

LED Board Control Manual

English / Software Version 1.7.1.85

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Introduction

BM Banden Control and BM Render Engine are specially designed for use with LED board systems.

Installation

Download and install *.exe

Overview



1. Player operation
2. Center control with playlist add/delete, move, color adjustment, brightness adjustment and general settings
3. Event / Hotkey section to fire an extra playlist directly or as shotbox for playlists in general (selectable)
4. Media library with optional media info
5. Playlist
6. Optional menu for color and brightness settings
7. Client control for connection to render engines
8. A small preview - optimized for striped content
9. Log window / Notes
10. Transfer window for monitoring file transfer otherwise logo

The GUI application is optimized for a resolution of 1920 x 1080px. For 4k displays please set 200% zoom factor in the system for correct display on control device.



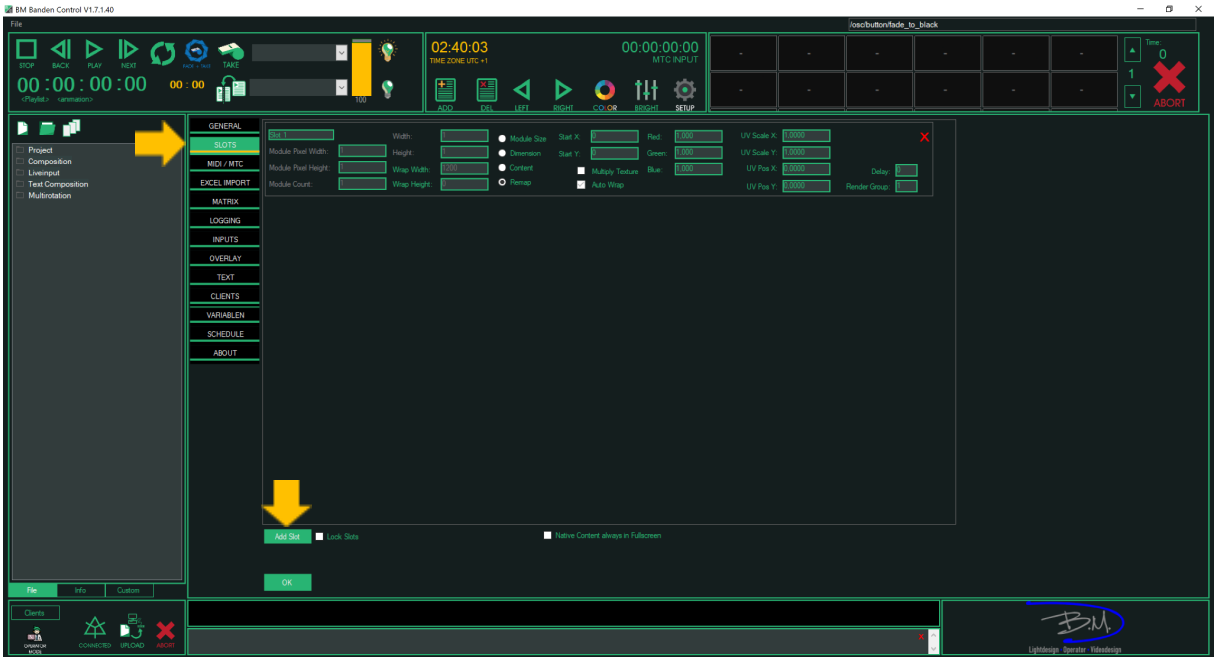
For adaptations of any kind e.g. older systems please contact support
info@ledbc.de

Setup

Creating slots



A slot is a single video layer with corresponding playlist columns. The settings for each slot/layer can be completely customized. To create a slot, it must be added using the Add Slot button. Next you have to decide which playout type the slot should have.





1 *Name*
Specifies the name of the slot. This is displayed in the playlist for each column.

2 *Module Pixel Width*
Specifies the width of a single LED module of the system. The slot/layer width results from this specification and the specified number of modules at (8) & (4).

3 *Module Pixel Height*
Specifies the height of a single LED module of the system. The slot/layer height results from this specification and the specified number of modules at (8) & (4).

4 *Module Count*
Indicates the number of individual LED cabinets/modules that are in the system. From the entered data a content stripe is generated (well visible by the changing values under (5) & (6). If the Auto Wrap setting is wrong, the wrap may collide with a module. This must be entered and calculated manually. Generally, this function is used in conjunction with (16) Auto Wrap.

5 *Width*
Creates a slot/layer based on pixel specifications. The content is automatically stretched to the layer size with this option. In the best case, the slot/layer and content size are selected to be the same.

6 *Height*
Creates a slot/layer based on pixel specifications. The content is automatically stretched to the layer size with this option. In the best case, the slot/layer and content size are selected to be the same.

7 *Wrap Width*
Creates a content wrap after X pixels for e.g. striped content. Used in combination with (16) Auto Wrap.

8 *Wrap Height*
Creates a content wrap after Y pixels for e.g. striped content. Used in combination with (16) Auto Wrap.

9 *Module Size*
Creates a video layer based on the specified LED modules and sizes. Here, the corresponding single module size in pixels and the number in width and height must be specified.

10 *Dimension*
Creates a video layer with the specified pixel dimensions in height and width.

11 *Content*
Creates a video layer based on the video dimensions to be played in pixels.

12 *Remap*
Takes the set input slot and redistributes it in the output using a remap table. See also Slots Remap.

13 *Start X*

Specifies where the slot/layer should start in the image. The information applies to the upper left corner and is not centered, but left-aligned. Auto wrap also shifts the division of the individual stripes if, for example, no module is created in the first 400 pixels of a mapping. A slot/layer with wrap and start X=400 pixels lets the first strip start at X=400, but the next strip after the wrap would start at X=0 pixels. So only the starting point is moved. The same is true for the Module Size option. Only the Dimension option would define X=400 as the layer edge and, based on the dimensions set, also let the slot/layer start there.

14 *Start Y*
Specifies where the slot/layer should start in the image. The specification applies to the upper left corner and is not centered.

15 *Multiply Texture*
Sets the content one after the other if the slot is too big. So different sizes can be played on one slot.

16 *Auto Wrap*
Provides an automatic line wrap for the video
Example: A video with a resolution of 4000 x 90 pixels and a wrapping width of 1000 pixels would create a video layer with the dimensions 1000px x 360px, because the video strip is split 4x and arranged under each other. To avoid side-edge effects, the wrapping is done at 1000px, but the strip continues in each line to the actual end of the image, e.g. 1920px. This prevents unwanted darkened pixels at the

side edges of the image content, which is unfortunately mandatory for some LED controllers or scalers. If this is not desired, it can be remedied with an overlay (see chapter Overlay). The content limitation of this option depends on the graphics card. Older graphics cards support a maximum image width of 8k pixels, while newer graphics cards have a limit of 16k & 32k pixels. If the width is exceeded, the content cannot be displayed! The maximum GPU content size is displayed in the client tab for each client individually. Since this strip must first be completely loaded into the GPU memory before a wrap, this information unfortunately limits the content to be imported. This must be checked individually for each system and cannot be generalized. See Client Tab.

17 *Red*

Is another layer to correct the color for each slot individually. This happens as RGB multiplied and adds the corresponding color to the image content. The value is expressed as follows:

1.5 = 150% | 1.0 = 100% | 0.5 = 50%

18 *Green*

Is another layer to correct the color for each slot individually. This happens as RGB multiplied and adds the corresponding color to the image content. The value is expressed as follows:

1.5 = 150% | 1.0 = 100% | 0.5 = 50%

19 *Blue*

Is another layer to correct the color for each slot individually. This happens as RGB multiplied and adds the corresponding color to the image content. The value is expressed as follows:

1.5 = 150% | 1.0 = 100% | 0.5 = 50%

20 *Add Slot*

Adds another slot/layer and creates another column in the playlist. In addition, the slot settings can be locked here.

21 *Native Content always in Full*

Plays media corresponding to the size of the output always as fullscreen and ignores all slot settings. Useful for test images etc.

22 *UV Scale X*

Can subsequently scale the content in the slot based on the correct UV X axis.

23 *UV Scale X*

Can subsequently scale the content in the slot using the correct UV Y axis.

24

UV Pos X
Can subsequently move the content in the slot based on the correct UV X axis.

UV Pos Y

25 Can subsequently move the content in the slot based on the correct UV Y axis.

Delay

27 Holds the first frame for up to 16 seconds and then starts playback of the slot on a line change in the playlist.

28 *Render Group*
Creates a render group in connection with the associated clients. Render groups reduce the traffic in the network, because only the slot information for the respective client is sent there and not all available in the system. This is very helpful in large setups to optimize stable operation.

Slot Remap

A remap cuts a section of a slot and inserts it at another position in the output canvas.

Slot / Overlay size example 11000 x 90 pixel



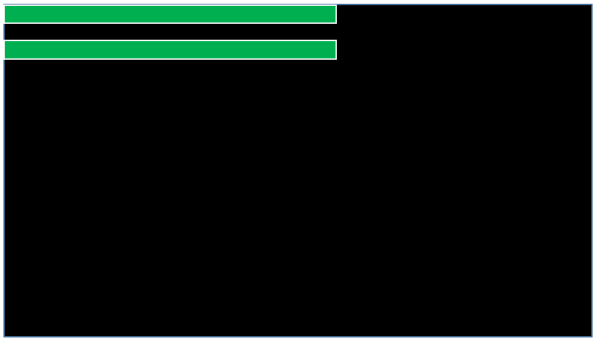
First Remap

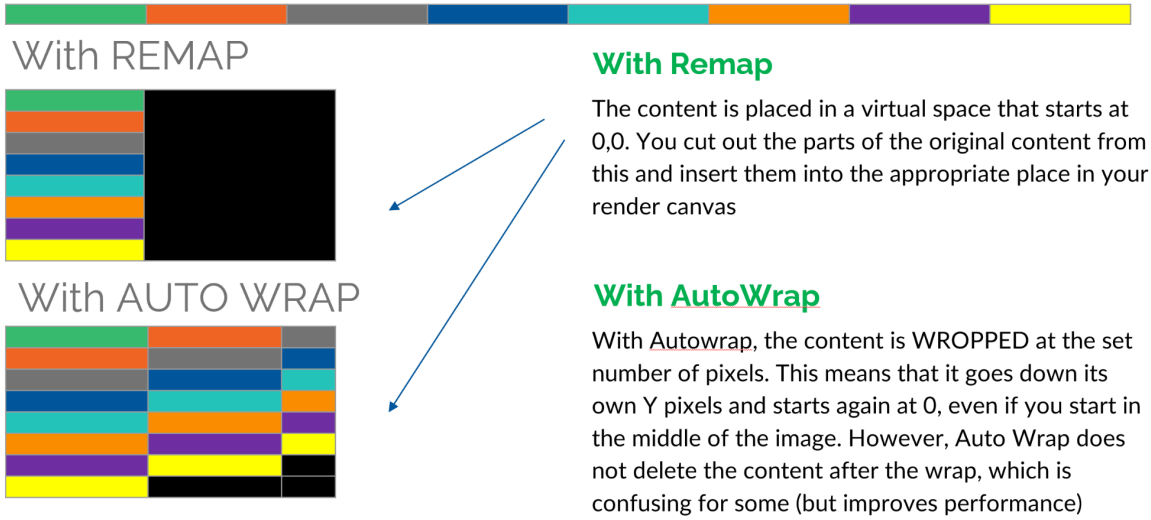
Remap Source (Input File)		Remap Destination (Output Canvas)	
Position X	= 0	Position X	= 0
Position Y	= 0	Position Y	= 0
Size X	= 1200	Size X	= *1200
Size Y	= 90	Size Y	= *90
		*unlock size off or rescale possible	

Second Remap

Remap Source (Input File)		Remap Destination (Output Canvas)	
Position X	= 1200	Position X	= 0
Position Y	= 0	Position Y	= 180
Size X	= 1200	Size X	= *1200
Size Y	= 90	Size Y	= *90
		*unlock size off or rescale possible	

Remap to Output 1920 x 1080

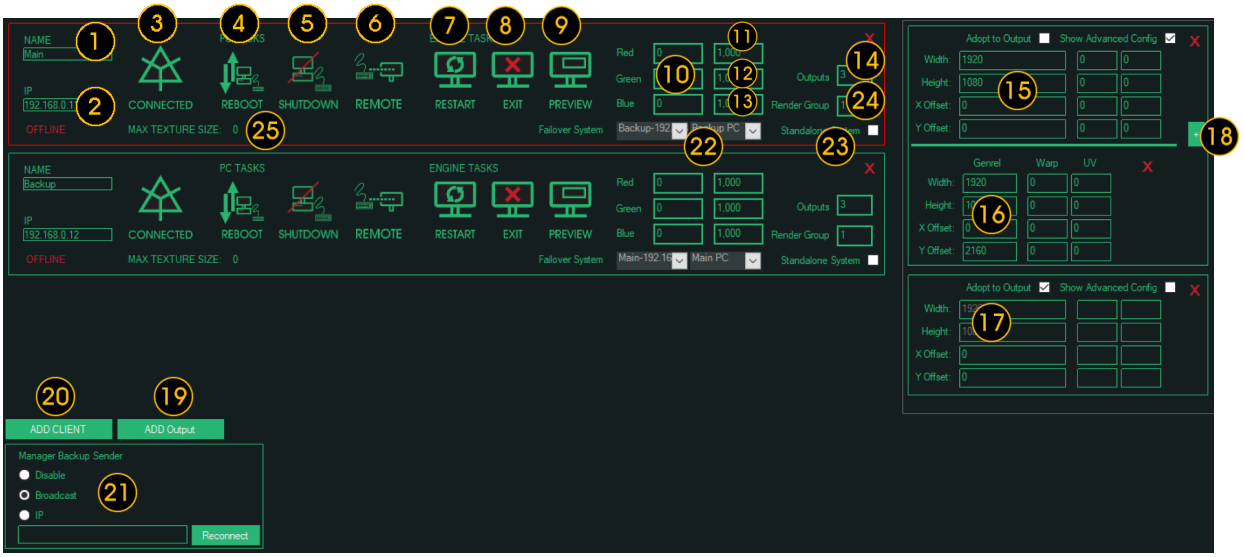




Create clients

A client is the connection to the respective render engine. This can run on the local computer (not recommended) or on a PC connected in the network. A client can have several outputs, depending on how many outputs are provided by the graphics card (image to be changed). To operate the render engine via GUI the "BM Engine Remote.exe" must be started with admin rights. This starts automatically after the installation and is located in the autostart. This also ensures a smooth file transfer between control PC and render engine via FTP transfer in the background. The transfer status can be checked in the lower right corner. When no transfer is in progress the transfer window is replaced by a logo which can be changed with the skin feature. It also controls all Engine Remote & System features like Restart, Close, Shutdown etc.





1. Name of the client
2. IP address of the client | Local 127.0.0.1
3. Connect Button - It is mandatory that GUI and clients are connected. If not, the screen will stop or remain black.
4. Restart the client computer
5. Shutdown the client computer
6. Engine VNC remote to connect to the client
7. Restarting the Engine
8. Close the Engine
9. Engine window mode enable/disable.
10. Define background color for the client instead of black. RGB Add 0-255
11. Color calibration of the red color of the respective output. Added or subtracted by RGB multiply.

    0.5 = 50% | 1.0 = 100% | 1.5 = 150%
12. Color calibration of the color green of the respective output. Will be added or subtracted by RGB multiply.

    0.5 = 50% | 1.0 = 100% | 1.5 = 150%
13. Color calibration of the blue color of the respective output. Added or subtracted by RGB multiply.

    0.5 = 50% | 1.0 = 100% | 1.5 = 150%
14. Number of outputs per client. To be able to add outputs, after creating a client, it must be selected again. Click on a free area within the client. The border with the red color shows which client is currently being processed. After the client has been selected, the outputs can be added here on the right side with their own dimension settings.
15. Output Settings for Output 1. The settings only correspond to the canvas to be rendered and not to the real played out resolution of the client. This must be set correctly in Windows including the correct refresh rate. The render area can be moved arbitrarily in the output. The area can also be warped (scaled) afterwards or moved in the UVMap.
16. Virtual output settings for output 1. In addition to the normal output, a virtual screen can be switched. E.g. 4x HD in 4K etc. Same settings as for 15.
17. Output Settings for Output 2: The same settings apply as for Output 1, but the displays must be arranged one below the other, since the overlays and striped

content are rendered not only up to the pagination, but also beyond. A side-by-side arrangement would cause problems and create overlays and content in outputs where they do not belong. The use of a combined screen / mosaic mode is a sensible consideration at this point and saves many outputs in the software.

IMPORTANT! The height (Y) of the second output must be set to the value of output 2 + output 1. This maps the render canvas. Then move the canvas upwards using Y Shift -Height Output1.

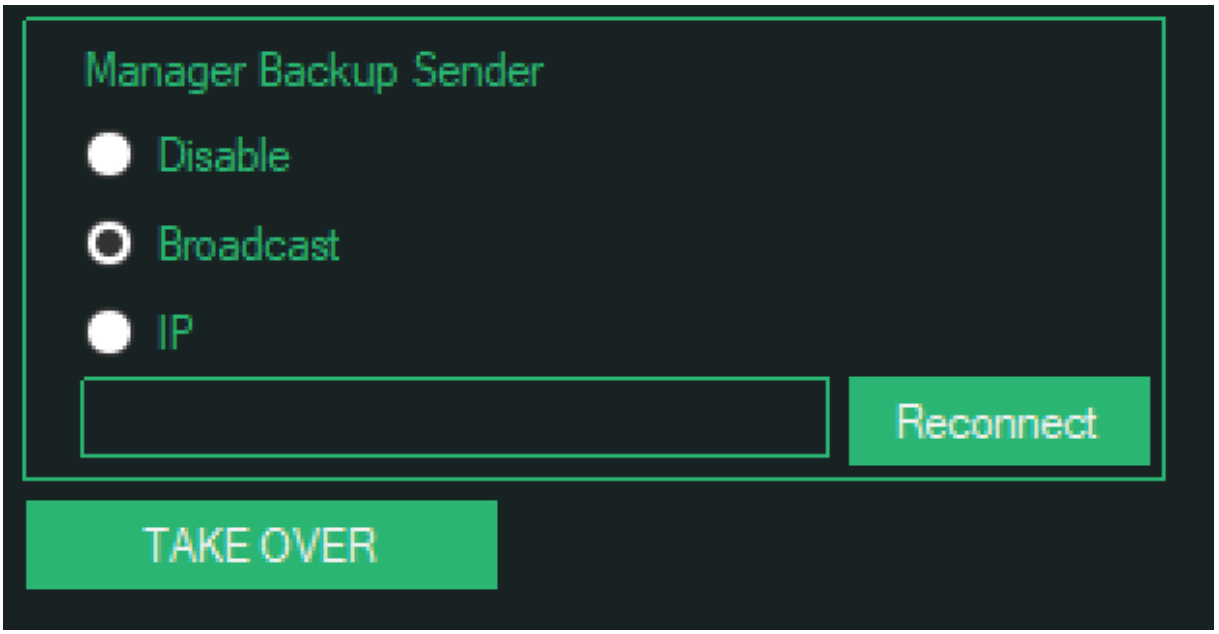
18. Adds a Virtual Output to Output 1
19. Adds an output to the marked client. If no client is marked, an output is added to the 1st client in the list.
20. Adds a client.
21. Backup GUI Settings

    - Disable

    - Broadcast sends and 255.255.255.255 udp all commands which are set in GUI (ok almost all)

    - IP sends to a specific IP. It may be necessary to reconnect here in case of disconnection.
22. Failover System defines which client is the backup for the current one. In the first dropdown the client is selected (only works if the client has been given a name). In the second dropdown a Custom Matrix command can be selected (see Matrix chapter), which is executed as soon as the GUI detects a disconnect at a client.
23. Standalone system sets the start point of the render engine to Display ID 2. The normal setting for the render engine is Display ID 1 and with 3 outputs Output 1-3 would be recorded. In standalone mode display 2-4 would be recorded, because it is assumed that the GUI is displayed on the first display (e.g. from the laptop). As soon as the checkmark is deactivated, the settings of the render engine are reset to Display ID 1.
24. Creates a render group in connection with the corresponding slots. Render groups reduce the traffic in the network, because only the slot information for the respective client is sent there and not all available slots in the system. This is very helpful in large setups to optimize stable operation.
25. Max. Texture Size is read once the GUI has been connected to the client. This indicates the maximum width of a video strip of content that can be processed by the GPU.

Take Over / Manager Backup Sender

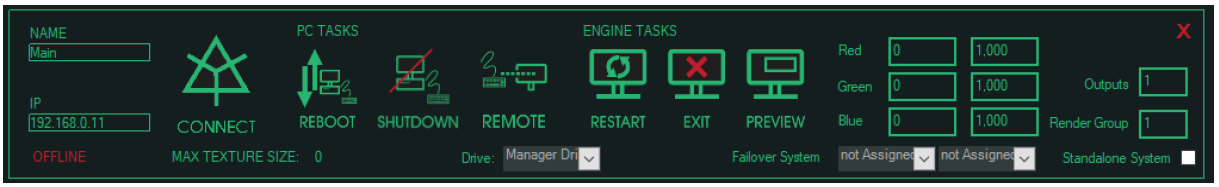


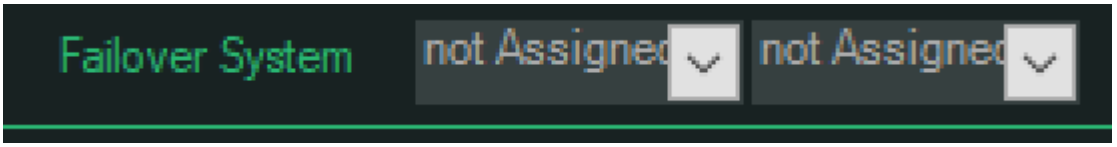
The Take Over button ensures that all connections to the Render Engine are briefly disconnected and then the GUI that triggered the TakeOver is immediately connected.

This is useful if the main GUI laptop says goodbye but the TCP connection to the render engine is still open and switching off the chillout mode has not had the desired effect. Chillout mode must be switched off on the control laptop for Take Over.

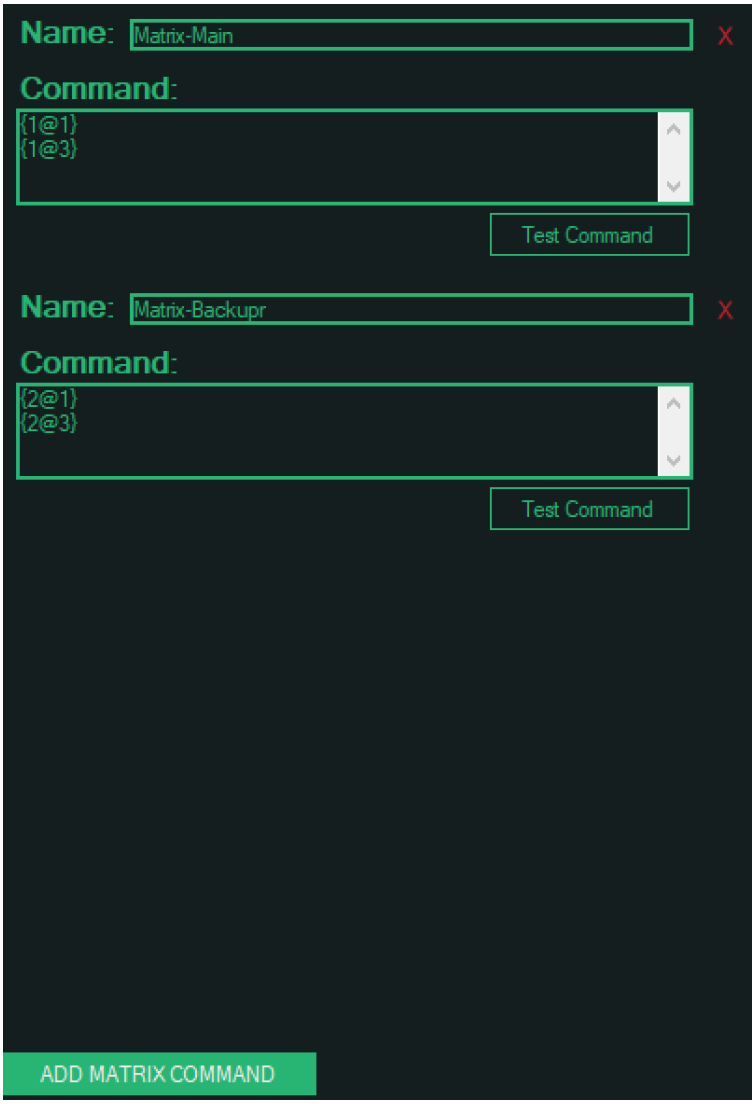
Manager Backup Sender ensures synchronisation between two GUIs. If you want to protect the network, you can specify the IP of the backup GUI directly or even deactivate it completely if you have no backup at all.

Set up failover system (from version 1.7.1.5x)

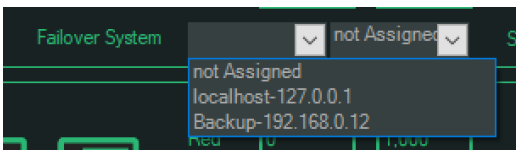


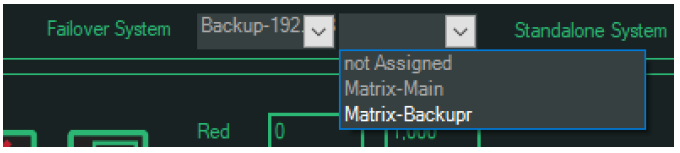


The failover system consists of two levels. In the first dropdown, you specify the server that is to serve as a backup for the current one. You should have assigned a name for each client. In the second dropdown, you set the matrix preset that will be responsible for the switchover.



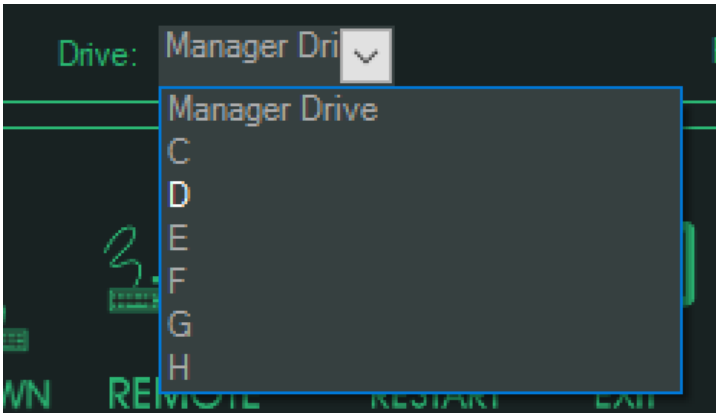
After testing the presets using the Test Command button, they can now be assigned to the servers:





If the main server disconnects, the system first checks whether the failover server is online. If this is the case, the set matrix preset is executed next.

Manager Driver Letter (from version 1.7.1.8x)



In the Drive drop-down menu, you can select the disc on which the content is placed for each server. This function only changes the drive letter and leaves the path unchanged.

Example: The show has unfortunately been created on the desktop, which produces the following path: **c:\Users\UsernameAccount\Desktop**

Now the problem is that the server will probably have a different user name than the one on the control laptop. It will therefore try to create the path, which is actually impossible or involves a lot of effort due to various Windows authorisations.

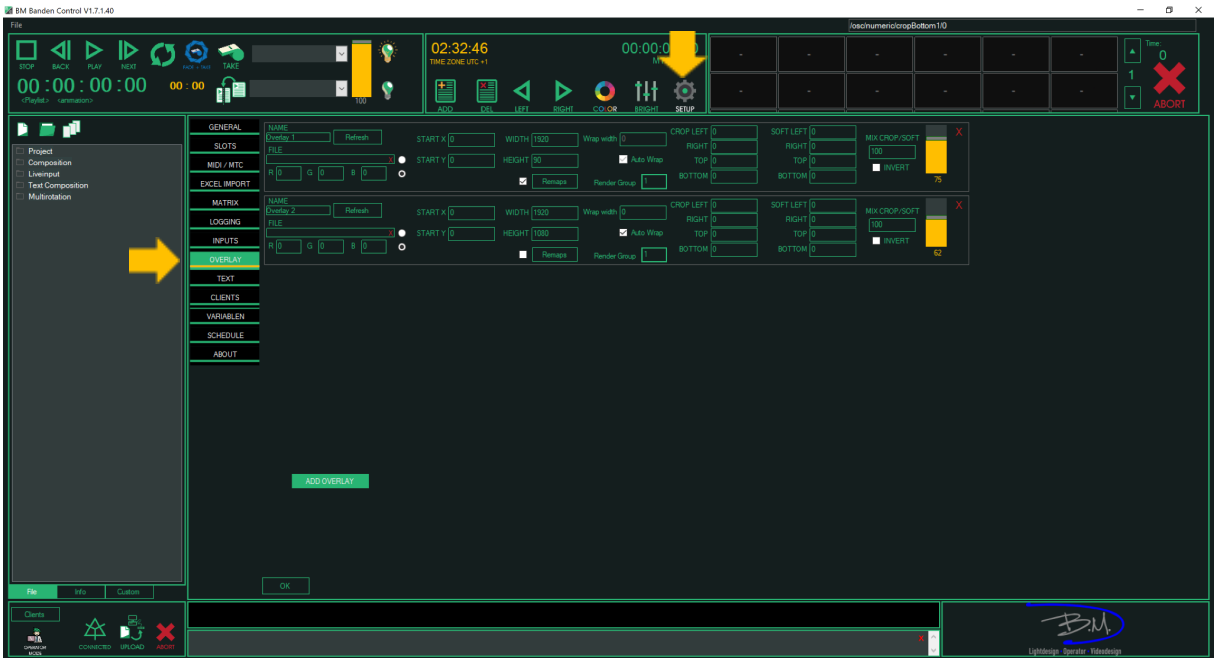
To solve this problem quickly, the drive letter can be changed per client and it would make the following from the path with the setting D:

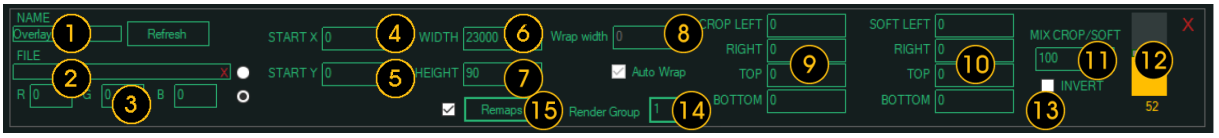
D:\Users\UsernameAccount\Desktop

As the next partition is usually not system-relevant, Windows also lets you write to this disc and create all the paths you want.

Another use case would be if you have not provided the laptop with two partitions, but would like to have the content on the D: disc on the server (for the purpose of write permissions).

Create overlay



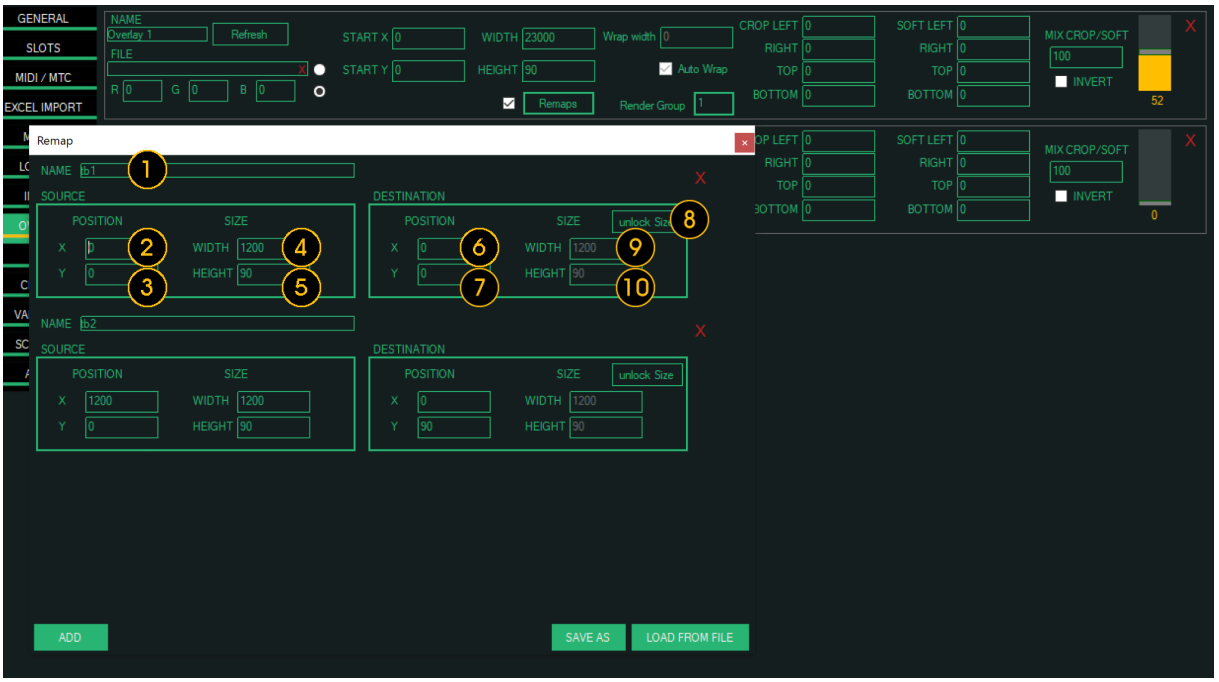


1. Name of the shader/overlay
2. Option 1: Add file as shader/overlay
3. Option 2: GPU generated shaders/overlays - The base color is black, an additional color red green and/or blue can be added to the shader/overlay.

   Values: RGB 0-255
4. Start point X in output in pixels
5. Start point Y in output in pixels
6. Width of the shader/overlay in pixels - Tip: It is advisable to create a long strip as a shader and to adjust it by cropping left or right on the strip.
7. Height of the shader/overlay in pixels
8. Specifies the width in pixels, after which a wrap should happen, only if Auto Wrap is activated.
9. Crop the shader/overlay in pixels | Left - Right - Top - Bottom
10. Blur the edges of the shader/overlay in pixels
11. Controls the visibility / opacity in %.
12. Visibility fader

13. Inverts the visibility of the shader
14. Defines the associated render group
15. Remapping to rearrange the created overlay in the output

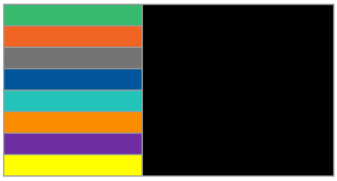
Overlay remap



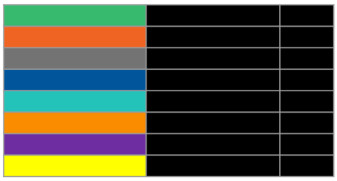
1. Name of the remap
2. X Start coordinate of the overlay section to be output
3. Y Start coordinate of the overlay section to be output
4. Width of the overlay section to be output
5. Height of the overlay section to be output
6. X Start coordinate in the output / render engine
7. Y Start coordinate in output / render engine
8. Unlock / Lock the size
9. Optionally scales the output width (requires unlock size)
10. Optionally scales the output height (requires unlock size)

Creating Overlays

With REMAP



With AUTO WRAP



With Remap

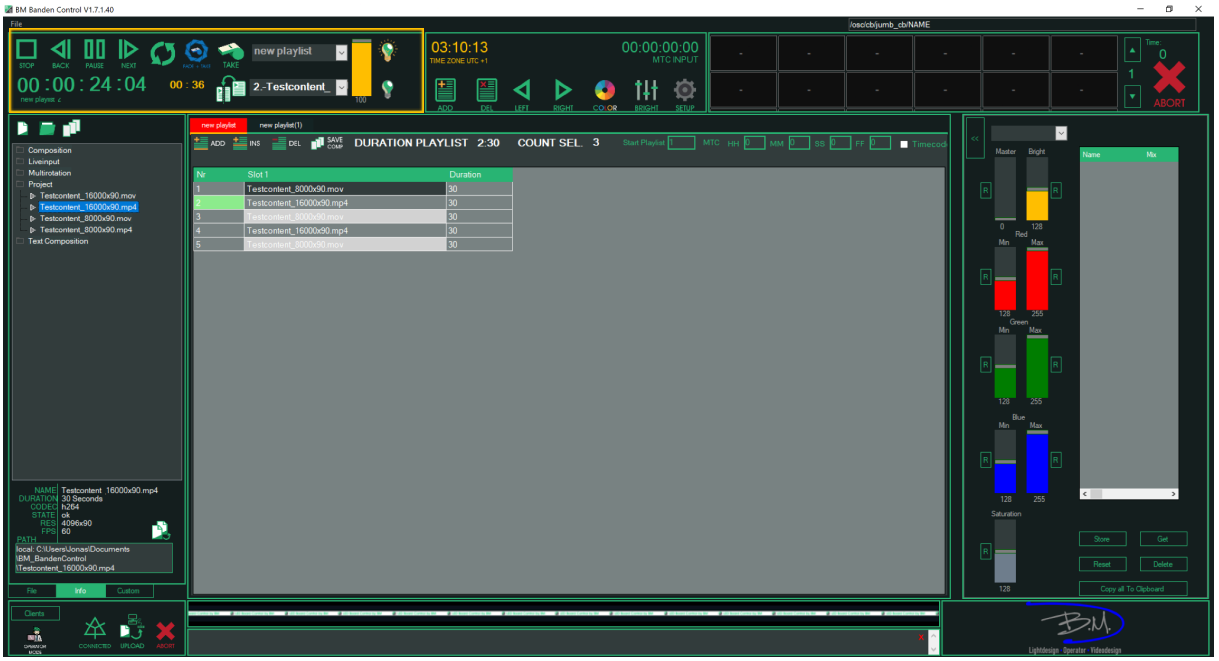
Overlays behave in the same way as slots. The special feature is that overlays are NOT bound to the maximum pixel count, as they represent internal shaders on the graphics card.

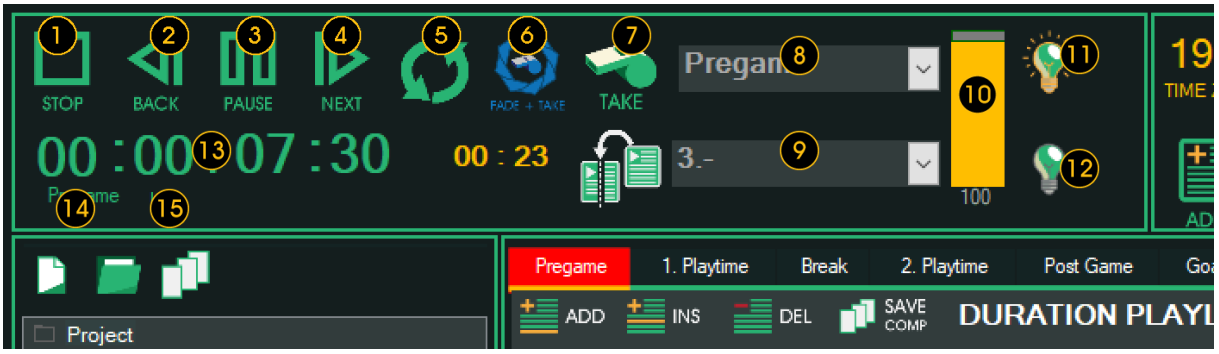
With AutoWrap

Autowrap for overlays works like the remap, as an overhang would not bring any advantage here. For sunshaders, you build a strip over the entire length (e.g. 24000px), invert it and then pull the CROP+SOFT L/R up and down.

Interface

Playlist

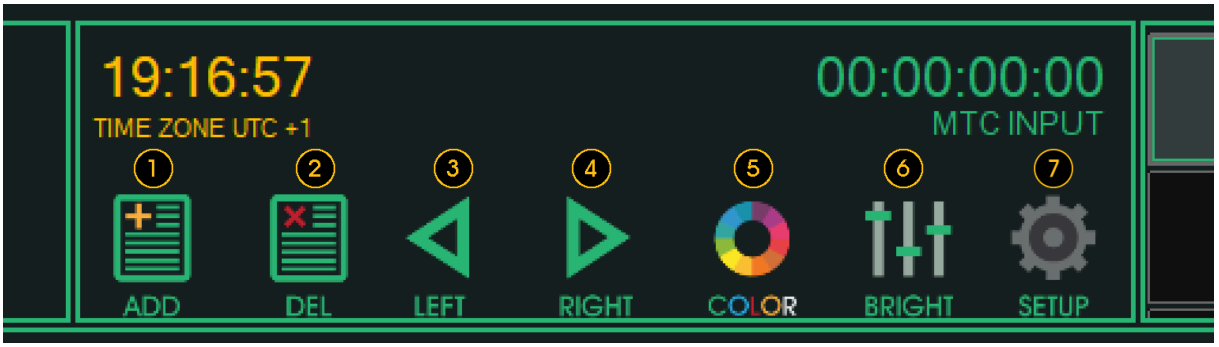




1. Stops the playback and jumps to the beginning of the playlist
2. Jumps directly to the previous point in the playlist
3. Pause / Play
4. Jumps directly to the next point in the playlist
5. Loop/Unloop the current point in the playlist
6. Fade+Take moves the brightness slider from 0-100 and plays the playlist selected in the dropdown menu
7. Plays the playlist selected in the dropdown menu
8. Selects the playlist to play (drop down)

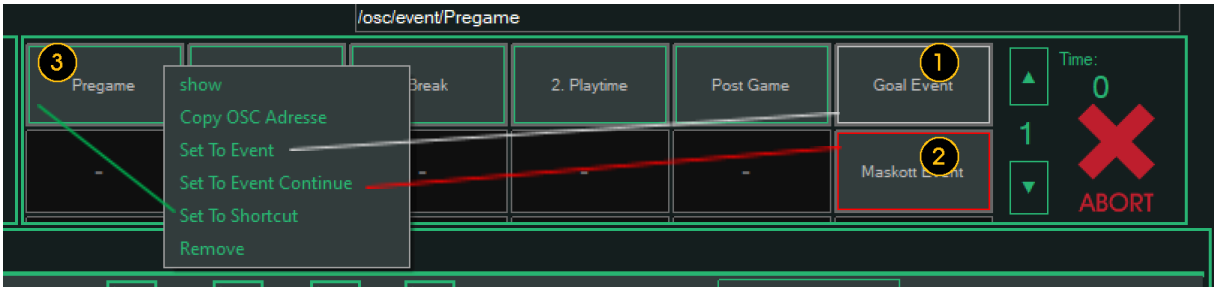
9. Jump - Jumps to a clip of the current playlist. This must be selected in the second dropdown menu. The jump happens only after the current clip has been played completely. The jump point must be selected from the dropdown menu.
10. Master Brightness slider
11. Fades to 100% brightness. With a 2nd click the transition stops again.
12. Fades to 0% brightness. With a 2nd click the transition stops again.
13. Time display
14. Current playlist being played
15. Current line of the running playlist that is displayed at 14.

Center Controls



1. Adds a new playlist
2. Deletes the currently selected playlist (without asking!)
3. Moves a playlist one tab to the left
4. Moves a playlist one tab to the right
5. Opens the color settings
6. Opens the brightness settings
7. Opens the program settings

Events / Hotkey Sektion



Up to 199 shortcuts (hotkeys) or events or continue events can be created in the event section. To assign a playlist to a button, the corresponding playlist must be dragged and dropped from the tab overview onto the respective button. Afterwards the respective action can be selected with a right click:

1. Event (gray border)

   An event corresponds to an interrupt of the currently running playlist with another playlist. The currently running playlist is stopped and the event playlist is played (e.g. a goal event). The event is counted down with a timer and at the end the software jumps back to the previously running playlist and continues to play it automatically. If the event is to be aborted prematurely, the event action can be ended immediately with the large X on the right side and the current running playlist takes over again.

2. Event Continue (red border)

   The functionality differs from a normal event only in that the currently running playlist is not stopped and continues to run in the background.

3. Shortcut (green border)

   Works like a shotbox or streamdeck with companion. As soon as you press the button, the corresponding playlist is called and played and the current one is ended.

4. Event Overlay (turquoise border) *NEW* **(starting from Version 1.7.1.8x)**

   Works like Event Continue (red outline) with the difference that empty slots continue to display the playlist in the background and therefore only individual slots can trigger an event while the rest continue to run normally.

Events are also logged if a dongle is present.

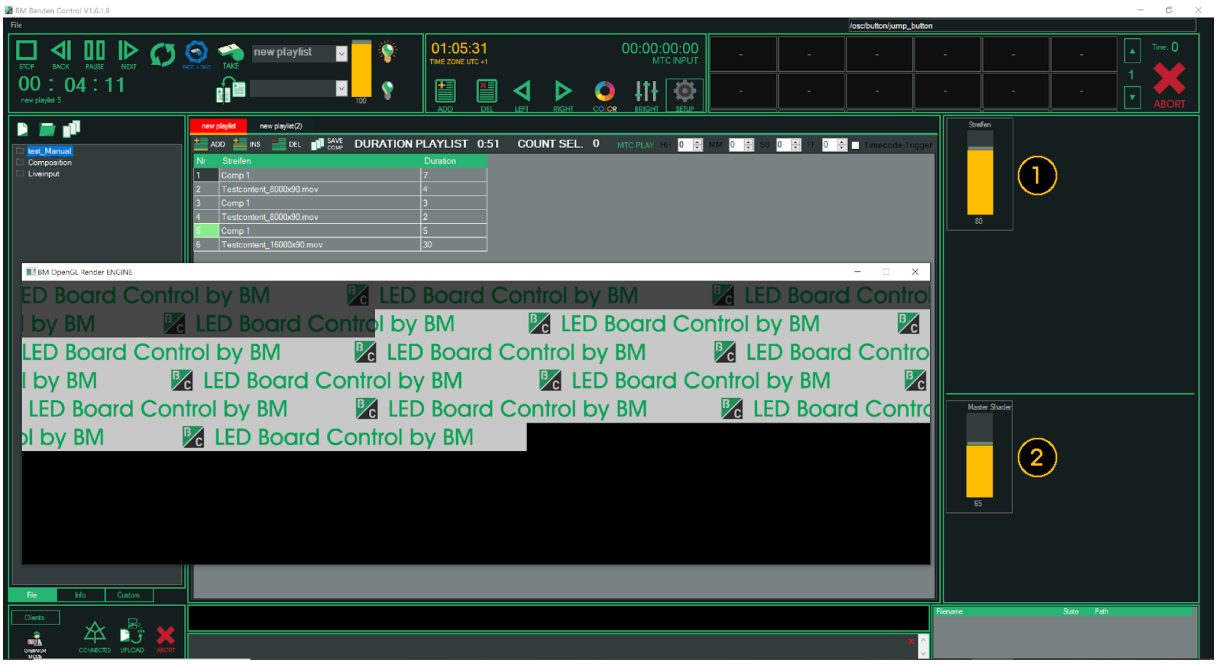
An event or event continue always consumes twice the slot/CPU/GPU performance, because the running or paused slots/layers of the playlist are always held in the background for an early termination of the event. A Continue event consumes more resources due to the additional playback in the background.

Color settings



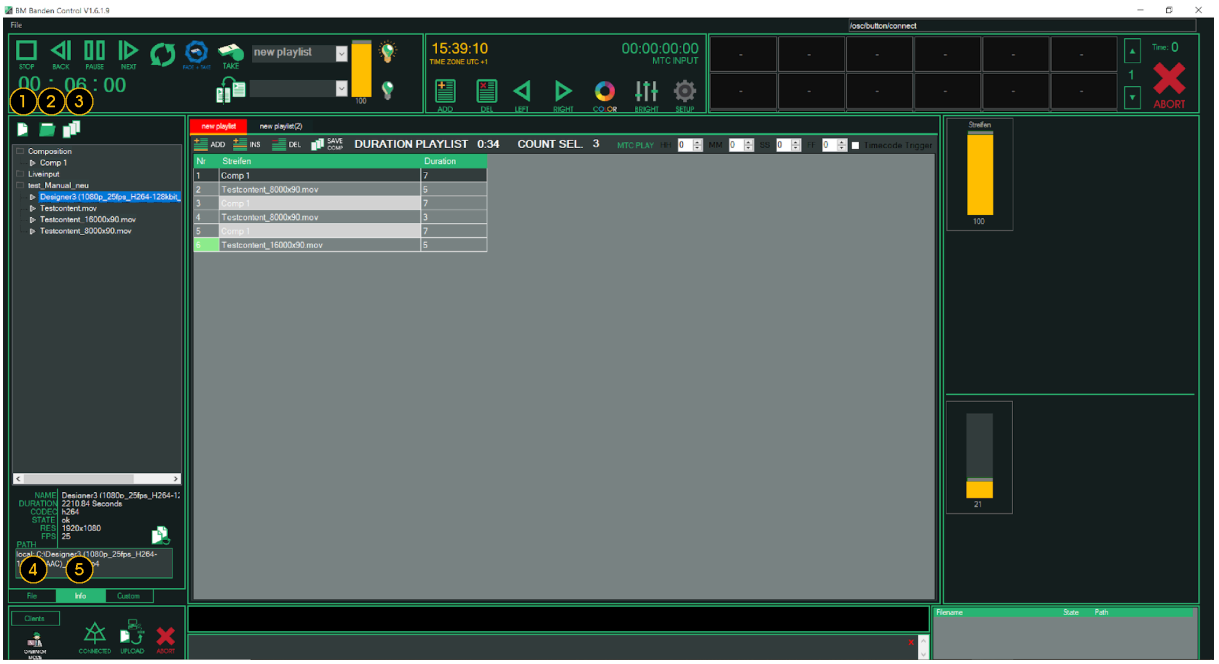
1. Select the slot/layer to edit. The currently running clip is edited. When changing clips, the settings remain the same, but the save point would fall on the new clip.
2. Brightness slider for the respective selected slot/clip. This is a fade to black.
3. Brightness slider to edit the black level
4. Sets the minimum/maximum red level of the slot/clip.
5. Sets the minimum/maximum green level of the slot/clip.
6. Sets the minimum/maximum blue level of the slot/clip
7. Saves the settings for the slot/clip
8. Resets the current settings
9. For later re-editing of a slot/clip you can get the current controller settings from memory here
10. Clears the color settings saved for the slot/clip
11. List of saved modifications (can be exported by right-clicking)

Brightness Settings / Shader Control



1. Opacity slider per slot **(Important, a slot will then be transparent and not blended against black. So it is not a brightness slider, but a visibility slider and if two slots overlap, you would see the content below!!! For the darkening of single slots an overlay is explicitly recommended ;-).**
2. Opacity per overlay / shader

Media Library

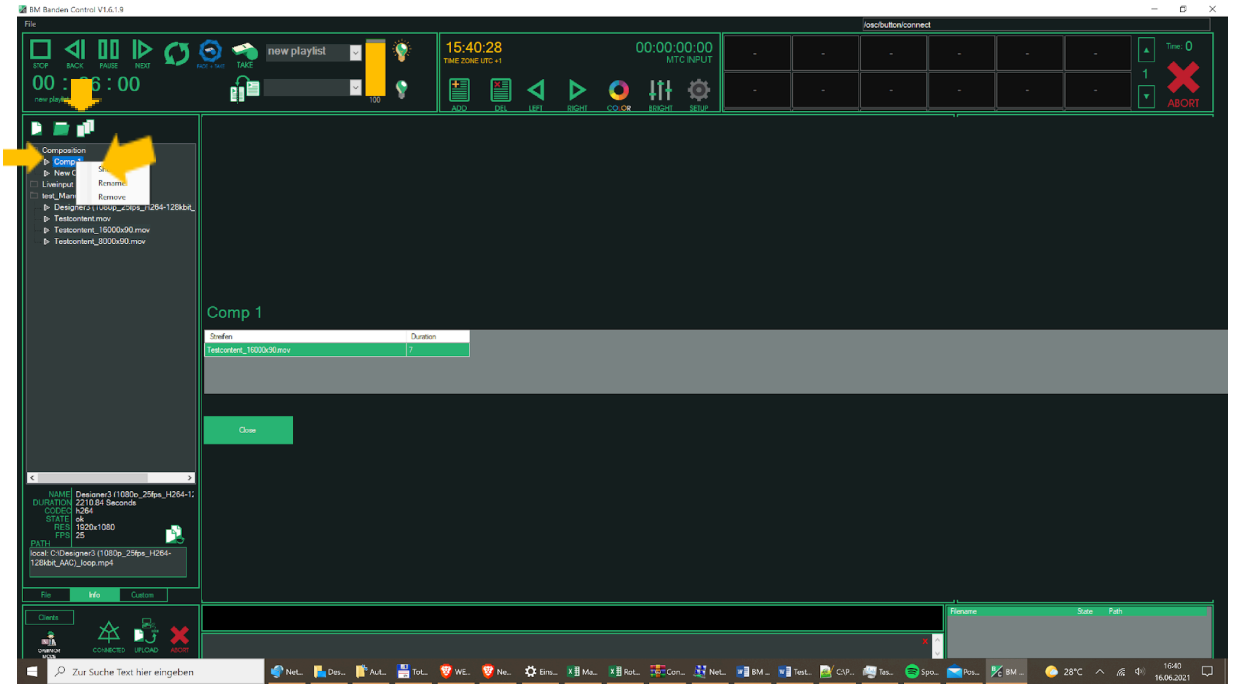


1. Adds a file
2. Adds a folder
3. Creates an empty composition
4. Normal display mode without media information, more files visible in Media Explorer
5. Media Info, shows additional information

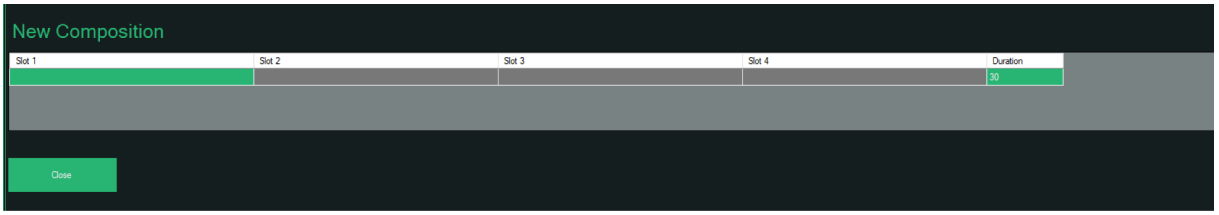
Media Library – Composition

A composition is formed from all clips of a line and contains all slots. It can be created either directly from an existing playlist via the button 

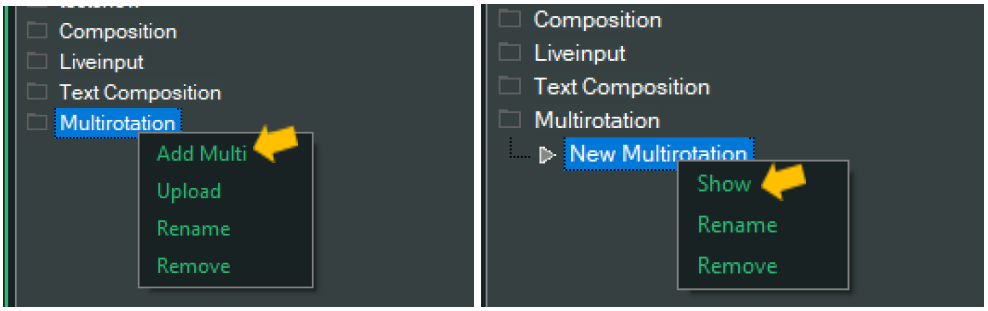
and can be saved in the playlist menu or created as an empty composition and then edited/filled. A composition should help e.g. to exchange players faster, which should run on all slots. They are not whole playlists and always represent only one line.



Right-click on Composition -> New, then right-click on the New Composition and press Show



Media Library – Multi Rotation



A multi-rotation combines several partners into one large file and can move them to the left or right during runtime.

First, a rotation must be added by right-clicking and opened using Show.

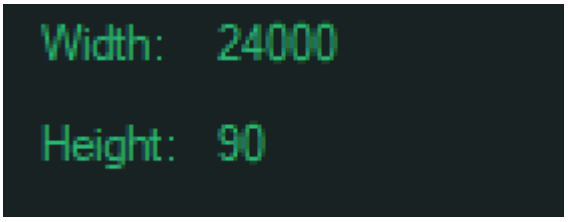


Picture Count: Set how many pictures are added to the rotation

Speed: Specifies how fast the Multi should rotate. -100 Left anti-clockwise | +100 Right clockwise

Duration: Should be the same duration as in the actual playlist

The size of the rotation is also displayed at the bottom. Depending on the graphics card, a limit may be reached at some point, so test it beforehand and do not use it live!

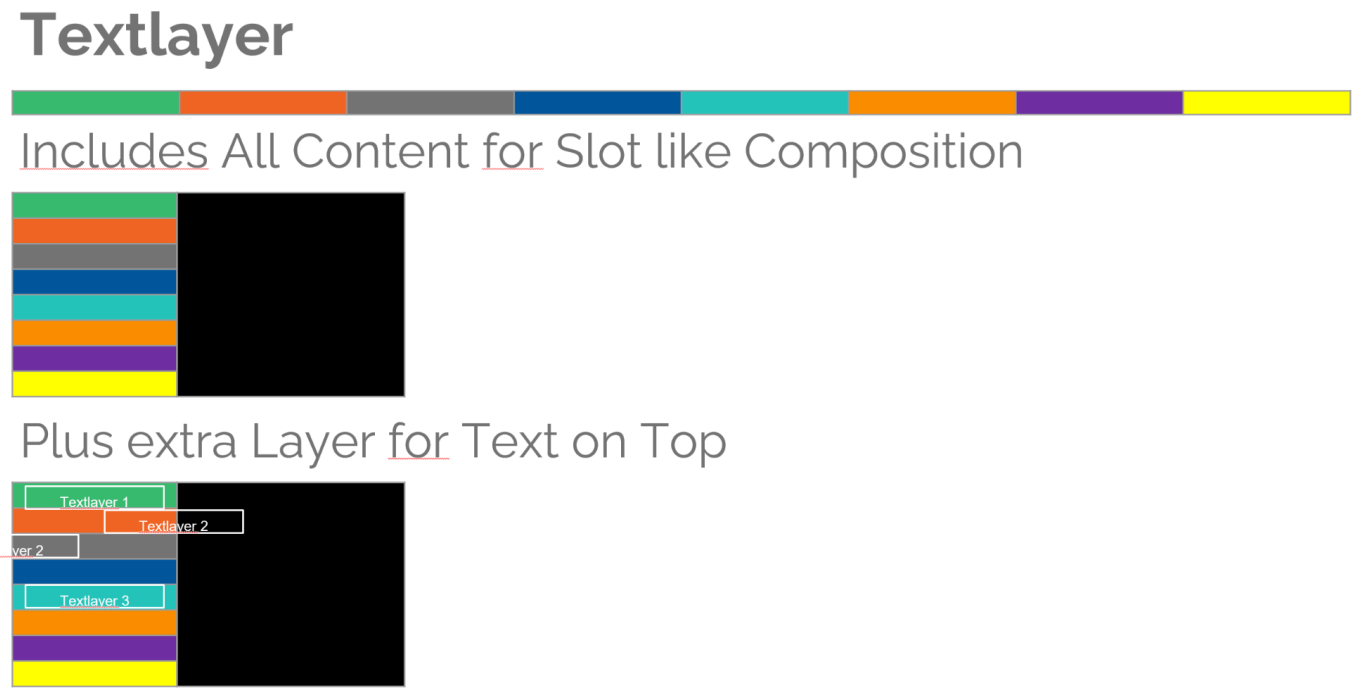


When you press **Close**, the programme creates a subfolder **/multi** in the folder with the project file. The created **multi** is stored there and can be viewed again. If you take over a project, you should open all multis briefly and close them again so that they are refreshed to the new file path of the project file.



Media Library – Textlayer

Text layers are certainly one of the most complicated things you can create in the software, as they require several stages of preparation.

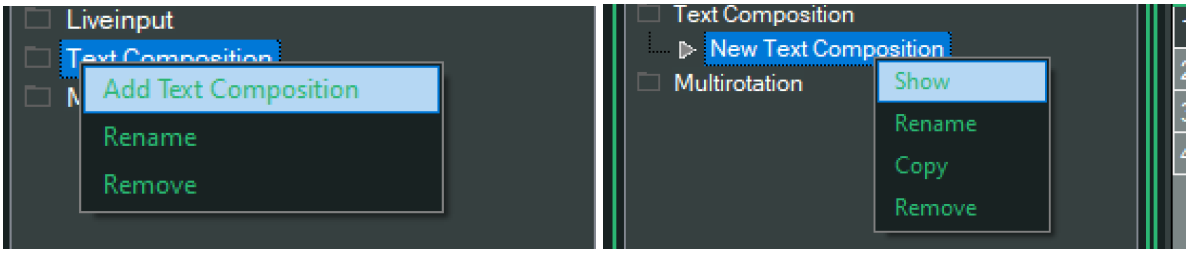


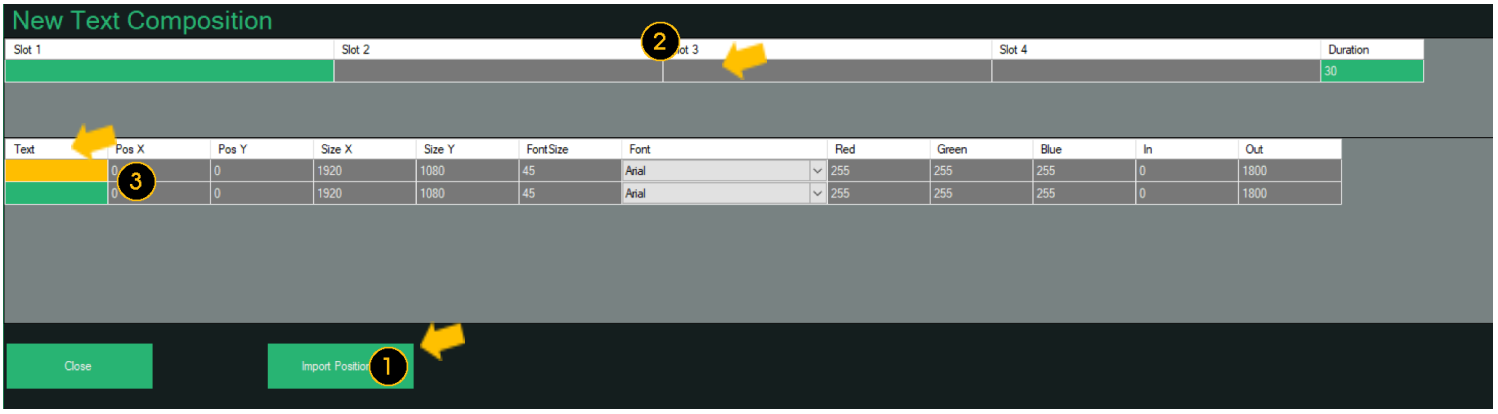
The first step is to create one or more text layers under Settings -> Text. These can of course still be changed.



The text layers work in exactly the same way as overlays, except that they also have a PT specification for the pixel size of the font. They can of course also be wrapped automatically with Auto Wrap.

Then create a text composition under Text Compositions in the media library.





1. Press import position (can also be adjusted again per text layer/comp)
2. Fill slots with content
3. Fill text layer with text
4. You can also add new variables under Variables starting with $variablenname. These can be integrated into the text of the text layer

   Variables can be refilled via OSC from an external service and thus the text also changes. However, this is only updated with the next take or a new line.



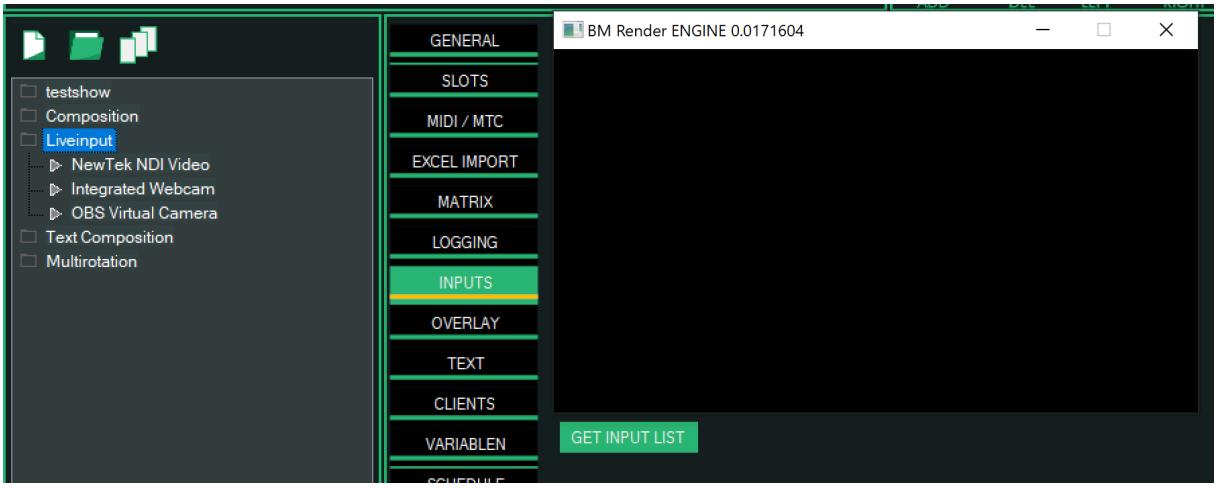
Media Library – Live Input

To use a live input, you must have started the render engine and be connected to the servers.

Then press GET INPUT LIST under Inputs to download a list of all inputs from the server or the connected render engine (here in the example it is running on localhost)

You can then simply use these in slots. Either you create an extra slot that only manages the live inputs or you run the first slot on Content Size+Native Content Always in Fullscreen.

You should be sure about the input resolution

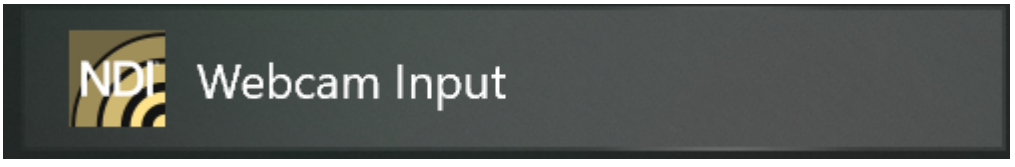


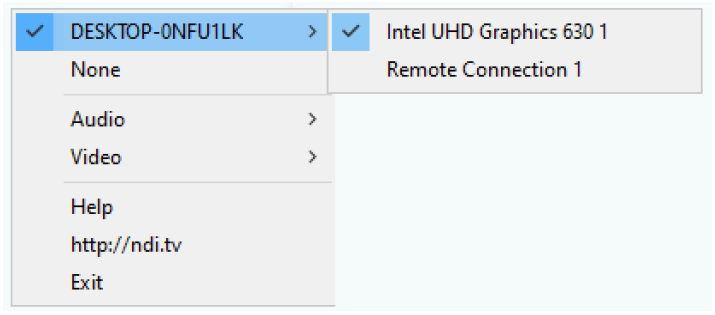
NDI Input

Many people will want to use either a Blackmagic Capture Card or NDI as their main application. For NDI you need to do the following:

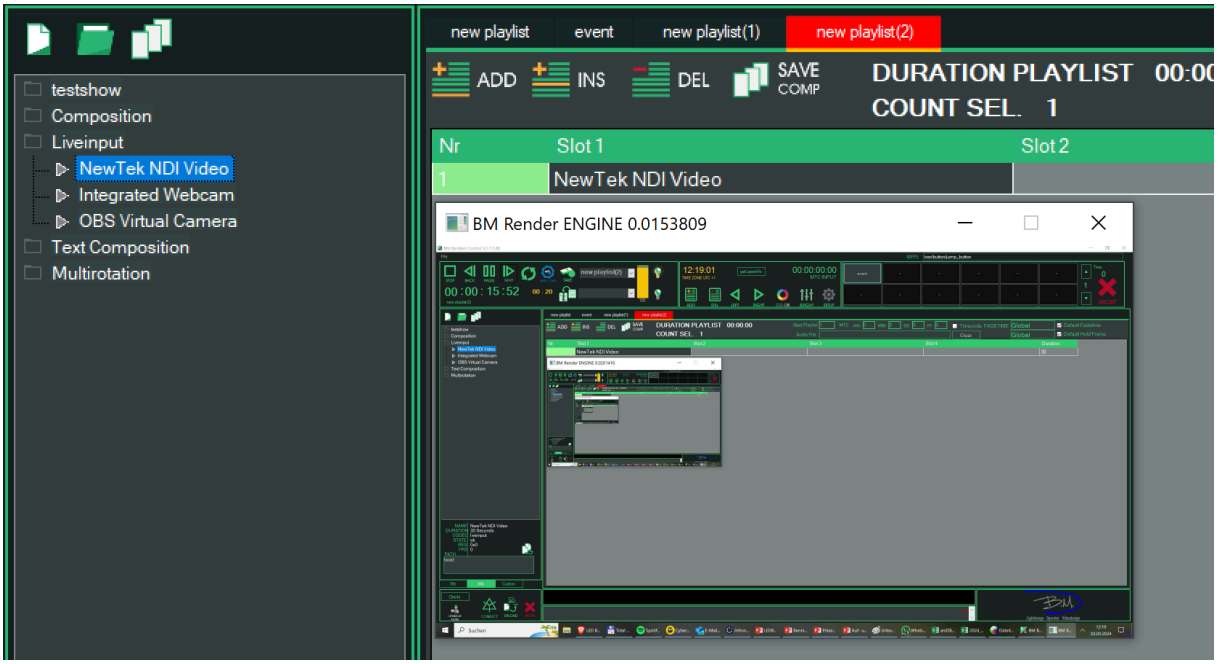
Create an NDI stream on the network (preferably on a second network card to minimise traffic on the control network!) You can also use Newtek's own SCREEN CAPTURE app.

To map an NDI input to NewTek NDI video, you need to have the webcam app installed and assign the NDI feed to the webcam input





This input is then also displayed.

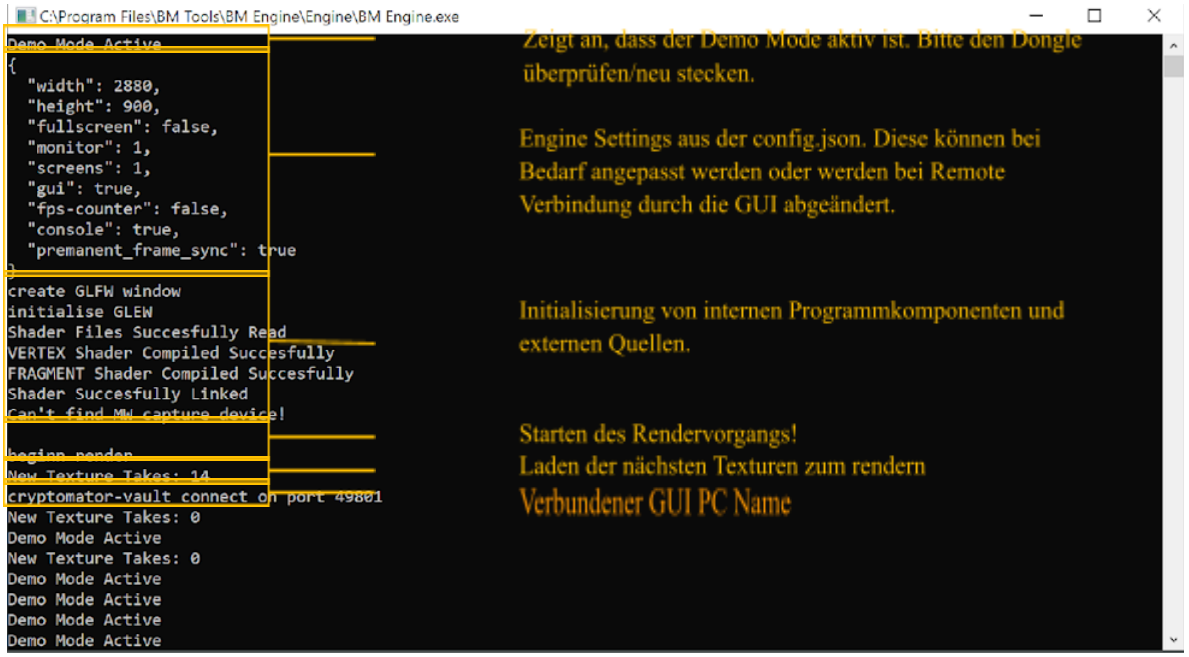

testshow
Composition
Liveinput
NewTek NDI Video
Integrated Webcam
OBS Virtual Camera
Text Composition
Multirotation
new playlist
event
new playlist(1)
new playlist(2)
ADD
INS
DEL
SAVE
COMP
DURATION PLAYLIST 00:00
COUNT SEL. 1
Nr
Slot 1
Slot 2
1
NewTek NDI Video
BM Render ENGINE 0.0153809

Render Engine

Installation

Start installation and install. Start the "BM Engine Remote.exe" in the /BM Engine/ folder. Open the command prompt via Windows key+R, enter Shell:Startup there. Create a shortcut with BM Engine Remote.exe and put it in the folder C:\Users\Name\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup for automatic start at boot.

Console



Render Engine Setting

{

"width": 2880,

Specifies the width of the engine window to be output in pixels, this does not have to correspond to the resolution of the output.

"height": 900,

Specifies the width of the engine window to be output in pixels, this does not have to correspond to the resolution of the output.

"fullscreen": false,

Switch between fullscreen and window mode. The best way is via GUI.

"monitor": 1,

Is the ID start number of the monitor

"screens": 1,

Is the number of outputs to be generated or how many engines will be opened.

"*gui": true,*

For standalone system. Render engine is started in second monitor because GUI is running on first monitor

"fps-counter": false,

Displays an FPS counter (for performance indication)

"console": true,

Specifies whether the console window is displayed or not.

"premanent_frame_sync": true

}

Transfer / Synchronize Files



If the render engine is running on a PC in the network and is connected, all files of the media library can be transferred with the Upload button. If this causes problems or is not desired, the process can be aborted with Abort. If the render engine is not connected, it can also be connected via the Connect button and it is not necessary to switch to the Client tab.

Main / Backup Betrieb



Operator Mode



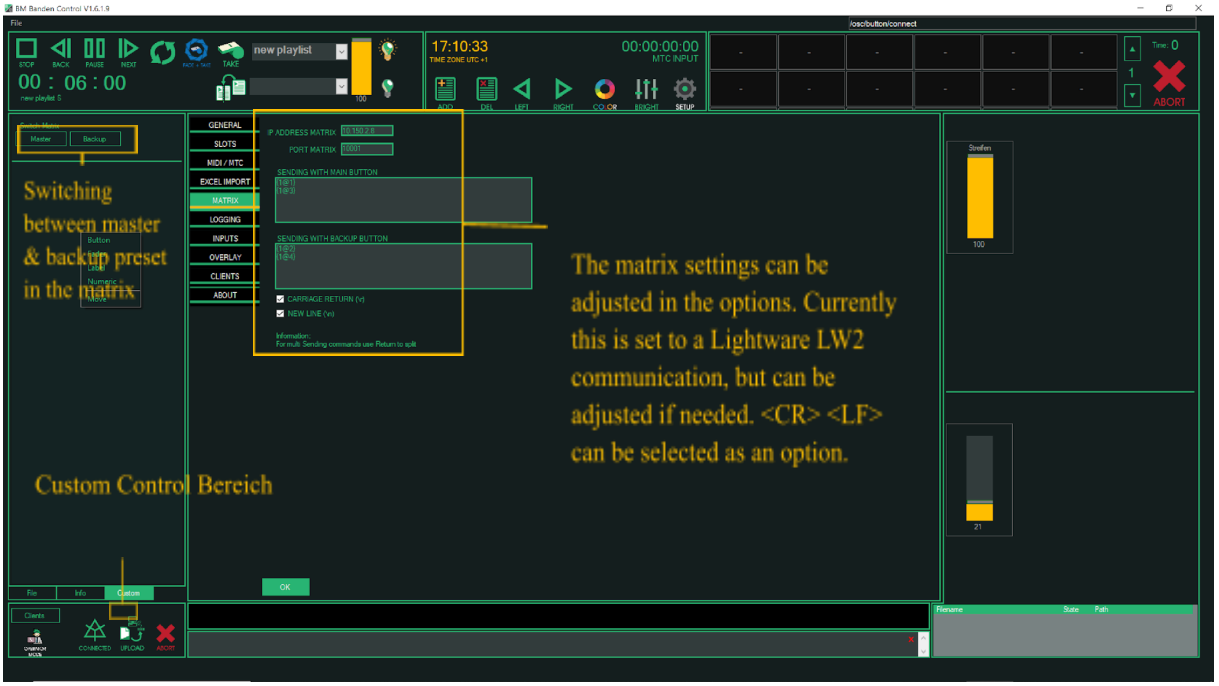
Chillout Mode (Faulenzer Modus / Lazy mode)

The GUI always starts in operator mode and this is probably mostly desired. If a second control PC is used, it is possible to run it as a client of the main system as long as the main GUI is running. If the GUI crashes, network breaks, computer goes down etc. the backup GUI can take over the control of the servers. For this the chillout mode must be changed back to the operator mode. This click causes an immediate connection attempt of all clients in the client list. If the Main GUI is still connected, no connection will be possible because it only

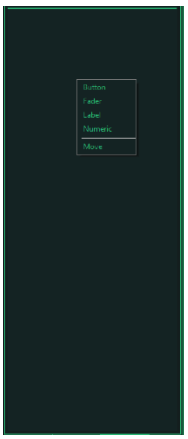
allows one connection at this time. This can lead to problems if the main GUI is still connected or has not yet pinged/heartbeat timed out. Unfortunately the only solution is to restart the render engine from the backup laptop (Settings - Client - Engine Reboot) and then connect manually. As an application tip in such a case, if there are two render engines (main/backup operation) in the network, you would first restart and connect the backup engine so that content is played there and then switch this computer to the tape system via matrix or other switches. Afterwards you do the same with the main render engine and you are relatively cleanly switched over to the backup.

If you accidentally switch off the chillout mode in the GUI on a second computer, this has no effect on the operation as long as the main GUI is connected to the render engines. A second connection is rejected in this case.

Custom Controls / Matrix switch / OSC Remote



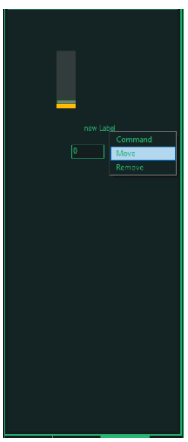
To create a user control surface in the program, you must first switch to the Custom area at the bottom left. Next, right-click with the mouse in the free area below the matrix switch.



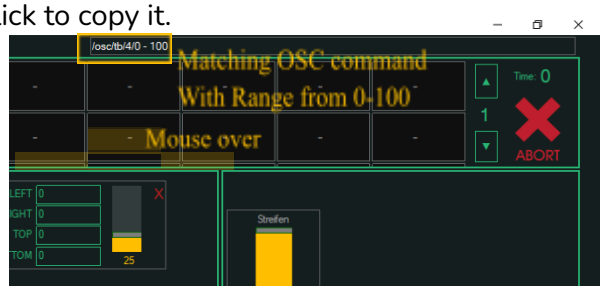
The following controls can be added here:

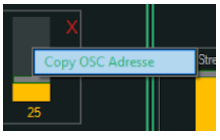
- Button
- Fader
- Label
- Numeric (Text field for numbers)

These control elements can now be assigned all values that are displayed as OSC command in the upper right corner. To do this, you only have to move the mouse over a corresponding element and see if it contains an OSC command, or you can also right-click to copy it.



Then the individual elements can still be right-clicked moved and/or renamed be renamed.
At the same time the the OSC command can be inserted.

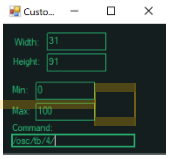




Note that the range at the end is deleted, otherwise the fader contains only a static value. Example:

Copied value: /osc/tb/4/0 – 100

Value to be inserted: /osc/tb/4/



OSC Remote

As with the custom control interface, all buttons, faders and other controllers that have an OSC assignment can also be addressed via an external control. For this, only a UDP connection with port 12123 and the IP of the control computer (local 127.0.0.1) must be established. After that, OSC commands can be copied and sent from the respective control program (note the deletion of the last values!).

The syntax is as follows:

/osc/group/subgroup_or_name/number_or_name/value

File swap in playlists via OSC

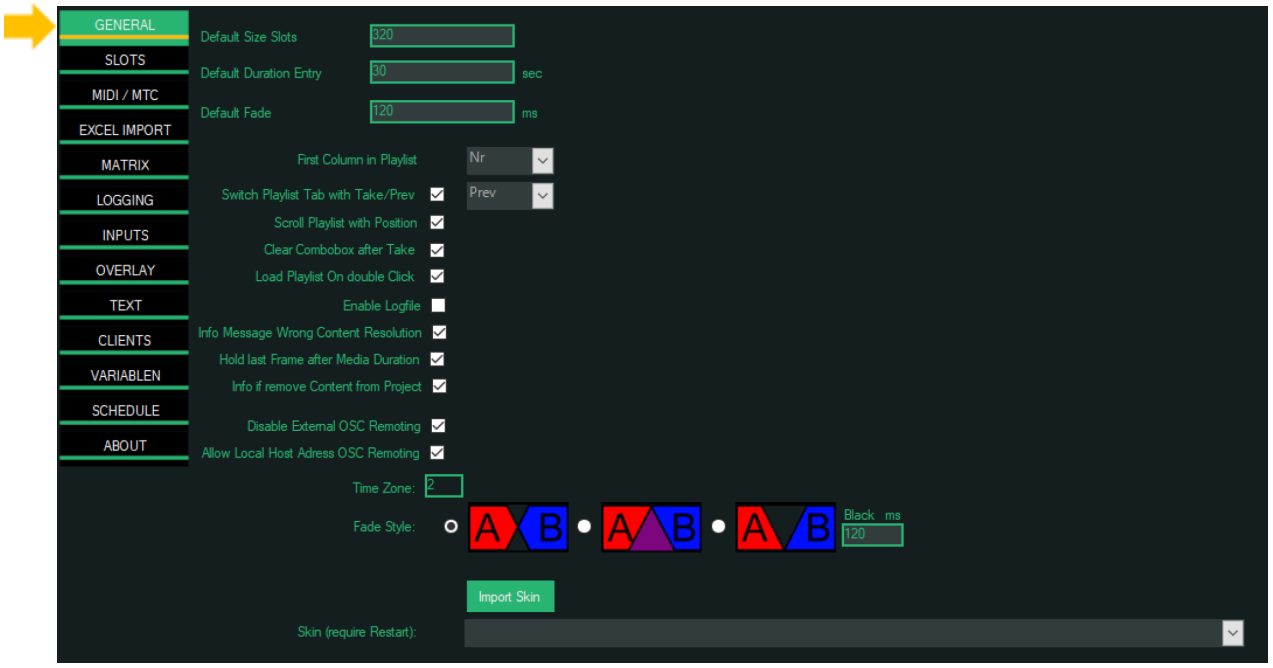
It could be exchanged starting from version 1.7.1.40 entries by OSC in play lists. This is useful if you always have the same sequence and only one file changes and you would need many individual playlists to realize this. So you can swap single entries and always start the same playlist. The command must also be sent to the backup GUI in backup mode.

The syntax is as follows:

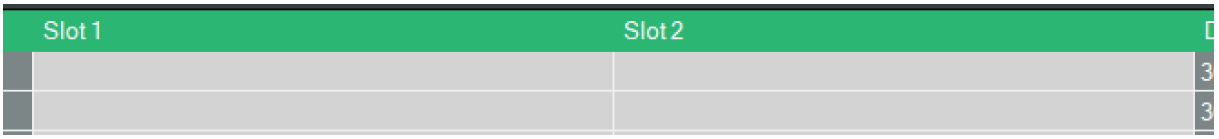
/osc/changeEntry/Playlist Name/Slot Number/Line Number/Exact Medianame.mp4

Settings

General Settings

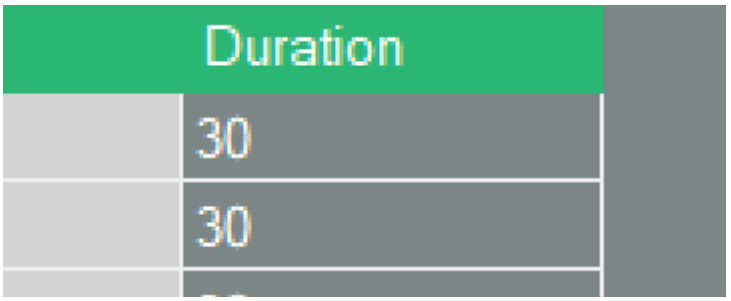


Default Size Slots



Sets the default width of a slot/column in the playlist. This can be changed later.

Default Duration Entry



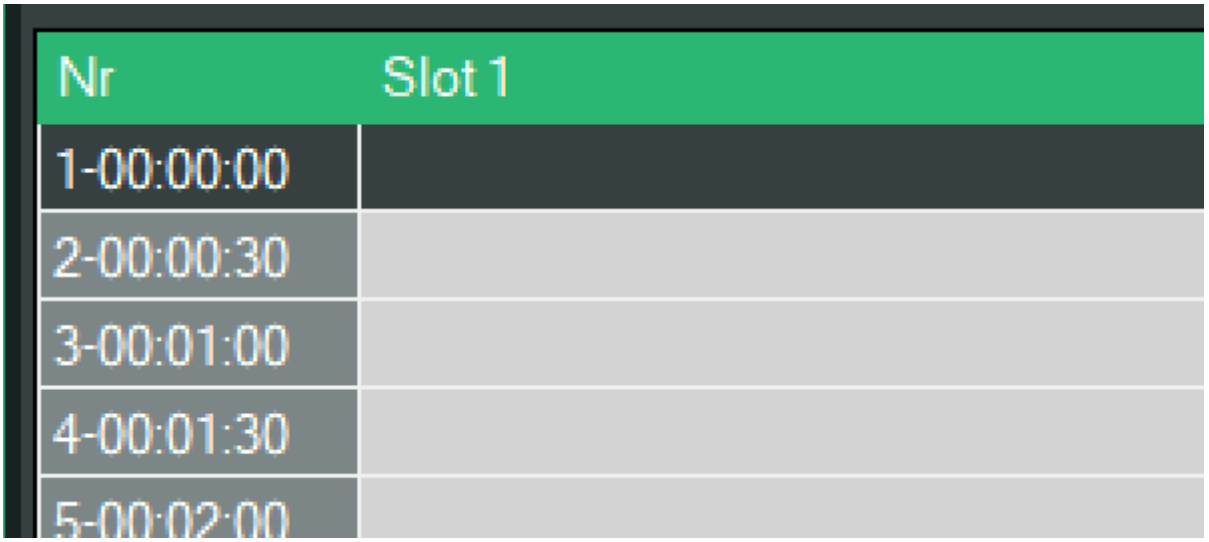
When creating a new playlist entry, this time is set as default, but can be changed later.

Default Fade

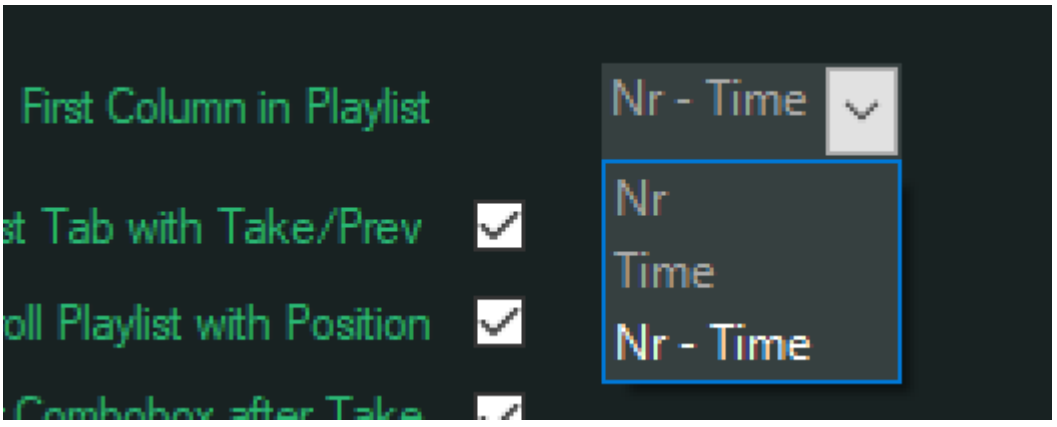
Is the default crossfade time between two playlist entries at the end of a clip. Can be set individually per playlist.



First Column in Playlist



Sets whether the first field of the playlist should be displayed in which format. Default here is Nr. It can also be changed Timer or Nr-Time.

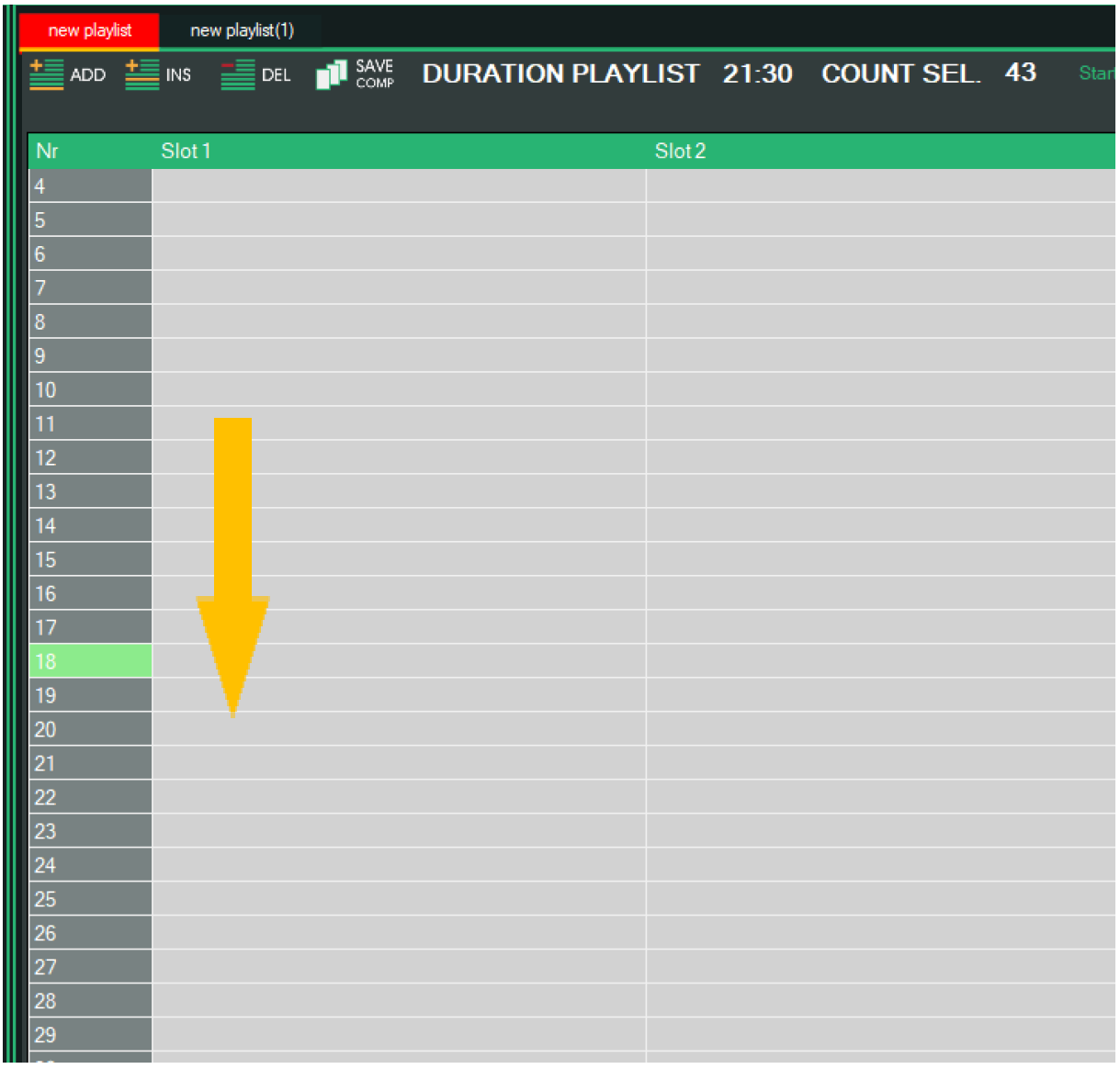


Switch Playlist Tab with Take/Prev

Switches to the Active Playlist tab on a take or already when you select it only in the dropdown (Prev).

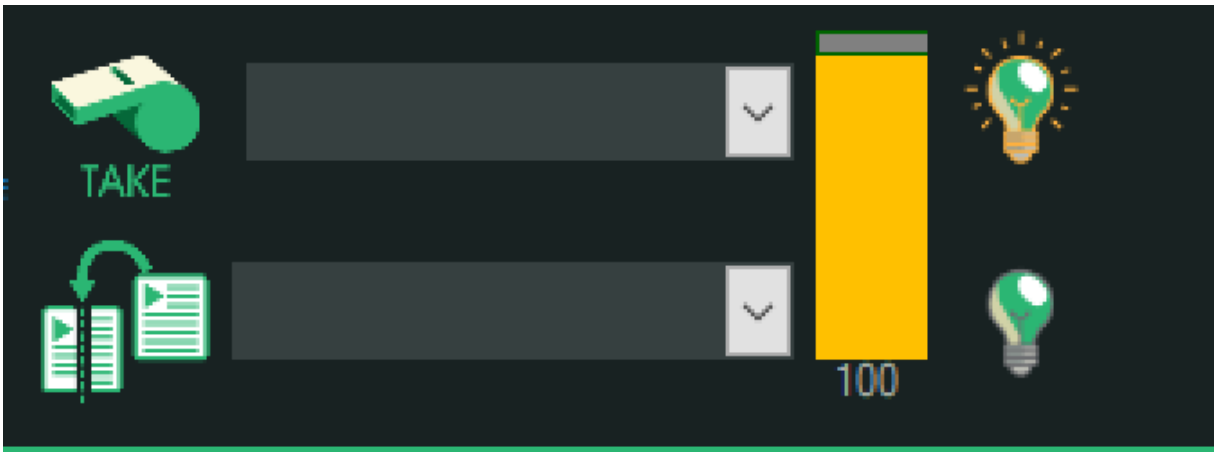
Scroll Playlist with Position

When the playback in a playlist has reached the middle, the playlist automatically moves up to show the current entry to be played.



Clear Combobox after Take

Deletes the content of the playlist dropdown after a take has been pressed. Prevents pressing Take again while a playlist is already running.

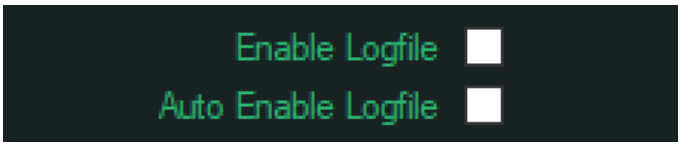


Load Playlist on doubleklick

Loads the clicked playlist into the dropdown menu for a take.

Enable Logfile

This option requires a dongle! When enabled, all executed playbacks are logged.



Since version 66, logging can be activated directly as soon as a dongle is plugged in. If this is desired, simply tick the Auto Enable Logfile box

Info Message Wrong Content Resolution

.....

Hold Last frame after Media Duration

Holds the last frame of a media file until the end of a fade in the next playlist column. Normally a file is always looped until the end of a fade, which sometimes leads to a complication with the blending option below and doesn't look so nice. But if you explicitly want to loop a media file very often and enter a long time, you can switch this option on and off individually in the upper right corner of each playlist.



Info If Remove Content from Project

Asks whether content that is still in a playlist should really be removed from the project.

Disable External OSC Remoting

Disables the external OSC control of the GUI software.

Allow Local Host Adress OSC Remoting

Allows OSC control of the GUI software via IP 127.0.0.1 when OSC remoting is disabled.

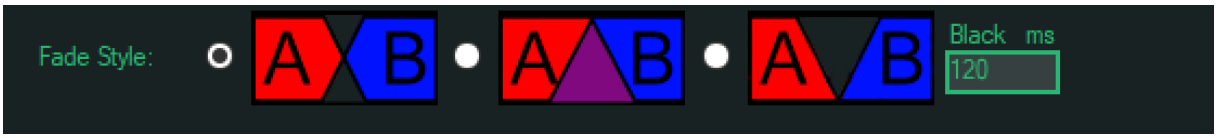
Time Zone

Only sets the clock in the software.



For a correct logging the system time must be set correctly to the current location!

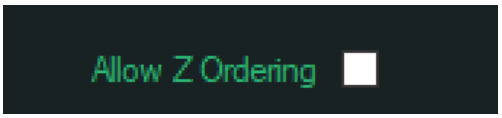
Fade Style



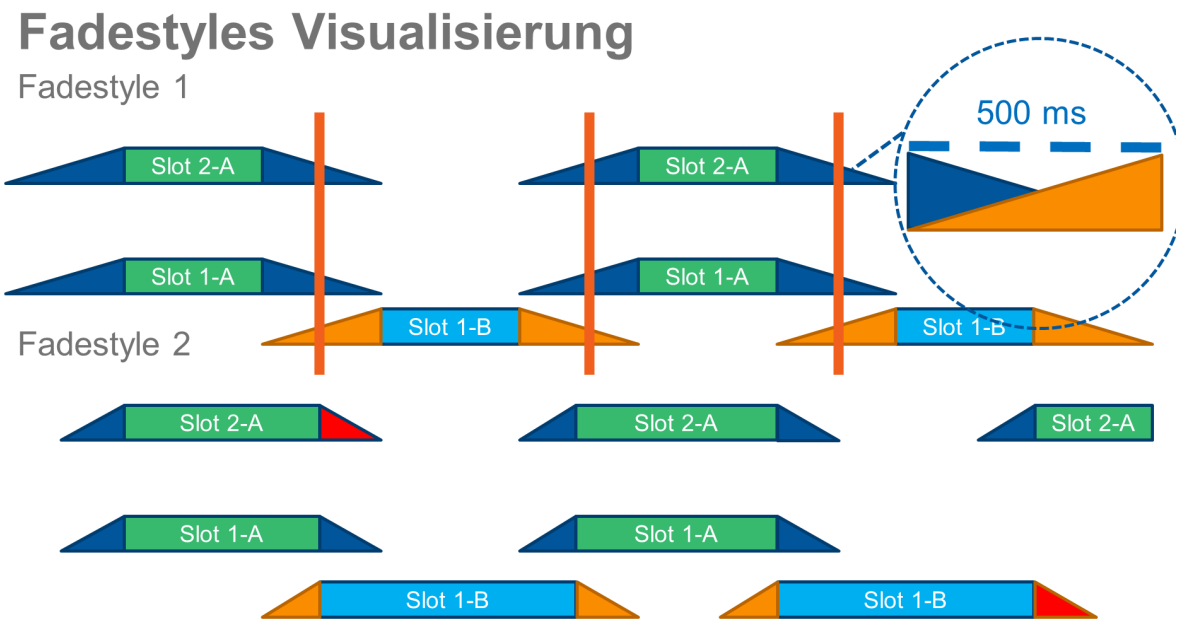
Currently there are three fade styles:

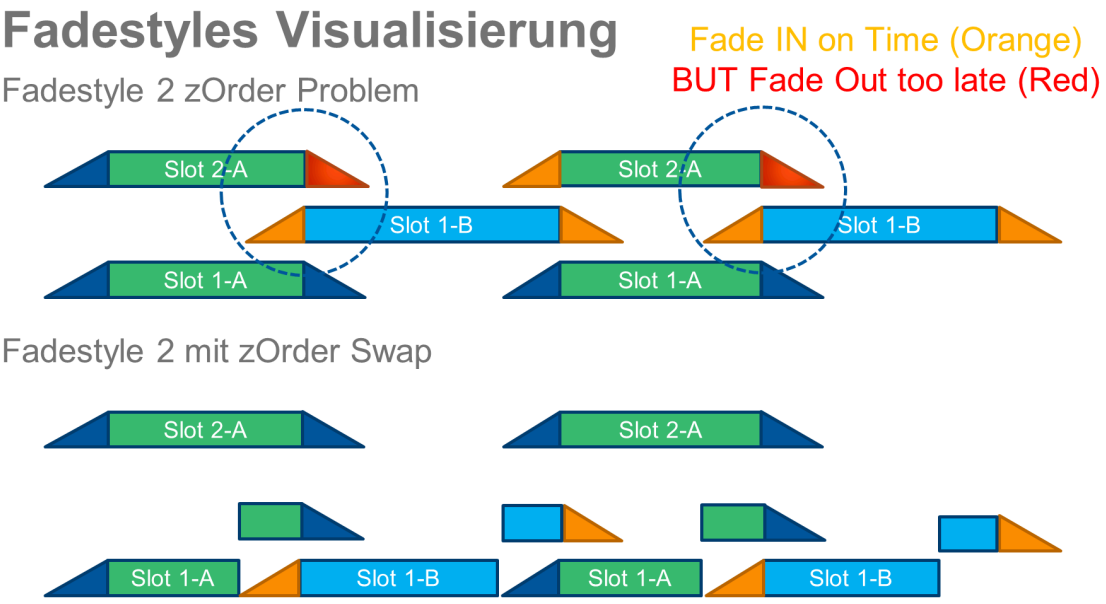
1. Fade Out & In fades over black to the next clip in the set time.
2. Crossfade crossfades two clips in the set time. Here the frame hold function is useful
3. Fade & hold over Black fades out, waits for black as long as set in the field next to the effect and then fades into the next clip. Attention. Playlists could become longer than desired!

Allow Z ordering

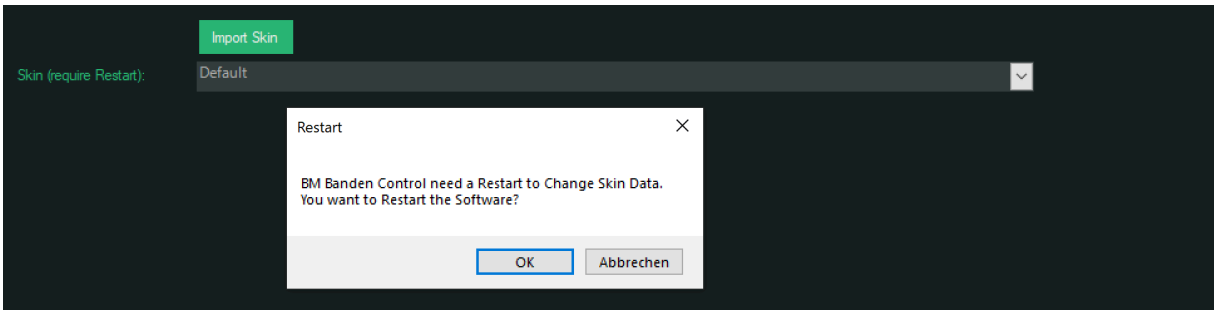


This ensures that the layers in Layer Style 2 are all kept in the same order.



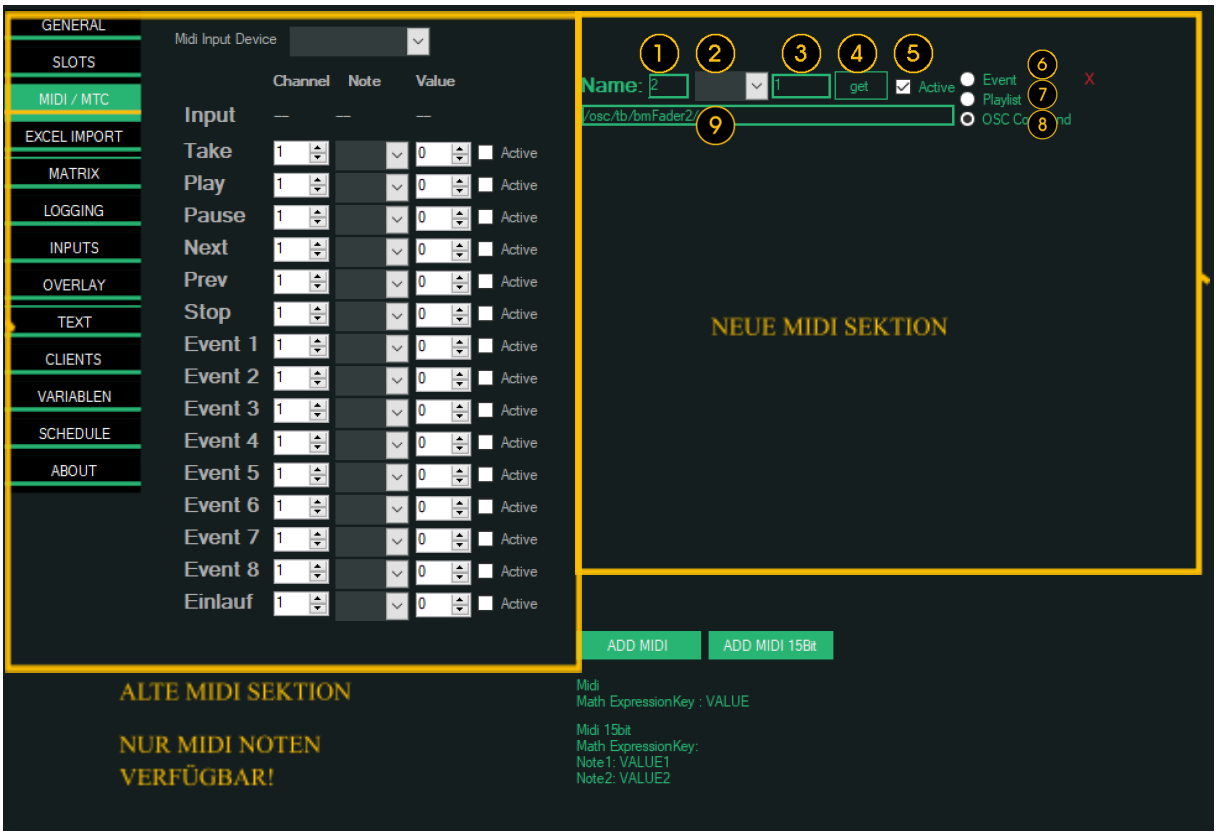


Load Skin



Only appears if you have installed a second skin and this is displayed for selection in the dropdown.

MIDI Remote



The Midi section keeps growing with each release. Currently it is divided into two parts:

The old section has fixed assignments to functions in the software and has play/pause separated. The section can only be accessed via midi notes e.g. from a real midi keyboard. If you use a NanoKontrol or similar, the values are rather CC1-CC99 and can therefore not be assigned in the old section.

In the new Midi section you can add your own commands. For this you have to press the ADD Midi or ADD Midi 15bit button at the bottom. In the dialog that appears you can change the following:

1. **Name (Channel Nr.)**: Is the actual channel and will be named as a channel in future versions.
2. **Note**: Press drop-down menu for a note or "get" button and move/press the fader/button.
3. **Wert**: Is the value that was inserted/changed by midi controller and where it is currently located
4. **Get**: Fetches the next command pressed on the connected midi board and sets it to channel no. and note.
5. **Aktive**: The check mark enables or disables the execution of the command

6. **Event Modus**: At (9) enter the exact name of an event incl. upper and lower case in the command line

7. **Playlist Modus**: At (9) enter the exact name of a playlist including upper and lower case into the command line

8. **OSC Modus**: many buttons, fields or faders have an OSC assignment. On the top right you can always see the current command when you move the mouse over a button/field/fader. To make this easier, you can also right-click on a button/field/fader (e.g. the brightness) and
9. select "Copy OSC". Then paste this command as follows:

Copied value: /osc/tb/4/0 – 100

Value to be inserted: /osc/tb/4/

If you want to calculate with the values, the command would look like this:

Value to be inserted: /osc/tb/4/VALUE1*20

Value to be inserted: /osc/tb/4/VALUE1+10

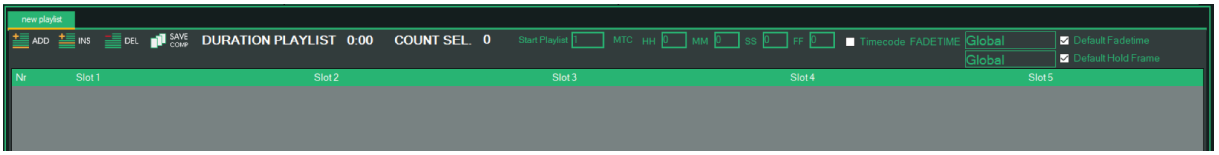
A decrement and increment can also be executed:

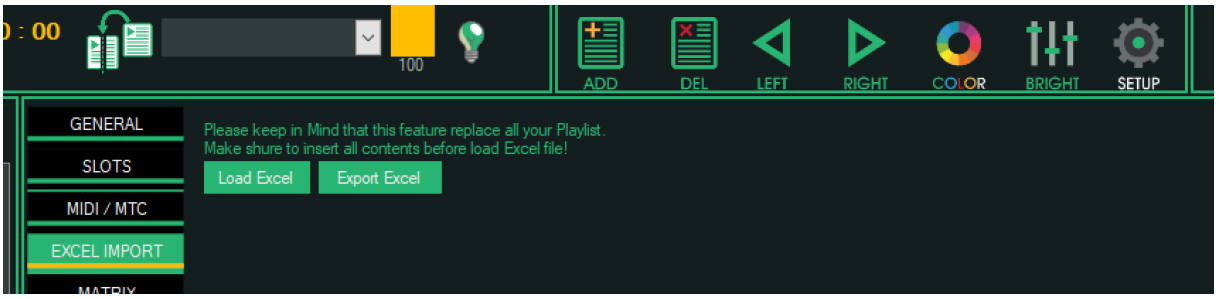
Increases the current value by +1: /osc/tb/4/++1

Decreases the current value by -1: /osc/tb/4/–1

Excel Import

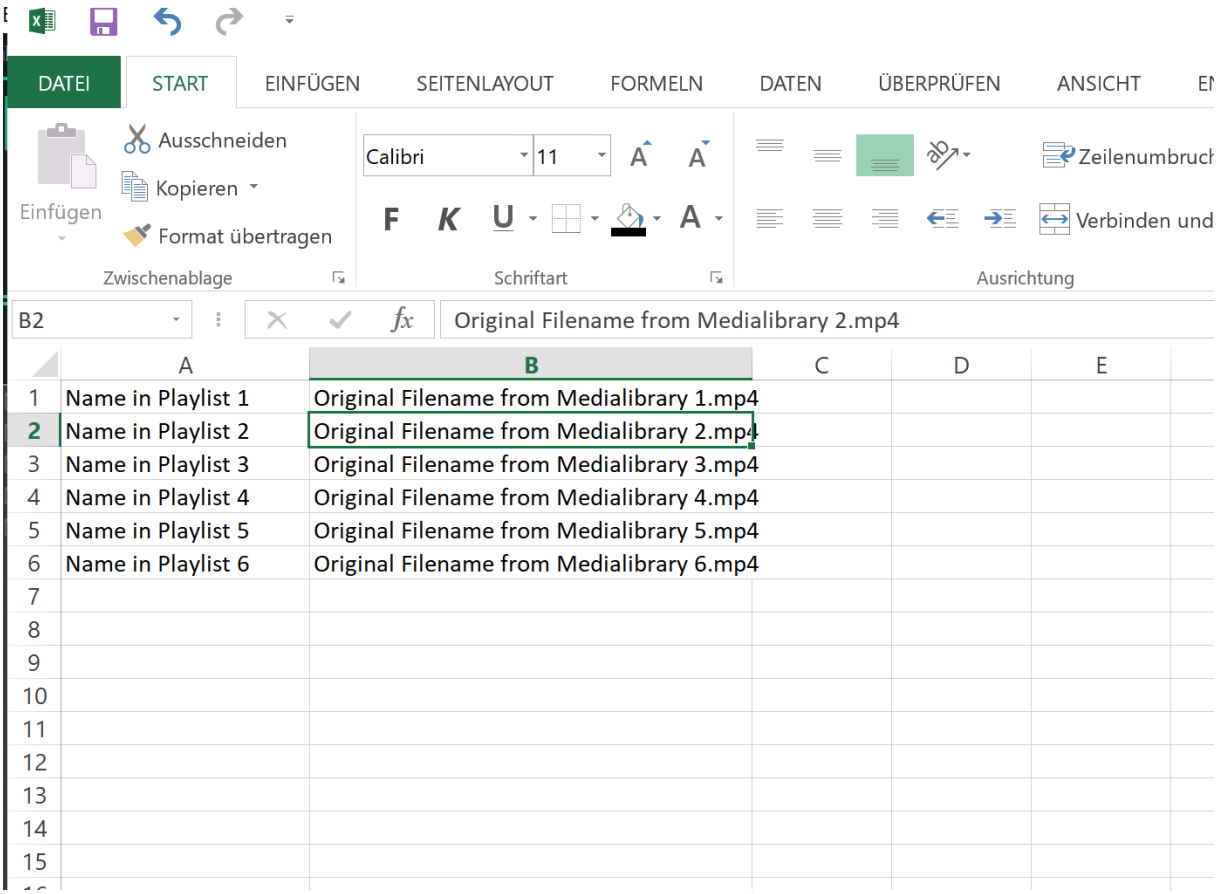
Load Excel

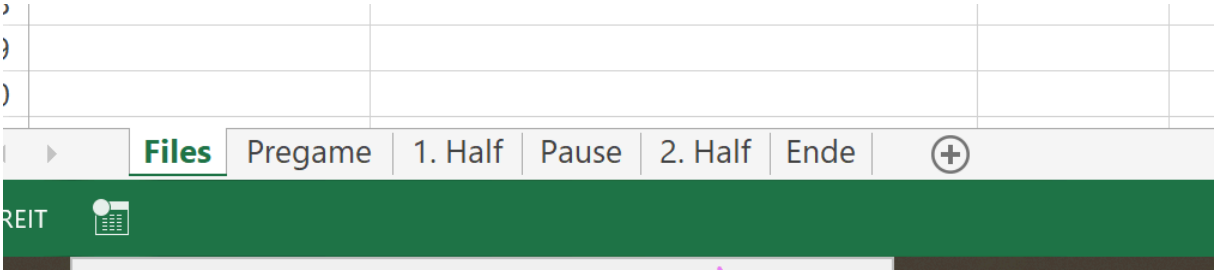




Files Mapping Worksheet

Files is the name of the worksheet in Excel, which links the files in the media library with those of a playlist and then creates any number of playlists (one per worksheet) from this data.





Import rules:

1. The slot number must match the created slots in the GUI
2. A line without time information will not be imported
3. Only integers in seconds or HH:MM:SS time formats are accepted
4. Each worksheet creates a playlist except the mapping table files.
5. No slots need to be added as headers, but it creates clarity.
6. The Worksheet Files must be created and all playlist entries must contain the exact name including upper and lower case, otherwise they will not be associated with the media files and generate a "Not assigned" error message and mark them accordingly in the playlists after import.
7. A media file can only be added to exactly one playlist entry. If a playlist column has to be split into two slots, the names in the copied playlist must be changed for the second slot (preferably also for the first, for the overview).

   Here the Excel function

   =CONCATENATE(InputFeld;" L")

   =CONCATENATE(InputFeld;" R")

   Example media file:

   Advertising partner_01_left.mp4

   Advertising partner_01_right.mp4

   Example original playlist entry:

   Advertising partner 01

   Example "Files" Mapping Worksheet entry:

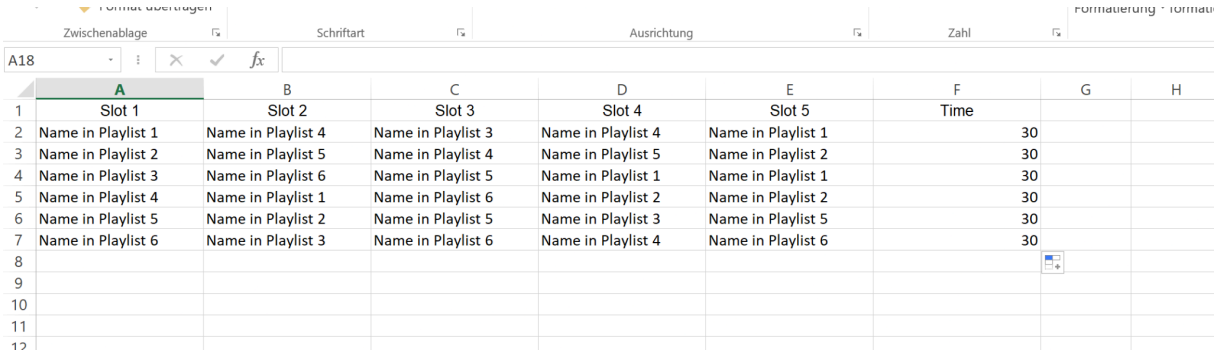
Advertising partner 01 L	**Advertising_partner_01_left.mp4**

Advertising partner 01 R	**Advertising partner_01_right.mp4**

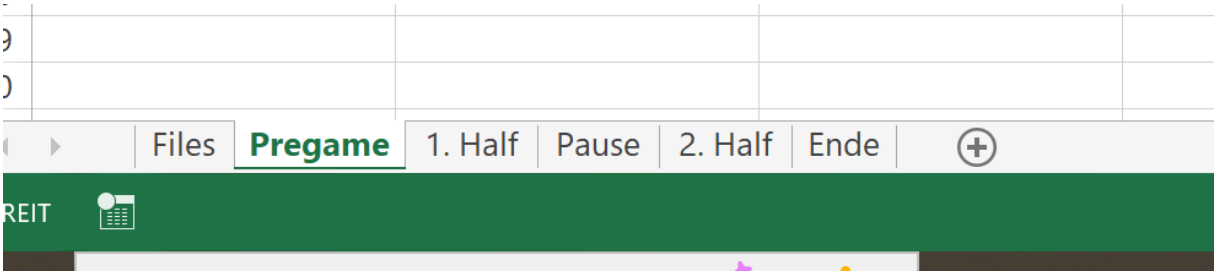
Example "Playlist" Worksheet entry:

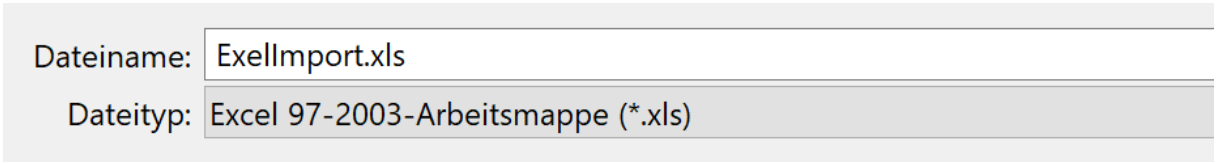
Slot 1 Left	**Slot 2 Right**	**Time**
Advertising partner 01 L	**Advertising partner 01 R**	**30**

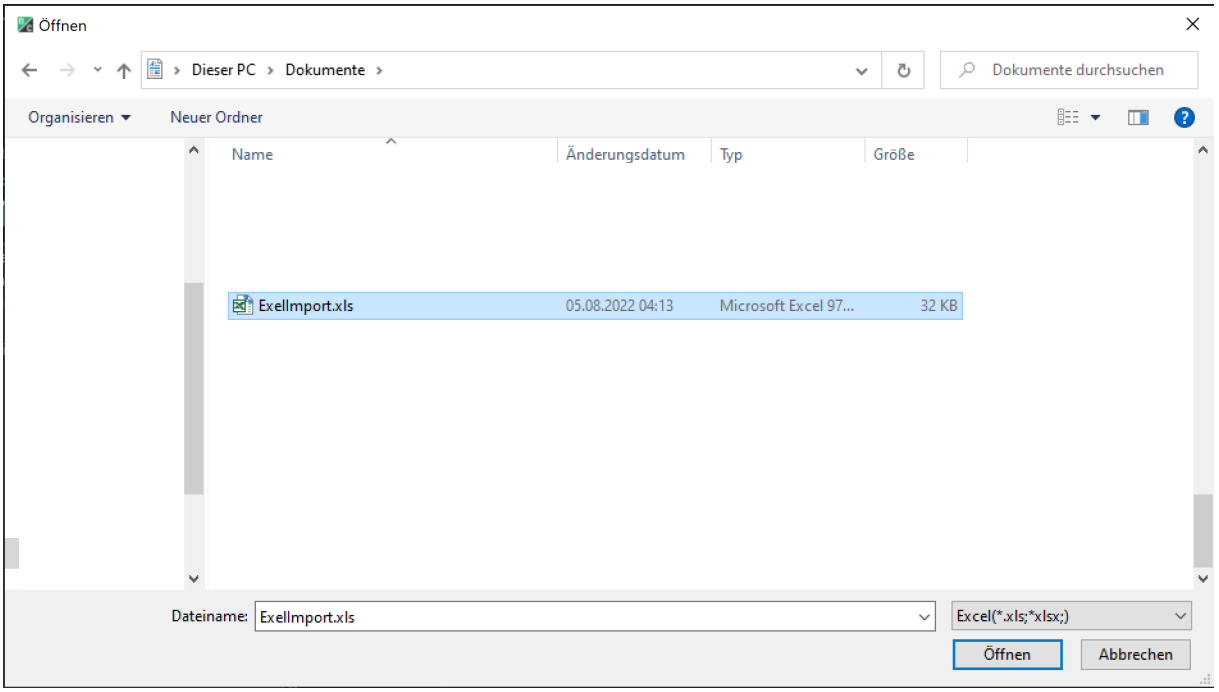
8. The Excel file can be saved in the format Excel 97-2033 *.xls or also as *.xlsx.



	A	B	C	D	E	F	G	H
1	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Time		
2	Name in Playlist 1	Name in Playlist 4	Name in Playlist 3	Name in Playlist 4	Name in Playlist 1	30		
3	Name in Playlist 2	Name in Playlist 5	Name in Playlist 4	Name in Playlist 5	Name in Playlist 2	30		
4	Name in Playlist 3	Name in Playlist 6	Name in Playlist 5	Name in Playlist 1	Name in Playlist 1	30		
5	Name in Playlist 4	Name in Playlist 1	Name in Playlist 6	Name in Playlist 2	Name in Playlist 2	30		
6	Name in Playlist 5	Name in Playlist 2	Name in Playlist 5	Name in Playlist 3	Name in Playlist 5	30		
7	Name in Playlist 6	Name in Playlist 3	Name in Playlist 6	Name in Playlist 4	Name in Playlist 6	30		
8								
9								
10								
11								

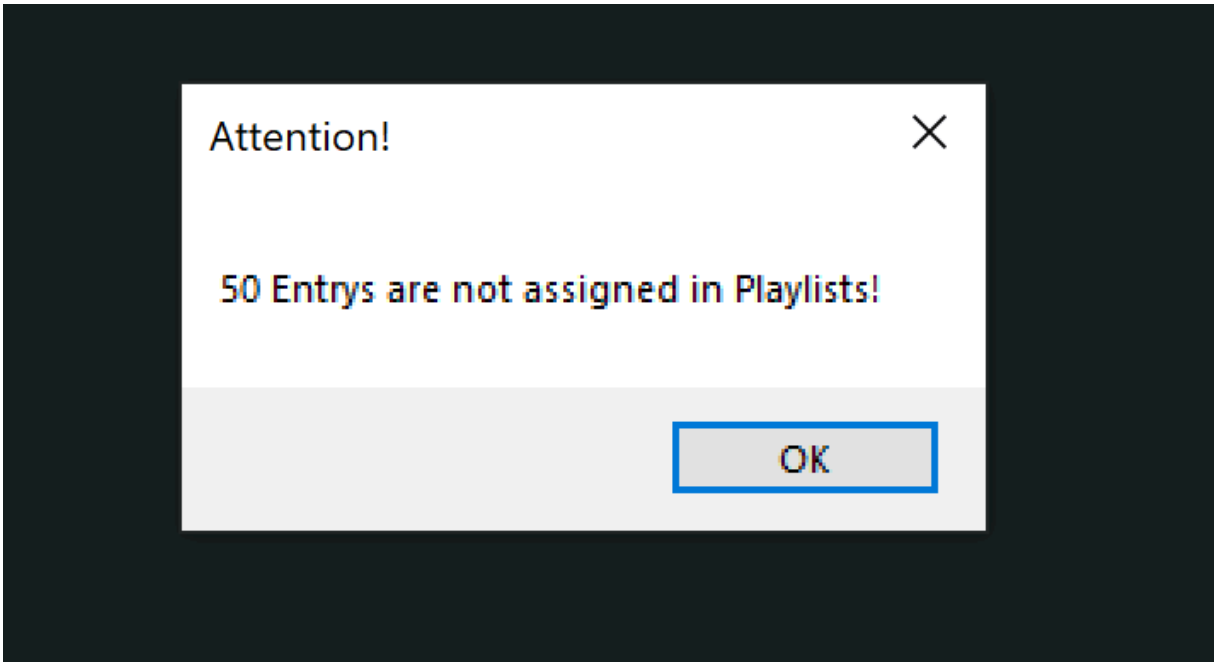






Fix error during import

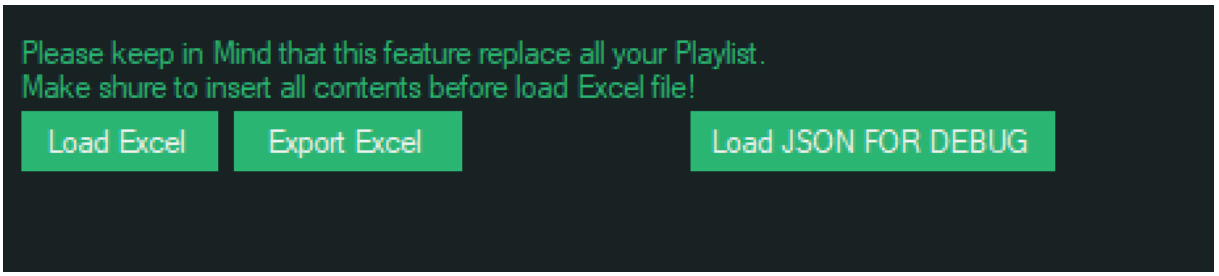
In most cases a file is missing in the media library or a playlist entry is misspelled or has one space too many (this is also possible after a playlist entry). If lines are missing during import, the time may have been forgotten or the number of slots differs from the Excel list.





Additional notes on import:

In the newer versions, the widths of the individual Excel columns are also imported from the Excel sheet.



Load JSON for DEBUG

Is a developer function and does not explain exactly what it does.

Changelog (Appendix)

Version 1.7.1.85

-fix	BM	Eventbutton load show has no parent control
-fix	BM	Switch layer id was to high
-fix	BM	goto Playlist is preloaded correct
-fix	BM	loop/play was not set correct on some layer
-fix	BM	if goto playlist labels and controls are updating to new playlist
-fix	BM	Logfile first entry after take time was not correct
-fix	BM	Row in logfile was offset by 1

Version 1.7.1.84

-add	BM	eventButton send index to backup to have multiply times same name

Version 1.7.1.83

-add	BM	Drag and Drop rows will now show correctly
-add	BM	Change of Upload Drive and load/store in project
-add	BM	Filter DragDrop in Playlist
-add	BM	Filter DragDrop in Eventpanel
-add	BM	Filter DragDrop in ProjectTree
-fix	BM	Playlist Rightclick show only valid commands
-fix	BM	eventname was not correct on receive backup

Version 1.7.1.82

-add	BM	Show DragDrop Folder Nodes
-add	BM	Change background of Slots by dragOver resource

Version 1.7.1.81

-fix	BM	Autoscroll was not working
-fix	BM	event was showing only first frame

Version 1.7.1.80

-fix	BM	Crash on preload via chillMode
-fix	BM	Crash on take via chillMode
-fix	BM	Can't get max texture size

Version 1.7.1.79

-add	BM/Engine	Log Dongle Serial Number

Version 1.7.1.78

-fix	BM	Timer more precise for les powerfull systems

Version 1.7.1.77

-add	BM	event overlay to play a event the same time without pause playlist
-add	BM	Load slot are colored

Version 1.7.1.76

-fix	BM	Log was not working because of to many async calls.
-add	BM	High precise c++ counter
-fix	BM	on save system checks if dead content is in filelist and removes it
-change	BM	playlist is updating live and loads directly from dgw
-fix	Engine	liveinput was blocking thread

Version 1.7.1.75

-fix	BM	Invoke changed to beginnInvoke to avoid deadlock on gui
-fix	BM	event outfade was not processed if slot was not filled

Version 1.7.1.74

-fix	BM	queue max wait to awoid deadlock
-fix	BM	Lock list to avoid double access
-add	BM	Client Drive can be selected

Version 1.7.1.73

-fix	BM	filter out null exception
-change	BM/Engine	reset is in opacity down included
-change	BM	path send double times
-fix	Engine	receive function drop packages because of stream split
-fix	BM	cancel upload work don't crash upload function anymore

Version 1.7.1.72

-change	BM	filter out thumb files on dragdrop
-fix	BM	exception on rightclick remove if leftclick was never used in treeview

Version 1.7.1.71

-add	Engine	receive timeout
-fix	Engine	if ping was to high engine drop packet

Version 1.7.1.70

-add Engine mutex for lock render thread

Version 1.7.1.69

-change Engine Layer reset changed

Version 1.7.1.68

-fix Engine if content was not found and geets never uploaded slot was broken

-add Engine Log message if file not found or read info frame corrupt

-add BM getLayer info button for informations on current layer settings

-fix BM sending requests was async on some situations

-change BM/Engine reset Layer changed to 1 array command for better performance

-fix BM upload was not working if content node tag was null for some reason

Version 1.7.1.67

-add BM Audio player in Playlist

-fix BM optimized Refreshs of treenode

-fix BM treenode if move fail don't remove nodes

Version 1.7.1.66

-add BM Restore column width on playlists on excel import if existing

-fix BM Logging on backup first row fixed

-fix BM Overlay file removed if file is deleted in project tree

-fix BM Midi send to overlay rounded

-fix BM Playlist hold last frame disabled did not start video again on pause/play

Version 1.7.1.65

-add BM add color correction by remote

-add BM remove color correction by remote

-fix BM spelling error in about section

-fix BM exeption on prev in first entry if log is enabled

-fix BM prev not write two log messages

-fix BM remote preload and next notify worker

Version 1.7.1.64

-add BM Auto enable logging, check dongle state

-fix BM Disable logging after it was activated

-fix Enigne playstate was case sensitive. only loop was working

-fix BM Matrix commands allways updates

-change BM project load optimized

-fix BM stack overflow if names of custom trackbars are multiply times the same and value changed

-fix BM show time as HH:MM:SS converting exception and performance issue fixed

-fix BM Crop was not working

-change BM Liveinputs are loaded on connect

-change BM cleaned output config

-fix BM Logging was not working

-change BM Delete Key in treeview will delete multiselected Items

-fix BM Playlist Duration loaded correct

-fix BM Row copy will order by index

-add BM Copy Paste of multiply row cells

Version 1.7.1.63

-add BM Add save columnwidth in playlists

-change BM Wrap Height can set to negative values

-fix BM Liveinputs can set to events

-fix BM Delete of Midi controls after load to other project

-fix BM Multitex is send to events

Version 1.7.1.62

-add BM FPS Sync Label

-change BM more performance for timer

-change BM combine tick and clock for better performance

Version 1.7.1.61

-change BM/Engine sync message grouped

-change BM send message queue for sync sending without wait

Version 1.7.1.60

-fix BM Liveinput was not send correct

Version 1.7.1.59

-fix BM Multirotation can be add in subfolder

-fix BM Optimized Code for Folder multi, text, comp

-fix BM Event supports fadestyle

-fix BM Fail to save logfile in some cases because of deprecated code

Version 1.7.1.58

-fix BM If overlay name was empty exception crash

-fix BM Time change on entrys in running playlist

Version 1.7.1.57

-add Engine Playler Lite License added. 1 Slot and 1 Overlay max.

-change Engine Disable double buffer for intel iris grafic

Version 1.7.1.56

-change Engine if GUI=true fullscreen is handled different because glfw change the fps

-add BM osc command for slot redMaster greenMaster bluemaster

-change BM OSC numeric change ++ -- changed to decimal for value changes < 1

Version 1.7.1.55

-add BM write info for network changes and signal lost

-add BM Take Over Clients

-add BM save and load timezone

-change BM heartbeat

-change BM shared disabled

-fix Engine Crash if write and read frame in same time because of CPU peak

-change Engine video check optimized

-fix BM Backup Log was time not resetet in some cases

Version 1.7.1.54

-add BM Slot time can now be changed live

-add BM Replace file in rightclick in Project tree

-add BM Open recent list

-fix BM Replace file trigger refresh fileinfo

-fix BM Playlist duration is refresh on row delete

-fix BM playlist invisible if clear playlistbox and switch playlist tab with preview is enabled

-fix BM delete all overlays on new show or load show

-fix BM Overlays have unique names

-fix BM Folder with sub folders can be delete

-fix BM Delete playlist null exception crash

-fix BM Crash if undo string = null

-fix BM missing playlist entrys can be replaced

-fix BM excel import refresh playlist goto list

Version 1.7.1.53

-add BM localhost client present on new show.

-add BM autoconnect if start prev or start fullscreen

-add BM Custom Fader, Button, Numeric have names

-add BM Custom Controls Copy OSC Adresse and copy Name

-add BM enable zOrder for fade

-add Engine enable zOrder for fade

-add BM Auto Store for Color Correction

-fix BM exception if playlist position > playlist json count

-fix Engine devided by zero crash

-fix BM delete custom controls on project load

-fix BM store color correction crash if no file in slot

-fix BM Copy Name from Control

Version 1.7.1.52

-remove Engine If no heartbeat is comming engine close connection after 4 sek for reconnect

Version 1.7.1.51

-add BM support for datetime formated excel time

-add	BM	support for multi in excel import/export
-add	BM	support for compositions in excel import/export

Version 1.7.1.50

-add	BM	BM Remote Show Crash Message on Start
-fix	Engine	Jumping between 2 frames if video is done
-fix	BM	Crash if Client can not disposed

Version 1.7.1.49

-fix	Engine	Video Pause was switching between two frames
-fix	BM	Stop negativ values not possible anymore
-fix	BM	Conversion from Colorcorrection default Values was not right
-fix	BM	ChiloutMode Disconnect Connected Clients
-fix	BM	If Time < switch and preload timer stops

Version 1.7.1.48

-add	Engine	If no heartbeat is comming engine close connection after 4 sek for reconnect

Version 1.7.1.47

-fix	BM	Excel Import was not working correct

Version 1.7.1.46

-add	BM	osc command for goto number "/osc/gotoNr/NUMBER"
-add	BM	Events can be fired by osc even if no button exist.
-fix	Engine	Hap Hardware encoding activated.
-fix	BM	Copy/Paste was not working correct

-fix BM OSC Exception if address was to small or number of arguments

Version 1.7.1.45

-fix BM Colorcorrection Saturation was not loaded correct.

Version 1.7.1.44

-fix BM Load Playlists with custom Content names.

Version 1.7.1.43

-change BM Heartbeat is only send if client is full Init

-change BM NumericUp/Down has no a safe area

-fix BM Reconnect to client don't affect other clients

-fix BM Exception if playlist number was higher or lower than playlist in setTimeBar

-fix BM if video is corrupt on replace media don't remove node from project.

-fix BM Midi input to osc not working for playlists and events

-fix BM Content Name can not be empty

-add BM System can be set to 50FPS

-add BM Switch Duration Value to HH:MM:SS

-add BM Import of HH:MM:SS TimeValues in excel

-add BM First testimplementation of event logging. Not exact at the moment. Only for testing!

-add BM enter on NumericUp/Down control lose focus for control

-add BM Copy Name in rightclick

-add BM Change Variable for loupedeck integration

Version 1.7.1.42

-fix BM first entry in playlist was allways green on stop

-fix BM Label for animation was switch to 1 for no reason after stop

-fix BM After Project loaded goto Playlist was empty

-fix BM playlist loopjump to startOffset

-fix BM messagebox if liveinput was not realoaded/found after system start

-change BM chane slot max width and height to 32000px

-fix Engine if image Texture was not ready build and reset in the same time engine crash

Version 1.7.1.41

-fix BM event exception if time was to high

-fix Engine crash if text font was null

-fix Engine crash if text was not not set correct size

Version 1.7.1.40

-fix BM Copy Playlist was not working since V 1.7.1.39

-fix BM Trigger Event button on Backup Bandencontrol

-fix BM Trigger Abort Event on backup Bandencontrol

-add BM Add OSC toggeling Manager Mode/Chill Mode

-add BM Disable OSC Remoting

-add BM Allow OSC Remoting on Localhost

Version 1.7.1.39

-fix BM speed up Create new playlist

-fix BM speed up load big projects

-fix BM speed up Take recreate jump Destinations on Take

Version 1.7.1.38

-fix BM OSC Exception if argument was ok but not terminated

-fix BM Check message if file is stored by closing application

-fix BM trycatch if fontfile not found

-fix BM exception if Tag by Resource is empty

-add BM Change entry in Textcomp e.G. /osc/changeCompEntry/textcompName/slotnumber/contentname

-add BM F2 for rename TreeNodes

Version 1.7.1.37

-fix BM OSC Exception if in Custom Fader/Numeric 0-100 are not removed

-add BM OSC change entry in playlist added Textcompositions and Compositions

-fix BM Copy/Load from Textcompositions

Version 1.7.1.36

-fix BM Event start frame was every second time at -100

-fix BM Event crash if event was pressed during event

Version 1.7.1.35

-add BM Change entry in Playlist e.G. /osc/changeEntry/playlistname/playlistrow/slotnumber/contentname

-fix Engine Change rtbufsize to 1024

Version 1.7.1.34

-fix BM/Remote fileupload bigger than 2GB

-fix BM If composition not existing dont search

-fix BM Delete not existing composition crash

Version 1.7.1.33

-add BM/Engine Add BG Color

-add BM Dip to black

-fix BM if composition json = null crash

Version 1.7.1.32

-fix Engine Scaling was wrong if multiTex was off and Layer was bigger than content

-fix Engine if remap was set could not switch back to other layer state

Version 1.7.1.31

-add BM/Engine Clamp Mode for Multiply Texture if slot is bigger than content

-fix Engine Moove Liveinput get frame to synced Thread

-fix BM Engine is not disconnecting if click on Load Project andn.

-fix BM Hold Last frame in playlist was disable play button

-fix BM Sync Session sending changed to utf8 for more chars

Version 1.7.1.30

-fix Engine Engine sws_context SWS_ACCURATE_RND add

Version 1.7.1.29

-fix Engine Engine sws_context SWS_FULL_CHR_H_INT removed

Version 1.7.1.28

-add BM/Engine get Max Texture Size from Engine

-add BM deleted Multirotations from local system if remove from project

-add BM Slot Delay in FPS for Sync

-fix BM Exception Handler and Error OSC Callback if Message is not a Valid OSC String

Version 1.7.1.27

-fix BM remove Player count check

Version 1.7.1.26

-fix BM Exception if Playlist is running and all entries are deleted

-fix BM Exception load file if Multi width/height is empty

-fix BM Check Name for Multi fixed

-fix BM Exception on Find Entry in Playlist

Version 1.7.1.25

-fix BM Rename Multirotation lead to inconsistent

Version 1.7.1.24

-fix BM If Json for Multi = null crash

Version 1.7.1.23

-fix BM Create Empty Playlistentry Duration is Default in Project settings

-fix BM Logging log multirotation

Version 1.7.1.22

-fix BM TextComposition Folder could be deleted

-change BM Multirotation stored in multi folder next to project

-fix BM Upload Multirotation after change

Version 1.7.1.21

-fix BM Folder Dragable Multirotation

-fix BM Folder Remove, Rename, Upload Multirotation fixed

-fix BM Player Show HH:MM:SS:FF instead of only SS:FF

-fix Engine crash fixed, sws_scale added different options for different codec Transformations

-fix Engine if resolution of pictures are 0 picture are not displayed

-fix Engine crash fixed, remap init and deleted correct

-fix Engine crash fixed, try to render pictures even if destroyed

-fix Engine fixed time error/freeze of content if audio is in content.

Version 1.7.1.20

-fix BM BMNumeric can't be empty

-fix BM if slotStyle is switched remaps will not be deleted

-changed BM Multi file stored in project path

-fix BM spelling delete slots

Version 1.7.1.19

-fix BM Multirotation Folder not assigned as Multirotation after load Project.

-fix BM Remap Size extend to 100000.

Version 1.7.1.18

-fix BM Multirotation Picture Offset not correct.

-fix BM Multirotation create Picture on Project Load.

Version 1.7.1.17

-add BM Multirotation Pictures with Scroll

Version 1.7.1.16

-fix BM Treecontrol init after new show

Version 1.7.1.15

-fix BM Render Group Store and Load

Version 1.7.1.14

-prep Engine Clamp Mode

-prep BM Clamp Mode

Version 1.7.1.13

-add BM Add Remaps for Slots and Overlays

-add Engine Add Remps for Layer

-fix BM Color Only refresh was not shown sometimes after changes

Version 1.7.1.12

-fix Engine Crash because Camera Remap applyed allways.

Version 1.7.1.11

-add BM Rendergroup for Multiclient Setup

-change BM Optimize Internal Code

Version 1.7.1.10

-add BM Heartbeat

-add Engine Heartbeat

Version 1.7.1.9

-add BM Upload Single File/Folder

-fix BM Send Matrix Commands to Async with Timeout

-fix BM Logo flicker by Upload files

Version 1.7.1.8

-add BM Internal Thread Naming

-fix BM Exception for Livetext Thread Events.

-fix BM Abort fades down Live Text

-fix BM Event and next click will not fade up content

Version 1.7.1.7

-add BM Failoversystem

-add BM Matrix Commands

-add BM OSC Command for Matrix Controls

-fix BM Exception if more Outputs are Started as Outputs Countet

Version 1.7.1.6

-add BM Math Functions for 15bit Midi VALUE1 and VALUE2

-add BM Math Expressions for NumericUpDown by Doubleclick on Control. (Border Switch to red)

-help BM for function like before use: (VALUE1 * 127 * 1.0) + VALUE2 * 1.0

-fix BM Math Functions changed that *-1 is working

-fix BM Function to set value +1 or -1 changed to ++1 or --1 because of conflict if value set to -10 for example

-remove BM auto insert math for 15bit Midi removed

-remove BM Unused Textbox in Slot Control removed

Version 1.7.1.5

-add BM Math functions in Simple Midi input. VALUE = MidiInputValue example:/osc/numeric/cropLeft4/VALUE + 10 or /osc/numeric/cropLeft4/100 - (VALUE * 10)

-add BM Extend Color Correction Control

-add BM MixMaster for Shader Crop and Soft

-add BM Invert for Shader

-add Engine Shader with new functions for Mix and Invert of Shaders

-fix BM Setup Button On click wrong grafic

-fix BM Exception if OSC Message control was 0

Version 1.7.1.4

-add BM Copy to clipboard for ColorCorrection

-add BM PosX + PosY for Overlay Mapped to OSC Command

-fix BM If media is Preload Take does not change preloaded media

-fix BM Button Position in TextComp

-fix Engine Text Position Offset Changed because of Virtual Outputs in Engine

-fix Engine Text Double Check Fixed

-change BM Media Reset changed from slotSize Threads to 1Thread for better performance

-change BM In Take Button Labels changed to Invoke instead of GUI Wait

-know error Engine Path can not have special character.

Version 1.7.1.3

-add BM Schedule tab und controls added

-add BM Custom Text for Logfile "\osc\log\messsageWithoutSpace"

-add BM Logfile Clear

-add BM Clear TimelineCB After Take

-add BM Load Playlist in TimelineCB on DoubleClick Tab

-add BM GUI Report in File for Info and Exceptions

-fix BM Delete 15bit midi Input bei load project

-fix BM Move numericUpDown in custom area fixed

-fix BM TakePrev Combobox Load correct

-fix BM Crash if Animation is in Composition/Textcomposition but not in Project anymore

-fix BM eventsave for next_click and take in same time fixed. In some situations can be a doubleclick and this will lead to a button click loop or blackLayers

Version 1.7.1.2

-change BM Preload double check double sending

Version 1.7.1.1

-change Engine Fadeout algorithm changed

-change Engine System Layer Double check to avoid black layer

Version 1.7.1.0

-add BM Messagebox for delete Overlay

-add BM Messagebox for delete Textlayer

-add BM Messagebox for delete Client

-add BM Messagebox for delete Output on Client

-add BM Messagebox for delete Virtual Output on Client

-add BM Content Info Change by clicking throw Treeview by Keyboard

-add BM Ignore ._DS_Store, ._ mac Files and hidden files by importing

-fix BM if file remove from tree it will remove from compositions too.

-fix BM Drang and Drop Content into composition folder if different types are selected and nodes are moved.

-fix BM Folder Composition, Text Composition, Liveinput can no longer delete via hotkeys

-fix BM if folder creation is to fast avoid for double handle names

-change BM time for reset layer is increased for to fast resets.

Version 1.7.0.9

-add BM Overlay File Refresh now refresh Overlay Files

-fix BM if OSC Command > || < as Max. Min. than Max or Min = Value

-fix BM Overlay File is now loaded Correct after engine restart

-fix BM Numeric now loads Decimal instead of int for double values

-fix Engine Internal Fadetime for Outfade per frame now set to fix value for better fades

-change BM Midi 15bit Multiply is now with decimal places

Version 1.7.0.8

-add BM Slotopacity OSC command

-add BM Overlay Opacity in Brightness Tab Show now OSC Command

Version 1.7.0.7

-add BM Lock Slots to prevent changes

-add BM MouseWheel is only working if Numeric Control is on focus(Clicked)

-add BM Midi Control Change Input

-add BM Excel Export

-change BM Optimized Sending Order for hard cut scenario to avoid black frames or old pixel frames.

-fix Engine Avoid rendering of frames when no video/image/text is new assigned.

-fix Engine Remap fixed for multiply outputs

Version 1.7.0.6

-add BM Remove MessageBox for Remove Content or Playlists

-add BM Copy Playlist

-add BM Fist Column Show Nr., Time, or Nr - Time

-add BM Midi 15bit Control with Multiply for Shader Values

-add BM Midi Learn

-add BM Message box for engine restart, exit, prev if engine is connected

-add BM Converter for File Conversion

-change BM Numeric Endless Scrolling of Value Up/Down

-fix BM Custom Fader/Numeric Max Value extend to 100.000

Version 1.7.0.5

-change Engine Remap is now with crop bottom

Version 1.7.0.4

-fix BM Did not get Liveinput List if more than 1 Client is in List

-fix BM Try/Catch Exception if Custom Label Test for Clients was empty

-fix BM Event Play in double Speed if FPS is 30

-fix BM Custom Label did not did not chage text

Version 1.7.0.3

-fix BM After Load Project OSC Event not working

-fix BM wrong load for virtual out xy Scale and position

-fix Engine Possible crash by importing Magewell Capture

Version 1.7.0.2

-add BM Config Store/Load Virtual Outs

-fix BM Virtual Outputs Dynamic Create/Delete

Version 1.7.0.1

-add BM Send and Rec Timeout set to 600ms

-add BM Ping timeout set to 200ms for faster workflow

-fix Engine Output Width and Height now overwrites from Monitor if Fullscreen

-fix BM could connect to clients in Chillmode

-fix BM disconnect connected clients if goto Chillmode

-fix BM Ping timeout to 200ms

Version 1.7.0.0

-add BM Beginning of prepare Virtual outputs

-add Engine support of native HapQ

-fix Engine improve of performace in native Hap and HapQ

-fix Engine crash by assigne NDI Input

-change Engine Major change in engine order by multiply displays

-change Engine content draw in global texture with resolution width x height*4 for spread to multiply adapters and decrease render passes

-change Engine Change engine video workflov from glGenVertexArrays to glCreateVertexArrays OpenGL 4.5 performace boost

-change Engine Change engine video workflov from glGenBuffers to glCreateBuffers OpenGL 4.5 performace boost

Version 1.6.3.7

-change BM Live Continue Text Updates to Engine if Livetext Change

Version 1.6.3.6

-fix BM some fixes in Text Composition Layer

Version 1.6.3.5

-change Engine Create Fontdata only one time for better performance

-change BM fix problems with windows scaling

-fix BM Problems if Codemeter Runtime is not Installed

Version 1.6.3.4

-fix	BM	Message if you store log file only if dongle for logging is connected
-fix	BM	Problem with FTP Server Port
-add	Engine	libAVThread count in config to change threads used by libAV

Version 1.6.3.3

-add	BM	Quick Support to About
-add	Engine	Text Parameter for Font

Version 1.6.3.2

-add	BM	Remote for UltraVNC
-add	BM	Import Config Textposition Data to Textcomposition
-fix	BM	If slot was Empty timer freezes
-fix	BM	Hold Last Frame for Playlists Load Correctly
-fix	Engine	Start in Window Mode for StartIcon was not working anymore
-change	Remote	FTP Server Port Changed
-change	BM	Text Replacement for Textcompositions change only the Keyword not the hole Text

Version 1.6.3.1

-add	Remote	Root Directory is can be different from C:
-change	Engine	config.json now stored in ProgrammData\\BM Tools\\BM Engine
-change	Remote	Render Remote don't need to start as Admin anymore
-fix	Remote	Fail to Autostart Render Remote

Version 1.6.3.0

-add	BM	Copy Text Compositions

-add Engine Use double PBOs for better Performance in Multi Display Setups

-fix Engine Thread Sync between Render and Frame Thread reduced Performance

-fix BM Crash if more than one Cell is clicked with strg enable

Version 1.6.2.9

-add BM Clients add checkbox for Standalone mode for Open Engine on second monitor

-add BM New OSC Commmand for Clients "/osc/client/NameClient". Change Label to in Custom Area to Client State

-add BM Incerase and Decrase from Fader and numeric for OSC Commands. +1 , -1 , ...

-add BM Playlist Stopwatch

-add BM Hold Last Frame for Playlists or Default (Store is not corrected at the moment)

-fix BM Copy Paste in Playlist change entry in running order for live update

-fix Enginge Crash if config gui = true & fullscreen = true but only 1 Monitor is attached

Version 1.6.2.8

-fix BM MouseHover Hold Last Frame was missing

-add Engine Config for syncThreads for performance issues

Version 1.6.2.7

-fix BM Wrong HoverTextColor for Custom Buttons

-fix BM TimeZone Offset Shows Wrong Time.

-fix BM Connect function on different task to avoid freezing of GUI

-fix Engine Memory leak by removing Images

-fix Engine Memory leak by Skip Audio frames

Version 1.6.2.6

-add	BM	wrapHeight in Slots to make a y-offset in content wrapping
-add	BM	BMNumericUpDown adds support for mousedown + UP/Down to change values
-add	BM	Multiline Commands for NumericUpDown in Custom Controls
-add	BM	Activate Dongle Protection for Logging
-fix	BM	Crash if Custom Control Values to high or to low
-fix	BM	Fail to Import Excel File if Sourcefile more than one time in Project
-fix	Engine	skip audio frames if audio is in media
-fix	Engine	Dongle Protection not working correctly

Version 1.6.2.5

-change	BM	Matrix Switch Main Backup in different Thread to avoid GUI freeze

Version 1.6.2.4

-add	BM	few fixes in Excel Import and Messagebox if Files not found
-add	BM	Configuration Tab Checkbox to Hold Last Frame if Duration > Media Duration
-add	BM	Start Offset in Playlists and OSC Remote
-add	BM	Saturation Fader for Color Correction
-add	Engine	.dmp File Create on crash under ProgramData\BM Tools\BM Engine\dump\

Version 1.6.2.3

-add	BM	Goto Playlist by Rightclick Dropdown
-add	BM	Infobox for wrong Content Resolution in Slot
-add	BM	Output count for clients for start multi outs
-add	BM	BMFader reacts to mousewheel scrolling
-add	BM	Crossfade Option Add

-add BM BackupManager Sender Mode for Disable,Broadcast,IP

-add BM Variable for textlayer

-add BM Camera Add, Remove for Multiply Outputs

-fix BM Rename or Delete Plalyist don't change eventsection

-fix BM LiveInputs Load Fixed

-fix BM LiveInput Position Fix

-fix BM Crash because Composition Array was Shorter than slot count because of add slots after create composition

-fix BM Playlist Name can't be empty

-change BM Treeview Find renamed with Find in Eplorer

-change BM Treeview Find open explorer and select file

-change BM Change Ancor for some Controls in config Tab

-change BM Main Context Menue Help Redirect to Config About

-change BM Wrong Styles in User Controls

Version 1.6.2.2

-fix BM wrong layerIDs after Event

-fix BM wrong layerID first Overlay collision with last Slot

-fix BM if value is > maximum or < minimum no exception

-add BM Textengine

-add BM TextLayer

-add BM Textfolder TreeView

-add BM Right Click Save as Composition

-add BM UV Scale, UV Offset Position

-add BM Abort Fade if fade-to-black or fade-to-full double pressed

-add BM save state of events

-add BM add continues player event

Version 1.6.2.1

-fix BM Log DGW height wrong

-add	BM	Logfile Save default name is Name Logfile + Date
-fix	BM	Load Project did not add dispose function for overlay

Version 1.6.2.0

-fix	BM	Copy Past Error in Playlists
-add	BM	Loop Button is flashing if pressed
-add	BM	Multiply commands in custom fader

Version 1.6.1.9

-add	BM	Color Correction Slots
-add	BM	Color Correction Client Output
-fix	BM	Crash after load between projects
-fix	BM	Custom Control Position %5
-fix	BM	Add Content Button Adds content to node[0] not "Project"
-add	BM	Multiselect in Treeview

Version 1.6.1.8

-add	BM	Possibility for add a Logo and info to log
-add	BM	About Tab for Custom Message and Logo
-fix	BM	Checkbox enbable log don't enable by click via OSC

Version 1.6.1.7

-add	BM	Custom Tab
-add	BM	Treeview inside Tab
-add	BM	CustomControls Fader/Numeric/Label/Button

Version 1.6.1.6

-add	BM	Add Composition Folder to Playlist
-add	BM	Composition Add Folder possibility
-add	BM	Treeview Find Animation in Explorer
-add	BM	Add Folder to Playlist Slots
-add	BM	Add Folder to Playlist
-fix	BM	fix doubleclick next and take black
-fix	BM	PlaylistControl/Treecontrol Autosize Fixed
-fix	BM	Playlist Stucks after press take because playlist was null
-fix	BM	Fade to black after user slides fader wrong
-fix	BM	remove folder, removes entrys in playlist
-fix	BM	remove Composition Switch Names to file

Version 1.6.1.5

-fix	BM	Add Slots don't fail timer
-fix	BM	Fail by import not known codec
-fix	BM	Composition name coould exist two times
-fix	BM	Playist are null after start empty playlist and timer crash
-fix	BM	dgw crash after move by 2 Playlists
-fix	BM	Connect all did not work if tab is not open
-fix	BM	Size and module size are now correct with autowrap
-fix	BM	Overlay ColorOnly Save/Load/Init

Version 1.6.1.4

-add	BM	Overlay Show in Brightness Control
-fix	BM	delete BG imgage media Info for performance reason
-fix	BM	Add Slot after Connect did not send layer count
-fix	BM	Send all props of overlay by click on connect
-fix	BM	connect btn on client set correct image and state

Version 1.6.1.3

-fix BM Color Correction Fader Crash on Reset and if Slot < 0

Version 1.6.1.2

-add BM Loop button was pressed in logfile

-fix BM Play Once/Loop Button was not correct

-fix BM Jump did not disaper after time was 0

Verion 1.6.1.1

-add BM midinotes to osc

-add BM Store/Load MidiNotes to OSC

-fix BM Fader did't not load correctly after change to BMFader

-fix BM ContextMenue for Brightness Fader

-fix BM Copy Osc and EnterMouseShow OSC fix for Brightness Fader.

-change BM dgw style Transfer & Log Change to new Designe

Version 1.6.1

-add BM Save Composition from Playlist

-add BM Add Composition Button function

-fix BM FTP Upload

-fix BM Fail Send to Client. Client was null...

-fix BM Sync Brightness Fader Backup Mode not working

-fix BM Take made 2 entrys in logfile

-fix BM Backup Mode goto position 2 in sequence on Take

-fix BM Jump to Position 1 in playlist Fails in Timer

Version 1.6.0

-change BM Programm Style

Version 1.5.91

-add BM Dynamic Add / Change / Remove / Move Playlist Entrys

-add BM Compositions

-add BM Wrap Width for wrap content after sizeX

-fix BM Module Size change brings slot size to 1

-fix BM Timer restart

-fix BM Optimized PreRoll

-change BM Thumbnail Create is now resolution / 5 and not streched

-remove BM Testcheckbox and PB Support Removed and cleaned some code

-fix BM Exception create if OSC Send fail

Version 1.5.9

-fix BM Fail by switch layer if content null

-fix BM clear all MidiIn Commands by load file and new Show

-add BM Stylesheet for Color changes

Version 1.5.8

-add BM Autoscroll Playlist Position in Playlist Tab

-add BM BO Fade Button resume to state before click on second click

-fix BM Import Excel file

-fix BM Fail Content Sync if Standalone connection != 127.0.0.1

Version 1.5.7

-fix BM Live Color Correction is only working on first slot

Version 1.5.6

-fix	BM	Remove slot cancel removed slots fixed
-fix	BM	Improve logging because of wrong rounding
-add	BM	Logging tab in config to view log

Version 1.5.5

-fix	BM	Stop Button Color dgw to white fail

Version 1.5.4

-fix	BM	matrix send double /r removed
-fix	BM	insert 20ms delay between matrix commands
-fix	BM	Wrong timeslot by next and jump
-fix	BM	wrong maxframes by framerates != 60fps
-fix	BM	wrong framerate and time if 29,97fps
-fix	BM	Load File Loads folder Image Key right
-fix	BM	wrong cell-backcolor by new playlists
-add	BM	Import folder / import folder in folder by DragAndDrop
-add	BM	Ignore _thumb files by importing

Version 1.5.3

-fix	BM	Logfile exception if log is disable but try to save
-fix	BM	Freeze sync by open Combobox or switch betwen tabcontrols

Version 1.5.2

-fix	BM	Non blocking by holding Down Mousebutton on Tabcontrol Header
-fix	BM	Click on Backup Label connect to wrong IP
-add	BM	Matrix Config add to Save/Load Function

-add BM Matrix Config Menue for change TCP Matrix change command

-add BM Support Sync for 30fps

-add BM OSC Command for:

- -enable / diable Logging
- -enable / disable Switch Playlist Tab
- -Connect
- -Start Main Engine
- -Exit Main Engine
- -Start Backup Engine
- -Exit Backup Engine
- -Switch Matrix to Main
- -Switch Matrix to Backup

-add BM Enable / Disable Logging to reduce performance during 24/7 usage

-add BM Dynamic Edit Time in Running Playlist

-add BM Playlist Report Add Time Played Slot

-fix BM Load Show after Load Show Remove Master Slots and Events

-fix BM New Show Remove Master Slots and Events

-fix BM Playlist Report Miss First Entry in Playlist

Version 1.5

-add BM Slots can be create/delete/renamed by User

-add BM Events are now Playlists

-add BM Midi Remote Playlists/Events now generic

-add BM FPS in Media Info

-add BM Native Content always x:0 y:0

-add BM Playlist Report

-add BM Generic Config Menu

-fix BM Timer is not Realtime

-remove BM Event Tab

-change BM Midi is now in Config Tab

-known errors If Notebook are in Energy Save Time is running slower

Version 1.4

-add BM Midi Note for Einlauf Playlist

-fix BM wrong Name on Next Slot 4

-fix BM Performance/Code Optimazation Main/Backup Send

-fix BM Crash by Write some Text in Playlist Box and Take

-remove BM unused Domain Boxes

-remove BM converting datagrid

Version 1.3

-add BM/PB MidiNote Input Trigger

-add BM Render Remote for Start and Kill BM Render

-fix BM Error if Render engine is on local adress+backup

-fix BM Sync Applications better performance

Version 1.2

-fix BM/PB SaveAs and Bundle don't store Duration of Events

-fix BM/PB Exception by deleting File from Project during playing file

Version 1.1

-add BM/PB Timecode MTC input

-fix BM mpeg2 import duration