras in PTZ format are recommended for seamless integration and automated operations.

Q: How can I trigger manual actions using the consoles?

A: You can manually trigger actions such as clips or camera shot changes through the programmable keys of Capitol, Forum, and Atrium consoles.


Q: Can VisualrPlus be used to combine real-time images and videos?

A: Yes, VisualrPlus allows you to combine real-time images from the radio studio with other videos to create a parallel video program alongside radio audio.

Q: What are the recommended inputs/outputs for AEQ?

A: AEQ supports IP and HDMI video inputs and outputs, with optional SDI and analogue connections for added flexibility.

Documents / Resources

	<p>AEQ VisualRplus Visual Radio System [pdf] Owner's Manual Capitol, Forum, Atrium, VisualRplus Visual Radio System, VisualRplus, Visual Radio System, Radio System, System</p>
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References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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