



## RELEASE NOTES – [2.7.0.10]

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### grandMA2 Software Releases [2.7.0.10]

Dear user,

We are delighted to announce the next official software release for the grandMA2 version [2.7.0.10].

Enjoy the next generation of lighting and video control. If you have any improvements to share with us or if there are any questions, comments or any bugs found, please inform our Technical Support at [tech.support@malighting.com](mailto:tech.support@malighting.com).

Thanks for downloading and enjoy your show!

Your MA Lighting Team



#### Important:

- If you would like to update your dimMA system from any version below 7.x please contact your MA-dealer or MA direct for any update information. Should you be using grandMA2 in connection to our dimMA solutions, please get in touch with us, since a console update will now require a MA NDP update and vice versa. We are happy to assist you.
- With Version 2.5.70 the default speed of effects and the rate of effect lines has been exchanged by a single speed per line. Therefore older show files might not be 100% compatible. Please check your show file with the new version before using it live!!

#### Bugfix Release 2.7.0.10

##### Fixed Bugs and improved functionality

- DMX drop to Zero while show upload – fixed
- Sorting the effect editor grid crashes the console – fixed
- Crashes when using auto generate with broken fixturetypes – fixed
- Changing the selection in timecode view/editor in a multiuser environments led to crashes – fixed
- It was possible to open the prepare menu twice within partial showread – this led to a crash – fixed
- Using the command copy screen x at y crashed the console – fixed
- When in preview jumping to Cue Zero caused problems (crash) – fixed
- Inside the fixture sheet it was not possible to combine a command line entry (e.g. Off) with a lasso selection – fixed
- grandMA2 external screens are not displayed fullscreen and are missing parts of the screen – fixed
- Presets containing RGB and/or CTC from show files generated with gMA2 software Version 2.5 were not converted correctly – fixed
- grandMA2 onPC Windows XP grandMA2 onPC incompatibility bug – fixed.
- grandMA2 onPC GUI login does not work without physical keyboard – fixed

- grandMA2 onPC in Single screen mode: Encoderbar malfunctions in screens other than the first - fixed
- grandMA2 onPC external Displays in multiscreen mode: additional resolutions: 2048x1152, 1280x768

#### MA VPU [2.7.x][6.7x] 7.16

- Import Function Blocks does not crash the VPU any more
- MA VPU in grandMA series 1 mode: export fixture types in the grandMA console is working correct now
- MA VPU in grandMA series 1 mode: in the grandMA console the user can now define the
- Camera Parameters in the fixture types section
- Fixture Types in the grandMA series 1 console are correct now and updated to version 7.001

#### MA NDP [2.7.0]\_v 7.93

- Minimum NDP streaming version in grandMA2 mode set to 2.68
- Sessions, created by a grandMA2 console, can now be joined from the NDP itself
- New grandMA2 streaming implemented



NOTE: Downgrading from Version 7.84 or higher to a previous version requires special care. In such case please call the TechSupport for assistance.



Known limitation: Sessions, created by a grandMA2 console and set with a session password, cannot be joined from the NDP. But the NDP can always be invited by the grandMA2 console into the session.

#### grandMA 3D [2.7.0][6.7] 6.0.22.14199

- Shapers will be correctly visualized with "cutted beams", too.

#### grandMA series 1 Software 6.701

- Importing or exporting VPU fixture type has been fixed.

#### Bugfix Release 2.7.0.6

##### Fixed Bugs and improved functionality

- Network session freeze fixed, when loading show files containing illegal XYZ Cue data.
- Mask Seq- has been fixed
- Crash fixed when patching fixtures containing illegal attributes
- grandMA2 onPC CIP update thumbnails freeze bug has been fixed.

- Crash fixed when trying to create a new encoder grouping.
- Colordim preset pool color symbols bug has been fixed.
- Pan and Tilt Encoder invert conversion bug when loading old show files has been fixed.
- Dummy channels cannot be controlled by calculators any more
- Bug fixed which prevented in some cases the positioning of multi instance fixtures in stage view.
- Edit Cue X will bring the status of cue X in the programmer, Cue content as active values, tracked content as inactive values.
- Playback fades should not be affected when storing or updating objects anymore.
- Reselecting fixture X after Off fixture X bug has been fixed.
- Cropped external screens bug has been fixed.

### Software Release 2.7.0.3

#### Main feature overview:

- XYZ - Virtual Position Feature
- CITP/MSEX - Media server thumbnail exchange
- Timecode clock view.
- Improved Timecode editor
- Timecode trigger as cue trigger.
- grandMA2 Fader Wing alignment of internal and external fader modules.
- Live recording of Macros
- Expanded DMX Sheet
- Session password
- Group master overview expanded to Special master overview
- Free scalable grandMA2 onPC
- Changed grandMA2 onPC parameter count.

#### New functions and features in detail:

- XYZ
  - Stage View XYZ Follow Mode has been added. Activating the follow mode will temporarily deactivate all other stage view modes (Select, Orbit, Panning and Zoom) until the follow mode is disabled. Touching the stage view with activated follow mode will move the beams of the currently selected fixtures with enabled XYZ to this position if possible.
  - Virtual XYZ Attributes can be added to any fixture using physical pan/tilt attributes by pressing the new "+XYZ" button at the fixture type editor. Pressing the "-XYZ" button at the fixture type editor will remove the virtual XYZ attributes of the edited fixture type. This will also remove any XYZ values stored for fixtures using this fixture type from your show. XYZ Encoder Resolution Normal = 0.1m, fine=0.01m, ultra=0.001m. The following virtual attributes are added, when adding XYZ support to a fixture.
    - PosMod: Mode Attribute to switch between Pan/Tilt and XYZ Mode.
    - X, Y and Z: 3 Attributes to define the illuminated position on stage.
    - Flip: Attribute to define which flip position of a moving head fixture should be used to reach a certain XYZ position. Special flip modes are:

- AutoFlip: fixture flip is avoided as far as possible.
- NoTiltFlip: fixture tilt axis will never be flipped. This is needed to avoid upside down projections of Gobos or Shaper modules.
- Mark: Reference Markers attribute is for future use.
- Distance: This attribute is needed for seamless transitions between Pan/Tilt and XYZ. The distance attribute value is the distance between a fixture and the illuminated position/object.
- Stage view displays positions of 3D objects with activated "Follow Target" option at the stage view. When creating a new show or loading a show file from a previous version, follow target is activated for the stage plane only.
- New MATricks wing-style modes "X", "Y", "Z" and "X+Y" in addition to the already existing Pan and Tilt wing-style modes.



Do not unblock sequences containing a mixture of XYZ and Pan/Tilt position data nor store /remove or remove values to remove single attributes of the position preset type of cues when using virtual XYZ. This could result in unexpected loss of position data inside your sequence!

- Stage fixture position calibration implemented.
  - The button to open the Stage fixture position calibration dialogue can be found at the stage view options menu. Press the yellow ball to open this menu.
  - To be able to calibrate, please mark and measure the corner points (A,B,C,D) of a rectangle at the stage.
  - There are two modes of entering the positions of the points A,B,C and D at the calibration dialogue.
    - Absolute Mode: Please Select fixture(s) and enter the coordinates of point A (X,Y,Z) and the correct distances to the points B and D.
    - Free Mode: Select fixtures and enter the correct coordinates of point A (X,Y,Z), B (X,Y,Z), C (X,Y,Z).
  - Focus each fixture to position A using pan and tilt attributes.
  - Select all fixtures again and press the Store button followed by the soft button A. The position of the current selection will be stored for point A.
  - Repeat steps 3 and 4 for points B, C and D.
  - Select all fixtures again and press the soft button Calibrate. The physical positions of all selected fixtures are calibrated now.



It is possible that each individual fixture can be calibrated within a separate physical rectangle. A'(\*)' means that the parameters of the rectangles are not equal across current selection.

- CITP/MSEX 1.0
  - CITP/MSEX is a network communication protocol designed for communication between lighting consoles and Media servers or visualizers. This first implementation includes thumbnail exchange between third party media servers and grandMA2 consoles.
  - The CITP configuration can be found at /Setup/Network/CITP Network Configuration.
  - The CITP Enabled button in the upper right corner of this dialogue is a global switch to enable/disable CITP session wide.
  - There are 4 tabs inside this dialogue, Lighting consoles, Media Servers, Visualizers and Operation Hubs.
    - **Lighting consoles tab:** When pressing add present button at the lighting console tab, any lighting console with enabled CITP will be listed here (for information purposes only).

- **Media Servers tab:** At the Media Server Tab, Media Server can be manually added using the add button, or automatically when using the add present button.
    - If the row of a media server is red, the media server is not present at the current network, or the CIP functionality of the media server has been switched off.
    - If a row of a media server is displayed green, media server is present at the current network.
    - At fixture layer column, grandMA2 fixture layer containing media server fixtures has to be chosen.
    - If the library and the image subattribute of the media server is not automatically recognized correctly, the user can change them manually by editing the referring grid cell. After pressing the button update thumbnails, the thumbnails of the video or image content will be copied from the media server to wheels inside the fixture type of the first fixture of the chosen fixture layer. Attribute mode dependencies and channelsets of the chosen library and image attribute of the fixture type of the first fixture of the chosen layer will be updated. Depending on the number of received thumbnails and the speed of your network, this may take some time. A progress bar at the CIP command cell of the respective media server row is displayed until the transmission is finished.
  - Visualizers tab: for future use.
  - Operation hubs: for future use.
- **Timecode improvements**
    - New clock view modes: SMPTE Timecode and Midi Time Code. Incoming Timecode signals may be displayed using these new clock modes. Receiving valid Timecode signal is displayed by green text color while the text color is grey as long as no valid Timecode signal is received.
    - The Timecode Editor Cursor position is not allowed to be negative anymore.
    - The current time marker stays in centre of timeline while playback or record at the Timecode Editor and Timecode Viewer.
    - The number of selected events is shown in the label of encoder 4 "Turn to move n events" at the Timecode editor encoder bar. The new button "clear selection" deselects all currently selected Timecode events.
    - Timecode show: There is one time cursor per Timecode show in a network session. The selection of Timecode events and the focus of Timecode tracks is per user profile in a network session.
    - Encoder 3 of Timecode bar is now also available in the Timecode view. Events will only be focused and not selected because Timecode view is read only.
    - As long as follow time is active in the time code editor or viewer, in graphic mode, the last triggered event of the currently selected track/subtrack is automatically selected/focused during playback. In Text mode, the last triggered event of all currently visible tracks/subtracks is automatically selected/focused during playback. If Timecode sync is set to intern, the Timecode show playback is paused as soon as an event is moved using encoder 4.
    - "Copy and paste has been implemented in the Timecode editor. If no event is selected, but a subtrack is focused, all events of that focused subtrack will be copied. In this case the time offset before the first event will be used while pasting at the destination. If events of one subtrack are selected, these events will be copied to the clipboard. The focus has to be set to the target subtrack and the time position the first selected event should be pasted before pressing the paste button. If events of more than one subtrack are selected, all selected events will be copied to the clipboard. The focus has to be set to the first target subtrack and the time position the first selected event should be pasted before pressing the paste button. Pasting multiple subtracks is possible, if the type of the target subtracks matches the source subtracks. "
    - The Timecode pool has a "link encoder" option. As long as this option is activated the Timecode encoder bar will be present as soon the Timecode pool is touched.

- A right mouse click on the title of a command track in the Timecode editor opens the "change executor" window.
- A right mouse click on the title of a subtrack in the Timecode editor opens a popup to change the subtrack function.
- Timecode Editor: "Add Here" adds event at next frame, if there is already a event at the current position of the current subtrack. If there is also a event at next frame, no event will be added
- Selecting a Timecode event will show the current trigger time of the selected event above the event. Touching and moving this flag will move the event. When selecting more than one event, the flag will be at the last selected event.
- Timecode editor calculator is using the current Timecode show time unit. The time unit of a Timecode show can be adjusted at the Timecode editor options menu.
- Timecode editor calculator maximum time has been increased to 255h59m59s29F
- Add multiple events wizard at the Timecode editor. The number of added events can be adjusted at the first input box. The second and the third input box are related to each other when changing one of them the other will automatically be recalculated. At the fourth input box, the cue of the first event can be selected. Hitting please will create the events. If the number of cues is less than the number of events to add, the wizard will continue adding event starting from the first cue of the sequence.
- There are 4 symbols in front of all Timecode tracks at the Timecode editor: a plus/minus to expand or collapse the subtracks of each track, a checkbox for toggling the visibility of each track in text view, a play symbol (arrow) to enable/disable the playback of each track and a record symbol (red dot) to enable/disable the record functionality of each track.
- Timecode tracks and subtracks can be locked and unlocked using the referring button at the track functions popup. A padlock will be displayed, if a object is locked.
- The Timecode editor text view grid can be sorted by any column. Touching and swipe upwards or downwards at the headline of a column sorts the grid by this column. The sorting order is displayed by a small arrow inside the headline of the column.
- Two more trigger types have been added as cue triggers, SMPTE and MTC. The Timecode position has to be entered at the trig time column of the sequence executor sheet. As any other cue trigger, the SMPTE and MTC trigger will only trigger the referring cue if the sequence playback is on and the cue previous to the Timecode triggered cue is active.
- **Fader Wing setup**
  - The mapping of the logical 15 fader wide blocks of executors to the physical internal fader modules and external fader wings can be setup at this menu.
  - The Fader Wing setup can be found at the /setup/console/Faderwing and Monitor Setup
  - The button Add Wing setting adds a new configuration set.
  - The button Delete Wing setting deletes the current focused setting.
  - The button select Wing setting activates the currently focused setting. The currently used setting is displayed at the menu headline and by an green cell background color.
  - The Page+/Page- buttons of the external fader wings can be disabled at this dialogue too.

**Note:** Monitor configuration setup is not supported yet

**Note:** The Mini executor displays of screen 3 and 4 are not following the remapped executors, when remapping the internal fader modules.

- New DMX Sheet headline buttons: "Programmer Colors" displays the DMX values in the same colors as the fixture sheet does. At the "Show additional" button the following options can be chosen: "Show only values" shows only the DMX values; "Show IDs" shows the Channel/Fixture ID, name and the DMX value;

"Show Attributes" shows the Attribute controlled by this DMX Channel, and "Show Address" shows all single DMX Addresses above the DMX Value.

- **Command Line**

- Remove has been added to the calculators of the following effect layers: low, high, phase and width.
- New oops option: "oops /clear" deletes all oops events.
- Moving executors will not switch off the executors any more.
- New command: Selfix DMX [universe].[address] will select the channel/fixture patched at the referring DMX address. Pushing "Selfix" (2xSelect), and touching any cell at a DMX sheet will select the fixture patched at this address.
- The Default camera of MA 3D can be set by the new command "Select Camera [name of the camera]"
- New Command Line command: "Update Cue Thru /addnewcontent" (or "/an") will store the current active values at all cues of the selected executor. "Update Cue Thru /originalcontent" (or "/or") will update the current active values at the cues of the selected executor already containing the origin values for this attribute.
- Test buttons for macro/sequence/agenda editor implemented. The button can be found at the X10 hard key in the edit sequence dialogue, at the X9 and X10 hard key in the macro editor dialogue and at the left side of the agenda day view.
- New Macro editor functions: disable single lines and enable/disable macro timing.
- New COMMENT character # in Command Line. Everything behind the command character will be ignored (of course the comment character can still be used inside strings)
- Live recording of macros has been implemented. The Syntax "Record Macro X" starts the live recording. The hardkey combination MA+Learn will provide direct access to the record keyword. An alternating Learn and Macro button backlight will indicate an active Macro recording. Hitting "Record Macro Please" again will switch off the recording mode. Live Recording of Macros will always generate timed macros.

- **Graphical User Interface**

- Mouse cursor and touch cursors have been separated; there is one permanently visible mouse cursor(white arrow) representing the hardware mouse. Each internal touch screen has its own touch cursor and will not set the mouse cursor of the hardware mouse anymore. External touch screens will share the mouse cursor with the hardware mouse. The mouse cursor can be set to an internal touch screen position by holding down the nipple button while touching the screen. The mouse cursor will always follow the touch cursor, if this option is activated at the Setup/Console/Screen Options.
- Buttons provide visual feedback when pressed. - glow after button click is visible for 0.2 seconds after mouse up.
- Numeric keypad can be used to input a cue number at the load cue pop up.
- The current logged in user is displayed additionally at the tools menu
- Frame color of macros assigned at view buttons or x-keys is linked to the frame color of the macro pool.
- Layout View: double tab temporarily toggling between select and move mode can be activated/deactivated at the layout view options.
- Bitmap files import/export GUI has been added to the Setup - Show - Import/Export dialogue. In addition to import the files this dialogue can also create one bitmap effect per file by changing the option "import files only" to "import files and create bitmap objects"



- View Pool display options have been extended: Symbols displays small screenshots of the view at the pool item for single screen views and a screen layout icon for multi-screen views. Stored screen displays the screen layout icon for all views. No Symbols displays a view containing more space for naming.
- When choosing a bitmap in the bitmap editor, also USB drives can be used as bitmap source.
- Fixture positions can be set at the setup/patch+fixture schedule layer view. The position and rotation columns are sorted to the far right at the referring fixture rows.
- Former group master view has been extended to the master view. The master view contains tabs displaying group masters, rate masters, speed masters and playback masters.
- Repeating agenda events will be displayed at every day/month/year the event will be executed.
- New menu commands:
  - Menu ""User1"" or Menu ""U1"", to switch the X-key display to userkeys 1 thru 20.
  - Menu ""User2"" or Menu ""U2"" will switch the X-key display to userkeys 21 thru 40 and
  - Menu ""List"" or Menu ""LI"" will switch the X-key display to executor buttons 201 thru 220.

At a Replay unit the x-key display will be shown at the encoder bar area."

- **Bitmap**

- It is possible to delete Bitmaps from the internal drive at the Setup / Show/ ImportExport/Import Bitmaps dialogue.
- Bitmap Effects Colour Correction defaults and ranges have been improved.
- Bitmap Effects: The new option "Add Dimmer" at the basic tab sets the dimmer value of all fixtures controlled by this bitmap effect to 100% while the bitmap is applied to the colormix attributes.

- **Setup**

- 3D models of fixture types are dynamically created. The physical set up of a fixture type can be changed at Setup/Patch + Fixture Schedule/Fixture types/Edit/Module Manager. Editing one of the 6 new columns "Size X Y Z" or "Axis X Y Z" will open the body description dialogue showing a graphic representation of the fixture class chosen at the class column of the module manager. Each body dimension can be edited. At a connected MA 3D application.
- The possibility to connect to a console using telnet can be disabled at the Setup / Console / Global Settings / Telnet.
- The session wide network setting TTL (Time to live) and TOS (Type of Service) can be set at the setup/console/global settings dialogue.
- Changed MA Network Control dialogue: Sessions can be protected using a session password. The "Create/Join Session" button has been separated into two buttons. Start Session creates a new session using the settings of the MA Network Control dialogue. Join session joins the session currently highlighted by the white focus frame. Pressing the join session button while the white focus frame is set to unconnected the console will leave the current session. Consoles with disabled autojoin option will not create nor join a session at startup.
- The current network status and session ID is permanently displayed at the network configuration screen headline.
- The encoders for the attributes Pan and Tilt can be inverted to adjust the encoder rotation to the moving direction of each fixture. This setting can be done per fixture at the Patch + Fixture Schedule or when editing the fixture using the Edit Fixture command.
- Setup/Patch+Fixture Schedule/Fixture Types/Attribute+Encoder Grouping/Attributes of Feature: New column Universal. Universal presets only work as real universal presets for attributes with this column switched on. Universal presets of attributes with this column empty show global preset behaviour. Black cells inside this column are not editable predefined; e.g Gobo attributes.



- The minimum needed version of the MA NDP is displayed at the lower part of the Setup / Network / MA Network Control / NDP tab.
- **grandMA2 onPC**
  - grandMA2 onPC parameter count has been changed. A network session of an grandMA2 onPC without any console connected is limited to 4096 parameters. The parameters of one command wing and all connected MA 2Port Nodes onPC, MA 2Port Nodes onPC Pro and MA NSP in 4Port Node mode are counted until the limit of 4096 parameters is reached.
  - Edit macro Line or Sequence CMD column popup also supports the onPC Executor View. Assignable playback views cannot be used as input for the macro line and have to be entered using the command hard keys instead.
  - grandMA2 onPC can be scaled by the user.
  - Improved onPC Wing Firmware
  - New indicator feature of the onPC wing executor button backlight:
    - Button 1 backlight off: Executor is empty;
    - Button 1 backlight dark: Executor is not empty;
    - Button 1 backlight bright: Executor is active;
- New Calibration dialogue for the 15.4 touch screens.
- New screensaver has been implemented. The backlights of the 15.4 screens are turned off after 5 minutes of screensaver activity
- If the sequence pool is full, it will not be possible to store new sequences anymore. In this case, a popup will warn the use and an error will be displayed in the command line response.
- Special touch cursor added, to display the current touched position at the screen.
- Update keyword and update menu: second press of the update hardkey cancels the update keyword at the Command Line and closes the update dialog.
- The GUI support for parking single attributes has been implemented. E.g. pressing the park hardkey and the tilt encoder label afterwards will park tilt values of current selection.
- Buttons have been added to the mini executor view above the 100mm faders. The specialmasters 1 thru 9 display the buttons of the selected sequence; all other special masters display the buttons referring to this special master. This feature can be deactivated at the setup/user/setting Special Fader Buttons option.
- The current version of the MA 2 port node software is displayed at the lower part of the Setup / Network / MA Network Control / 2Port tab.

#### Fixed Bugs and improved functionality

- Removing fixtures from the setup also removes these fixtures from the layout view.
- Fixture Type used column counts used fixtures instead of used sub fixtures.
- The align function will be reset as soon as the fixture selection changes.
- The commands Preview Next and Preview Previous are self-terminating. Confirmation please is not needed anymore.
- The Effect encoder bar provides access to attack and decay only, when these parameters are supported by the chosen effect form.
- The screen encoder function has been improved when the Setup - user - setting are visible at screen 1
- Channel and Fixture sheet are automatically updated when leaving the Patch and fixture schedule after adding channel or fixture IDs to the fixtures
- The ArtNet 2 network protocol will send to up to two ArtNet 2 receivers unicast. If more than two receivers are requesting a specific Universe, this universe will be sent broadcast.
- The Edit Effect Line dialogue low/high respectively center/size wheels have been fixed when setting the value readout to auto.

- The X6 thru X10 + X16 button at the off-menu have been fixed
- The setup /? crash has been fixed.
- Crash fixed when deleting a form while editing the same form at the same time.
- Trig Time column does show a + again when the trigger is set to "Follow"
- The layout view headline is drawn red immediately when activating edit blind.
- Selecting a DMX channel at the DMX sheet will set the DMX encoder bar correct in "Selected only" mode as well.
- Sequence Executor sheet break lines will be drawn at small sequence executor sheets as well.
- Assigning a playback filter to a running executor will switch off this executor.
- Crash fixed which occurred sometimes when touching multiple times at the color special dialog.
- Calling a filter at the layout view bug has been fixed.
- View pool no symbol setting gets not lost any more when loading a show file.
- Tracksheet bug has been fixed. Deleting multiple values of one attribute at the Tracksheet will not results in changed values of other attributes anymore.
- Fixture sheet does display the values at the correct attribute column if other attributes of this feature are not used by this fixture
- It is not possible to set the From Cue to a higher cue than the To Cue any more when renumbering cues at sheets.
- The Command "Copy Cue x at y" Popup remembers the last status of the "cueonly" and "Status" button.
- Extract fixture X functionality has been changed: Extract Fixture X without having a selection will exchange the preset reference with the hard values stored at that preset. Extract Fixture X while having some fixtures selected will set the current selection to the hard values stored at the preset currently used by fixture X.
- Moving Executors will not affect other executors any more.
- Bug fixed which forced the user to press the list button again after closing a dialogue at screen 1 to reactivate the X-key button executor function again.
- Dimmer wheel animation is displayed correct again, when moving the onPC Command wing dimmer wheel.
- Moving executors and oopsing this action afterwards has been improved at large network environments
- USB drive is displayed at the Import/Export dialogue when inserting a USB drive while the import export dialogue is opened.
- Import Export dialogue will not display the not useable Template folder any more.
- AT CUE do not add tracked values to the programmer anymore. CALL CUE will add tracked values as inactive programmer values to the programmer.
- Update menu is not displaying preview playbacks any more, when not in preview mode.
- Preview visualization at the Sequence pool has been fixed.
- Fixed color settings of fixtures containing subfixtures. Changing the visualization color of the fixture at the setup will change the color for all subfixtures. To change the color of a single subfixture, the color has to be changed at the edit subfixture dialoge(e.g. edit fixture 2.3)
- Selection Sheet masking bug fixed which corrupted the sheet masking if the fixture schedule has been changed afterwards.
- Changing a stored value to default link using the Tracksheet calculator has been fixed.
- Crash fixed when executing a Macro containing two locate commands without having added a wait time.
- It is possible to renumber a single cue to x.999 if next cue =x+1
- Store /statusmerge [target range] will not create new cues or sequences if at least one cue or sequence of the target range already exists.
- Locked effects assigned to executors are marked by a red effect pool number in the upper right corner of the mini playback view
- Bug fixed at the edit effect line dialogue attribute selection.
- The align buttons and the speed group button are activated/deactivated correct at the effect line editor.

- Running effect overview off mode has been fixed and will not open the edit edit window while swiching off effects.
- Removing effects using speedgroups from the programmer will use a eventually set program time to fade out.
- Shuffle Selection will be done per effect instead of per effect line. All effect lines will use the same shuffled selection afterwards.
- Absolute and Relative effect mode is not inverted anymore when loading show files stored with grandMA2 software prior 2.3.
- Automatically fading XFADE Executors using the command Executor x at 100 Fade z will not crash the desk any more.
- Bug fixed which prevented "OffOnOverwritten" when calling cues containing mostly Release values and some hard values.
- Bigger Update menu rows for easier touchscreen access.
- Setup/Network/Network Config/2Port pressing the Identify button without any ethernet connection doesn't crash the desk anymore.
- Setup/Network/Network Config/2Port load from default has been fixed and load default setting for currently selected MA 2Port Nodes.
- The timestamp of show files is displayed correct again at the grandMA2 onPC backup dialog.
- The onPC Screen encoder up/down was mixed up at the DMX Profile Editor. This has been fixed.
- Timecode editor remembers the mode (graphic/text) it has been used last, when reopened.
- Off menu will not be opened anymore, when pressing the Off key more than once while editing a cue CMD or macro.
- Fixed executors restore their former position correctly when unlocking the desk.
- Label object command will respect the current world. E.g. when inside a world commands like label channel thru will only label channels contained in the current world.
- Removing a playback filter and oopsing this action afterwards has been fixed.
- Double tab groups to activate deactivate programmer content of this group is oopsable now.
- The "Open" button has been relabeled to "Load Show" in the backup menu.
- When the current selected world does not contain color attributes, the special dialogue color will be locked.
- Active programmer "Remove" values are displayed in sheets filtered by "Programmer Only".
- Editing values using the content sheet has been improved. The editing features are similar to the edit features of the Tracksheet.
- Save default exec options saves the playback filter.
- Fixture and Gobo library updated to Carallon 8.5.

## Appendix



The command "store /remove" or pressing [store][cue][2] and the select [remove] in the pop-up will remove the whole attribute with all (!) its layers for fixtures having any value or effect layer of this attribute active in programmer. It can be filtered to only remove values, value timings or effects by using the buttons in the stored encoder bar. To remove only specific layers, for example only individual effect fade, the operator needs to open the calculator for these layers and select "remove" in the calculator. Afterwards the operator needs to update the cue, or has to use store /merge to remove the specific layers.



Selecting multiple fixtures with a lasso in the layout view is respecting the snap grid settings to interpolate small position differences of fixture icons. The selection order will always be made inside of one snap grid cell first, afterwards line by line in the direction of the lasso movement.



Release version 2.3 of grandMA2 divorced values and effect values! Therefore older show files might not be 100% compatible. Therefore please check your show file with the new version before using it live!

## Known Limitations



- show file Conversion from Version 2.2 and earlier: The speed of a selective effect, stored in a cue, will not be brought correct into programmer, if the cue gets edited and the default speed of the effect in the pool is not 60 BMP.
- ASCII show import supports Strand ASCII show files only.
- MA onPC command wing DMX input is supported for the ports "DMX In" and "DMX out A" only. The port "DMX out B" is allowed to be used as DMX out only!

## MA VPU [2.7.0][6.7] v7.11

- New VPU Fixture Types Version 7.0 created for grandMA2 and grandMA series 1 mode.
- VPU Demo Show and VPU New Shop updated.

The Version of the Fixture Types can be checked in the Multi Preview

- If two different resolutions are setup for 2 DVI outputs of the VPU, this does not decrease the video performance any more. So a VPU Plus with 2 different resolutions can play back 4 layers of Full-HD 30fps at 60fps output rate
- On a VPU Plus or VPU Basic the user can now use DVI Outputs and a unlimited number of Pixel Mapper Outputs at the same time.
- On a Media PC / Laptop with a Dongle the user can only choose between DVI or Pixel Mapper Mode and is limited to one of the two modes, but in the Pixel Mapper mode a unlimited number of Pixel Mapper Output are possible



**IMPORTANT:** Keep in mind, that if one or more VPUs are rendering VPU Pixel Mapper Outputs, the patching that is in each Pixel Mapper Output shall not overlap with any ore rendered Pixel Mapper Output. Otherwise there will be a Art-Net packet collision. Furthermore the calculation of any Pixel Mapper output does take CPU calculation power. This is most important if DVI and Pixel Mapper Outputs are used at the same time

- The resolution of a Pixel Mapper output is now independent to the resolution that is used on the DVI Outputs. This means that VPUs with a AMD Radeon GFX Card can calculate up to 4096x4096 Pixels and VPUs with a NVidia Card can calculate up to 2560x1600 Pixels per Pixel Mapper Output  
Limitation: to be able to render Pixel Mapper Outputs, at least one valid DVI Device has to be set in the DVI Output settings
- The Pixel Mapper Tab is now always displayed and Area / Output settings can always be changed, even if the Pixel Mapper is not enabled
- Routing change in the VPU processing order: each layer can be defined to be shown on Camera 1 through 8 by using the new parameters "CAMERA\_1" through "CAMERA\_8". These parameters can be controlled from 0 to 100%. The former option to define the used Output of each layer is still valid if you use old, existing shows. However, it does make more sense to use the new VPU Fixture Layer Fixture. The routing sequence is now: from the layer to the camera and from the camera to the output, but one camera can be assigned to several outputs. Remember: these options are only possible if the new VPU Fixture Types Version 7.0 are used

- Per Area / Output combination in the Pixel Mapper, the user can now define which Camera is assigned to the corresponding Pixel Mapper Output. This allows to send any VPU Layer Fixture so a specific Pixel Mapper Output
- Each VPU Pixel Mapper Output has to be defined to a Render IP. This is MA-Net IP address used by the machine. If more than one VPU is in the network, the Machine "A" can define, that Machine "B" renders the selected Pixel Mapper Output by choosing the right IP address
- VPU Pixel Mapper validation: if two Pixel Mapper Outputs are calculated on one Render IP and these do have overlapping Art-Net traffic (within the same universe), then a popup message is warning the user
- Layers, that are only displayed on a particular Camera, are only calculated on the VPUs that are assigned to that camera. This does lower the calculation power drastically. E.g. two VPUs are used, VPU one is assigned to Camera 1 and 2, VPU two is assigned to Camera 3 and 4. If a Layer is only displayed on Camera 1 and 2, the second VPU will not have to calculate that Layer
- The Framerate (fps) of the GUI Screen and the internal screen of the VPU Plus can be defined now. This helps to minimise the calculation load, that each VPU has to handle with. These parameters can be adjusted from the grandMA2 console or in the VPU for each machine separately. Decrease these values to save calculation power on the corresponding machine
- Pixel Mapper functionality added: a Pixel Mapper Output can be configured with a "Virtual Output ID". You should not place any Pixel Mapper Fixtures onto that Pixel Mapper Output. If a Virtual Output ID is set, then any "Render IP" settings is ignored, the field is greyed out. The idea behind it: since a Virtual Output can be assigned with a dedicated, single Camera, you can route certain Layers to this dedicated Camera. So these Layers are only displayed on that Camera and thus only rendered on the Pixel Mapper Output. You can route as many Layers to that Virtual Output as you like. The next step is to route this Virtual Output as Virtual Input onto another Layer. This Layer is only displayed on a Camera that is only visible on a DVI Output. What is it good for: the user can create output display arrangements where each single arrangement is controlled by a Camera. So each single arrangement Layer can be modified via the softedge, keystone and splitscreen parameters of each Camera. This comes in handy if a LED Controller grabs certain areas out of the displayed picture and the VPU user wants to control these areas with a dedicated VPU Camera Fixture. And this can be used to drive a Matrox Tripple Head to Go Setup and be able to control each DVI Output with a dedicated VPU Camera Fixture. The Tripple Head to Go Device is recognised by the VPU Software as one big output. What you basically do is to assign 3 Layers that display Virtual Output 1,2 and 3 next to each other
- New options in the Content Editor context menu: "Insert for Virtual Input" to get the option to feed any Virtual Output from a Pixel Mapper Output into layers
- In the internal screen of a VPU Plus in setup the user can now toggle VPU and Pixel Mapper Mode via dedicated buttons
- The former mode selection on the top in GUI Screen is now renamed to "Render". Here the user can choose what mode is rendered, DVI or Pixel Mapper
- In the Multi Preview each DVI Output and Pixel Mapper Output is displayed in a small preview window and give the user overview on all currently processed outputs
- In the Headline in the VPU Plus internal display, the status for DVI mode or Pixel Mapper
- A lot of dialogues in the GUI screen do not a lot of video performance any more
- Columns in the Docking Frame in the GUI screen can be adjusted in their width

- In grandMA2 console / Setup / Network Configuration / VPU / Edit VPU there is a new tab called "Render" where the user can see all existing Areas and Outputs and define the IP of the VPU that shall render one of the possible Pixel Mapper Outputs
- VPU Pixel Mapper: library elements, that are directly dropped into a VPU Pixel Mapper output are directly snapped to the grid if the option "Dock on Grid" is enabled
  - VPU in grandMA2 mode: If Layers, Cameras or Master Fixtures are renamed now in the setup of the console, then these changes are displayed in the VPU Software again
  - VPU rendering a Pixel Mapper does now also use the Camera Iris, Shaper, Softedge and Keystone functionality
  - VImg <> and Offset are working correct now in combination with objects used in the Camera (3D Objects and Warper)
  - A VPU Plus without a SDI Card does not crash any more if a Function Block is renamed in the internal screen
- grandMA2: Pixel Mapper Tab in the grandMA2 console in Setup / Network Configuration / VPU / Edit VPU is deleted

#### MA NDP [2.7.0]\_v7.90

- New grandMA2 streaming implemented
- Minimum NDP streaming version in grandMA2 mode set to 2.7  
\* Sessions, created by a grandMA2 console, can now be joined from the NDP itself

NOTE: Downgrading from Version 7.84 or higher to a previous version requires special care. In such case please call the TechSupport for assistance.

Known limitation: Sessions, created by a grandMA2 console and set with a session password, cannot be joined from the NDP. But the NDP can always be invited by the grandMA2 console into the session.

#### grandMA 3D [2.7.0][6.7]\_v6.0.22.3981

- Shapers will be correctly visualized with "cutted beams", too.