Dalet Brio

Flexible Codec Support

- Dalet Brio supports a very wide range of software codecs. In order to ensure broad interoperability, industry-standard wrappers such as QuickTime & MXF are supported, allowing seamless workflow integration with third-party NLEs and Dalet production tools. Dalet Brio can play any supported files, including a mix of SD and HD, on the same timeline, back-to-back with dynamic cross-, up- and down-conversion of the video signal, as well as the video signal, aspect ratio modifications.

Rich Feature Set

- Dalet Brio is designed to run as a standalone video server, or to seamlessly integrate with other applications to meet the needs of Sports, News, Production, Program Management and Archive workflows. Dalet Brio can also be controlled using VDCP, BVW, FIMS Capture or its API protocol making it simple to integrate with 3rd party control or automation.

Proven Reliability

- With more than 600 deployments news, channel automation, MAM & QC and Sports production, Dalet Brio has a successful track record that spans just about every broadcast server workflow scenario. More than its versatility, Brio has proven its load tolerance and scalability capabilities, supporting large content producers and broadcasters.

Dalet Brio

Dalet Brio is an innovative and cost-effective platform for broadcast customers looking for non-proprietary hardware to digitize and playback their content, either as a complement or replacement of their existing video servers.

Built on an IT-based input and output video platform, it seamlessly integrates with Dalet Solutions to provide a highly flexible and scalable end-to-end solution.

Dalet Brio units are designed to ingest and playout broadcast quality video in Proxy, SD, HD and UHD formats. They come in a variety of input / output or local / central storage combinations. Each unit is built on robust IT equipment with built-in redundancy.

New in this version:

- Web Ingest Scheduler – Associated recordings
- Web Ingest Scheduler – Loop recordings with extraction
- Web Ingest Scheduler – Event Logger integration
- Hardware up-conversion from HD 1080i to UHD 50/60p
- Dynamic insertion of WST subtitles from STL files
- Preservation of WST subtitles during up/down conversion*
- XAVC 4K Intra ingest/playout with HDR preservation*
- Media Navigator – Rundowns import from NRCS using MOS
- MXF Op1a JPEG-2000 Playout (option)

New in the previous Version (v3.4):

- Web Ingest Scheduler with router control and RESTful API
- SMPTE-2022-2 Playout (H264/AAC) – Baseband and IP Simulcast
- SMPTE-2022-6 Ingest and Playout
- Hardware up-scaling on input (SD to 1080i)
- Audio routing on ingest and playback
- Sony XAVC LongG HD and 4K Intra Ingest with hardware acceleration
- Backup Copier – Export to FTP while ingest

Check availability

Dalet Brio Configurations

Channel Configurations
Brio 1 – 1in/1out multi-rate HD / SD SDI

Reconfigurable models with frame synchronisers on inputs and UHD support
Brio 4 Basic – 4 reconfigurable i/o multi-rate SD / HD / 3G SDI (no AES/EBU, no hardware processing)
Brio 4 – 4 reconfigurable i/o multi-rate SD / HD / 3G SDI
Brio 6 – 6 reconfigurable i/o multi-rate SD / HD / 3G SDI (software upgrade to 8 and 12)
Brio 8 – 8 reconfigurable i/o multi-rate SD / HD / 3G SDI (software upgrade to 12)
Brio 12 – 12 reconfigurable i/o multi-rate SD / HD / 3G SDI

Model with SMPTE-2022-6 support
4in/4out multi-rate SD / HD / 3G with SMPTE-2022-6 connectivity (2x 10Gb SFPs)

CPU Configurations
Base and Performance

On-board Storage Configurations
3.3TB - 133 hours @50Mb/s
6.6TB - 267 hours @50Mb/s
9.8TB - 400 hours @50Mb/s
13TB – 530 hours @50Mb/s
22TB - 850 hours @50Mb/s

Additional local/shared storage available upon request.

Codec/Wrapper Support

Wrappers
MXF Op1a, MXF Op Atom
QuickTime Reference, QuickTime Self-Contained
MP4, AVI, MPG, WMV

Proxy
MP4 H264/AAC - Configurable profile/level/GOP size/bitrate/resolution
WMV
DALET MPEG-2 Proxy

SD (PAL, NTSC)
DV25, DV50, DVCPro25, DVCPro50
D10 IMX 30-40-50
MPEG-2@ML - 4:2:0 I-Frame 2-15 Mb/s - 4:2:2 Long GOP 10-50 Mb/s

HD (720p50/59.94, 1080i50/59.94, 1080psf23,98, 1080p23,98, 1080p50/59.94)
DVCProHD
XDCAM HD - 4:2:0 (18-25-35 Mb/s) - 4:2:2 (50 Mb/s)
Avid DNxHD® 120/145 (8-bit), 185/220 (8-bit), 185x/220x (10-bit)
Apple ProRes 422LT-422-422HQ
AVC-Intra Class 50/100
Sony XAVC Intra and Long GOP
Panasonic AVC-LongG (playback only)
MPEG-4 SStP SQ/Lite
MPEG-2@HL - 4:2:0 I-Frame 5-80 Mb/s - 4:2:2 Long GOP 5-300 Mb/s
JPEG-2000 (playback only, optional)
Uncompressed

UHD
Apple ProRes 422LT-422-422HQ
Sony XAVC 4K Intra

General Specifications

Video specifications
SD SDI: SMPTE 259M, ITU-R601, 525/625 line component, 10-bit
HD-SDI : SMPTE 292M, 10-bit
75 Ohms BNC
ITU-R BT.601 (data and electrical)

Dynamic conversions
Output : PAL <-> 1080i50, PAL <-> 720p50
Output : NTSC <-> 1080i59.94, NTSC <-> 720p59.94, 720p59.94 -> 1080p59.94
Input : PAL -> 1080i50, NTSC -> 1080i59.94
Aspect ratio : AFD and WSS support for aspect ratio conversion (per channel)

Special modes
Instant Replay and slow motion
Video + key
2D Graphics engine on each output channel
Loop recording with extraction and time delay
Ingest Once Write Many

Video playback
Any supported format can be played seamlessly back-to-back

Audio
Record and play up to 16 tracks

Embedded audio tracks
16 tracks embedded per channel SDI (8AES-EBU)
Supports SDI embedded audio compliant with SMPTE 272M (SD) and SMPTE 299M (HD).

Discrete AES/EBU audio tracks
Brio 1 : 4 tracks for input (2 AES pairs), 4 tracks for output
Brio 4/6 / 8 /12 : Pool of 32 tracks (16 for inputs, 16 for outputs)

Audio specifications
Input : 48 kHz, 16-bit, 20-bit or 24-bits digital audio PCM
Audio clock genlocked to video reference in accordance with SMPTE 272M and AES11-1997

Compressed audio types:
Any video clip with supported audio format can be played seamlessly back-to-back
Dolby-E pass-through.

Reference Genlock
Analog blackburst reference (tri-level or bi-level), SDI input as reference or free running mode.
External termination with LOOP connector
Sub-pixel adjustment at 0.9 ns/step with respect to genlock in SD
Sub-pixel adjustment at 0.7 ns/step with respect to genlock in HD
Flywheel on genlock.
Connector : BNC, 75 Ohms with loop through

Timecode
LTC SMPTE 12M for external "house" timecode
Connector : BNC
LTC and VITC reader/writer per channel
HANC timecode support
1 LTC input and 1 LTC output per channel (Brio 4/6/8/12 only)

Video Preview
Customizable text overlay per channel
Streaming multiviewer for remote preview in a web browser

Control
BVW, VDCP over serial /IP
FIMS Capture V1.1 - RESTful implementation
Administration API – RESTful
Ingest Scheduler API – RESTful
Private API - DCOM

Redundancy
Dual hot swappable power supplies
RAID1 for system drives, RAID50 or RAID6 for data drives
Hot spare drives
Dual 10Gb or Quad 1 Gb Eth network attachment
Dual FC attachment

Monitoring
SNMP, WMI
Brio Administration API (RESTful)

Connectivity
Four 100/1000Base-T Ethernet ports or Two 10Gb Ethernet
One USB 3.0 front, two USB 3.0 rear
One 15-pin SVGA
Multi-serial ports board (optional)

File transfer protocols
CIFS, FTP

Dimensions
Width: 44.55 cm (17.54 in.)
Height: 2 RU 8.9 cm (3.5 in.)
Depth: 74.93 cm (29.5 in.)
Weight : 28 kg (60 lbs) maximum

Power requirements
Dual redundant Power supply, 750W hot-swap
50-60 Hz, 100-240 VAC

Environmental characteristics
Operating temperature :+10°C to +35°C
Non-operating temperature(not in use): -30°C to +60°C

Want to know more?

Dalet Digital Media Systems software solutions are used by Content Owners, Broadcasters, Sports Organizations and Post Production Facilities worldwide.

To find out more, contact your local Dalet channel partner, or contact Dalet:

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