



# ***K2 Edge Version 4.1 Release Notes***

## ***Grass Valley Product Support***

Contact information: <http://www.grassvalley.com/support/contact>

U.S Technical Support: +1 800-547-4989 or +1 530 478 4148 or E-mail: Please use our online form

All other countries Technical Support: +800 80 80 20 20 or +33 1 48 25 20 20 or E-mail:  
[callcentre@grassvalley.com](mailto:callcentre@grassvalley.com)

FAQ: <http://grassvalley.novosolutions.net/>

Training: [https://grassvalley.csod.com/LMS/catalog/Main.aspx?tab\\_page\\_id=-67&tab\\_id=6](https://grassvalley.csod.com/LMS/catalog/Main.aspx?tab_page_id=-67&tab_id=6)

# Release Summary

## Compatibility

The features described in this note require following versions:

- K2 Edge 4.1
- nexos 3.7
- TX/MAM 2.4
- Playout Control 2.87
- TX/Dashboard 1.2



Please refer to the *K2 Edge Smart Playout Center Upgrade Instructions* on the grass valley website > Resources > Documentation Library > Smart Playout Center for upgrade instructions.



Please refer to the grass valley website > Resources > Documentation Library > Smart Playout Center for latest documentation.

## What's new in version 4.1

### Channel Management in TX/MAM

Define Channels in TX/MAM (previously Cobalt Asset Manager).

### User management in TX/MAM

Set User Rights for Channels and Playout Control in TX/MAM (previously Cobalt Asset Manager).

### Flag configuration in TX/MAM

Configure Playout Control Flags in TX/MAM.

### Subtitle workflow for multiple different languages (ingest and playout)

Link multiple language subtitle files to an Asset. Subtitle files and Asset are automatically linked during ingest.

## **Using ffmpeg version SVN-r18541.**

ffmpeg version SVN-r18541 is used for encoding and decoding content.

## **Support for GPIO in IP-Manager**

Define GPIO events via the IP Manager web interface to trigger events or templates on the K2Edge when a GPI is coming in.

## **VDS Video Delay Server**

The Video Delay Server is capable of delaying SDI-signals out of the box. The system can be configured to delay an input signal or output signal. Not only the video is delayed, but all other information stored in the signal such as audio and services as well. Possible workflows:

- Basic: the incoming signal is delayed with X minutes and played out. Configure via the IP Manager.
- Delay + overlay graphics: Configure via the IP Manager. Requires a Channel Pack with Templates that are triggered via GPIO and add graphics to the incoming signal.
- Delay + overlay scheduled graphics: this is possible on the K2Edge with VDS option and requires commissioning.

## **Support tool (log grabbing) available from TX/Dashboard**

Grab log files from the K2 Edge and view via TX/Dashboard.

## **Combined TX/MAM ini files in one single file**

The TX/MAM ini-files

- application.ini
- ingest.ini
- txmam.ini
- videoFtp ini

have been combined in one single file `/usr/local/apache2/application/config/txmam.ini`.

## Cross conversion

Added:

- Supporting 720@50p content (file or SDI input) in 1080@50i or PAL broadcast mode, and vice versa.
- Supporting 720@5994p content (file or SDI input) in 1080@5994i or NTSC broadcast mode and vice versa.

The following tables define the K2 Edge supported broadcast formats with their related supported input media formats. For all of these tables we recognize the following conversion types:

- **AR** – Aspect Ratio conversion. Under user control via Channel Composer template.
- **Cross** – Cross conversion between formats with different but related frame rates, converting from interlaced to progressive format or vice versa. Fully automatic.
- **Down** – Downscale of larger video format to fit smaller broadcast format. Under user control via Channel Composer template.
- **Up** – Upscale of smaller video format to fit larger broadcast format. Under user control via Channel Composer template.

| <b>PAL</b>                          |                               | <b>SD, 720x576, interlaced, 25 frames/sec, AR 4:3</b> |   |
|-------------------------------------|-------------------------------|---|---|
| <b>Accepted input media formats</b> | <b>Frame rate<sup>1</sup></b> | <b>Conversions</b>                                    | <b>Comments</b>   |
| <b>PAL</b>                          | 25                            | None  | Native format.  |
| <b>720@50p</b>                      | 50                            | AR, Cross, Down                                       | Different (but related) frame rate, automatically cross converted from a progressive to an interlaced format. This includes conversion of a selected set of services. Video is scaled down via a Channel Composer template. |
| <b>1080@50i</b>                     | 25                            | AR, Down  | Close to native format in terms of video and audio, just more pixels. Video is scaled down via a Channel Composer template.   |

<sup>1</sup> Frame rate for all tables is in frames per second.

| <b>NTSC</b>                         |                   | <b>SD, 720x480, interlaced, 29.97 frames/sec, AR 4:3</b> |  |
|-------------------------------------|-------------------|--|--|
| <b>Accepted input media formats</b> | <b>Frame rate</b> | <b>Conversions</b>                                       | <b>Comments</b>  |
| <b>NTSC</b>                         | 29.97             | None   | Native format.   |
| <b>720@5994p</b>                    | 59.94             | AR, Cross, Down  | Different (but related) frame rate, automatically cross converted from progressive to interlaced format. This includes conversion of a selected set of services. Video is scaled down via a Channel Composer template. |
| <b>1080@5994i</b>                   | 29.97             | AR, Down   | Close to native format in terms of video and audio, just more pixels. Video is scaled down via a Channel Composer template.  |

| <b>720@50p</b>                      |                   | <b>HD, 1280x720, progressive, 50 frames/sec, AR 16:9</b> |   |
|-------------------------------------|-------------------|--|---|
| <b>Accepted input media formats</b> | <b>Frame rate</b> | <b>Conversions</b>                                       | <b>Comments</b>   |
| <b>PAL</b>                          | 25                | AR, Cross, Up  | Different (but related) frame rate, and automatically cross converted from an interlaced to a progressive format. This includes conversion of a selected set of services. Video is scaled up via a Channel Composer template. |
| <b>720@50p</b>                      | 50                | None   | Native format.  |
| <b>1080@50i</b>                     | 25                | Cross, Down  | Different (but related) frame rate, and automatically cross converted from interlaced to progressive format. This includes conversion of a selected set of services. Video is scaled down via a Channel Composer template.    |

| <b>720@5994p</b>                    |                   | <b>HD, 1280x720, progressive, 59.94 frames/sec, AR 16:9</b> |   |
|-------------------------------------|-------------------|---|---|
| <b>Accepted input media formats</b> | <b>Frame rate</b> | <b>Conversions</b>  | <b>Comments</b>   |
| <b>NTSC</b>                         | 29.97             | AR, Cross, Up   | Different (but related) frame rate, and automatically cross converted from an interlaced to a progressive format. This includes conversion of a selected set of services. Video is scaled up via a Channel Composer template. |
| <b>720@5994p</b>                    | 59.94             | None  | Native format.  |
| <b>1080@5994i</b>                   | 29.97             | Cross, Down   | Different (but related) frame rate, and automatically cross converted from interlaced to progressive format. This includes conversion of a selected set of services. Video is scaled down via a Channel Composer template.    |

| <b>1080@50i</b>  |                   |                    |  |
|--|-------------------|--------------------|--|
| <b>HD, 1920x1080, interlaced, 25 frames/sec, AR 16:9</b> |                   |                    |  |
| <b>Accepted input media formats</b>                      | <b>Frame rate</b> | <b>Conversions</b> | <b>Comments</b>  |
| <b>PAL</b>   | 25                | AR, Up             | Close to native format in terms of video and audio, just less pixels. Video is scaled up via a Channel Composer template.  |
| <b>720@50p</b>   | 50                | Cross, Up          | Different (but related) frame rate, automatically cross converted from progressive to interlaced format. This includes conversion of a selected set of services. Video is scaled up via a Channel Composer template. |
| <b>1080@50i</b>  | 25                | None               | Native format.   |

| <b>1080@5994i</b>   |                   |                    |  |
|---|-------------------|--------------------|--|
| <b>HD, 1920x1080, interlaced, 29.97 frames/sec, AR 16:9</b> |                   |                    |  |
| <b>Accepted input media formats</b>                         | <b>Frame rate</b> | <b>Conversions</b> | <b>Comments</b>  |
| <b>NTSC</b>   | 29.97             | AR, Up             | Close to native format in terms of video and audio, but less pixels. Video is scaled up via a Channel Composer template.   |
| <b>720@5994p</b>  | 59.94             | Cross, Up          | Different (but related) frame rate, automatically cross converted from progressive to interlaced format. This includes conversion of a selected set of services. Video is scaled up via a Channel Composer template. |
| <b>1080@5994i</b>   | 29.97             | None               | Native format.   |

## Changes and features in previous releases

### What's new in version 4.0.2

#### Support for 720p formats

K2 Edge 4.0.2 now supports the 720@50p and 720@5994p formats.

#### Cross conversion

K2 Edge 4.0.2 supports cross conversion (file and SDI-feed).

Supported broadcast (output) formats and supported input media formats are:

| Output broadcast format | Frame rate | Accepted media input formats                       |
|-------------------------|------------|--|
| <b>PAL</b>              | 25 fps     | PAL, 1080@50i, 720@50p (via cross conversion).     |
| <b>NTSC</b>             | 29.97 fps  | NTSC, 1080@5994i, 720@5994p (via cross conversion) |
| <b>720@50p</b>          | 50 fps     | 720@50p, PAL (via cross conversion)                |
| <b>720@5994p</b>        | 59.94 fps  | 720@5994p, NTSC (via cross conversion)             |
| <b>1080@50i</b>         | 25 fps     | 1080@50i, PAL                                      |
| <b>1080@5994i</b>       | 29.97 fps  | 1080@5994i, NTSC                                   |

#### Added service detection

Support for AFD-, ATC-, 608- and CDP services extracted from selected inputs. See the documentation for details and conditions.

#### Added copy-paste functionality for Events in POC for active Playlists

In POC, Events can now be copied-pasted in active Playlists, using CTRL+C (copy) and CTRL+V (paste).

#### Added drag and drop support for Events in POC for active Playlists

In POC, Events can now be dragged and dropped between active Playlists. Note that you cannot drag and drop Events that have already been played out. These Events can be copy-pasted.

### **Join In Progress (JIP)**

The Join In Progress (JIP) feature allows for a second, high priority Playlist to temporarily override the normal Playlist's output and when finished, join again with the normal Playlist that kept on running in the background. JIP works for any situation where a relatively short Playlist, for example breaking news, needs temporary control over the main program. The latter is merely suppressed and continues in the background until taking over again.

### **Gang roll**

The Playout Control (POC) Gangroll functionality is used to start a queued manual Event on multiple Channels at the same time.

### **Support added for MXF open header timecode**

In case an MXF has an open header, timecodes are now read from the last header, which has the correct values. Previously only the first header was read which could possibly contain not-up-to-date information.

### **Added ability to create an (empty) Asset in POC**

Create (empty) Assets in POC.