



## Release Notes 1.9



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## Get Started

Do you need help getting started in grandMA3? Perfect - here we describe a few quick steps to get you rolling. The manual will explain functionality in detail while the MA e-Learning within the MA University offers you all kinds of training. All information can be accessed through the MA Lighting website [www.malighting.com](http://www.malighting.com).

Let's go! To leave the Release Notes, tap **I agree** on the top right corner. The main screen of grandMA3 software opens. On the right side, you can see predefined views on view buttons. To switch between the views, tap the view buttons.

If this is your first time starting grandMA3 software, patch some fixtures first. Or you can load one of the demo shows delivered with the software. Either way, press **Menu**. If you use grandMA3 onPC software, there is a  symbol in the top left corner there. Clicking the  symbol is the same as pressing **Menu** on a console.

Tap **Backup** and then **Load**, now you are ready to load shows. You would like to get right on it? Switch **Shows** to **Demo Shows** in the title bar first. To do so, tap **Shows** repeatedly until it says **Demo Shows**. Once **Demo Shows** is displayed, it is possible to select any of them. After you selected a demo show, tap **Load**.

In case a show was already loaded, a pop-up will appear asking if you want to save the current show first before loading the new one. It's up to you!

Here we go! Now you are ready to work with the grandMA3 software. It is as easy as that! Again - there are view buttons there, which change the screen content. At the bottom, you will find the encoder bar and the command line. Technically that is all you need to get started. For more information, see the grandMA3 help menu. To access the help in the console or the onPC, tap the view buttons named **Help** or visit the [MA Lighting website](http://www.malighting.com). If you want to learn the grandMA3 software step by step, please join the MA e-Learning - it's free of charge and available on the [MA Lighting website](http://www.malighting.com).

Have fun with using our grandMA3 software - Find all the improvements and changes of this software version further down.



**Hint:**

The grandMA3 software will start using the show file (or status) that was in operation before the software was shut down.



## Bugfix Version 1.9.7.0

### Other Enhancements

➤ The Command Line History window displays a command line input when **Show Command Line** is enabled.

➤ Updated the MA Startshow and the grandMA3 Demoshow.  
Added new symbols to the Symbols library.

➤ In the Network menu, your station name, type, IP, and version are shown in green for easier identification.

➤ Improved MIB:

- MIB also works with multi-instance fixtures that have a dimmer in the main fixture and have a dimmer in their subfixtures.
- Attributes will be MIB'ed if they run a relative phaser as soon as the dimmer opens.
- MIB works in cues that have several cue parts where the dimmer is stored in a later cue part than the attributes that should be MIB'ed.

➤ Improved Total reference update and Ownership:

- A Total Reference Update progress bar appeared when you created a new object in a pool while another object of the same pool was owned by another station.
- When multiple users work in same data pool, the ownership functionality allows the user to create new objects, move, copy, delete, or oops already created objects within the same pool.
- The ListOwnership command now displays detailed information about the children of an object ownership.
- The lock symbol uses two colors to indicate the state of the ownership:
  - Yellow: Indirect ownership. For example, when a user edits a macro line the macro itself is indirectly owned.
  - Red: Direct ownership. This object is being edited directly by a different user.

➤ The Software Update menu now includes a **Trademarks** tab. It lists all trademarks of the grandMA3 software.

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## Changes

- The default mesh of a pigtail has changed. The pigtail of a fixture is now visualized as a cyan cube. The visualization of pigtails can be disabled in the window settings of the 3D viewer. Find the property "Show Pigtails" in the "Misc"-tab. Default: enabled.
  - **Discard Update and Cancel Shutdown** in the shutdown pop-up changed to **Discard Update and Shutdown** after receiving a software update.
  - If an absolute and a relative preset, both containing MATricks, are used together, the MATricks in the absolute preset will be used as their foundation. Any MATricks setting that is missing in the absolute preset but which exists in the relative preset will be completed by the setting of the relative preset.
  - Trailing empty steps in the programmer that do not contain absolute or relative values are not output on the stage and also no longer stored or updated in cues.
  - Trailing empty steps can be stored in presets as template presets, however trailing empty steps will not be output on stage if selective presets are running in playback mode.
  - The focus in the clone pop-up is set to **Low Priority**.
  - The default link timing settings are changed to single and active only is disabled.
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## Bug Fixes

### 3D

#### Description

The attribute Gobo\*PosShake was not visualized. This bug is fixed.

The 3D Positions area in the Patch menu did not display the purple preview boxes for fixtures when using the Arrangement mode in the encoder bar. This bug is fixed

Gobo Rotation (Gobo\*PosRotate) was not visualized correctly in both directions in onPC running on Apple with M1 chip. This bug is fixed.

There would be a position offset between the origin of the beam and the lens if the property "Multi Led Beam Mode" of a Render Quality was set to "Single Beam Mean Color" or "Single Beam Dynamic Gobo" in some cases. This bug is fixed. The origin of the beam does not move any longer when moving the head of a fixture using the tilt.

If grandMA3 onPC Windows ran on stations equipped with Radeon RX- 5000 / 6000 graphics card series, the beams would not be properly displayed in 3D. This bug is fixed.

### Command Line and Macro

#### Description

Tapping several objects in a data pool that was not selected, for example for a command, created a wrong command. This bug is fixed.

The software would crash If you sorted using the Appearance column in the layout editor. This bug is fixed.

If you started a new show and Clear Output Stations was enabled, there would be no DMX output as the Connector Configuration would be completely cleared. This bug is fixed.

Enabling Clear Output Stations when starting a new show deletes all entries in the Connector Configuration and creates a new entry for the own station.

Knockout did not respect the defined layer.

At Default did not respect the color readout of the user profile. This bug is fixed. When the encoder bar is set to CMY instead of RGB, At Default will set the values inverted to the RGB default values.

The software would crash if the fader of an empty executor was moved via command line. This bug is fixed.

It was possible to delete your own station from the Connector Configuration menu. This bug is fixed.

Keyboard shortcuts did not trigger Macros assigned to Xkeys. This bug is fixed.

When several commands were separated using semicolons within one command cell, for example in a macro, some of the commands would not be executed if there was a semicolon followed by a space. This bug is fixed.



#### Description

Creating a recipe would cook global data instead of selective data of the preset that was used. This bug is fixed.

The software did not complete the required Total Reference Update process when oopsing the edit of a preset. This bug is fixed.

Excluding fixtures recursively in a recursive fixture selection, for example, Fixture 1 Thru 3. - Fixture 2. did not work. This bug is fixed.

In Timers, the stopwatch assigned to an executor could show the wrong time. This bug is fixed.

When a session with a time code generator was disconnected and reconnected, the connected station's timecode clock did not continue. This bug is fixed.

On grandMA3 onPC for macOS the command key for selecting multiple items in a list did not work. This bug is fixed.

If a group was labeled with shortcuts enabled, some key commands could accidentally end up in the programmer. This bug is fixed.

Speed Masters did not offer the following button functions when assigned to an executor: Black, Flash, On, Off, and Toggle. This bug is fixed.

If you imported a fixture in grandMA3 that on the other hand was exported in grandMA2, the system monitor would display a mismatch in the dependency count. This bug is fixed.

If a new show was created and all checkboxes were checked, the EULA license would be displayed again. This bug is fixed.

Calling a macro, executing the Load command and Goto did not work as expected in agenda. This bug is fixed.

Off on Overridden would not work properly in combination if the program time was enabled. This bug is fixed.

Using the encoders in the tab Data Edit of the Sequence Sheet Encoder bar the software could crash. This bug is fixed.

Output configurations stored in 1.9.2.2 could not be loaded in 1.9.3.3. This bug is fixed.

When selectively storing fixtures in presets and the setting **Grid Merge Mode** was set to **Append X**, the grid positions were not stored correctly in the preset. This bug is fixed.

Using only the absolute values of a preset that contains absolute and relative values, could add the relative values of the preset to the cue. This bug is fixed.



## Connections

### Description

In MIDI Remotes, a ControlChange value of 0 did not trigger the event that was assigned to it. This bug is fixed.

If the time was updated before a complete midi Timestamp, the timecode would jump on minute changes.

When switching between NDI sources, the system monitor displayed error messages. This bug is fixed.

When booting a console without a network cable connected, it could happen that not all modules were connecting properly. This bug is fixed. The boot process has been improved so that modules connect more reliably.

When loading a show file and enabling the Output Stations checkbox, the Connector Configuration menu could be missing an entry for your own station. This bug is fixed.

When loading a show file, your own station will always be added to Connector Configuration.

## Patch

### Description

Fixture types with a complex geometrical structure would not display lens geometries in some cases if several DMX modes referenced the same geometrical chain. This bug is fixed.

Set fixture types were exported to MVR using wrong dimensions from the internal fixture library. This bug is fixed.

The software would crash if you changed the DMX Curve of a realtime channel to a DMX Curve that did not exist using the command line. This bug is fixed.

The software could crash when leaving the patch after deleting all unused fixture types. This bug is fixed.



## Phaser

### Description

Phasers would stop working if fixtures and fixture types were deleted in the patch. This bug is fixed.

The software would crash if MATricks were changed several times and fixtures were deselected in the phaser editor. This bug is fixed.

Step keyword followed by a non-preset object created an empty step. This bug is fixed.

It was possible to create multiple phaser steps without a selection or a value change. This bug is fixed

When double-tapping a phaser preset with the MATricks Transform setting set to Mirror, the mirroring of the values in the programmer got lost. This bug is fixed.

When storing a mirrored phaser into a cue and the MATricks Transform was not in the preset but directly in the programmer, the resulting values in the cue were stored with a reference to the used phaser preset.

This bug is fixed.

When storing a mirrored phaser into a cue, the values in the cue will be stored without a preset reference, as long as the MATricks Transform setting is not part of the used phaser preset. In this version, when loading show files from v1.9.3.3 or prior, the preset references in such cue parts are automatically removed.

Side Note:

As part of the bug, changing anything in the patch, updating a preset, or loading a show file from a prior version, would not mirror the values in the cues. This only applied when the MATricks Transform setting itself was not stored directly in the phaser preset.

## Playback

### Description

Updating a step of a phaser preset that was played back by a sequence at the same time did not update the values of the step in the sequence. This bug is fixed.

Pressing and releasing temp or flash buttons of executors started the sequence, but did not switch it off again on release. This bug is fixed.

If an absolute and a relative preset were used in the same attribute, they could not be output using the programmer. This bug is fixed.

A user with playback rights could not clear the programmer. This bug is fixed.

It could happen that sequences kept running when switching them off after doing changes in the patch. This bug is fixed.

Running very fast phasers made values of steps sometimes to interfere with DMX calculation rate of the grandMA3 software. Hence, some steps could not appear on the output. This issue has been improved. When running very fast phasers, the software makes sure to output at least one DMX frame per step.





## Windows

### Description

The Sequence Sheet in Track Sheet mode displayed wrong feature graphics for phaser steps. This bug is fixed.

The screen encoder would flicker in the UI if you scrolled in the command line history overlay. This bug is fixed.

Numbers could flash briefly in the title bar of the Clock Viewer when two Clock Viewer windows were open at the same time. This bug is fixed.

If you moved your onPC window across different screens, a black gap would show in the title bar. This bug is fixed.

If the sequence was set to **Notes** and **Commands** only, it would not work in combination with **Auto Scroll**. This bug is fixed.

If a show was saved onto a USB flash drive using different file names many times, the console's memory information was displayed incorrectly. This bug is fixed.

The sequence sheet, set to track sheet did not show the correct color graphics for all steps of phasers. This bug is fixed.

The heading of the note area in the sequence sheet did not display cue point numbers correctly. This bug is fixed.

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## Bugfix Version 1.9.3.3

### Bug Fixes

#### Command Line and Macro

##### Description

When executing ReloadUI via the Lua Cmd() function, the software crashed. This bug is fixed. Executing **Cmd("ReloadUI")** in Lua returns an error and does not execute it. When you have to execute ReloadUI via a Lua function, use the CmdIndirect() function instead. For example **Lua "CmdIndirect("ReloadUI")"**.

#### Playback

##### Description

When storing non-cooked values to a preset or to a cue part that contains a recipe all values were marked as non-cooked. Therefore, when changing the recipe later, the values in the object were not updated. This bug is fixed.

When playing back sequences while they will be changed in the background, for example by changing recipes, they could end up in a state where they could not be started again.

This bug is fixed.

When a playback is running a multi-step value, calling a single-step preset for that value into the programmer showed all steps from the playback. This bug is fixed. Calling a preset with a single-step value for an already running multi-step value will show only one step in the programmer for that value.

#### Windows

##### Description

When loading a show file, empty view buttons could have the labels of the views of the former show file. This bug is fixed.



## Bugfix Version 1.9.3.1

### Other Enhancements

➤ Improved the Content Sheet in Manual Mode and the Load/Goto pop-ups: Cues and cue parts cannot be expanded anymore to display the recipes of the cue.

➤ Improved the Compare Color Theme tool: The label of the **Export** button and the title of the Export pop-up have been changed to better indicate which color theme to export.

➤ Improved the information when saving a show file and the disk space is full:

- The Backup menu displays the disk space usage of the selected drive with different pulsating font colors. To learn more, read [Show File Handling](#).
- When booting the console, if the hard disk has less than 15 GB of free space, a pop-up will warn the user. To learn more, read [Show File Handling](#).
- When trying to save a show file and one of the drives used is full, the full disk warning pop-up informs the user on which drives the show file was saved and on which drives it could not be saved. To learn more, read [Save a Show File](#).

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## Changes

- When executing Kill for a sequence that is already running, Go+ is internally executed instead of On.
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## Bug Fixes

### 3D

#### Description

The software could crash when fixtures were selected but not visible within the selected camera and the Selection to Selection Grid functionality was used. This bug is fixed.

The Focus tool button was displayed on the tool bar in the same place as the Select tool. This bug is fixed. When the 3D is in Setup mode, the Focus tool is provided as a separate button.

Making an additional lasso selection in the 3D after changing values in the programmer cleared the previous fixture selection. This bug is fixed.

## Command Line and Macro

#### Description

Cloning to the correct subfixtures did not occur when cloning from one multi-instance fixture to another fixture of the same fixture type. This bug is fixed.

When switching from one fixture to another, as well as when switching from the inner encoder to the out encoder or vice versa, the attribute could change its value from its default value. This bug is fixed. Changing fixtures, as well as switching from the inner encoder to the outer encoder or vice versa will cause the attribute value to change from its current value.

The attribute encoders had a grayed-out value area when the patch contained fixtures without an ID. This bug is fixed.

When copying a cue and the source cue had a recipe with a phaser additional cue parts were created on the destination cue. This bug is fixed. Copying cues with recipes no longer creates additional cue parts on the destination cue.

When stomping fixtures, non-multi-step values on layers would be knocked in as hard values, even if a preset was set on that layer. This bug is fixed. Stomping now knocks in non-multi-step values on layers and respects the preset reference. Furthermore, non-multi-step values are knocked in as deactivated values, when they are not already active in the programmer.

When deleting a recipe from a cue, the cue was not cooked automatically. This bug is fixed. Cues are automatically cooked when a recipe is deleted from the cue, so the cooked values will disappear from the cue.

When editing a command field, where both types of quotation were used together, the last quote was deleted. This bug is fixed.



## Description

Adding multiple executors by pressing them into separate commands within one command cell added a + before the second executor. This bug is fixed. Pressing, for example, **Off** **Executor 201** ; **Go+** **Executor 202** results now correctly in the command **Off Page 1.201; Go+ Page 1.202**.

Setting fixtures to their default values by executing **At Default** could crash the software. This bug is fixed.

Pressing **+** **+** or **-** **-** always changed the dimmer value in steps of 10 values according to the current readout. This bug is fixed.

**+** **+** and **-** **-** always changes the dimmer value in steps of 10%.

Disabled attributes in the At Filter were ignored by the Phaser Editor. This bug is fixed.

When having a color phaser active in the programmer and then using the color picker to change the color in step 1 cleared all other steps from the programmer. This bug is fixed.

MARKers did not take the size of their assigned movement space into account but used the physical values of the XYZ attributes. This bug is fixed.

Setting the appearance of a layout element to none, the former appearance was still displayed. This bug is fixed.

When importing timecode shows, the start time of time ranges was not imported correctly if it was originally greater than one minute. This bug is fixed.

The content of the assigned scribble was also deleted when the name of an object was deleted. This bug is also fixed.

It was not possible to Oops the locking of some objects, for example, Cameras, Timers, ViewButtons, or Worlds. This bug is fixed.

Copying and pasting a range of fixtures in the programmer would cause all fixtures to take the values of the first fixture in the list of source fixtures. This bug is fixed.

If a plugin opened a pop-up that should be able to scroll, but had no target to scroll, the software could crash. This bug is fixed.

When copying and pasting information in the programmer, the pasted values were not output for the target fixtures until the user deactivated the values. This bug is fixed.

It could happen that the old values remained as values of another user's programmer when clearing the programmer. This bug is fixed.

It was possible to corrupt world 1. This bug is fixed.

When editing the time of timecode events by using the calculator of the time encoder, relative changes were not applied correctly. This bug is fixed. The time calculator of the timecode encoder bar adjusts the time of events correctly, for example:

- **+ 2**: Adds 2 seconds to all selected events.
- **2**: Moves the first selected event to 2 seconds, moves all other selected events, and maintains the spacing between all events.

When editing values of attributes using the Content Sheet, only the values visible in the Content Sheet were transferred over into the cue. This bug is fixed.



## Connections

### Description

grandMA3 onPC could not start, when a USB device was connected that returned a length of 0 for its description. This bug is fixed.

## Patch

### Description

Filters were reset to all attributes when attributes were added to the show or moved within the show. This bug is fixed. Changes to the attribute structure in the show do not enable all attributes in filters anymore.

## Phaser

### Description

If very high values on the Speed layer were combined with very low values on the Width or Measure layers, the software could crash. This bug is fixed.

Speed 1 was used on the Speed Master layer when importing Phaser presets from XML files created prior to v1.9.

## Playback

### Description

It could happen that the content of newly triggered cues was not played back. This bug is fixed.

When switching off sequences, it could happen that the output of the sequence was still kept. This bug is fixed.

Tracked attributes snapped to their values instead of using the cue timing when executing Goto or Go- on a sequence. This bug is fixed.

OffWhenOverridden switched off playbacks when another playback for only a subset of fixtures was started, and all fixtures had active values in the programmer. This bug is fixed.

When a cue was triggered while the previous cue was still in transition, the cue out timings were ignored. This bug is fixed.

When changing the MAtricks of a preset, the new values did not respect the Transform setting, resulting in incorrect output. This bug is fixed.

When switching off a preset with MAtricks Transform set to Mirror, the software could crash. This bug is fixed.



## Windows

### Description

The Sequence Sheet could display the wrong order of tracked data within cue parts of the same cue. This bug is fixed.

The Break cell in the Sequence Sheet displayed the Feature Group Indicator Bar when a world was set as a break that contained all attributes. This bug is fixed. When a world is set for break, the Sequence Sheet displays the Feature Group Indicator Bar only when the world does not contain all attributes.

It was possible to select several entries in the Select and Import Update Files dialog of the Software Update menu. This bug is fixed.

Editing symbols in the Symbols pool did not display a preview of the symbol before importing it. This bug is fixed.

The Select Step encoder in the 2D Phaser Bar did not display the correct information when a step other than step 1 was selected. This bug is fixed.

Tapping **Save** in the Save changes? pop-up after editing a note did not save changes. This bug is fixed.

When typing into the note area in the label dialog, the input was only visible on the screen where the label dialog had the focus. This bug is fixed. The text input in the note area of the label dialog is now visible on all screens.

Changing the note of a cue by using the Label dialog did not immediately display the new text in the Info window. This bug is fixed.

The notes of automatically triggered cues were not displayed in the Info window, for example, Follow or Time triggered cues. This bug is fixed.

The Timecode Viewer did not always display all tool bar buttons. This bug is fixed.

The user interface could not display its contents if a drive other than drive 1 was selected while ReloadUI was executed or a station joined the session. This bug is fixed.

When zooming into the timecode viewer or editor, events were always displayed. This bug is fixed.

The content sheet could display wrong values. This bug is fixed.

It was not possible to change the mode of windows if the window itself was very small, for example, the Color Picker or the Phaser Editor. This bug is fixed.



## Release Version 1.9.2.2

### Features

The latest release of grandMA3 version 1.9.2.2 rolls out several enhancements that enrich your lighting experience. Besides numerous improvements based on your highly appreciated feedback, many new and clever features have found their way into the software. Read on for a quick introduction and find links for more information.

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### Windows

#### Improved in this release

All windows have icons. The icons are displayed in the Add Window dialog and in the title bar or pool title object of each window.

In addition, the Add Window dialog got rearranged. It has these tabs available:

- **Common** : A fixed selection of commonly used windows. All these windows are also available in one of the other tabs.
- **Data Pools** : All object pools that are part of a data pool for example Sequences, MAticks, Groups, and more.
- **Presets** : All preset pools.
- **Pools** : All pools that are part of the show data or the user profiles. For example, Appearances, Users, Cameras, and more.
- **Tools** : General windows for displaying show data. For example, 3D Viewer, Agenda Viewer, Timecode Viewer, and more.
- **More** : All different bars, playback windows, or info and system related windows. For example, Align Bar, Playback Window, System Monitor, and more.
- **All** : Lists all windows with the ability to search and filter.

In most tabs the windows are grouped in categories. These categories are displayed when opening the Add Window dialog on a big screen. They are hidden when opening the Add Window dialog on the small screens (screens 6 and 7 of grandMA3 light and full-size).

The **Common** tab is sorted by importance. The other tabs are sorted by type and within a type in alphabetical order. The buttons in the **Preset** tab display their corresponding feature group number in the top left corner of the button. Use the number address presets via command line.

For more information, see [Preset keyword](#).

Furthermore, some windows were renamed in order to provide consistent and comprehensive names.

For more information, see [Add window](#).

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## Quickeys

### New in this release

Quickeys are pool objects that can have keys or functions assigned. Quickeys are stored in the Quickey pool window.

Assign Quickeys to executors, Xkeys, or layouts. Or use them directly in the Quickeys pool.

Quickeys that are latched, for example with the Quickeys that represent the **MA** keys, display the latch in a yellow font color. To latch a Quickey, tap and hold the Quickey, move the finger outside the pool object, and then release the finger.



#### **Important:**

The CLI (Command Line Interaction) is for Quickeys always disabled. The pool objects cannot interact with the command line, for example, **Edit** + tapping a Quickey cannot open the Quickey editor. To edit a Quickey execute the Edit command directly from the command line, for example, **Edit Quickey 1**. To enable CLI for the Quickey globally, tap CLI in the Quickey Pool Settings window of any Quickey Pool window.

New Quickey keyword.

For more information about Quickeys, see the following help topics:

- [What are Quickeys?](#)
  - [Quickey Editor](#)
  - [Use Quickey Pool Objects](#)
  - [Quickeys - Example](#)
  - [Quickey keyword](#)
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## Notes

### New in this release

Notes allow adding information to objects, for example, cues, presets, groups, macros, and macro lines. In cues, for example, they can tell the operator about important actions on stage in order to trigger the next cue.

Each object that has notes available, has a **Note** button in its editor, or have a Note cell (for example, cues in the sequence sheet).

For more information about notes, see the following help topics:

- [Notes](#)
- [Note keyword](#)
- [Info window](#)
- [ListReference keyword](#)
- [Timecode settings](#)
- [Assign key](#)
- [Keys](#)

To display the notes of all cues at once, the sequence sheet can be masked accordingly: the **Mask** tab in the Sequence Sheet Settings has a **Note** available. Enabling only the **Note** mask and disabling all other masks display only the notes. It is also possible to combine the different masks with the **Note** mask. The setting **Line Height** allows to define the height of a line in the sequence sheet. In case of having notes with multiple lines, **Line Height** can be changed in order to see the full note. The value **Auto** dynamically changes the height of each row to display the full note.

To enter a new line in a note when using the command line, type the escape character `\n` in the command line.

To enter the note

*This note*

*uses two lines.*

via command line to group 2, type:

```
MA User name[Fixture]> Note Group 2 "This note\nuses two lines."
```

The label dialog displays also the notes area always.

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## Timers

### New in this release

The Timer pool object allows to be configured as a stopwatch or as a countdown. For example, to stop times during rehearsals in order to set up a fade time that matches the movements on stage. Or to countdown a time in order to inform the operator when they should pay attention to the actions on stage in order to trigger the next cue on time.

For more information, see the following help topics:

- [Timers](#)
- [Timers - Stopwatch](#)
- [Timers - Countdown](#)
- [Timer keyword](#)
- [RunningTimer keyword](#)
- [MyRunningTimer keyword](#)
- [Running playbacks](#)
- [User settings](#)
- [Clock window](#)

When a Countdown Timer is displayed in the clock window, a descending progress bar at the bottom of the window indicates also the remaining time.

Expired countdown timers display the time in green color in the Clock Viewer window.

The Off Menu and the Running Playbacks window display the running timers. Therefore, tap **Sequences** repeatedly until it is set to Timers.

The keywords **RunningTimer** and **MyRunningTimer** addressing running timers from all users, or only timers started from the own user profile.

Timers can also be assigned to executors and be operated from the executors.

With adding an executor configuration for timers, the existing executor configurations are retained. All executor configurations from pool object ID 15 upwards until the next empty pool object are shifted in the pool. This takes place when migrating show files from older grandMA3 versions up to v1.9.

When loading a show, a timer that was running while the show file was saved is loaded in paused state.

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## Layouts

### Improved in this release

- New value for appearances of a layout element: <Default> allows to use the appearance of the assigned object.
- New properties **Font Size** and **Text Size** for layout elements.
- New element property **Full Resolution**.
- New layout property **Markers** and **Value Colors**.
- Text on layout elements that is too long to display is cut off in a way so that the user does not see half-cut lines. This applies to labels of pool objects as well.
- Setting layout elements to a dedicated font size will always display the text in the set size, no matter the zoom value of the layout.
- The title bar in a Layout Viewer shows the data pool of the displayed layout. This information is only displayed if the layout is not part of the selected data pool.



**Hint:**

To see the same colors for values in a layout element as in the fixture sheet, assign a fixture with a dimmer in the layout element. The visibility for the value has to be enabled for the layout element, too.

For more information, see the following help topics:

- [\*\*Edit layout elements\*\*](#)
  - [\*\*Edit layout\*\*](#)
  - [\*\*Create a layout\*\*](#)
-

## Graphics

### New in this release

**Feature Graphic** is a setting in the Fixture Sheet, Sequence Sheet, and the Content Sheet.

The attributes of the features Dimmer, Position, Gobo, and Color can have a small symbol displaying a graphic representation of the attribute values. These symbols can be shown or hidden by enabling or disabling the setting

**Feature Graphics** in the context menu of these windows.

For instance, the dimmer value is represented by a dimmer bar. The position values are represented by a crossed vertical and a horizontal line. Gobo attributes are displaying a small image of the gobo. Colors are displayed as small squares displaying the colors next to each color feature.

The settings **Fixture Graphic** and **Fixture Graphic Source** are available in Fixture Sheets. They define which kind of icons are displayed in front of the Name cell of each fixture. Both settings are also located in the context menu of the fixture sheet. Resizing the Name column to a small size will hide the icon. That happens when only the icon is visible in order to see the fixture name.

**Fixture Graphic** has these values:

- **None:** No icon will be displayed.
- **Flip:** Only the flip indicator bar will be displayed.
- **Simple:** The combined intensity and color output of the fixture is displayed in a square icon.
- **Gobo:** The intensity and color output of the fixture is displayed combined with the used gobo. Fixture Graphics displays only the gobo of one gobo wheel at a time. Gobo wheels in ascending order define which gobo is displayed. For example, when Gobo 1 is set to open, then the gobo of Gobo 2 is displayed.

In all cases, except None, the Flip Indicator Bar will be displayed. It is displayed as a vertical bar with a white rectangle in it. The position of the rectangle in the flip indicator bar indicates the user in which flip area (combination of pan/tilt values) the fixture is located right now. The bigger the physical range of pan and tilt of a fixture type is, the more combinations of pan and tilt values are possible that point to the same position on stage.

With the setting **Fixture Graphic Source** the user can define which values are taken in order to visualize the values in the icons of the Fixture Graphic setting.

These are the different values of **Fixture Graphic Source**:

- **Auto:** The values are visualized accordingly to the selected layer of the Layer Toolbar.
- **Value:** The icon displays the output of the Absolute Layer and the Relative Layer.
- **Output:** The values are visualized accordingly to the Output Layer.
- **DMX:** The values are visualized as the resulting DMX values.



## Phasers

### New in this release

The phaser layer SpeedMaster allows defining per attribute to which master of the type speed the phaser should adapt its speed to.

By turning the SpeedMaster encoder or opening the calculator for an attribute on this layer, one of the 16 available masters of the type speed can be selected.

The value of the speed layer is combined with the value of the selected master of the type speed.

These values are also stored into presets and cues/cue parts.

The speed indicator on executor labels and special executor labels of assigned speed masters is bigger and moved into the vertical center of the executor label.

The SpeedMaster layer can be addressed by using the keyword SpeedMaster.

For more information, see [SpeedMaster keyword](#).

With the addition of the SpeedMaster layer, the ProgramSpeed master was removed. The GrandSpeed master still exists but is not part of the Master Controls overlay and the Preferences and Timings menu anymore.

The values on the SpeedMaster layer take precedence over Speed Master and Speed Scale settings of Sequence and Cue/Cue Part.

Speed Masters can be paused. A paused Speed Master pauses all phasers used by the paused Speed Master.

It is possible to stomp a range of fixtures or a group.

For more information, see [Stomp keyword](#).

---

## Filters

### Improved in this release

The At Filter and Filters can be configured to take layers into account when storing, updating, cloning, or Fixture At Fixture operations. Therefore, filters can have **Absolute**, **Relative**, **Timing**, and **Phaser** enabled or disabled in the Filter Editor. These buttons are located on the right side of the Filter Editor.

In addition, filters that filter layers can also be used as Input Filters for Presets, Preset Pools, or Sequences. Furthermore, layer filtering works also when specifying such a filter in an If statement.

Example:

Requirement: Create filter 42 which has only Relative in the layer section and all attributes enabled.

Select a fixture, and activate absolute, relative, fade and delay values for Dimmer and Zoom.

To store only the relative value into cue 3 of the selected sequence, and without selecting the filter in the pool beforehand, type:

```
MA User name[Fixture]> Store Cue 3 If Filter 42
```



#### **Known Limitation:**

- Using filters as Output Filters ignores layer filtering.
- Using filters for Break ignores layer filtering.
- Knocking in values does not take the layer filters of the At Filter into account. For example, when using **At Preset** or **At Cue** syntax.



## Content Sheet

### ➤ Improved in this release

- When the Content Sheet is set to **Cue Mode** 'Manual', empty cues are displayed in a darker background and text. The Sequence Sheet does the same.
  - The screen encoder can scroll through the list of cues when **Cue Mode** is set to 'Manual'. Therefore, the Content Sheet displays the selected cue immediately.
  - The list of cues in **Cue Mode** 'Manual' displays the currently active cue (not the displayed one) with a green frame around its row.
  - When the **Cue Mode** is set to 'Manual' and **Show Parts** is active, tapping a Part cell of a cue with different cue parts, unchecks all other parts of the cue, and displays only the data of the selected cue part.
  - When a cue is collapsed, a red text "DUP" in the bottom right corner of an attribute cell indicates, that there is duplicate data stored in different parts of the cue. This indicator is displayed in the Sequence Sheet (when **Track Sheet** is enabled), too.
  - The performance of the Content Sheet improved.
-



## Backup Menu

### New in this release

It is possible to define the loaded segments of a show file. There are four show file segments available:

- Show Data
- Local Settings
- Output Stations
- DMX Protocols

For more information, see [show file handling](#).

The data of the currently loaded show file will be kept for these segments, where the checkbox buttons are not enabled.

The option keywords **/NoShowData**, **/LocalSettings**, **/OutputStations**, and **/DMXProtocols**, can be combined with the LoadShow keyword and NewShow keyword.

When executing a LoadShow command without specifying an additional option keyword, it will load only the Show Data of the show file.

For more information, see the following help topics:

- [/LocalSettings](#)
- [/NoShowData](#)
- [/OutputStations](#)
- [/DMXProtocols](#)
- [/All](#)
- [LoadShow keyword](#)
- [NewShow keyword](#)



**Important:**

To be able to use this feature, the show file needs to be saved with grandMA3 v1.9 or higher first. Show files saved with grandMA3 v1.8.8.2 or prior do not contain the Station Settings, Output Configuration, and DMX Protocols.



## **+** New in this release

The folder Template Shows allows only to load template show files. For more information, see [\*\*show file handling\*\*](#). For example, in theaters where a show file with all essential objects exists, and nobody should destroy it by mistake, and every user should be able to load this show file and work in a copy of the template show file.

Learn more about the grandMA3 folder structure in the [\*\*Folder Structure topic\*\*](#).

Furthermore, the /Type option keyword with the value "Template" can be used to load template show files via command line. For more information, see [\*\*Type option keyword\*\*](#).

---



## Title Bar Buttons

### New in this release

Every window with a title bar, except the following, allow configuring the availability of buttons in the title bar of the windows:

Agenda Viewer, At Filter window, Clock Viewer, Command line History window, Custom Master Section window, Help window, Info window, Message Center window, Programmer Parts window, RDM Devices Viewer, Running Playbacks window, Selection Grid window, Sound Viewer, System Info window, System Monitor window, Timecode Viewer, and Trackpad window.

This is configurable per user profile.

To configure the title bar buttons, follow these steps:

1. Open a window with a title bar, for example the Fixture Sheet.
2. Tap **MA** in the left corner of the title bar.
3. The context menu opens.
4. Enable **Edit Title Bar** in the title bar of the context menu.
5. The available buttons change their style:
  - In the bottom left corner, a Yes or No indicates if this button is enabled to be displayed in the title bar. Furthermore, when it is enabled, the font color turns yellow.
  - The yellow number in the bottom right corner indicates the position of this title bar button in the total order of the visible title bar buttons.
  - Unavailable buttons for the title bar will be grayed out.
6. Enable or disable the settings you want to have in the title bar.

The order of enabling the settings defines the order of the buttons in the title bar. The buttons will be set from right to left in the title bar.

It is possible to change the order of the title bar buttons within the **Title Buttons** tab. This tab will be displayed when **Edit Title Bar** is enabled.

The **Title Buttons** tab displays a list of buttons, that are active for the title bar. The selected entry can be moved up or down in the list. This changes the order of the buttons in the title bar.

It is here also possible to remove single buttons or all buttons from the title bar, or to load the default again.

When **Edit Title Bar** is enabled, a gray number in the tabs of the context menus indicates for how many settings a title bar button can be enabled.

## Patch

### New in this release

Enabling **Show 3D Positions** in the title bar of the Patch or Live Patch menu opens a 3D area on the right side of the patch menu. Selecting fixtures there allows to directly position them while being in the Patch menu. Therefore, the 3D encoder bar appears when setting the focus into the 3D area.

By tapping and holding the vertical divider between the patch area and the 3D area it is possible to change the size of the 3D area.

Tapping **3D Positions Settings** opens a context menu. It allows to change the settings of the 3D area. The **Misc** tab offers these settings:

- **Wireframe:** Enables the rendering of the 3D scene as wireframe. By default this setting is disabled.
- **Beam:** Changes the visualization of the beam. Available values are "Simple" and "Line" (Default: Simple).
- **BodyQuality:** Changes the visualization of the fixture body. Available values are "Box", "Standard", and "Ultra" (Default: Standard):
  - Box: The whole bounding box of the fixture is visualized as one box.
  - Standard: The fixture is visualized with its original meshes until the vertex limit of 1 200 vertices is reached. If the overall vertex count of the fixture exceeds 1 200 vertices, the fixture is visualized with default meshes.
  - Ultra: The fixture is visualized with its original meshes no matter of its vertex count.

A description of the settings of the tab **Label** can be found in the [3D topic](#).



**Hint:**

Body quality is not considered for environmental fixture types. Environmental fixture types are always rendered with their original meshes.

The selection in the 3D Positions area is synchronized with the selection in the grid of the Patch menu. The dimmer of selected fixtures is visualized with an output of 100 % in the 3D area. The zoom of a fixture is visualized with the default value of the zoom attribute. Or respectively with the value of the Beam Angle of its Beam Geometry, if a fixture does not have a zoom attribute. Other functions of the fixture (for example color, iris, or gobo) are not visualized in the 3D area in the patch.



**Hint:**

Fixtures in the 3D Positions area do not visualize the current show output. For this purpose use a 3D window outside of the Patch or Live Patch.



To adjust static fixtures (all fixtures that do not have a pan or tilt attribute), towards a position in the 3D stage, use the focus tool (📍).

To do so: Select some fixtures, activate the focus tool, and then click the desired position in the 3D window. The fixtures will change their rotation towards this point.


This tool is also in the 3D Viewer available when it has **Setup** enabled.

#### 📍 New in this release

Subfixtures get the names of their geometries assigned when patching new multi-instance fixtures.

---

## Encoder Bar

 Improved in this release

The Layer Toolbar in the Encoder Bar is rearranged:

The buttons **Values and Timings**, **Phaser Overall**, and **Phaser Steps** group the single layers together. The individual layers are displayed on the right side of the layer group buttons.

The single layers are grouped as follows:

- Values and Timings:
  - Absolute
  - Relative
  - Fade
  - Delay
- Phaser Overall:
  - Speed
  - Speed Master
  - Phase
  - Measure
- Phaser Steps:
  - Acceleration
  - Deceleration
  - Transition
  - Width

When switching between the different layer groups, the selection of the layer in the former layer group is remembered. When clearing the programmer, the selected layer group returns to **Values and Timings** and the **Absolute** layer. The selection of the layers in Phaser Overall and Phaser Steps stays as it is after clearing the programmer.

The indicator bar of the layer group buttons indicate which layer will be selected when tapping the layer group button. For example, **Phaser Overall** and **Phaser Steps** are purple, but the user can choose different colors per phaser-related layer in the color theme.



**Hint:**

The colors for each phaser-related layer can be changed in the color theme in the ColorGroup "ProgLayer".



### ➤ Improved in this release

When the pop-ups (when swiping) of **Link Timing** or **Link Phaser** in the encoder bar, offer more settings. These pop-ups still allow to change the link setting of the encoders between the values **Single** and **Feature**, and for timing layers and phaser layers in addition to **AtFilter**.

Furthermore, the new buttons **Active Only** and **MultiStep Only** (only timing related layers and phaser related layers) allow to limit which attributes may be affected:

- **Active Only**: When enabled, only attributes which have already values active in the programmer get the new values applied. For example, Pan has active absolute values, and Tilt is knocked out. **Link Timing** is set to **Feature** and has **Active Only** enabled: Turning on the fade encoder of Pan changes only the fade time for Pan. When **Active Only** is disabled, Tilt would also get the fade values set.
- **MultiStep Only**: When it is enabled, the new values are only applied to attributes that have two or more steps active.

The defaults are:

- **Link Value**: **Single**
- **Link Timing**: **Feature**
  - **Active Only**: **Enabled**
  - **MultiStep Only**: **Disabled**
- **Link Phaser**: **AtFilter**
  - **Active Only**: **Disabled**
  - **MultiStep Only**: **Enabled**

When clearing the programmer, **Link Value** will be reset to **Single**.

### ➤ Improved in this release

The **MATricks** button in the encoder bar shifts the MATricks label to the top, when an MATricks pool object was called. In all other cases, the label MATricks stays in the center of the button.



## Tracking

### Improved in this release

In the Sequence Sheet it is possible to define a break per cue. A break stops values of attributes being tracked over the break.

When defining a break for a cue, a filter or world needs to be entered into the Break cell. To do so, edit the Break cell in the sequence sheet.

This allows to define breaks only for certain fixtures or attributes. For example, the dimmer could track further and all other attributes are stopped from tracking via the break.

The Break cell displays the **Feature Group Indicator Bar**, too.




**Hint:**

To set a full cue break, select Filter 'All' or World 'All'.



## XYZ

 Improved in this release

XYZ with values on the relative layers is implemented. This means, for example, that a relative XYZ phaser can be run around an absolute PanTilt position. All combinations of PanTilt and XYZ, and absolute and relative are supported.



**Important:**

When mixing absolute PanTilt with relative XYZ, the value of the Distance attribute in the PanTilt feature is important. This value defines where the relative XYZ values are added.

The relative values for the attributes X, Y, and Z are relative to the size of the stage if no MArker fixture is set up on the relative layer for the MArker attribute. When a MArker fixture is set up on the relative layer for the MArker attribute, the relative XYZ values are relative to the movement space of the MArker fixture.

The OffWhenOverriden setting of sequences turns off playbacks with relative PanTilt when relative XYZ is played back, and vice versa.

Calling relative XYZ presets or hard values knocks out relative PanTilt values, and vice versa.

When knocking in attributes of one position type (PanTilt or XYZ) while the other one has active values in the programmer or is played back, the values will be converted to the knocked in position type and converted to match the same position on stage.

If several playbacks with values for both positioning systems are running, Pan, Tilt, and Distance will be knocked in.

When the user wants to knock in the Position feature group while a transition from one system to the other one is happening, Pan, Tilt, and Distance will be knocked in.

**On FeatureGroup "Position". "XYZ"** knocks in all XYZ attributes, while **On EncoderPage "Position".2** will knock in only the attributes that are currently on this encoder page (in most cases this will be X, Y, Z, and Flip).

When the value of the MArker attribute on the relative layer is 0, the absolute MArker value will be used.

The hidden XYZ attribute "Mode" is not needed anymore. Therefore, it is not part of show files in v1.9.

The physical readout of the attributes X, Y, and Z displays the values in meters of the stage (when MArker is set to 0), or of the size of the target space of the selected MArker fixture.


When a fixture does not have XYZ values active in the programmer or played back, activating the MArker attribute will set the values for X, Y, and Z in the programmer to 0.

Turning the encoders of the attributes X, Y, and Z by one click in the encoder resolution Coarse changes the value in physical readout and natural readout by 1m. The other encoder resolutions and encoder factors are also based on this size.

The DMX channel of each XYZ attribute can be inverted per fixture type that uses XYZ attributes.

## 3D

### New in this release

To generate grid values for the selected fixtures, use the 3D view to Selection Grid tool () in the toolbar of the 3D Viewer.

3D view to Selection Grid works for all levels of selected fixtures for main fixtures and subfixtures.

The grid values are determined by the position of the selected fixtures and subfixtures in the 3D Viewer. The grid values depend on a perspective representation of the camera that is selected in the 3D Viewer.

To create perspective grid values from a selection, select fixtures or subfixtures and tap  in the 3D Viewer.

A high-resolution representation of the positions of the fixtures in the selection grid is created.

To reduce the resolution of the grid, use the **Auto Remove Gaps** functionality of the Selection Grid.


### Improved in this release

If the 3D Viewer is set to Stage **All Stages**, it displays all stages with their specific position and rotation.

When on an onPC station the driver of the GPU has issues with OpenGL the 3D Viewer informs the user about the driver issue instead. In this case, the 3D Viewer also does not try to render 3D scenes anymore.

**Show Tool Bar** in the 3D Viewer settings allows to hide or display the tool bar on the left side of the 3D Viewer window.

When **Show Tool Bar** is off and the user enables the **Setup** in the title bar the 3D Viewer, the tool bar is displayed automatically.

To adjust static fixtures (all fixtures that do not have a pan or tilt attribute), towards a position in the 3D stage, use the focus tool (). For more information, read the **Patch section** above. For this tool the 3D Viewer needs **Setup** enabled.

Shapers are visualized also if less than 4 blades are present in the fixture type.

---



## Other Enhancements

➤ Running fades of playbacks are continued when updating/storing other attributes in the playback. Fades that were running when saving a show file will resume when loading the show file again. Leaving the patch or inviting/dismissing stations continues running fades.

✚ The PSN menu opened on a connected station displays position, speed, and rotation values from incoming PSN trackers.

✚ Universes that receive PSN data, display "PSN In" in the universe pool.

✚ OSC:

- DataPools can be addressed in an OSC message via the **/DataPool** address.
- Addressing a fader or button without specifying a page addresses the executor on the currently selected page.
- OSC Messages now contain the cue name, sequence name and the cue number.

➤ IfOutput, IfActive, and IfProg syntax:

All three keywords executed on its own, selects only fixtures of the current command line default.

### Requirement:

Command line default needs to be set to the Custom ID Type Houselights.

- To select any fixture that has a houselight CID, and that has output on stage, type:

```
MA User name[Houselights]> IfOutput
```

- To select the fixtures with the houselight CIDs 2 to 5 that have output on stage, type:

```
MA User name[Houselights]> IfOutput 2 Thru 5
```



All three keywords can be combined with the keywords of the different IDTypes in order to select only fixtures with corresponding CIDs, no matter which command line default is set.

- To select all fixtures that have active values in the programmer and have a NonDim CID assigned, type:

```
MA User name[Fixture]> IfActive NonDim
```

➤ The following object types display a reference icon (📌) when they are referenced to another object:

- Appearances
- Scribbles
- Views
- Presets assigned to executors
- Macros assigned to executors
- Worlds assigned to executors

➤ The Macro Editor displays the value in the Wait cell of the last macro line in red in order to indicate that this value is not used. The Wait value defines the trigger time/type for the next macro line.

✚ Keyboard shortcuts are available on grandMA3 onPC stations to open or close the displays 2 to 7. By default, the shortcuts are **Ctrl + Alt + 2** (screen 2) to **Ctrl + Alt + 7** (screen 7).

✚ New keyword **SwitchToGrandMA3Software**. For more information, see [SwitchToGrandMA3Software keyword](#).

➤ The property UseForVisualization of DMXCurves allows defining if the DMX output, as defined by the DMXCurve, shall be visualized in the 3D or not.



**Important:**

When enabling this property for DMXCurves that were created by color-calibrated fixtures, the colors in the 3D will not match the real output on stage!

✚ When copy and paste fixtures in the Patch, the pasted fixtures get a cyan text at the right side of the Name cell. The cyan text tells the user which fixture was the source of the pasted fixture. The show data of the source fixture will be cloned to the pasted fixture when leaving the Patch. Therefore, the text says "Cloned <FID>", for example, "Cloned 2" when the fixture Fixture ID 2 was the source fixture.

#### ✚ Clone:

- Cloning across different attributes is possible. Syntax:

**Clone Fixture ["Source\_Fixture\_Name" or Source\_Fixture\_Number] Attribute ["Source\_Attribute\_Name" or Source\_Attribute\_Number] At (Fixture ["Destination\_Fixture\_Name" or Destination\_Fixture\_Number]) Attribute ["Destination\_Attribute\_Name" or Destination\_Attribute\_Number] (If [Object] ["Object\_Name" or Object\_Number])**

This allows to clone data to different fixtures even when they have different attributes for the same functionality, for example.

When leaving out the destination fixtures, the attribute cloning will be done for the source fixtures only. For more information, see [clone keyword](#).



#### Hint:

Enter the real name of the attribute (not the pretty name) for "Source\_Attribute\_Name" and "Destination\_Attribute\_Name".

A list of attributes with all their settings can be displayed in **Menu - Patch - Attribute Definitions**, or when executing [List Attribute](#).

- A frame selection (dragging a lasso around fixtures in the Layout Viewer or the 3D Viewer) can be used to specify a clone destination.
- The current selection can be used in clone commands by using the [Selection](#) keyword.
- Cloning supports the usage of the option keyword **/NoDependencies**. When **/NoDependencies** is used in a clone command, the fixtures that are not part of a referenced object, are cloned only with hard values. When **/NoDependencies** is not added to a clone command, the destination fixtures will also be cloned in the referenced objects.

For more detailed examples and more information, see [/NoDependencies](#).



✚ Presets, Worlds, and Filters can display the Feature Group Indicator Bar at their lower edge. This bar is visible when an object has attributes of two or more feature groups stored. All presets have always the feature group indicator bar visible.

The feature group indicator bar has a square for each feature group, displayed in white, gray, or red color.

- White: Indicates that values of attributes of the corresponding feature group are stored in the preset.
- Gray: Indicates, that no values of attributes of this feature group are stored in the preset.
- Red: Indicates that at least one attribute of this feature group is not accessible at the moment. For example, when having a world with a limited set of attributes active.  
The square turns also red, when the currently selected world does not contain fixtures that can make use of the attribute data in the preset.

The order of the squares is similar to the order of feature groups in the encoder bar, from left to right:

- Dimmer
- Position
- Gobo
- Color
- Beam
- Focus
- Control
- Shaper
- Video

If a show file contains additional feature groups, more squares will be added automatically to the bar.

✚ The Oops overlay displays the history of the commands that can be undone (oopsed) in form of a grid.  
To open the Oops overlay follow these steps:

1. Press and hold **Oops**.
2. The Oops overlay opens.

or

1. Execute the command **Menu "OopsOverlay"**.
2. The Oops overlay opens.

The grid has these columns:

- Elapsed Time / Session Time: The time that has passed since the command was executed or the absolute time when the command was executed. For more information see below the **Columns** setting.
- Name: The command that was executed or the action that was done.

The selected row(s), indicated by a blue background, are oopsed when tapping **Undo last Action** or **Undo x Actions**.



The x indicates how many events will be oopsed.

Only the last event or a coherent bunch of events, starting with the last event can be oopsed.

In the Oops overlay, **Create Oops**, **Oops Views**, **Oops Programmer** and **Oops Selection** operate the corresponding settings of the **UserProfile**.

When **Create Oops** is disabled, no oops events will be created at all. In this case, the other oops settings are grayed out.

The setting **Oops Confirmation** can be set to these values:

- **Always:** Every time the user oopses at least one event, the user needs to confirm it.
- **Main:** Only oopsing important actions need to be confirmed. For example, storing, moving, or deleting objects.
- **Never:** No confirmation when oopsing events is needed.

Scrolling with the screen encoder in the Oops menu selects/deselects entries, and pressing the screen encoder will oops the selected events.

The title bar button **Columns** can be switched to the values Elapsed Time or Session Time:

- **Elapsed Time:** Displays the time that has passed since the command was executed. This time counts up every second.
- **Session Time:** The absolute time of the session time when the command was executed is displayed in the Session Time column.

When doing changes in the Patch or Live Patch, the Oops entries are cleared.

➡ Oopsing an event on a station checks if the object was modified already by another station in the session. If the object was already changed by another station, the first station displays a failed message in the command line, telling the user, that it cannot perform the oops because the object was changed on a different station.

⊕ The option keyword **/NoDependencies** can be used when importing XML files. When specifying this option keyword during import, only the main elements of the XML file will be imported, and not the other elements that were exported as dependencies of the main element(s).

For example, when a macro with an appearance assigned was exported. Usually, if during export **/NoDependencies** was not used, the XML file contains the macro as main element, and the appearance as dependent object.

- In order to only import the macro to macro pool object 42 and do not import the appearance in addition, type:

```
MA User name[Fixture]> Import Macro Library "my exported macro.xml" At Macro 42  
/NoDependencies
```

When importing this macro again and not using the **/NoDependencies** option keyword, the macro and the appearance will be imported together.

In addition, the Import/Export menu has toggle buttons in both sub-menus ( **Import** and **Export** ) in order to define if dependencies shall be imported or not. When **Include Dependencies** is enabled, dependencies will be exported or imported. When entering the Import/Export menu, **Include Dependencies** will always be enabled.

**Include Dependencies** in the Import and Export sub-menus are linked together.



**Important:**

Importing Pages via the **Import** section of the Import/Export menu will only import executors. **Include Dependencies** is disabled, when selecting **Pages** in the Import/Export menu.

➤ Adding a new node for preparation in Output Configuration, adds all possible options of xPort Nodes and I/O Nodes.

➤ When leaving the session during an active show download the station will fall back to the previously loaded show file that was loaded before the show download started.

➤ Global Preset Update was renamed Total Reference Update. Improved the speed of the Total Reference Update mechanism.

➤ The Session Data Merge:

- The option **Merge All Data** is back.
- The Session Data Merge pop-up lists the object types that have differences between the two show files.

➤ Data protection is now shown to users within a multi-user session. When a user modifies an object the object will be locked directly and parent objects will be locked indirectly so that other users cannot edit the same object at the same time. The modifying user takes the ownership for the locked object. The ownership is indicated on the locked object using a blinking red lock icon (🔒), and additional text information about the station (name and IP) and the user that is working on the object. Indirectly locked objects are indicated using a blinking yellow lock icon (🔒).

When a user tries to edit such a locked object, a pop-up appears informing the user about the station and the user who owns the object. The pop-up has a countdown of 10s. By tapping into the pop-up the countdown is stopped.

It is also possible to get the objects listed that are locked by ownerships by using the **ListOwnership** keyword.



To get all ownerships listed, type:

```
MA User name[Fixture]> ListOwnership
```

To get only the ownership information for a single object, for example group 1, type:

```
MA User name[Fixture]> ListOwnership Group 1
```

In this case, if the object is not owned, the command line feedback returns "not owned" as information.

To list ownerships for all the child objects of a single object use a dot after the object ID. For example, to see which Macro lines of Macro 1 are owned, type:

```
MA User name[Fixture]> ListOwnership Macro 1
```

In this case, all Macro lines will be listed and show which are owned and which are not owned.

When a user is logged in at several stations, the station where the user started editing an object, that calls values into the programmer (for example, groups, presets, or cues), displays the borders of the involved windows (for example fixture sheet) in green color. In addition, the same windows indicate in a yellow color that these are not the stations where the edit was started. But it is possible to continue and/or finish the editing also on the other stations with the same user as well.



**Hint:**


Objects can also be locked by automatic processes that are started as a follow-up of actions the user does. For example, when the user updates a preset, the Total Reference Update mechanism locks the needed objects with an ownership while it is running.

If a user wants to edit an object, that is owned by a different user, the keyword **DropOwnership** can be used to force the release of an ownership. For example, to release group 1 from its current owner, type:

```
MA User name[Fixture]> DropOwnership Group 1
```

A pop-up with a 10 second timeout will appear and informs the user about trying to drop the ownership. The pop-up will appear on the console, where the user who owns the object is currently logged in.

In order to drop the ownership, the user can confirm the pop-up. To keep object owned the user can decline the request.

 It is possible to mark and copy the text of the Lua Code Templates. Pasting the copied code later in the Lua editor is also possible. This allows to add a template or parts of a template into a Lua component, instead of overwriting the whole code when tapping **Use Template**.

✚ Preset pool windows and Sequence pool windows have a **Action** setting in their context menus, which defines what should happen when the user taps a pool object.

Preset pools allow the following values for the Action setting:

- **SelfFix/At**: When there is no selection in the programmer, tapping a preset will select the fixture that can use the preset. Tapping it again, calls then the preset into the programmer. When the programmer has a selection, tapping a preset the first time will call the preset into the programmer. That is the default behavior.
- **At**: When there is no selection in the programmer, tapping a preset does nothing. When the programmer has a selection, tapping it, calls the preset into the programmer.
- **Flash**: Flashes a selective preset as long as it is tapped. Flash ignores fade times.
- **Go+**: Tapping a selective preset plays it back.
- **Temp**: Plays back a selective preset as long the user keeps it pressed. Temp respects the fade times.
- **Toggle**: Toggles a selective preset between playing it back and off.

Sequence pools allow these values for the Action setting:

- **Select**: Tapping a sequence selects it. This is the default behavior.
- **Flash**: Flashes a sequence as long as it is tapped. Flash ignores fade times.
- **Go+**: Starts a sequence playback or goes to the next cue in the sequence.
- **Temp**: Plays back a sequence as long the user keeps it pressed. Temp respects the fade times.
- **Toggle**: Tapping a sequence plays it back or switches it off, depending on its current playback state.

Pool windows of pools that support the Action setting, indicate the selected action in the top right corner of the pool title object with the corresponding icon.

↖ When a trigger type is set for the OffCue of a sequence, Wrap Around will be disabled. Enabling Wrap Around for a sequence removes the trigger type for the OffCue.

↖ The clock window allows to hide the fractions of a second when it displays the time of a timecode slot or timer. To do so, disable **Show Fractions** in the context menu of the clock window.

↖ The setting Time Readout of user profiles changes also the readout of the countdown timer in the Agenda window when the countdown time is smaller than 1 day.



➤ The **Login** button in the User Configuration Menu offers to log in with the selected user immediately. When having several users selected, the user that was selected first will be logged in.

#### ➤ Render Qualities:

- Added setting **DilutionType**: Dilution Type defines the dilution intensity of the beam and the spot regarding the distance. There are three different dilution types available (The default is **None**):
  - **None**: The beam and spot are keeping their brightness over the distance.
  - **Linear**: Corresponds to a linear attenuation of the intensity over the distance.
  - **Correct**: Corresponds to a more realistic attenuation.
- Added setting **Dilution Scale**: Dilution Scale defines the beam intensity dilution of the beam dilution. As higher the value, as less the beam is attenuated, resulting in a beam that remains visible over further distance. The default value is **100%**.
- Added setting **Native Colors**: This fader interpolates between the native representation of colors and the intensities of the beams and spots. An automatic method that changes the colors and intensities so that the rendered beams are easier to separate. A higher value for native colors can make it impossible to distinguish between individual overlapping beams but provides stronger colors and higher contrasts. The default value is **0%**.

#### ⊕ Selection Grid:

- Added cursor movement by using the arrow keys of the keyboard, or by using **MA + 2 / 4 / 6 / 8** on the number block of grandMA3 hardware.
- A rectangular area of grid cells can be selected in order to fill the rectangle with fixtures afterwards. To do so, place the cursor at the start point. Then press and hold **Shift** and tap at the desired end point of the rectangle. Or press and hold **Shift** and use the arrow keys of the keyboard to define the size of the rectangle.
- The grid position 0/0/0 is marked with a white frame.
- The number of currently selected fixtures is shown in the title bar.
- The fixture ID and custom IDs of fixtures are displayed at the center top of a fixture in the selection grid. In case, that a fixture has only one ID (FID or CID) then only this single ID is displayed. When several fixtures are placed at the same grid position, the IDs are displayed below each other. In case of having a lot of fixtures at the same grid position, a ".." indicates that not all IDs can be displayed.
- Renamed **Auto Remove X Gaps** to **Auto Remove Gaps**. **Auto Remove Gaps** removes the gaps in the selection grid on all axes.
- New setting **Auto Remove Offset** removes empty space between the beginning of the grid and the first fixture when it is enabled.

➤ If the Off Menu is set to My Playbacks Only, **Everything Off** changes to **My Everything Off**. This disables everything in the same user profile.



✚ Kill can be assigned as a button function for an executor. Pressing the executor button plays the sequence or preset back using the kill functionality. All other playbacks or presets of the same Playback Master will be disabled using their OffCue Fade and/or Delay times.

In addition, sequences and presets can be protected against kill. To do so, edit the settings of the desired sequence/preset, and enable **Kill Protect**. This sequence or preset will not be disabled if kill will be executed on another sequence or preset.

Sequences or presets without playback master kill only those sequences or presets which do not have playback master either.

✚ If the Patch window has **Split View** enabled and the **DMX Universes** tab is selected, fixtures that have a patch collision will be displayed in **Conflicts**.

➤ The Insert New Fixtures dialog with **Used Only** enabled, displays only the used fixture modes and their specific used count.

➤ When copying objects with a size of more than 1GB, the user is asked for confirmation.

➤ The copy command supports additional arguments to provide for example, a name for a new object in advance.

**Copy [Object] ["Source\_Name" or Source\_Number] At [Object] ["Destination\_Name" or Destination\_Number] Property "Property\_Name" "Value"**

To do so, type:

```
MA User name[Fixture]> Copy Preset 1.1 At Preset 1.2 Property "Name" "This is the Copy"
```

➤ The number of selected fixtures is displayed in the title bar of the Fixture Sheet, Selection Grid and 3D Window.

➤ The Preferences and Timing menu got a clean up: Empty areas are not visible anymore.



➤ It is possible to compare color themes and transfer colors and color definitions from one color theme to another color theme. This can be useful, when the user customized a color theme in an older grandMA3 version already and now needs the colors that were introduced with a new grandMA3 software version.

The compare functionality can be found here: **Menu** - **Desk Lights Color Theme** - **Compare**. On the left side, the currently active color theme will be taken as the base for the comparison. On the right side, the user is asked for importing the comparing color theme (mainly the old one from the example above).

As soon as this is done, the vertical indicator areas between both areas indicate where the differences in the color themes are by orange or green indicator bars. Scrolling down the list of colors to such an indicator displays also the line in the color theme in the same color. The colors of the indicators are:

- Orange: This color exists in the base color theme, but not in the compared color theme.
- Green: This color was transferred from the base to the compared color theme.

It is possible to transfer colors from one color theme to the other. To do so, select the color that shall be transferred. Then tap the button with one arrow to the left or right. The arrow changes its direction depending in which color theme the color was selected.

To transfer all differences into the compared color theme, tap the button with three arrows to the left or right. No selection is needed for this action.

To see only the colors that are different, enable the filter button.

Tapping the buttons with an arrow up or arrow down jumps to the lines that are different.

The user can also edit the colors directly after transferring them into the compared color theme. To change the base color theme or the compared color theme, tap **Select Base Theme** or **Select Compare Theme** at the top of the menu. It is also possible to modify the base color theme in this menu.

In order to apply the changes permanently, a modified color theme needs to be exported. Both color themes can be exported. Depending on the focus in the menu, the Export button displays the name of the color theme that will be exported when tapping **Export '<name>' As ...**.

When the user tries to leave the compare menu without exporting the color theme before, a pop-up appears. The user can decide in the pop-up whether to stay in the editor (**Stay in Editor**), export the color theme and exit the editor (**Export and Exit**), or to exit the editor without exporting the changes (**Exit**).



**Known Limitation:**

It is only possible to scroll both areas together by using the arrow up and arrow down buttons.

➤ The station settings can be accessed via the StationSettings keyword.

➤ The Lua function Dump() now lists read-only information, too.



✚ The user profile setting Color Readout can be set to the values RGB or CMY. Depending on the set value, the encoders for the attributes ColorRGB\_R, ColorRGB\_G, and ColorRGB\_B are switching between RGB and CMY color mixing system. In addition, the fixture sheet, sequence sheet, content sheet, phaser editor have the **Color Mode** setting, which allows changing the readout individually between **Auto** (= the set value in the user profile), **RGB**, or **CMY**.

The values applied via command line to these attributes take the value of the user profile setting into account:

**Attribute "ColorRGB\_B" At 56** sets Y to 56% when Color Readout is set to CMY.


**Attribute "ColorRGB\_R" At 42** sets R to 42% when Color Readout is set to RGB.

✚ When copying a huge amount of data at once, a pop-up warns the user that this may take some time.

➤ When turning a selective preset into a recipe, the selective fixtures are automatically added as selection into the recipe.

➤ Help Viewer:

- The **Zoom Factor** setting in the title bar allows to zoom the content of the help viewer smoothly. To do so, tap, hold, and scroll **Zoom Factor**. Only tapping **Zoom Factor** opens a pop-up that allows selecting a fixed zoom factor.
- While the help window has focus pressing **Home**, **End**, **Page Up**, or **Page Down** scrolls accordingly to the beginning or end of the displayed topic, or scrolls up or down inside the displayed topic. When the focus is set to the search field, **Home** and **End** jumps to the beginning or end of the input text.

➤ After a console received update files, a pop-up asks the user if they want to **Update and Reboot**, **Update Later and Cancel Reboot**, or **Discard Update and Cancel Reboot**. In the case of tapping **Discard Update and Cancel Reboot**, the received update files are deleted. When a station has update files received, and the reboot was postponed by the user, a red indicator on  in the control bar will appear. The button labels change accordingly when the station has received update files and the user later wants to shut down the station.

✚ Speed masters can be set via command line using the speed readouts BPM, Hertz, or Seconds:

To set the first speed master to a speed of 42 BPM, type:

```
MA User name[Fixture]> Master 3.1 At BPM 42
```

To set the first speed master to a speed of 2 Hertz, type:

```
MA User name[Fixture]> Master 3."Speed1" At Hz 2
```

To set the first speed master to a speed of 0.69 Seconds, type:

```
MA User name[Fixture]> Master 3."Speed1" At Seconds 0.69
```

This is also valid for speed masters of other objects, that is sequences and presets.

✚ Pool windows can be set to display a dedicated data pool only. To do this, the context menu (tap **MA** in the title pool object) of pools that are part of data pools offers the setting **Data Pool**.

This setting can be set to any existing data pool. In this case, the pool window displays the data of this specific data pool. When the setting is set to **<Link Selected>** the pool window will display the data of the selected data pool.

The pool title object displays the number of the data pool that is displayed by the pool window on the left side above the name of the pool. The data pool number is only displayed if the window has a fixed data pool selected. In the case of choosing **<Link Selected>**, no number is displayed.

➤ The context menu of the DMX Sheet got minimally rearranged. Furthermore, it has the possibility to add an Appearance to the DMX Sheet.

➤ The timecode window can have an Appearance assigned.

➤ When storing a world while having only the main fixture of a multi-instance fixture selected, all following subfixtures can be accessible when being in the world. This works also when storing a grouping fixture into a world.

The new setting **Selection** of worlds (accessible via EditSetting of a world) defines if subfixtures are accessible or not.

**Selection** can be set as the following:

- **Normal:** Subfixtures are part of the world, also when they were not selected at the time the world was stored.
- **Strict:** Only the fixtures and subfixtures that were selected when storing the world are accessible.



**Important:**

Changes are not visible immediately, when changing **Selection** values for the world that is currently selected. A different world has to be selected before selecting the desired world again.



**Hint:**

When storing a world, the Selection property can be specified within the command: **Store World**  
**["World\_Name or World\_Number] Property "Selection" ["Value"]**

➤ Windows IoT (grandMA3 command wing XT and grandMA3 onPC rack-unit):

- New user interface for the main menu of the operating system.  
The available buttons are rearranged.
- The different start options (Clean Start and Terminal) of each software version are grouped together and are accessible via dropdown.
- The desired startup application can be defined by tapping ⚙️ and selecting an option in the autostart dropdown.
- The Tools area on the left side allows to add individual program shortcuts. To add a new shortcut, tap ⚙️, tap +, and then choose a program. To change the shortcut order, use ↑ or ↓. To delete a shortcut, select it and tap -. To change the name of a shortcut, double click the entry and enter a new name.

➤ The design of pool objects that can be played back (for example, sequences, presets, and timecodes) was reworked. The playback icon is now in the top right corner. The fade bar at the bottom is now smaller.





➤ The plugin editor displays a warning if the size of the LuaComponent exceeds the maximum allowed size of the editor. Confirming the warning displays as much as possible of the code, but does not allow to edit it. This needs to be done in an external code editor. In case, that the Lua code is of Source **Resource**, the warning displays also the path to the Lua file.

The read-only property Source of LuaComponents tells the user where the Lua code is located:

- **Showfile:** The code is part of the show file.
- **Resource:** The Lua code was imported from a Lua file.

➤ Improved message boxes created by Lua: The elements in the message box are sorted in alphabetical order.

➤ Assign Menu:

- When the Assign menu is open, **Assign** + pressing any executor button keeps the same tab of the Assign menu open for the new chosen executor.
- The buttons for a fader function, a key function, or an encoder function can also be operated as a swipe button. Still opens the complete function list by tapping any of these buttons.

➤ Improved the Cue Settings mask by the addition of these columns: Duration, Speed Master, Speed Scale, and Appearance.

➤ Improved the file size limit of grandMA3 show files. They can be bigger than 2 GB.

✚ It is possible to keep the terminal window open by adding the **KEEPCONSOLE** parameter to the Windows onPC shortcut:

C:\Program Files\MALightingTechnology\gma3\_v.x.y.z\bin\app\_system.exe" HOSTTYPE=onPC **KEEPCONSOLE="1"**

➤ Improved calculator entry. Entering values with a percentage sign (%) in front of the value into a calculator scales the former value by the new value. For example, the old value is 50, and entering % 50 results in a value of 25.



➤ Improved the Extract command:

- **Extract Selection** knocks in deactivated values, and extracts them. Active values get extracted.
- To only get the active attributes extracted and keep deactivated values untouched, use the **/Active** option keyword in the command.
- Extract combined with a feature group or feature extracts only the targeted object.

✚ Added new files to the symbols library, which are importable into the Symbols pool.

✚ Added **Reset Screens** in the Touch Configuration menu. **Reset Screens** allows recalling the default screen configuration in case of misconfiguration of the screens.

➤ Improved selector pop-ups in the Layout Viewer and the Timecode Viewer: They offer to switch to a different data pool in order to be able to not only select objects from the currently selected data pool.

➤ Improved the buttons in the label dialog. Yellow icons display active areas.

✚ A pop-up opens when deleting cue parts. It is possible to either delete cue parts and their values or delete cue parts, and move values into part 0 of the same cue. To be able to use this feature also via command line, the option keyword **/MoveValues** was introduced.

To delete part 5 of cue 7 in the selected sequence, and move the values to part 0 of cue 7, type:

```
MA User name[Fixture]> Delete Cue 7 Part 5 /MoveValues
```

➤ Improved toolbars. All tools are visible and automatically rearranging when the window size changes. The improvements are valid, for example, for example, Layout Viewer, 3D Viewer, MAtricks Editor, or Timecode Editor.

➤ The position and rotation of geometries can be changed in the fixture type editor of the Live Patch now.

➤ Improved the stability of the grandMA3 software when using the web remote feature.



✚ New in the DMX Protocols menu: The option **Output Delay** offers to compensate for the differences in the DMX protocols. The output delay can be set up for every DMX protocol separately.

✚ Added the possibility to enter values for different channel functions of an attribute when using the command line. When an attribute has several channel functions, the Attribute keyword supports entering values for a different channel function. To do so, the name of the channel function needs to be specified instead of the attribute name. For more information, see **Attribute keyword**.

➦ Improved the appearance of variable names: GetUserVariable and GetGlobalVariable now return variable names in quotation marks.

---



## Changes

- The abbreviations of these keywords changed:
  - ChannelSet: **Chann** -> **Channels**
  - ChangeDestination: **Ch** -> **Chang** (**CD** is still available)
  - RunningTimecode: **RunningT** -> **RunningTimec**
  - SwitchTograndMA2Software: **Sw** -> **SwgMA2**
- The shortcuts of these keywords changed:
  - Set: **Assign** + **Assign** + **Assign** -> **MA** + **Assign**
- These keywords were renamed:
  - **CancelUpdate** -> **CancelSoftwareUpdate**
  - **Cleanup** -> **CleanUp**
  - **Cmdline** -> **CommandLine**
  - **ColorDef** -> **ColorDefinition**
  - **CueAbs** -> **CueAbsolute**
  - **CueRel** -> **CueRelative**
  - **DelGlobalVar** -> **DeleteGlobalVariable**
  - **DelUserVar** -> **DeleteUserVariable**
  - **DeleteOtherVersions** -> **DeleteOtherVersion**
  - **FaderX** -> **FaderCrossFade**
  - **FaderXA** -> **FaderCrossFadeA**
  - **FaderXB** -> **FaderCrossFadeB**
  - **GetGlobalVar** -> **GetGlobalVariable**
  - **GetUserVar** -> **GetUserVariable**
  - **GridPos** -> **GridPosition**
  - **IfProg** -> **IfProgrammer**
  - **KeyboardShortCuts** -> **KeyboardShortcut**
  - **Knockin** -> **KnockIn**
  - **Knockout** -> **KnockOut**
  - **ListOwner** -> **ListOwnership**
  - **ListRef** -> **ListReference**
  - **Login** -> **LogIn**
  - **Logout** -> **LogOut**
  - **MemInfo** -> **MemoryInfo**
  - **Node** -> **NetworkNode**
  - **PU** -> **ProcessingUnit**
  - **ReloadPlugins** -> **ReloadAllPlugins**
  - **RTChannel** -> **RealtimeChannel**
  - **ScreenConfig** -> **ScreenConfiguration**

- **Selfix** -> **SelectFixture**
- **SetGlobalVar** -> **SetGlobalVariable**
- **SetUserVar** -> **SetUserVariable**
- **Shutdown** -> **ShutDown**
- **SwitchGma2Mode** -> **SwitchTograndMA2Software**
- **Swop** -> **Swap**
- **UnBlock** -> **Unblock**
- **UnLock** -> **Unlock**
- **UnPark** -> **Unpark**
- **UnPress** -> **Unpress**
- **/CopyCueDst** -> **/CopyCueDestination**
- **/CopyCueSrc** -> **/CopyCueSource**
- **/NoConfirm** -> **NoConfirmation**
- **/NoUndo** -> **NoOops**



**Known Limitation:**

Macros and commands, for example in cues, are not migrated to the new naming of these keywords!

- New keywords:
  - **Kill**
  - **MyRunningTimer**
  - **Note**
  - **Quickey**
  - **RunningTimer**
  - **SpeedMaster**
  - **StationSettings**
  - **SwitchTograndMA3Software**
  - **Timer**
  - **DropOwnership**
  - **/DMXProtocols**
  - **/LocalSettings**
  - **/MoveValues**
  - **/NoShowData**
  - **/OutputStations**



**Hint:**

For more information about the new keywords, please read the corresponding sections above.



- These keywords were removed:
  - **CommandLine**
  - **Escape**
  - **ExecKeyStatus**
  - **Font**
  - **HardwareStatus**
  - **LearnRate**
  - **Monitor**
  - **System**
  - **Texture**
  - **/OriginalFixtureOnly**
  - **/Highlight**
  - **/Lowlight**
  
- These properties were renamed:
  - 3D Priority -> Priority
  - Config -> ExecutorConfiguration
  - CustomText -> CustomTextText
  - EncoderLeftCmd -> EncoderLeftCommand
  - EncoderRightCmd -> EncoderRightCommand
  - KeyCmd -> KeyCommand
  - MAEncoderLeftCmd -> MAEncoderLeftCommand
  - MAEncoderRightCmd -> MAEncoderRightCommand
  - MAKeyCmd -> MAKeyCommand
  - PositionH -> Height
  - PositionW -> Width
  - ReceiveCmd -> ReceiveCommand
  - SendCmd -> SendCommand
  - ShowAppearance -> FixtureAppearance
  - SwopProtect -> SwapProtect (Sequences and Presets)
  - TextAlignmentH -> CustomTextAlignmentH
  - TextAlignmentV -> CustomTextAlignmentV
  - TextColor -> CustomTextColor
  - UndoGeneral -> CreateOops
  - UndoProgrammer -> OopsProgrammer
  - UndoViews -> OopsViews



- New color theme colors:
  - ColorDefinitions
    - Global.ClonedHint
    - Global.DarkOrangeIndicator
    - Global.SymbolsFrame
    - Global.TransparentWhite
    - Global.TransparentWhite25
    - PoolDefault.Functionals
    - PoolDefault.Quickey
    - PoolDefault.Timers
  - Colors
    - Assignment.Quickey
    - Assignment.Timers
    - ColorThemeCompare.MissingRow
    - ColorThemeCompare.MergedRow
    - ColorThemeCompare.VisibleRows
    - DBObjectGrid.WarningText
    - DBObjectGrid.WarningBackground
    - EncoderBar.MultiStep
    - Exec.TextBright
    - FixtureSheetCell.BackgroundActiveIntegratedSpeedMaster
    - FixtureSheetCell.BackgroundActivePresetSpeedMaster
    - FixtureSheetCell.BackgroundActiveValueSpeedMaster
    - FixtureSheetCell.SymbolsBackground
    - FixtureSheetCell.SymbolsForeground
    - FixtureSheetCell.SymbolsFrame
    - FixtureSheetCell.TextProgValueSpeedMaster
    - FixtureSheetCell.TextSelectedPlaybackSpeedMaster
    - FixtureSpecials.ClonedHint
    - Help.ScrollThumb
    - Help.ScrollTrack
    - PoolButton.ActivePlayback
    - PoolWindow.Functionals
    - PoolWindow.Quickey
    - PoolWindow.Timers
    - PresetButton.ActiveFeatureGroupIndicator
    - PresetButton.FeatureGroupIndicatorBackground
    - PresetButton.FeatureGroupIndicatorDifferentWorld
    - PresetButton.InactiveFeatureGroupIndicator



- ProgLayer.BackgroundActiveSpeedMaster
  - ProgLayer.SpeedMaster
  - Overlay.EditMixInNotOwner
  - SelectionGrid.Box000
  - SelectionGrid.SelectionCountText
  - Timer.CountdownConfirmed
  - Timer.CountdownDisplay
  - Timer.CountdownProgress
  - Timer.StopwatchProgress
  - Timer.StopwatchDisplay
  - TimerButton.Countdown
  - TimerButton.Stopwatch
  - TitleButton.DataPoolIcon
  - TitleButton.DataPoolShadow
  - TitleButton.DataPoolText
  - TitleButton.SelectionCountIcon
  - TitleButton.SelectionCountText
  - TitleButton.SelectionCountShadow
  - TrackSheet.FullBreak
  - TrackSheet.FilteredBreak
  - Window.EditMixInNotOwner
  - Window.Quickeys
- Deleted color theme colors:
    - Colors
      - PresetButton.TextConnectedCount
      - ScrollBar.BarH
      - ScrollBar.BarV
      - ScrollBar.Text
- New grandMA3 Lua Functions:
    - DrawPointer
    - GetClassDerivationLevel
    - GetDependencies
    - GetLineAt
    - GetLineCount
    - GetReferences
    - HasDependencies
    - HasReferences
    - PropertyInfo





- The default button function of speed masters assigned to special executors in new shows is LearnSpeed.
  - The button function in the default executor configurations Masters, and Playback Masters is Flash, and for the executor configuration Speed Masters it is LearnSpeed.
  - The value list of Master Priorities in the Network menu is sorted from High to Never in descending order.
  - The GridPosition layer is not displayed in the layer toolbar of the encoder bar. Executing GridPosition still displays the GridPosition layer in the fixture sheet when the layer to display is set to **Auto**. In addition, it is still possible to display the GridPosition layer in the fixture sheet by tapping **GridPos** in the layer toolbar of the fixture sheet.
  - No pop-up is displayed anymore, when using the syntax Fixture x At Fixture y. The data in the programmer is cloned immediately with the **/HighPrioMerge** option. The options **/Overwrite** and **/LowPrioMerge** also work when entered together with the command.
  - When two or more fixtures have conflicts in the patch addresses, the patch address of both fixtures will be displayed in red.
  - In new shows world 1 and filter 1 are labeled 'All'.
  - **Output Configuration** in the main menu was renamed to **Connector Configuration**.
  - Multi-line editors, except in the Plugin editor, create a new line when pressing **Shift + Please**. A **Please** only applies the input. This applies, for example, in the Description input field in the Backup Menu, or in the Notes editor.
  - When calling a preset while having only the main fixture of a multi-instance fixture selected, the subfixtures get the preset now only applied when the main fixture itself does not have the attribute.
  - The setting **MIDI via onPC command wing** in the onPC Settings only toggles MIDI (in and out) for the command wing. MIDI from other USB devices is not toggled by this setting anymore, but is always enabled.
  - The dimmer value in layout elements does not display the percent sign(%) anymore.
  - The position and the IDs of Preset Pools, Groups, Sequences, Plugins, Macros, MATricks, Executor Configurations, Pages, Layouts, and Timecodes within a data pool shifted by one number. This results, that for example, the strings send out via OSC are having a different ID for sequences.
  - The settings **DMX Offset** and **DMX Break** in Geometries with the Type **GeometryReference** can no longer be changed in the Live Patch.
  - The total number of Stages is limited to 128.
  - The minimum required operating system version for grandMA3 onPC running on Apple® macOS® changed from Apple® macOS® 10.13 High Sierra to Apple® macOS® 10.15 Catalina. for More information, see **onPC System Requirements**.
-



## Bug Fixes

### 3D

#### Description

Two 3D Viewers having different stages with different surfaces selected, displayed the same surfaces. This bug is fixed.

If several 3D Viewers were open and one of them had Setup enabled, all 3D Viewer windows displayed magenta preview boxes, even if they had a different stage selected. This bug is fixed. 3D Viewers only display preview boxes that belong to the stage that they have selected.

Exporting fixture type into GDTF file failed, when a channel function had more than one logical channel and the first logical channel was not set to be the default one. This bug is fixed.

GITF meshes were exported into the 3ds folder of the GDTF file during export. This bug is fixed. GITF meshes are exported into the glb folder when exporting a fixture type as GDTF.

The first child of a grouping fixture did not have the correct label drawn in the magenta preview box when using Arrangement mode.

The color space label in the title bar of the color picker window was not updated when switching from one color space to another.

**Render Quality** in the 3D window title bar did not show a label when the selected render quality had the default name.

Entering values in the calculator of an encoder did not always produce the expected output if the readout of the encoder bar was set to "Percent".

The lasso selection of some fixtures in the 3D viewer after changing a value did not reset the current selection, but added the newly selected fixtures.

The color picker did not work correctly if a fixture type had only a "Saturation" (HSB\_Saturation) attribute without a "Hue" and "Brightness" attribute.

The software could crash when clicking on a 3D model inside the 3D Viewer window. This bug is fixed.



## Command Line and Macro

### Description

Turning Off all users or user profiles kept the selection for the own user profile. This bug is fixed. **Off User Thru** or **Off UserProfile Thru** clears the values and selection of all user or user profiles.

The /NoConfirm option keyword was ignored when using it with the CleanUp command. This bug is fixed. **CleanUp [Object] ["Object\_Name" or Object\_Number] /NoConfirm** suppresses the confirmation pop-up.

It was possible to add recipes to cues. This bug is fixed. Recipes can only be added to presets and cue parts.

Plugging or unplugging a USB drive executed the Select Drive command several times. This bug is fixed. Select Drive commands are only executed once when plugging or unplugging a USB drive.

Entering several numbers connected with a + into a pop-up opened by a macro and using the numerical keypad did not execute the +. This bug is fixed. Entered + in pop-ups from macros are interpreted correctly.

Moving recipes from one cue part to another cue part by using the graphical user interface was not possible. This bug is fixed. Moving recipes using the graphical user interface (for example **Move** + tap source recipe line + tap destination cue part) works fine.

When spinning the inner ring of the Rotate encoder of the layout encoder bar and then switching to the outer ring, the rotation value snapped back to. Continuous spinning of outer ring did not change the value. This bug is fixed. Switching from inner ring to the outer ring or vice versa of the Rotate encoder is possible without snapping values back to 0 or encoders not changing their value.

When starting grandMA3 onPC on Windows and specifying a non-existent plugin in the RUNPLUGIN argument, the application tried endlessly to find the plugin. This bug is fixed.

When the specified plugin of the RUNPLUGIN argument is not found, the application will start, display an error message and returns more information to the system monitor.

To load plugins with spaces in the filename, the RUNPLUGIN argument must be escaped.

For example:

```
"C:\Program Files\MALightingTechnology\gma3_x.x.x\bin\app_system.exe"
```

```
HOSTTYPE=onPC RUNPLUGIN="file name.xml"-1
```

The update menu listed a preset as update target, when only calling the preset into the programmer. This bug is fixed. Objects that are not changed are not offered to be updated in the update menu.

When storing a preset, the LED of the **Update** key was still lit up. Or calling the same preset again switched off the LED of the **Update** key, also when there was a running playback that could be updated. This bug is fixed. The LED of the **Update** key indicates correctly if there are objects available to be updated, or not.



#### Description

When storing a range of dotted cues in between existing cues (for example, **Store Cue 2.1 Thru 2.3** when having cues 1 to 3 already), created only the first dotted cue. This bug is fixed. Storing several dotted cues at once in between existing cues creates dotted cues as the user specified it in the command.

Encoders did not switch to the channel function that was stored in the preset. The preset needs to have values stored for a different channel function of an attribute than the default channel function. This bug is fixed. When turning the encoder for an attribute after calling a preset with a value of a different channel function, the encoder changes the value now in the correct channel function.

When a cue command was executed in a session, it was executed by using the selected data pool of the user that was logged at the GlobalMaster station. This bug is fixed. Cue commands are executed on the GlobalMaster station in a session by respecting the selected data pool of the user who plays back the cue with the cue command.

When exporting the keyboard shortcuts, the resulting XML files were created in a wrong directory. This bug is fixed. Keyboard shortcuts have now a dedicated folder, The folder is located in gma3\_library/userprofiles. Exporting and importing keyboard shortcuts is using this directory.

Tapping **Edit Selected** in the layout encoder bar could fail, when the layout had a smaller number of layout elements than the corresponding layout has as index. This bug is fixed. Using **Edit Selected** in the layout encoder bar works always when having layout elements selected.

When copying user profiles, the Layout Element Defaults were not copied. This bug is fixed. Copying a user profiles copies also the Layout Element Defaults.

When recording a timecode show while in a session and with different users, the displayed playhead was not properly synchronized after stopping and resuming the recording across all stations. This bug is fixed. The playhead of a timecode show is synchronized across all stations in the session during when stopping and resuming a recording.

Having "Run as Administrator" activated for the grandMA3 onPC application on Windows, kept the terminal window open. This bug is fixed. The terminal window of grandMA3 onPC hides also when "Run as Administrator" is enabled for grandMA3 onPC on Windows computers.

The **Dual Encoder Press Factor** of the encoder resolutions was not respected. This bug is fixed. The **Dual Encoder Press Factor** is taken into account during the press, hold, and turn of the outer encoder.

When loading a show file the Oops stack was not cleared This bug is fixed. The list of events that can be oopsed is reset when loading a different show file.

It was not possible to set the Universe and Address at the same time in the Address calculator of the Tester Encoder Bar in the DMX Sheet. This bug is fixed. Setting a relative DMX address (for example 2.1) in the Address calculator of the Tester Encoder Bar is possible.



#### Description

When selecting a channel function on an attribute encoder, the readout of the values was always in the readout of the first channel function. This bug is fixed. The displayed value on an encoder follows the selected readout of the user profile.

Store /All or /AllForSelected only stored values in the cue. This bug is fixed. The preset references are stored if store/all or /AllForSelected is used.

If "Lo" was entered in the command line and executed, the root object was locked. This bug is fixed. Lock and Unlock now require a target and the abbreviation is "Loc".

When editing two objects right behind each other without closing the editor first, for example macros, the command line did not revert back to the root when closing the editor. This bug is fixed. Closing the editor after editing several objects of the same type right behind each other, brings the command line back to the root.

Copying cues with several cue parts and duplicate values created empty parts at the copy destination. This bug is fixed. Copying cue parts copies them correctly to the destination.

The Update function was not available if a clone operation was performed before. This bug is fixed. Update is available after doing a clone operation.

When the selected sequence was played back, pressing **Goto** **Please** or **Load** **Please** did not open the Goto or Load pop-up.

Importing a sequence after exporting it did not work correctly when it used embedded presets. This bug is fixed. Embedded presets are exported correctly.

Embedded presets that were exported with grandMA3 v1.8 or prior cannot be imported correctly. Please export embedded presets with v1.9 or later in order to be able to import them later correctly.

Ooping the deletion of a preset did not restore the references in cues to the preset. This bug is fixed. Preset references in cues are restored when ooping the deletion of presets.

Copying a sequence with a recipe did not cook the recipe in the copy. This bug is fixed. Copied sequences are automatically cooked.

Commands in macros that ended with a quote were corrupted in a way that the last quote was ignored and therefore the words in the quote could be interpreted as keywords. This bug is fixed. Quotes in commands are treated correctly.

The software crashed when executing **Copy Attribute [Source\_Attribute\_Number] At [Destination\_Attribute\_Number]**. This bug is fixed. The software does not crash anymore when executing such syntax. To transfer data from one attribute to another attribute, attribute cloning is implemented (see above).

The **Update** key could blink even when there were no active values in the programmer. This bug is fixed. The **Update** key blinks only when there are active values that can be updated into active objects.

The software could crash when deleting objects via Plugins. This bug is fixed. The software does not crash anymore when objects are deleted by Plugins.



#### Description

The software could freeze when the user entered an invalid value into a timing calculator, for example, **2'56 UP**. This bug is fixed. Entering invalid values into timing calculators ignores the values and applies no new values.

Align stayed on when entering values for an attribute after using Align on a different attribute. This bug is fixed. Align is switched off when changing values of an attribute after using Align with a different attribute.

Align stayed on when changing to a different encoder in an encoder bar of a window, for example the 3D window. This bug is fixed. Align is switched off when changing to a different encoder in an encoder bar of a dedicated window.

The first four gobos in the gobo image pool could be unlocked. This bug is fixed. The first four gobos in the gobo image pool are system locked and cannot be unlocked.

When starting a new show, processing units sent out DMX values of 0. This bug is fixed. Processing units do not send DMX when a new show is started.

The programmer was cleared when specifying a non-existing object in a command. This bug is fixed. Objects specified in commands that do not exist are not clearing the programmer anymore.

Commands in command cells that were separated with semicolons were not applied correctly. This bug is fixed. Entering commands separated with semicolons are applied correctly in command cells.

It was possible to import data from XML files that had forbidden characters in their file names. This bug is fixed. XML files with forbidden characters in the file name cannot be imported.

When moving blocked cues, the values were not displayed in the correct color afterwards, and unblocking did not work correctly. This bug is fixed. Moving blocked cues correctly recalculates the tracking.

When executing **Macro**, **Macro +**, or **Macro -**, the next cue was triggered. This bug is fixed. Invalid commands with the macro keyword does nothing anymore.

When creating scribbles in a session, they were first only visible on the station they were created on. This bug is fixed. Scribbles can now be seen by other session members immediately after they were created.

Opsing a clone command on a connected console did not work. This bug is fixed.

The wildcard (\*) at the beginning of a string or in between a string returned wrong results. This bug is fixed.

When store merge Remove values into step 2 or above, an empty step remained. This bug is fixed. When removing values from steps, resulting empty steps will be also deleted.

When calling a preset with individual timings and MATricks timings into the programmer, the timings were summed up in the programmer. This bug is fixed. MATricks timings of presets override the individual timings of presets.



#### Description

When storing a world in a multi-user environment the active attributes of other users were mixed together with the current selection. This bug is fixed. Only the selection and active attributes of the own programmer are taken into account when creating a new world.

Pressing Oops several times in order to delete text from the command line did not delete quoted text. This bug is fixed.

Cooked attribute values were not handled correctly during import and export. This bug is fixed. Recipes keep the information of cooked values.

Exporting an object with a recipe did not export the used group as a dependent object. This bug is fixed.

The Goto or Load pop-up did not open when setting Goto or Load as EncoderClick function to special executors 30 or 40. This bug is fixed.

Storing a cue part to a range of cues did store a lot of cues with point cue numbers in between. This bug is fixed. For example, **Store Cue 2 Thru 4 Part 1** stores cue part 1 in cues 2, 3, and 4.

Values were not cloned to the correct sub-fixture, when multi-instance fixtures are cloned to different multi-instance fixtures. This bug is fixed. Note: This works only when cloning to fixtures of the same fixture type.

The software could crash when editing the encoder resolution of an attribute that was added to the show by importing a user profile. This bug is fixed.

Editing a scribble of a scribble pool object only transferred the content to other stations in the session when changing another property of the scribble afterward. This bug is fixed.

Changing a scribble transfers the changes immediately to the other stations of the session.

While being in a session, copying many sequences took a long time. This bug is fixed.

When switching to a different channel function, the value was displayed in the natural readout of the attribute on the encoder. This bug is fixed. Encoders display the value in the natural readout that is defined for the attribute of the channel function while having the readout set to Natural.

In the Layout view, cloning fixture positions only worked if the target fixtures did not previously exist in this layout.

When recasting a preset that was used in a recipe, selective data for the fixtures used in the recipe was added to the cue / preset. This bug is fixed. Recasting presets excludes recipes in which the preset is used.

When editing another sequence while having the sequence editor open, the settings of the previous sequence were edited instead. This bug is fixed.

Calling channel sets of fixtures with subfixtures did not set the value of the channel set or set it for the wrong subfixture in some cases.

Mirroring a sequence onto an existing sequence overwrote the existing one without confirmation. This bug is fixed. Assigning a sequence to an existing one asks the user if they want to do so.



#### Description

Executing ineffectual commands with **Edit**, for example, **Edit Set**, edited the root. This bug is fixed. Generally, editing the root is now blocked.

Recasting a preset that had MAtricks removed the values, that were generated by the MAtricks, from the cue where the preset was used. This bug is fixed. Recast respects the MAtricks values.

Storing with the option /Merge overwrote the existing attributes of a world with active attributes. This bug is fixed. Store /Merge with Worlds merges the data correctly.

**Fixture At Group** commands or **Group At Group** commands did not apply the correct values to the destination fixtures. This bug is fixed.

When tapping on a single fixture in the fixture sheet in order to create a clone command, tapping the first fixture after entering **At** into the command line the clone command was executed immediately. This bug is fixed. It is possible to specify multiple fixtures as a clone destination by tapping the fixtures in the fixture sheet. The clone command will be executed when the user presses **Please**.

Oopsing a clone operation in the programmer did not work when the clone operation was performed by a user who did not use the Default user profile. This bug is fixed. Clone operation can be oopsed, no matter which user profile is used.

When entering keyboard shortcuts on a macOS station by using **Command**, the resulting keyword could be stuck in the command line. This bug is fixed.

The Destination Cue value in the Copy Cue pop-up was not recalled correctly from the saved preferences. This bug is fixed.

When turning an attribute encoder, clearing the selection, selecting a new fixture, and turning the encoder again could snap the value back to default. This bug is fixed. Quickly changing selections while turning encoders does not snap back the attribute value to default.

When creating a recipe in a cue, existing data of the cue could be deleted from the cue, also the recipe did not address the deleted attributes. This bug is fixed.

When cooking a recipe, only the fixtures and attributes of the selected world and the selected filter were used. This bug is fixed. Cooking a recipe is now independent of the selected world and the selected filter.

The Total Reference Update used only the fixtures and attributes of the selected world and the selected filter. This bug is fixed. The Total Reference Update is now independent of the worlds and filters.

The dual encoder factors did not work when the encoder resolution was set to Fine. This bug is fixed.

The number of fixtures using this preset did not update when the values on the fixtures were changed manually, for example, by turning the encoders. This bug is fixed. Presets update the number of times the preset is used correctly.





#### Description

When cloning in the programmer and the source fixture had a selective presets active that the destination fixture was not part of, created also a preset reference for the destination fixture to the selective preset. This bug is fixed. When cloning in the programmer and selective presets are involved, only hard values will be created.

When copying a layout element, the set Action was not copied. This bug is fixed.

When cloning in the programmer, the values in the programmer of another user profile could be reset to default. This bug is fixed.

When copying an object and the target object already exists, the target was overwritten. This bug is fixed. If the target object in a copy command is not empty, a pop-up opens and asks for confirmation to overwrite the target.



## Connections

### Description

When connecting a display to a console that is currently in Desk Lock, the Desk Lock was not enabled for the new display. This bug is fixed. Adding a display to a locked console locks also the connected display.

When calling OSCData by name instead of the index number, the OSC command was not executed properly. This bug is fixed. When sending OSC commands the OSCData line can be addressed using the name.

When receiving PSN from two or more different senders (different IP and/or port) only one PSN stream was read correctly. This bug is fixed. PSN input from two or more different senders is now handled correctly.

When sending the same Art-Net universe to different unicast receivers, the Art-Net Sequence Counter was counting the packets in total for all receivers together. This bug is fixed. The Art-Net Sequence Counter is independent per unicast receiver.

The software could crash when receiving OSC messages while loading a show file. This bug is fixed. Loading a show file while receiving OSC messages does not crash the software.

In Agenda, triggering a macro was only possible via command. This bug is fixed. A macro in agenda can be triggered through a selected object and an action.

When receiving MIDI timecode with a rate of 25 fps, the incoming signal stuck for a moment every full minute. This bug is fixed. Receiving MIDI timecode with a rate of 25 fps works without issues.

An incoming timecode signal on a grandMA3 onPC station was jumping when a visualizer with a viz-key was running on the same computer. This bug is fixed. Visualizers with a viz-key connected do not interrupt the incoming timecode signal on the same station.

Master faders did not work as expected, after receiving a MIDI message with value 0 for that fader. This bug is fixed. Faders with the Master function still work after receiving a MIDI message for the same master.

OSC echoes in the system monitor for sent OSC messages did not address the correct sequence when the sequence had no custom name. This bug is fixed.

grandMA3 onPC (Windows) only offered Intel VLAN adapters. This bug is fixed. All virtual network interfaces (except Bluetooth interfaces) are available in the grandMA3 onPC software. Slow interfaces with a speed lower than 100 MBit/s are not available.

The console could stop sending DMX for a short moment when a different network interface was selected for MA-Net and a USB device was connected. This bug is fixed. DMX output does not pause when a USB device will be connected.

The software could crash when receiving OSC data and the user deleted the corresponding OSC data configuration at the same time. This bug is fixed.

## Patch

### Description

DMX Curves assigned to 16 bit attributes caused the DMX output of these DMX channels to behave like an 8 bit channel. This bug is fixed. DMX Curves work correctly with 16 bit attributes.

The software crashed when changing the DMX Curve for an attribute while editing a fixture. This bug is fixed. When editing a fixture DMX Curves can be set to attributes of the fixture.

When adding new fixtures to the show, the universal fixture could be added to universal presets where a fixture holds the universal data. This bug is fixed. No fixtures are added to presets when adding new fixtures to the show. Unless the data gets cloned because the fixtures were created by copying them in the patch.

If a Highlight Preset was reset to original and you left the patch, the user would not be asked to confirm this action. This bug is fixed. Changing a Highlight requires confirmation when leaving the patch.

When entering the patch again after assigning different feature groups and features to attributes, these changes were reset. This bug is fixed. The assignment of different feature groups and features to attributes remains, also when doing other changes in the patch later.

In case of assigning different feature groups and features, the affected cells have a orange font color. Tapping **Reset to Default** will revert all changes in the Attribute Definitions to default.

When creating a DMX Curve that should mimic a switch curve a warning was displayed. This bug is fixed. Custom curves that mimic a switch curve can be created and visualized.

Files in the folder gma3\_library/fixturetypesresources/meshes were deleted when an MVR file was imported. This bug is fixed.

Fixtures imported from an MVR file could have a wrong rotation. This bug is fixed.

Importing GDTF files with a Geometry of Type "Display" caused a crash. This bug is fixed.

Storing individual special values, for example, default values, for XYZ attributes was impossible. This bug is fixed.

When storing special values the content of all programmers in the show file was taken. This bug is fixed. Only the programmer content of the user who executes a store special values operation is taken into account.

When trying to assign a newly created feature to an attribute, and the feature is part of a feature group with several features, the feature drop-down did not open the first time.

The patch menu disappeared when the user started to edit a macro, and left the command line in the patch destination. This bug is fixed. Editing macros is not possible while being in the patch.

When changing the DMX Invert properties of fixtures in the Live Patch, the output did not change immediately. This bug is fixed.



#### Description

When adding new DMX channels in between the existing ones in a fixture type, the default values of existing DMX channels could change. This bug is fixed.

## Phaser

#### Description

It was not possible to create phasers that used values from different channel functions of the same attribute. This bug is fixed. Phaser with values of different channel functions are working as expected.

It was not possible to adjust the Acceleration, Deceleration, Transition, or Width of a phaser when channel sets were used as absolute values in the steps. This bug is fixed. Phasers can be adjusted as requested, also when using channel sets.

When there were phasers for different attributes in the programmer, and each phaser had a different number of steps, the phaser with the lower number of steps could get additional steps when changing the values on the Measure, Phase, or Speed layer for the second phaser. This bug is fixed. Phasers do not get additional steps when adjusting a different phaser.

When exchanging the fixture type of a fixture, the MATricks phase values of recipes could get ignored. This bug is fixed.

When changing the MATricks of a preset that was used in a recipe, the changed MATricks were not always transferred into the recipe. This bug is fixed.



## Playback

### Description

When a sequence or preset had AutoStart disabled, it was not possible to play back the object by using Flash or Temp. this bug is fixed. Flash and Temp play back a sequence or preset, also when AutoStart is disabled.

The DMX output could shortly jump when updating/storing cues or activating values in the programmer. This bug is fixed. The DMX output does not jump when storing or updating cues or knocking values into the programmer.

Programmer values could return after dismissing processing units from the session, clearing the programmer, and then inviting the processing units again. This bug is fixed. Programmer values do not come back when clearing the programmer after dismissing processing units and then taking them again into the session.

The Invert MATricks settings of recipes did not work. This bug is fixed. MATricks Inverts in recipe work again as expected.

The output of a sequence could change when cooking a preset again, and oopsing recipe changes before. This bug is fixed. Oopsing changes on recipes are undone correctly.

When changing a preset that was used together with another preset in a phaser the MATricks values in the recipe of the other preset could get lost in the cue. This bug is fixed. Changing presets does not remove MATricks values in cues of other presets.

Restart Next Cue did not start the last cue of a sequence when Wrap Around was disabled. This bug is fixed. Restart Next Cue works also in combination with disabled Wrap Around setting.

If a sequence was mirrored and a world filter applied, the cue timings were not displayed correctly anymore.

Timecode events were not triggered anymore when the AfterRoll was running. This bug is fixed.

The output of a sequence could not be correct when being in a session, when appearances were assigned via cue commands to the same sequence. This bug is fixed.



## Windows

### Description

When opening grandMA3 onPC on Windows again after disconnecting an additional monitor, the window of the application was still put on the non-existing monitor. This bug is fixed. GrandMA3 onPC windows are moved to the remaining monitors when starting grandMA3 onPC after disconnecting a monitor.

The Content Sheet did not display the values of linked sequences properly. This bug is fixed. Values of linked sequences are displayed in the content sheet properly.

The Pan and Tilt values in the Stage Calibration dialog were always displayed as Hex24 values. This bug is fixed. The Stage Calibration dialog follows the readout of the user profile to display the Pan and Tilt values.

It was possible to close the Patch menu while the MVR Import dialog was open. This bug is fixed. The Patch menu cannot be closed anymore when the MVR Import dialog is still open.

The Update menu closed itself when changing a property in it. This bug is fixed. Changing a property inside the update menu keeps the update menu open.

Setting the font size in windows to 10 or 12 did not make any difference in the resulting look. This bug is fixed. Font sizes 10 or 12 in windows look different in sizes now.

The order of the software versions in the Select Update pop-up in the Software Update menu was mixed. This bug is fixed. The order of the software versions in the Select Update pop-up is sorted by name.

The background of the button functions of executors 130 and 140 in the executor label in the playback window or the executor bar had a circular background. This bug is fixed. The icons of button functions for all executors in the playback window or executor bar have a square background.

When scrolling inside the Master tab in the Object-section of the Assign menu, the focus was not set to the next parent in the tree when reaching the end of a parent. This bug is fixed. Scrolling in the expanded list of Masters in the Object-section of the Assign Menu works without jumping focus.

When switching to a different object type in the Object-section of the Assign Menu and then going back to the former object type, the currently assigned object could not be selected again. This bug is fixed. The currently selected object in the Assign Menu can be selected again after temporarily switching to a different object type.

The Insert New Fixtures dialog had a **View Mode** button without functionality. This bug is fixed. The **View Mode** button in the Insert New Fixtures dialog is removed.

When enabling **Show Connectors** on consoles, a connected grandMA3 extension displayed the wrong connectors. This bug is fixed. The extension displays a correct connector view.

If the grandMA3 software was booted and the network menu was opened for the first time, all categories would collapse. This bug is fixed. All categories are expanded when opening the network menu.

#### Description

When creating a new show using the command line while the phaser overlay was open, the software could crash. This bug is fixed. The NewShow command can be used while the phaser overlay is open.

When having a filter editor open and changing the name of the filter, the title bar of the filter editor did not update to the new name.

It was possible to disable display 1 in the display selector on onPC stations. This bug is fixed. On onPC stations display 1 cannot be disabled anymore in the display selector.

When editing the start time or start date of an agenda event, the corresponding pop-up did not open. This bug is fixed.

When scrolling inside the API Description list the focus did not always follow the selected item. This bug is fixed. Inside the list of API Descriptions in the plugin editor, the focus is always on the selected item.

It might have happened that the text in the layout elements overlapped with the dimmer bar. This bug is fixed.

Processing units in standalone mode displayed the XRLs in green, which pretended output. This bug is fixed. Outputs are displayed as disabled if the processing unit is in standalone mode.

The on screen keyboard could not enter a space when **Shift** or **Caps Lock** was active. This bug is fixed.

The Assignment Editor did not search for numbers. This bug is fixed. Searching in the Assignment Editor for just numbers is possible.

When changing the display preferences of the Assign menu, while the **Edit** tab was open, only the **Edit** tab changed to the new display. this bug is fixed.

The clock window did not update the list of timecode slots, when a timecode slot was renamed. This bug is fixed.

The calculator for the Tester Output encoder of the DMX Tester Encoder Bar in the DMX Sheet displayed a wrong input range. This bug is fixed.

The Render Quality section in the Import section of the Import/Export menu did not offer the predefined render qualities for import. This bug is fixed.

Entering a password into the login pop-up showed the password in readable text. This bug is fixed. The password input in the login pop-up masks the entered password with a \* for every character.

Disabling **Show Bottom Menu** in the sMArt window blocked the possibility to open the settings menu for the sMArt window. This bug is fixed.

Calling a view with a DMX Sheet did not jump to the selected fixtures, when **Only Selection** was enabled. This bug is fixed.

The MVR Merge dialog displayed rotation values in quaternions. This bug is fixed. Rotation values are displayed in degrees.

The screen encoder did not scroll in the System Monitor window or the Command Line History window. This bug is fixed.



#### Description

The sizes of the sequence settings pop-up were different and were dependent on the size of the sequence sheet from where the pop-up was opened. This bug is fixed. The size of the sequence setting pop-up should be the same for all sequence sheets on the same display.

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## Appendix

- It is recommended to use a dedicated and a separate physical network for each grandMA3 session.
  - When using DMX protocols it is recommended to use a dedicated physical network for each protocol.
  - The recommended workflow for executor configurations that are different compared with the default executor configuration is to create a new executor configuration, do the changes in the new configuration and save the changes.
  - XML files with exported executor configurations from grandMA3 v1.2 and prior cannot be properly imported to grandMA3 v1.3 or later due to structural changes.
  - XML files with exported analog remote setups from grandMA3 v1.3 and prior cannot be properly imported to grandMA3 v1.4 or later due to structural changes.
  - XML files with exported timecode shows from grandMA3 v1.3 and prior cannot be properly imported to grandMA3 v1.4 or later due to structural changes.
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## Known Limitations



Software update via network to onPC stations requires confirmation during the install process at the destination system.



When multiple GlobalMasters exist on the network, each having the same session and location name, the station with the higher priority takes over automatically. If all stations have the same priority, the station with the longest Online Time becomes the GlobalMaster for all stations.



Recast will only recast presets to cues if there is a preset link in the absolute layer.



Loading show files that were saved in previous versions deletes the programmer content.