

# Channel in a Box

Integrated playout solution

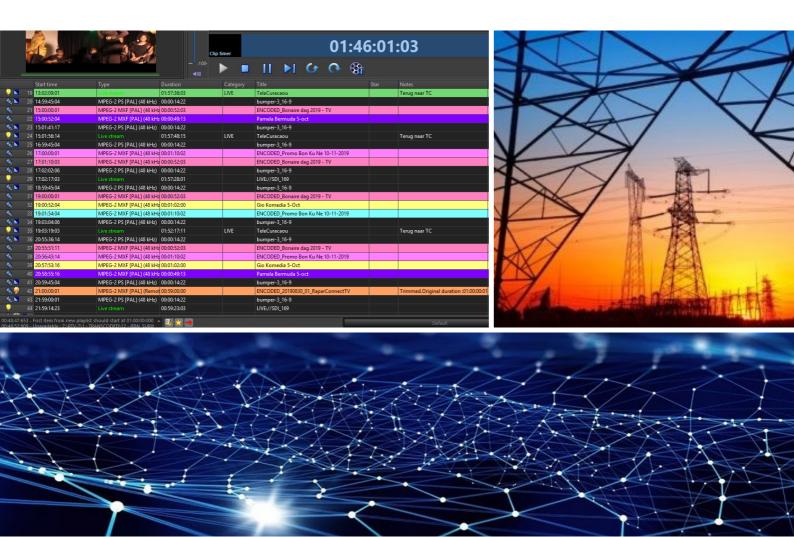
#### ABOUT CHANNEL IN A BOX

PlayBox Technology has incorporated its most advanced playout engine which is the result of over 15 years of experience in developing playout solutions for the world's leading broadcasters. We have designed a user friendly ingest which also gives you the ability to FTP your media straight to the Channel In A Box, saving you time.

PlayBox Technology TV Channel-in-a-Box provides an integrated playout solution for broadcasters and OTT service providers in a 1RU or 3RU server, regardless if you are working with IP or SDI. The CIAB will enable you to playout an IP stream or an SDI in SD, HD or UHD. PlayBox Technology's CIAB takes care of all your scheduling needs and uses Simple, clean and engaging HTML5 for your transmission graphics needs including crawlers and rollers. As you would expect from PlayBox Technology it offers sophisticated and easy to use automation.

The new Graphics' engine now supports HTML 5 which gives far more flexibility and opens up advanced features and flexibility. Furthermore, it is available as a complete turnkey solution for single channel or multichannel HD SDI/SD.

PlayBox Technology offers the CIAB solution at breakthrough pricing levels while maintaining the highest levels of reliability, flexibility and support.



#### Tried, Tested, Trusted and Available Now

Whether located in a city centre, in a suburb or out in the countryside, these all have one thing in common: space is at a premium from the moment a racks room has been built. The broadcast industry is in a state of continuous transformation, trying to accommodate new channels or augment existing output with extra services such as high definition, IP-based catch up, multiple languages or second screen.

PlayBox Technology pioneered the CiaB approach. This has now reached the point where an entire standard-definition or high-definition channel can be accommodated in just one rack unit including graphics, character generation and branding.

It is normal procedure in broadcasting to run primary and secondary systems with automatic switchover as a safeguard against on-air failure. On that basis, CiaB with full redundancy becomes synonymous with 2 rack units per channel. A single backup can of course be implemented across several channels.

A modern CiaB system should incorporate practically everything required for a channel to function locally, remotely or if necessary completely unattended. That includes all the hardware and software required to allow ingest, scheduling, playout, graphics, logging, subtitling and billing. Plus the system control GUIs, multiple terabytes of fast-access hard-disc storage. In a typical installation, almost the only thirdparty device we have to provide is a router.

#### FEATURES

• Compatible with a vast variety of compression types: MPEG-2, DV, DVCPro, DVCPro HD, AVC/H.264, HAVC/H.265, XAVC etc.

• Supports a multitude of media containers: MPEG-2 program and transport streams, AVI, QuickTime, MP4, MXF, GXF, LXF etc.

- SMPTE2016-3 AFD Support
- Advanced time-based scheduling with automated conflict resolving
- · Simultaneous video scaling of both live input and playlist output

• Mixing different media formats, frame rates and resolutions in a single playlist

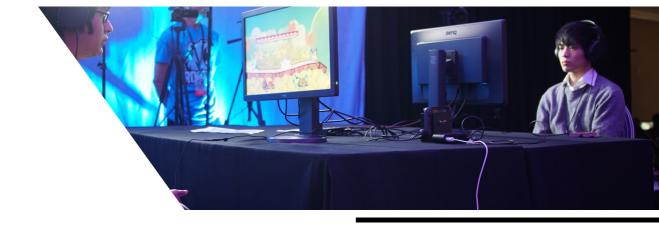
- Ingest via FTP
- Playback of clips still being ingested
- Built-in static and animated logos support
- · Dolby Digital Plus and Dolby-E audio media playback and output

• Automatic audio routing and remapping based on audio language, type and other metadata

Automatic Loudness Control

• Live sources from SDI, Youtube, Facebook, Twitter, MPEG-2 TS (UDP/ RTP), HTTP(S), RTMP, MMS(H)

- SCTE 104/35 generation for commercial insertion
- SCTE-104 Decoder for Digital Program/Commercial Insertion (optional)
- UDP/RTP/RTMP stream output
- Metadata support for text-rich graphics insertion
- Detailed playout log (AsRun log, System log)
- · Live Show Clipboard for on-the-fly event and live stream insertion
- Third party devices control (video routers, video mixers, DTMF, GPI, etc.)
- Remote playout control through VDCP, GPI, DTMF, Network API, etc.
- Redundant Playout





### SPECIFICATIONS

Video	
Video Input IP	<ul> <li>SMPTE ST 2110, 2022-2 2022-6, 2022-7</li> <li>Up to 4-Channels input available</li> <li>RTMP</li> <li>HD SDI</li> <li>H265, H264</li> <li>MPEG2</li> <li>Single channel input HD</li> <li>Single channel input HD</li> </ul>
Video Input SDI	•2G-SDI, SMPTE-2082, 12-bit, 10-bit and 8-bit •6G-SDI, SMPTE-2081, 10-bit and 8-bit •3G-SDI, SMPTE-259/292/296/424/425, 12-bit, 10-bit and 8-bit •1.5G-SDI, SMPTE 372M
Video Output IP	<ul> <li>SMPTE ST 2110, 2022-6, 2022-7</li> <li>Up to 4-Channels output available</li> <li>RTMP •HD SDI •H265, •H264 •MPEG2</li> </ul>
Video Output SDI	•2G-SDI, SMPTE-2082•12-bit, 10-bit and 8-bit 6G-SDI, •SMPTE-2081, 10- bit and 8-bit 3G-SDI, •SMPTE-259/292/296/424, 12-bit, 10-bit and 8- bit1.5G-SDI, •SMPTE 292M, Single Link 4:2:2 (1x BNC), 10-bit and 8-bit
Video Formats A u d i o	• (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 • (2K) 2048 x 1080PsF 23.98, 24, 25, 29.97, 30 • (HD) 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 • (HD) 1080PsF 23.98, 24, 25, 29.97, 30 • (HD) 1080i 50, 59.94 • (HD) 720P 50, 59.94, 60 • (SD) 625i 50 • (SD) 525i 59.94 SMPTE ST 2110
Audio Input IP	Up to 16-Channel embedded audio (SMPTE 2022-6, 2022-7 HD SDI), 24- bit per channel, 48 kHz synchronous
Audio Output IP	Up to 16-Channel embedded audio (SMPTE 2022-6, 2022-7 HD SDI), 24- bit per channel, 48 kHz synchronous
Program features	
Commercial Insertion	<ul> <li>SCTE 104/35 generation for commercial insertion</li> <li>SCTE-104 Decoder for Digital</li> <li>SCTE-104 Decoder for Digital Program/Commercial Insertion</li> </ul>
Timecode Graphics	LTC timecode input and output HTML 5 crawlers and rollers



## Channel in a Box

