

# AJA BRIDGE LIVE – Release Notes v1.16

## Turnkey System for Live Encoding, Decoding, Transcoding and Streaming

### Introduction

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BRIDGE LIVE v1.16 is a major update, which includes a new operating system (OS), customer feature requests, and important bug fixes. It is recommended that all BRIDGE LIVE systems update to this new version.

### Documentation

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For initial System Setup, see the BRIDGE LIVE Quick Start Guide that was included in the box with BRIDGE LIVE.

- The Quick Start Guide is unique to each BRIDGE LIVE system since it contains the admin and transcoder passwords necessary to gain access to the system for the first time.

The BRIDGE LIVE Manual is available via the AJA website:

- <https://www.aja.com/products/bridge-live#support>
  - Under the Manuals heading, the BRIDGE LIVE manual can be selected for viewing and/or downloading.

The BRIDGE LIVE Tech Specs are available on the AJA website:

- <https://www.aja.com/products/bridge-live#techspecs>

### New Features (Requires active Annual Maintenance Option)

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- SRT Bonding Redundancy over Public Internet: Hitless protection switching technology which relies on more than one IP network path to prevent disruption to live video streams in the event of network congestion or outages by maintaining continuity of service. SRT Bonding is a new feature that provides a mechanism for increasing the reliability and quality of live video streams over IP networks.
- Timecode Insertion in SEI (supplemental enhancement information): Supports inserting Timecode into SEI for encoding into HEVC or H.264 streams. The timecode inserted can be set to lock to NTP (Network Time Protocol), which must be configured on the sending BRIDGE LIVE via the active settings.ini file.

- Dolby E Passthrough support: Supports 20-bit Dolby-E passthrough. 16-bit Dolby E is not supported. Provides the capability to receive and send Dolby-E within SDI or MPEG-TS audio. Does not provide access to decode or encode to/from Dolby-E and AES-3; it is only a passthrough feature.
- AAC-HE v1 and v2: Encode and decode on any codec supporting AAC. Supports ADTS and LATM.

## Improvements (With or without Annual Maintenance Option, applies to already supported features)

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- New Rocky Linux 9 operating system: Previous CentOS 7 went EOL in June 2024. Rocky Linux 9 is a long-term stable release. This is a compatible upgrade, meaning a system downgrade to a previous version will work.
- SRT v1.5.3 update: Enables SRT bonding redundancy over public internet for servers (with active Maintenance Option). SRT v1.5.3 is a fully backward compatible version of SRT, ensuring previously built workflows will still function.
- NDI v5.6 update: Supports multiple NDI Discovery Servers; configured in the active settings.ini file.
- NDI Frame Sync selection added to UI.
- Reference detection: Provides reference input status for SDI output genlock.
- Monitoring Service: Provides a centralized view of pipelines between multiple BRIDGE LIVEs and Comprimato's Live Transcoder instances. The Monitoring Service connects through Comprimato's server portal to provide a comprehensive view of each pipeline on a dashboard. The dashboard is accessed via a web browser. Use of this feature requires internet access.
- 'Sink' name change on output:
  - 'Configure sinks' is now named 'Configure destinations'
  - 'Add new sink' is now named 'Add new destination'
- Log levels up to INFO preserved for console/journal (part of diagnostic package).
- AJA SDK and Drivers updated to v17.0.1.
- SCTE-35 recognition and passthrough, MPEG-TS -> MPEG-TS.
- Dashboard Stream Statistics improvement.
- Prefill input IP as the first IP of the selected NIC.
- Reorder input boxes, add ANY interface implying 0.0.0.0.
- TR01 automatic adaptation to different mfg versions. Removed 'compliance with' from input.
- Hostname added into System Info page.
- Added /API/system/hostname REST endpoint to retrieve hostname via REST API.
- Precise estimation of output TS bitrate, includes fine-tuned restriction for total bitrate overhead.
- Show minimum allowed bits when bitrate is set too low on output.
- TR-07 JPEG XS compliance improved: computation of Plev (level and sublevel) in (JXS ES) header.
- Limits for maximum video resolution are available in settings.ini.
- First birthday build uses GPU Display Port instead of VGA.
- NDI source improvements:
  - PCR based on audio
  - Limit AV diff to [-250-250] MS
  - Limit audio coming too fast
- Total output bit rate addition of 'Automatic' setting. Enabled by default.

- NDI manual Source entry.
- NDI Frame Sync control added to UI.
- Correct latency constants file used in all setting files. Setting -1 in the manual latency addition field will enable dynamically calculated latency addition (PTS offset) for each pipeline, rather than a fixed latency. There is an info balloon on the field.

## Resolved Bugs (With or without Annual Maintenance Option, only applies to already supported features)

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- Avoid drops caused by violating latency constraints from NDI source (use only positive PTS offsets).
- NDI Stuck when scan rate changes.
- Input Auto-Reconfiguration:
  - Missing audio prevents pipeline from auto-reconfiguring (output pairs and quad cases)
  - PIDs of are not preserved in passthrough
  - SDI ANC passthrough continues working when sample rate or bit-depth of audio is changed
- Enable processing of MPTS where PIDs of PMTs of different programs are equal.
- UI: audio dialog errors not shown.
- Audio 3 channels downmix to stereo.
- SDI ANC passthrough continues working if auto-reconfig is enabled and sample rate or bit-depth of audio is changed on input.

## Downloading and Applying Software Updates from AJA.com

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### Download the Latest BRIDGE LIVE Update

- Using a separate host system, connected to BRIDGE LIVE, use a web-browser to reach:
  - <https://www.aja.com/products/bridge-live#support>
- Under the Software heading, the BRIDGE LIVE package can be selected for download.
- Download the package to the separate host-system, connected to BRIDGE LIVE.

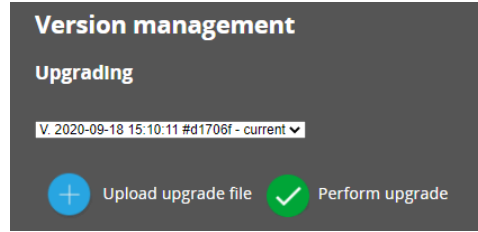
### Unpack BRIDGE LIVE Update

- The update downloaded from AJA.com is a “ZIP” file that can be opened with OS tools or third party applications.
- Extract the contents of the ZIP file (unzip). This will present a folder containing the BRIDGE LIVE Product Manual, Release Notes, and the appropriate software update/upgrade.

## Follow this procedure to update BRIDGE LIVE:

1. WARNING: Before performing an upgrade, be sure to backup your Pipeline configurations.
  - See "Creating and Loading Preset Configurations for Streams" in the BRIDGE LIVE Manual for details.
2. Using the BRIDGE LIVE GUI proceed to Setup > Version Management.
3. Choose "Upload upgrade file". Navigate to the unzipped software update and select.
4. Choose Perform upgrade.
5. Confirm the pop-up window stating that the BRIDGE LIVE unit will have to reboot after the update process completes.
6. Following reboot or restart, a login will be required.

*NOTE: While updating software, do not remove power.*



## Technical Support

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### To contact AJA Technical Support:

Email: [support@aja.com](mailto:support@aja.com)

Phone: +1-530-271-3190

Fax: +1-530-274-9442

Web: <https://www.aja.com/support/contact>

Shipping: 180 Litton Dr. Grass Valley, CA 95945 USA