

User Manual

Wizard-512 USB DMX-Software + Interface
Wizard-1024 USB DMX-Software + Interface

PC-Lighting Control System

1 TABLE OF CONTENT

1	TABLE OF CONTENT	2
	REVISIONS:	3
2	INTRODUCTION	4
2.1	ABOUT THIS MANUAL	4
2.2	LANGUAGE.....	4
3	THE CONCEPT	5
3.1	THE HARDWARE INTERFACES	5
4	INSTALLATION	7
4.1	VERIFICATION OF PACKAGE CONTENTS	7
4.2	SUPPORTED OPERATING SYSTEMS	8
4.3	SYSTEM REQUIREMENTS	8
4.4	INSTALLATION OF SOFTWARE.....	9
4.5	HARDWARE INSTALLATION	9
5	WORKING WITH THE DMX WIZARD	10
5.1	STARTING THE SOFTWARE	10
5.2	CONFIGURATION OF INTERFACE WITHIN THE SOFTWARE.....	10
6	THE SOFTWARE STRUCTURE.....	11
6.1	SHOW.....	11
6.2	SEQUENCE	12
6.3	SCENE.....	12
6.4	MULTISEQUENCE.....	12
6.5	CUE	12
6.6	THE MASTER-MODE.....	13
6.6.1	<i>The different Master Modes</i>	<i>13</i>
7	DMX-SETUP	14
7.1	CHANGING THE DMX START ADDRESS	15
7.2	REMOVING FIXTURES FROM A SHOW	15
7.3	SETTING OF DMX-ADDRESS ON THE FIXTURES	16
7.4	DELETING THE ENTIRE SETUP.....	16
7.5	CREATING A PRINTABLE DMX-SETUP REPORT	16
7.6	OPENING THE PANEL DESIGNER	16
7.7	AUTOMATIC ICON ARRANGEMENT.....	16
7.8	EXIT THE DMX-SETUP	16
8	WORKING SURFACE.....	17
8.1	TRANSPORT-BAR.....	17
8.1.1	<i>Elements in detail</i>	<i>18</i>
8.1.2	<i>The Trigger Modes</i>	<i>19</i>
8.1.3	<i>The Fade-Modes</i>	<i>20</i>
8.1.4	<i>The Scene Tool</i>	<i>21</i>
8.2	THE PLAN.....	22
8.2.1	<i>The DMX-Monitor</i>	<i>23</i>
8.2.2	<i>The Fader Panel.....</i>	<i>23</i>
8.2.3	<i>The Plan / Multiplan.....</i>	<i>24</i>
8.2.4	<i>The V/T-Editor</i>	<i>25</i>
8.2.5	<i>The Track-Editor.....</i>	<i>30</i>
8.2.6	<i>The Fixture Group Window</i>	<i>33</i>
8.2.7	<i>The Sequence List.....</i>	<i>34</i>

8.2.8	The Multisequence Player.....	35
8.2.9	The Cue-List.....	36
8.2.10	The Media-Player.....	36
8.2.11	The 3D Visual Emulator.....	36
8.2.12	The Matrix Editor.....	42
8.2.13	The Multimedia Timeline Editor.....	45
8.3	THE FIXTURE PANEL.....	48
8.3.2	The B/D/Z Buttons.....	49
9	THE MENUS	50
9.1	THE SHOW MENU.....	50
9.2	THE SEQUENCES MENU	50
9.3	THE SCENES MENU.....	50
9.4	THE OPERATION MENU	51
9.5	THE SETTINGS MENU	52
9.6	PHYSICAL MASTER.....	58
9.7	THE VIEW MENU	62
9.8	THE FIXTURES MENU	62
9.9	THE HELP MENU	62
10	STAND ALONE MODE.....	63
11	THE PANEL DESIGNER	70
12	TROUBLESHOOTING.....	73

REVISIONS:

Doc. version	Date/Vis:	Software Version	Changes
V1.0	15.10.00 LEB	V5.58	Initial
V1.1	24.04.01 LEB	V5.62	3D Visual Emulator, CMY-RGB,
V1.2	15.08.02 LEB	V5.7x	Update Position Memory, DMX-Off, Panel structure, Dimmer, Focus
V1.3	15.02.03 LEB	V5.80	General refresh, added Remote control function and other details
V1.4	25.08.03 LEB	V5.81	Added DMX Wizard 512 USBInterfaces
V1.4	02.02.04 LEB	V5.81	Minor changes and corrections
V1.6	21.09.05 LEB	V5.87	Updated to 32 Multisequence Players, lots of details
V1.7	15.07.07 LEB	V5.93	Lots of new features, support for DMX Wizard 1024+
V1.9	29.08.08 LEB	V5.94K	Expanded Stand Alone, Colour Master, Fade Bar, Save options

2 INTRODUCTION

Thank you for choosing the DMX Wizard! With this versatile and modern “tool”, the only limit to your light Show is your imagination! For club use, rental facility, or even for architectural lighting, the DMX Wizard is the right choice for any number of professional tasks!

Here are some of the main features of the DMX Wizard:

- PC-lighting controller for Windows™ based systems
- Suitable for desktop, industrial or notebook personal computers
- Control of fixtures using the DMX512 (1990) interface
- DMX input (only available on **DMX Wizard 1024+**, and **DMX Wizard 1024** interfaces) with multiple possibilities for routing, recording or controlling
- Simultaneous control of up to 1'024 fixtures, with a maximum of 256 DMX512 channels per fixture
- 512 output channels (1 Universe) on the **DMX Wizard 512 USB** Interface (LPT)
- 1024 output channels (2 Universes) on the **DMX Wizard 1024** and **DMX Wizard 1024+** Interface (USB)
- “Autonome (stand alone) mode” on **DMX Wizard 1024+** for usage without a PC
- “3D Visual Emulator” to preview the pre-programmed Show without physically connected fixtures
- Music trigger using the PC's soundcard
- 32 “Multi Sequence Players”
- Graphical Pan/Tilt “Track Editor”

2.1 About this manual

We have attempted to lay out this manual as simple as possible. Many functions of the DMX Wizard are self explanatory and easy to understand. This manual is meant to introduce you to the world of the DMX Wizard, and to convey to you the basic skills to work with this versatile system. Of course, it also takes a certain amount of creativity and fantasy to create an impressive light Show.

We encourage you to read through this manual attentively. For the fastest results, it is a good idea to try out everything on your DMX Wizard as we go along. This, of course, is also possible without having the actual interface or fixtures attached to your computer.

All features are described in detail and some of them have visual aids to assist easy learning.

Software features described in this manual will be presented using square brackets.

E.g.: [load Show]

2.2 Language

The basic language of the DMX Wizard software is English. However, if you like to have the main menus in another language, the file **dmxcreator.key** has to be copied into your program directory (for example; c:\program files\DMXWizard594\). Please note, that it's necessary to restart the DMX Wizard software to load the new menu. You can find this file on your product-CD:

CD-ROM: Directory ...:\DMX Wizard Software\Software\Language patches

3 THE CONCEPT

Die DMX Wizard Steuerung besteht aus zwei Teilen:

1. Der PC-Software
2. Dem DMX512 Hardware – Interface

3.1 The Hardware Interfaces

The Interfaces provide the gateway between your PC and your DMX512 compatible fixtures (i.e. scanners, moving heads, fog machines etc.)

The DMX Software is able to control the following four DMX512 hardware interfaces (1-4):

1. **DMX Wizard 512**: USB-interface, 512 channels of output, power supplied through USB- port.



2. **DMX Wizard 1024**: USB-interface, 1024 channels of output, 512 channels of input, power supplied through USB-port
3. **DMX Wizard 1024+**: USB-interface, 1024 channels of output, 512 channels of input power supplied through USB-port or through external power supply (included in shipment for some countries).





Your DMX512 capable fixtures can be connected directly to the hardware interface. Make sure to only use cables suitable for transmission of DMX512 data (No standard microphone cables!). Close each data line using a 120 Ohm line terminator (connect terminator to the DMX-output of the last fixture in the line).

4 INSTALLATION

4.1 Verification of package contents

Please verify that you have received all components of the system. In case that something is missing, please contact your DMX Wizard dealer immediately.

DMX Wizard 512:

- DMX Wizard DMX512 hardware interface cable
- CD-ROM
- Printed manual

DMX Wizard 1024:

- DMX Wizard DMX512 hardware interface (blue)
- USB (A to B) cable 1,8m
- CD-Rom
- Printed manual

DMX Wizard 1024+:

- 1 x DMX Wizard DMX512 Hardware Interface (orange)
- 1 x USB (A to B) cable
- 1 x CD_ROM
- 1 Power supply (AC, 9-12V, 700mA. Polarity is insignificant), may not be included in some countries
- 1 x Printed manual
- 1 x SD-Card min. 32MB

4.2 Supported Operating Systems

The operating systems supported are dependent on the DMX512 interface used:

OS	DMX Wizard 512Basic & 1024 & 1024+
Windows 95b	OK (up to version 5.88)
Windows 98 / SE	OK (up to version 5.88)
Windows ME Millennium	OK (up to version 5.88)
Windows 2000	OK (up to version 5.88)
Windows NT	- (no USB-support)
Windows XP (With SP2)	OK
Windows Vista	OK (since V5.93)

4.3 System Requirements

PCs are flexible systems, and there are any amounts of possibilities to combine hardware and software. The base for a stable work with the DMX Wizard lies in a stable PC system. The DMX Wizard software has proven in countless tests that it works without problem on systems using a standard configuration.

The DMX Wizard carries out millions of calculations per second, so that virtually all parameters are rendered parallel and in real-time. The CPU load is mainly dependent on the following criteria:

- Number of occupied DMX512 channels
- 3D Visual emulator in use or not
- Single or Multi Sequence use
- DMX input enabled / disabled
- Audio trigger with low-pass filter enabled / disabled

Here a few tips on how to increase the stability of your PC:

1. Do not run other applications simultaneously to DMX Wizard
2. Disable any Windows power save faction!
3. Connect the interface directly to the PC whenever possible. Avoid intermediate devices like USB Hubs.

Besides having the right operating system, and free ports for your interface, please be advised of the following absolute minimum system requirements:

- IBM compatible PC
- Minimum Pentium CPU/ 100 Mhz
- 32 MB RAM
- VGA graphics card with SVGA resolution (800 X 600, 256 colours)
- 10 MB available hard disk space
- CD-ROM drive (for installation)
- Mouse

Recommended system requirements for full use of all features:

- Minimum Pentium III CPU/ 1Ghz
- 128 MB RAM
- Fast graphics card with XGA resolution (1024 X 768 with 16 Bit colour depth)
- Sound-Blaster compatible soundcard with MIDI-Interface

4.4 Installation of Software

The next step is to install the DMX Wizard software. Close all running applications on your PC.
Please make sure, that the DMX Wizard Hardware interface is not connected to the PC right now.

1. Start up your computer
2. Insert the shipped product CD into the CD-Rom drive
3. Wait until the CD-Menu appears. (If no menu appears after 20seconds, change to your CD-Rom drive and click on "Menu.exe")
4. Choose "Install DMX Wizard Software Vx.xx"
5. Setup will guide you through the installation process
6. After installation shutdown the computer
7. Follow chapter 4.5 "Hardware Installation"

Once DMX Wizard is installed, you can start it by clicking on the DMX Wizard icon located in the programs folder of the Windows start menu.

It's possible that there are multiple software versions on your CD-Rom. The additional versions are usually Beta-versions, which means that they are recent software updates that are not yet completely tested and released. These versions usually run without complications. Should you encounter any problems with these software versions, we encourage you to report them to us, so that we can remove them for you and our other customers.

If you are updating the DMX Wizard software to a newer version, please de-install the old version first!

4.5 Hardware Installation

DMX Wizard 512:

1. Plug the USB Interface cable into the free USB (1.1 or 2.0) connector of your PC.
2. Start the PC. Windows will now automatically detect a new USB device and installs the necessary drivers.

If Windows is unable to find the USB drivers, point it to the following directory:

C:\Program Files\DMXWizard594\USBDriverVista (for Windows Vista)

C:\Program Files\DMXWizard594\USBDriverXP (for Windows XP)

or the "driver" directory on the product CD-Rom

DMX Wizard 1024 & DMX Wizard+:

1. Plug the USB cable to the DMX512 Interface
2. Plug the other side of the cable to the free USB connector of your PC
3. Start the PC. Windows will now automatically detect a new USB device and installs the necessary drivers.

If Windows is unable to find the USB drivers, point it to the following directory:

C:\Program Files\DMXWizard594\USBDriverVista (for Windows Vista)

C:\Program Files\DMXWizard594\USBDriverXP (for Windows XP)

or the "driver" directory on the product CD-Rom

5 WORKING WITH THE DMX WIZARD

5.1 Starting the software

There are four options in the initial menu:

- New Show -create a new Show
- Last Show -load the most recent Show used
- Load Show -load a saved Show
- Panel Designer -see chapter "[The Panel Designer](#)"

Choose "new Show" to define your new Show, or choose "load Show", if you have already programmed a Show. You can also load a pre-installed sample Show. For first start, we recommend to load the provided sample Show.

5.2 Configuration of Interface within the Software

It is now necessary to tell the software which DMX512 interface you are using. You only have to do this once, if you are planning on using only one kind of interface (e.g. always using [DMX Wizard 1024](#)). The default interface setting after installation is "USB".

Once you have reached the main window of the DMX Wizard software, please follow these steps:

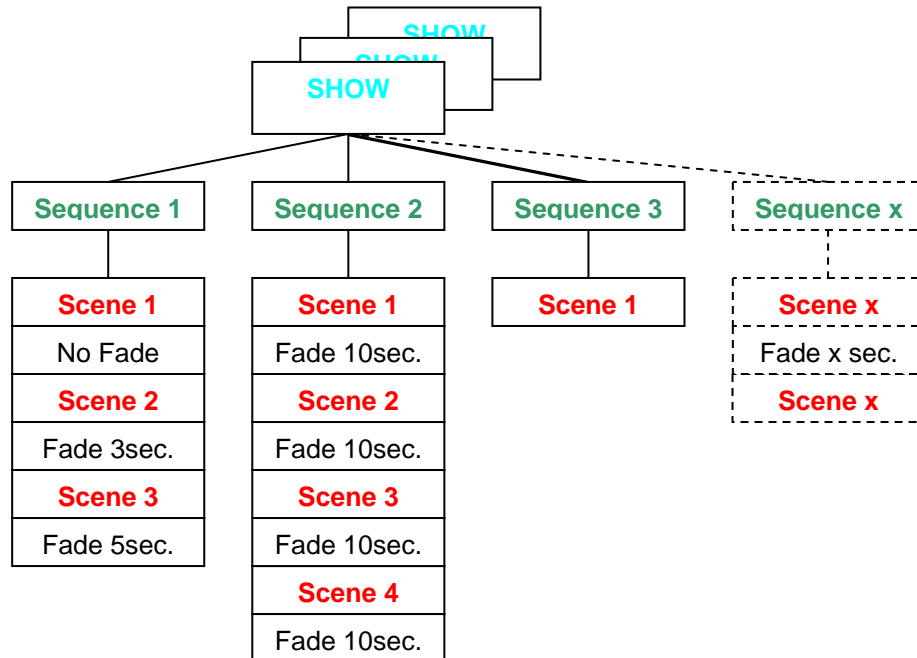
1. Open the "settings" menu
2. Click on "sync and hardware"
3. Click on "hardware"
4. Choose USB if you have connected the [DMX Wizard 512](#), the [DMX Wizard 1024](#) or [DMX Wizard 1024+](#) Interface.
5. Click on the „test“ button.
6. If the connection to the interface is in order, a message containing the interface type and firmware version is displayed. You are now ready to start programming your first show!
7. If the software is unable to establish a connection to the interface, the following message is displayed: [Hardware inaccessible]

possible problems:

- The DMX512 interface is not properly connected. Verify all cable connections.

6 THE SOFTWARE STRUCTURE

The software has the following structure for Shows



Each Show consists out of one or more Sequences. Each Sequence consists out of one or more Scenes that may or may not fade in to each other.

6.1 Show

The pool of programmed Sequences is called a "Show". Show can be saved as files, and include all other components like the DMX-setup, Sequences, Scenes, Cues, Play Lists, emulator settings etc.

The following items are not stored into a Show file:

- The plan image (background picture). Only the file location on your disc will be saved.
- The fixture panel files

6.2 Sequence

A Sequence can consist of single, or multiple connected Scenes. Each Show can have a maximum of 16'384 Scenes.

6.3 Scene

A Scene is the lowest or most basic entity of a Show. Scenes are the entered variable values of all fixtures connected at a given time. A Sequence is built out of one or more Scenes. The maximum number of Scenes per Sequence is 65'536. You may define an individual Fade time for each Scene.

6.4 Multisequence

With the DMX Wizard, it is possible to run up to 32 Sequences at one time. This is helpful, among other applications if you:

- wish to control different fixture groups independent of each other (i.e. Scanners group / Statics / Moving heads group)
- wish to combine Sequences that only have "pan movement" with Sequences that only have "color change" for example
- wish to run pan-tilt movement and color change at different rates, or with differing trigger sources

The DMX Wizard Software can play up to 32 different sequences with different speeds at one time. This is helpful for the following applications:

- controlling different fixture groups independently of each other
- combining fixtures with separate functions such as „pan-tilt only“ with „color change only“
- running color changes and pan-tilt movements with different speeds or using separate trigger sources.

If you want to program different fixture types separately, or single functions of a fixture, please take note of the following:

The DMX Wizard operates according to the HTP principle. This means that when multiple channels of the Multisequence Player access a DMX-channel, the output will be the highest value.

Example:

Player 1 assigns DMX value 50 to channel 27 (ex. color red)

Player 2 assigns DMX value 127 to channel 27 (ex. color green)

If players 1 and 2 run separately, the output will be according to the programmed values (red or green) If however the players are both running at the same time, the output will be of the higher value (green in this case).

This means that sequences that are to be combined at a later point should have all unused channels assigned to a defined value (normally "0"). To this end, use the „Zero“ function in the fixture panel when creating a new sequence.

6.5 Cue

A selection of Sequences from the "Multi Sequence Player" can be saved and called up as Cue. Cues can be stored and recalled from the "Cue List"

6.6 The Master-Mode

The “Master Mode” plays an important role within the DMX Wizard. It has two different functions:

1. Stop Mode function (Sequence is not running, Stop button is pressed)

In this mode, you can control single or multiple fixtures simultaneously by holding the “Ctrl” key on the keyboard, and then clicking on the fixture icon. The text base of the icon at this point turns from green to red. If different fixture types are selected simultaneously, it is possible to change to and from the different types. All changes made in the fixture panels are saved in the given Scene instantly.

You can turn the Master mode off by clicking the “Master Off” button on the menu bar (may be set on Hot-Key too).

2. Play Mode function (Sequence is running, play button is pressed)

When in used in play mode, the fixtures selected to the Master are excluded from the running Sequence. Like this, they could be used for follow-spot functions, for example. All changes made in the fixture panels are temporary, and are not saved. When the Master Mode is disengaged, the fixtures return to the running Sequence.

Quick selection of multiple fixtures, as well as further Master- options are possible by using the “Group Function” → see also “The Fixture-Group Window”

6.6.1 The different Master Modes

If you exclude one or more fixtures from the Show they will stop playing the current Sequence and are available for full manual control. If you don't like to exclude all functions of the selected fixtures, you may choose one of the available Master Modes

Non-excluded functions of fixtures in Master will continue to play the current Show

[Full Master]	All fixture functions are excluded from the Show (standard Master)
[Color Only]	Only the color functions (color wheels, CMY systems) of the fixtures are excluded from the Show
[Ex Pan/Tilt]	All functions except pan/tilt are excluded from the Show
[Pan/Tilt only]	Only Pan/Tilt of the selected fixtures is excluded from the Show
[User Red Master]	User may define channels that should be excluded
[Master Group off]	Release the Master (all Master fixtures will be deselected)
[Colour Master]	The colour of all fixtures in Master Mode (or fixture group) can be selected simultaneously using the Color Master preset which opens automatically. This function is fixture-type independent, so it works as a macro for multiple different fixtures (and fixture types) in Master mode or as group.

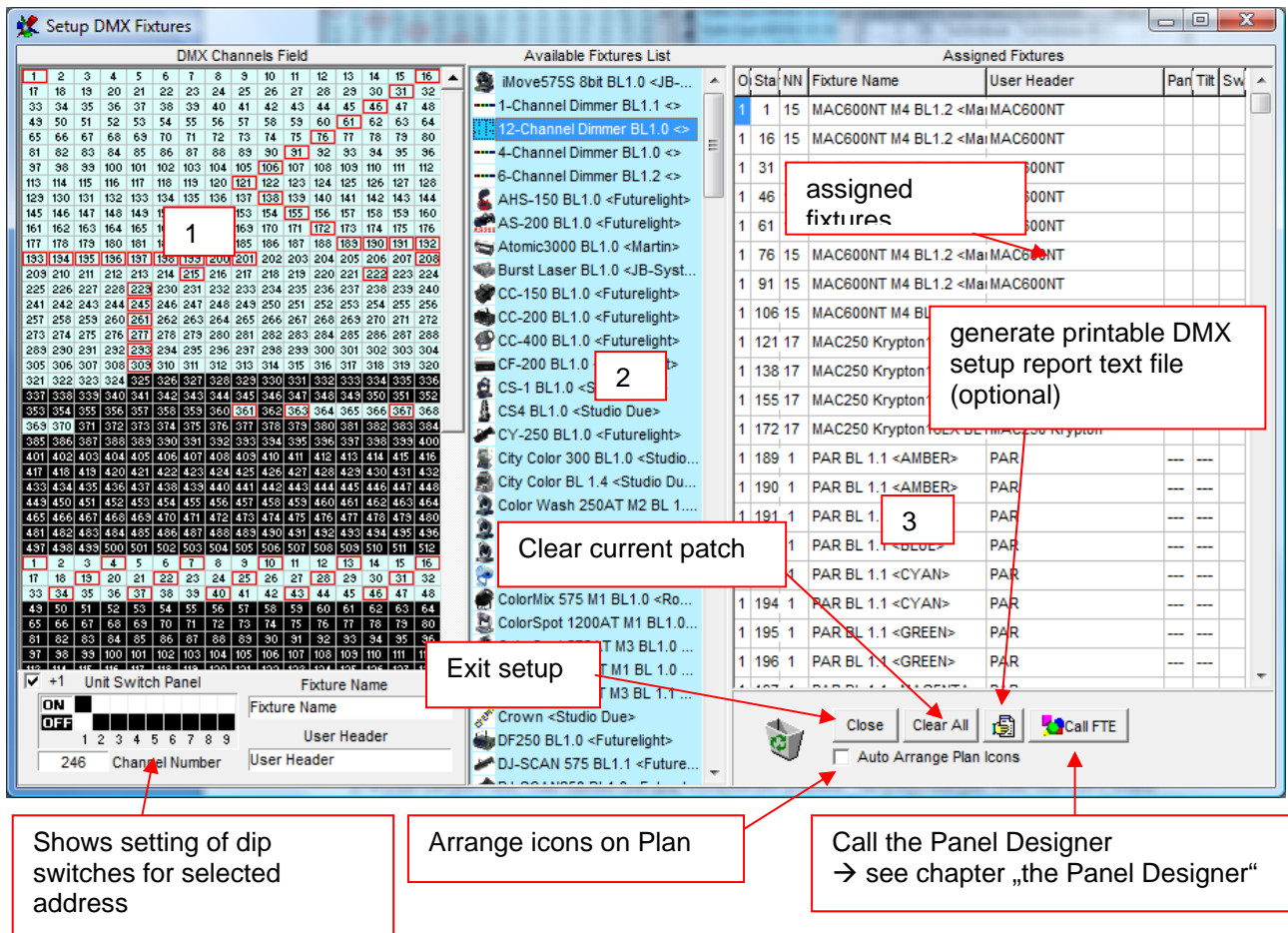
Note: The Master Mode has to be chosen before selecting the fixtures into Master. It's not possible to change the current Master Mode while fixtures are selected in Master.

→ Check also chapter 9.7 “The [Fixtures] menu“

7 DMX-SETUP

To create a new Show from beginning, the connected DMX fixtures must first be defined and addressed.

- Start the DMX Wizard software
- Choose [New Show]
- The following window will appear:



- The window is divided into three parts:
 1. The DMX address field. Here you will find a visual representation of 1024 channels (2 universes). The second universe is only available for output if you use the [DMX Wizard 1024](#) or [DMX Wizard 1024+](#) hardware interface
 2. The fixtures-pool. This is a list of all currently installed fixture panels. This set of panels can be arbitrarily modified by copying the desired panel files (with .dsp file extension) into the corresponding directory, or by erasing them.

Directory: c:\program files\DMXWizard594\devices

The new fixture panels will be available for addressing after restarting the DMX Wizard software.

Any number of fixture panels is available on the product CD-ROM, or on our website at <http://www.steinigke.de>

If you wish to generate your own panels please refer to the chapter called "[The Panel Designer](#)".

3. The setup field. Here you see the following information:

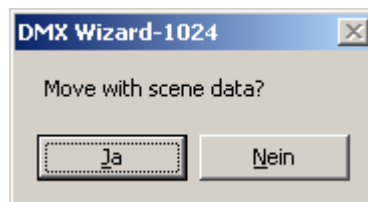
- Patched DMX output of the interface → OUT
- The DMX-starting address of the assigned fixtures → START (this number has to be set on the corresponding fixture)
- Amount of DMX-channels occupied by this fixture → NN
- The fixture type → FIXTURE NAME
- Your designated heading for fixtures within the Show → USER HEADER (e.g. MAC600 down stage right)
- Pan inversion → PAN - This means the pan movement becomes reversed. Indicated by "1" while active. This setting may be changed at any time. It has no relation to the values of a programmed Show
- Tilt inversion → TILT - This means the tilt movement becomes reversed. Indicated by "1" while active. This setting may be changed at any time. It has no relation to the values of a programmed Show
- Pan-Tilt-Swap → SWAP, this means the pan and tilt channels are exchanged. This setting may be changed at any time. It has no relation to the values of a programmed Show

To add a fixture to your Show, there are two possibilities:

1. Choose your fixture within the fixture pool. Click and hold down the left mouse button on it. Now you can drag the the icon to a free starting address on the DMX address field.
2. Double click on the desired fixture within the fixture field, and it will appear at the next available starting address on the left-hand field.

7.1 Changing the DMX Start Address

After placing the fixtures in the DMX address field, you can move it within the field using the mouse. If you do this in a complete Show, the following window will appear:



- Confirm by clicking on "YES", and the programmed data for this fixture will be moved to the new starting address as well.
- If you click "NO", the data for the fixture will be deleted.

7.2 Removing fixtures from a Show

Fixtures can be removed from the Show setup in two ways

1. Point and drag the fixture you wish to remove using the left-hand mouse button from the starting address field, or from the setup field on the right hand side and place it in the trash can located on the bottom right-hand side of the screen.
2. Point to the fixture with the mouse cursor, either in the left-hand field, or on the right-hand setup field, click the right button, and choose "remove fixture"

7.3 Setting of DMX-address on the fixtures

Please refer to the user manual of the fixture you wish to control, in order to find out how to set its DMX starting address. If this is done using a DIP-Switch within the DMX512 standard, you can use the graphical image at the bottom left as help.

Below the „DMX Channels Field“ you will see the graphical dip switch setting for some kind of fixtures. If you move the mouse pointer to the desired starting address for a fixture (into the address field) you will see the correct switch setting for this address. Please note, that some manufacturers use a different kind of coding (like High End Systems) and subtract 1 from the address value to set. In this case you may uncheck the „+1“ option below.

7.4 Deleting the entire setup

If you want to delete an existing setup, please click on the button at the bottom right of your screen called „Clear All“

7.5 Creating a printable DMX-setup report

In order to facilitate the addressing of the fixtures, you can generate a printable text file of the entire DMX setup. Press the button on the lower right hand side called „create list“, and a window will appear with all specifications. You can now print or save this file in .txt format.

7.6 Opening the Panel Designer

By pressing the button that is located farthest in the lower right hand corner, the „Panel Designer“ will open. For more information on this feature please read the chapter [„The Panel Designer“](#) in this manual.

7.7 Automatic Icon Arrangement

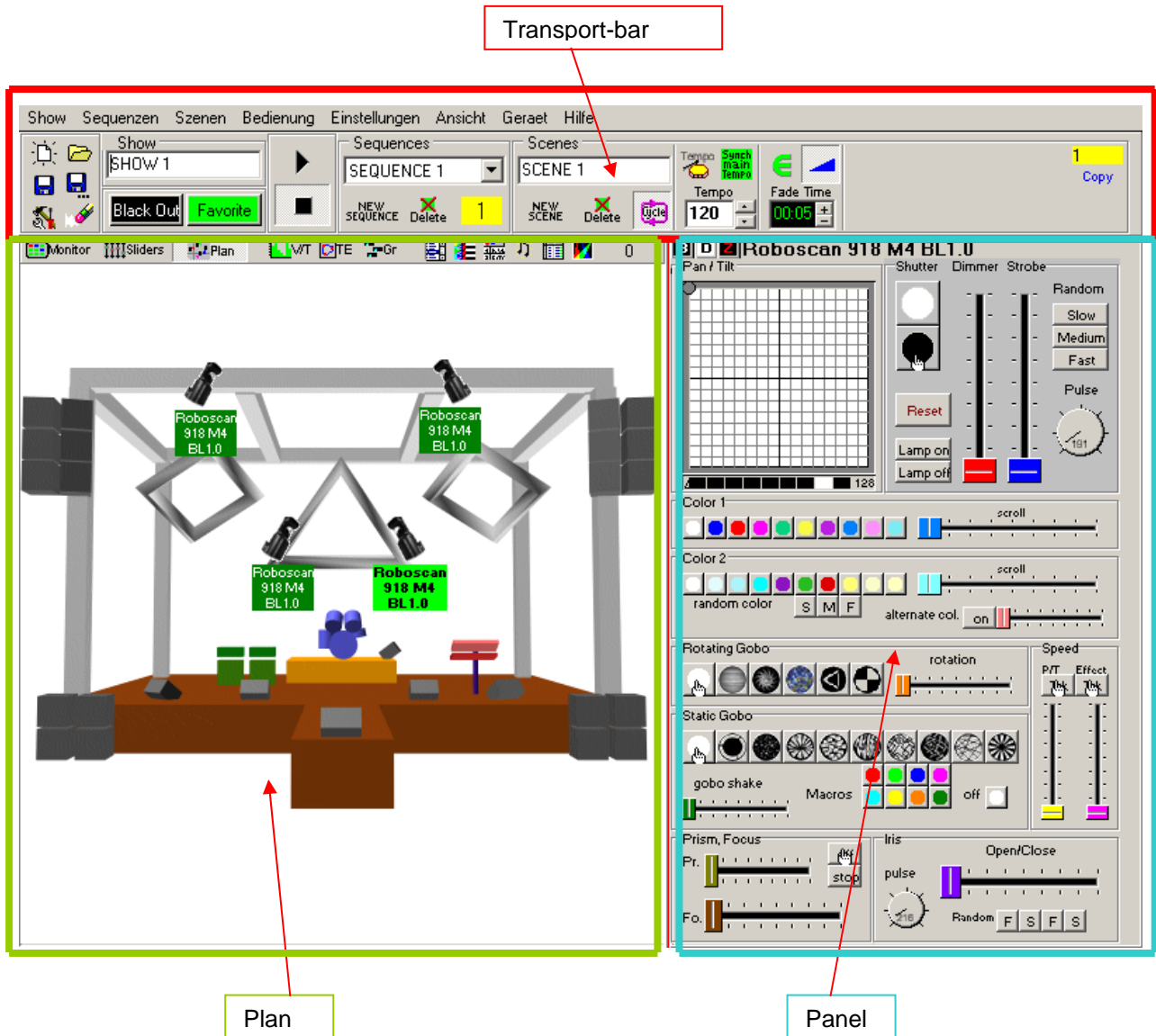
When this option is enabled, the fixture icons on the Plan are arranged automatically with fixed spacing. Icons can be moved manually after.

7.8 Exit the DMX-setup

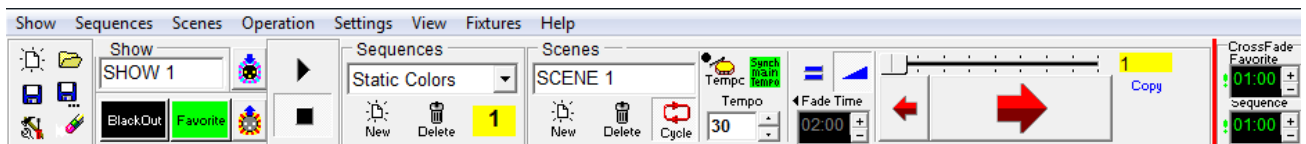
Click the „Close“ button in order to leave the DMX-Setup. You will now be taken to the working surface

8 WORKING SURFACE

The main window is where you will “create” your Show. It consists out of three main areas

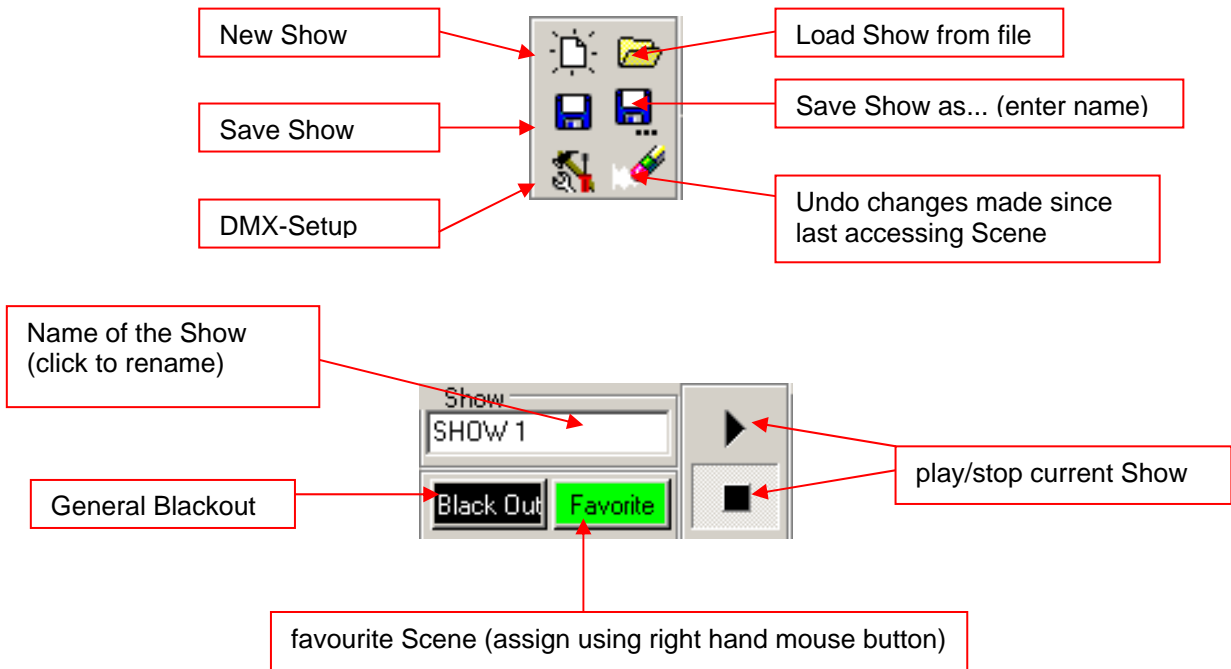


8.1 Transport-bar

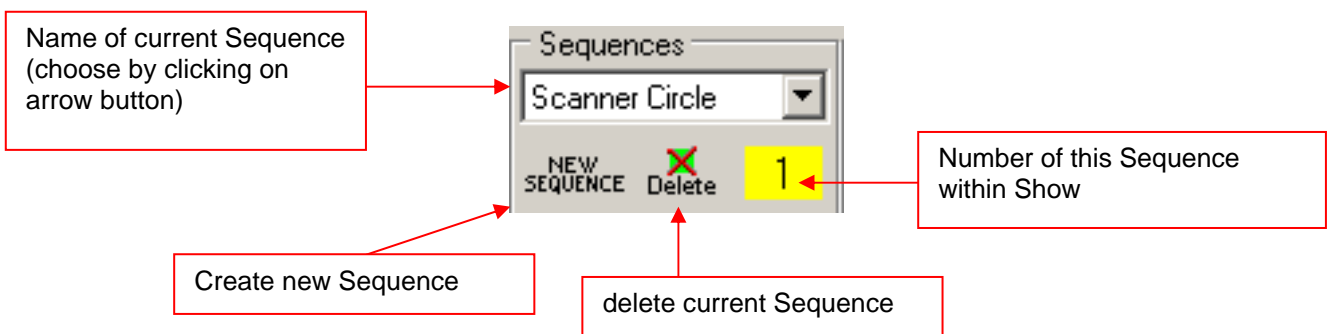
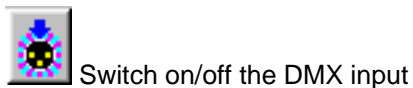


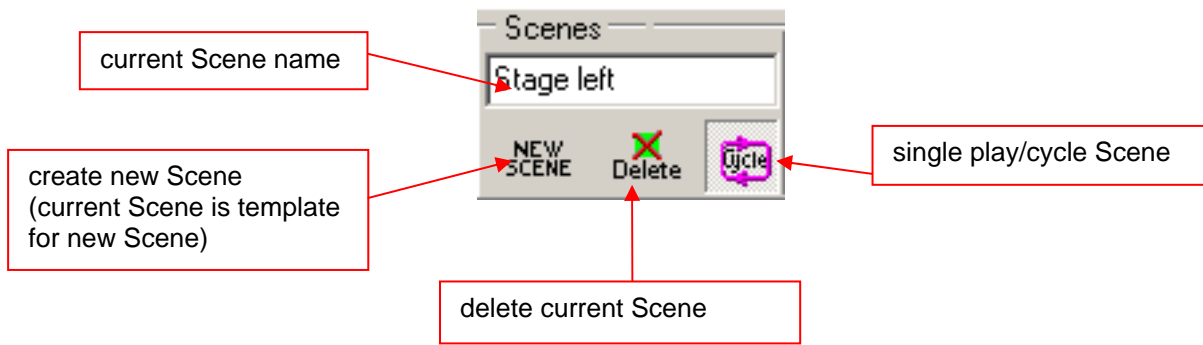
The Transport-bar field is the main control window for Scenes and Sequences.

8.1.1 Elements in detail



Effective as of version V5.68, this field will include an additional function that will enable you to turn on and off the DMX output. By pressing this button, the current Scene becomes frozen. The DMX output remains off, until the button is pressed again. This function is also called "preview" or "blind" sometimes.

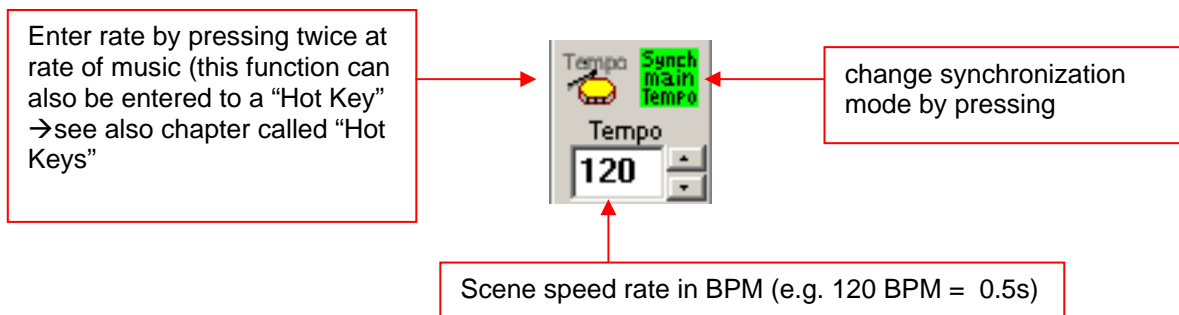




8.1.2 The Trigger Modes

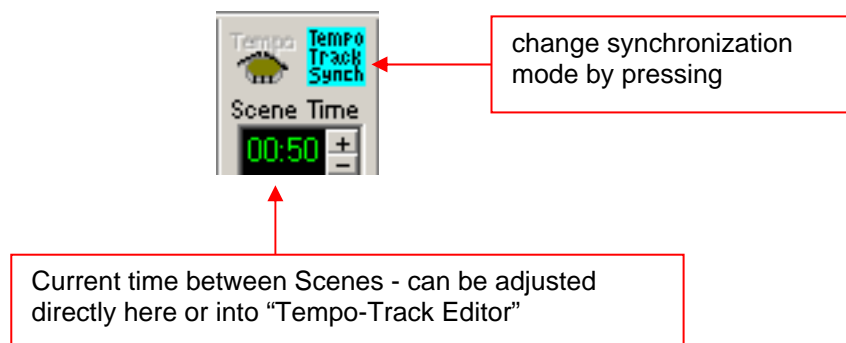
Within each Sequence, the way of synchronization can be chosen individual. There are 4 different trigger modes available:

1. **Main Tempo Trigger** (green field)



The time from Scene to Scene is constant while in Main Tempo Trigger.

2. **The Tempo-Track Rate** (blue field)



The time between Scenes can be varied from Scene to Scene using Tempo-Track Mode. → See also "The V/T Editor"

1. **The Music-Trigger Rate** (yellow field)



change synchronization mode by pressing

In this mode, a Sequence can be triggered using an external music signal. This feature requires a sound card in your PC

To find out how to activate the external trigger, please refer to the chapter called → “Menu”

Starting with the software version V5.68, there will be a fourth trigger mode implemented:

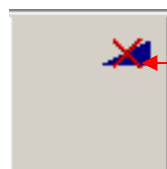
2. **Manual-Trigger Mode** (pink mode)

Using this feature, you can trig manually on the drum symbol to get from one Scene to the next. If you use a Fade between Scenes, the Fade will executed first.

8.1.3 The Fade-Modes

In order to program smooth transitions between Scenes, the DMX Wizard software offers four different Fade-Modes:

1. **No Fading.** The transition from Scene to Scene is not smooth. The DMX-values switch immediately from Scene to Scene at each trigger. You can activate/deactivate fading by pressing the symbol Shown below:



Fading on/off

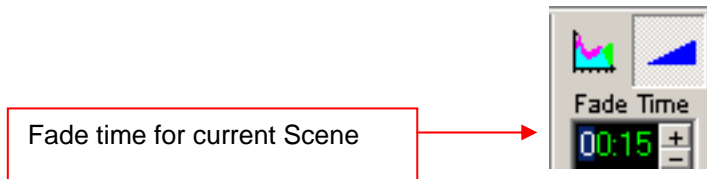
2. **Equal Fade time for all Scenes.** Using this mode, the Fade time for all Scenes in a given Sequence is equal. The Fade time can be adjusted by pressing the plus- or minus-buttons, or by entering the desired Fade time directly in to the display.

Fade-Mode symbol

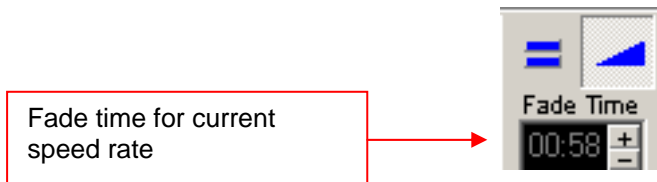
Fade time for all Scenes



3. **Fade-Track Time.** In this mode, the Fade time can be adjusted for each Scene individually, using the "V/T-EDITOR". This can also be done by using the plus- and minus-buttons, or by entering the desired value directly into the display



4. **Fade time equal Scene time.** In this mode, the entered Scene time (trigger) equals the Fade time. With this mode, you can create smooth, seamless Pan/Tilt movements (e.g. Circles).



8.1.4 The Scene Tool

The Scene Tool enables you to jump forwards and backwards between Scenes whilst programming. The current Scene number is shown in the yellow field.

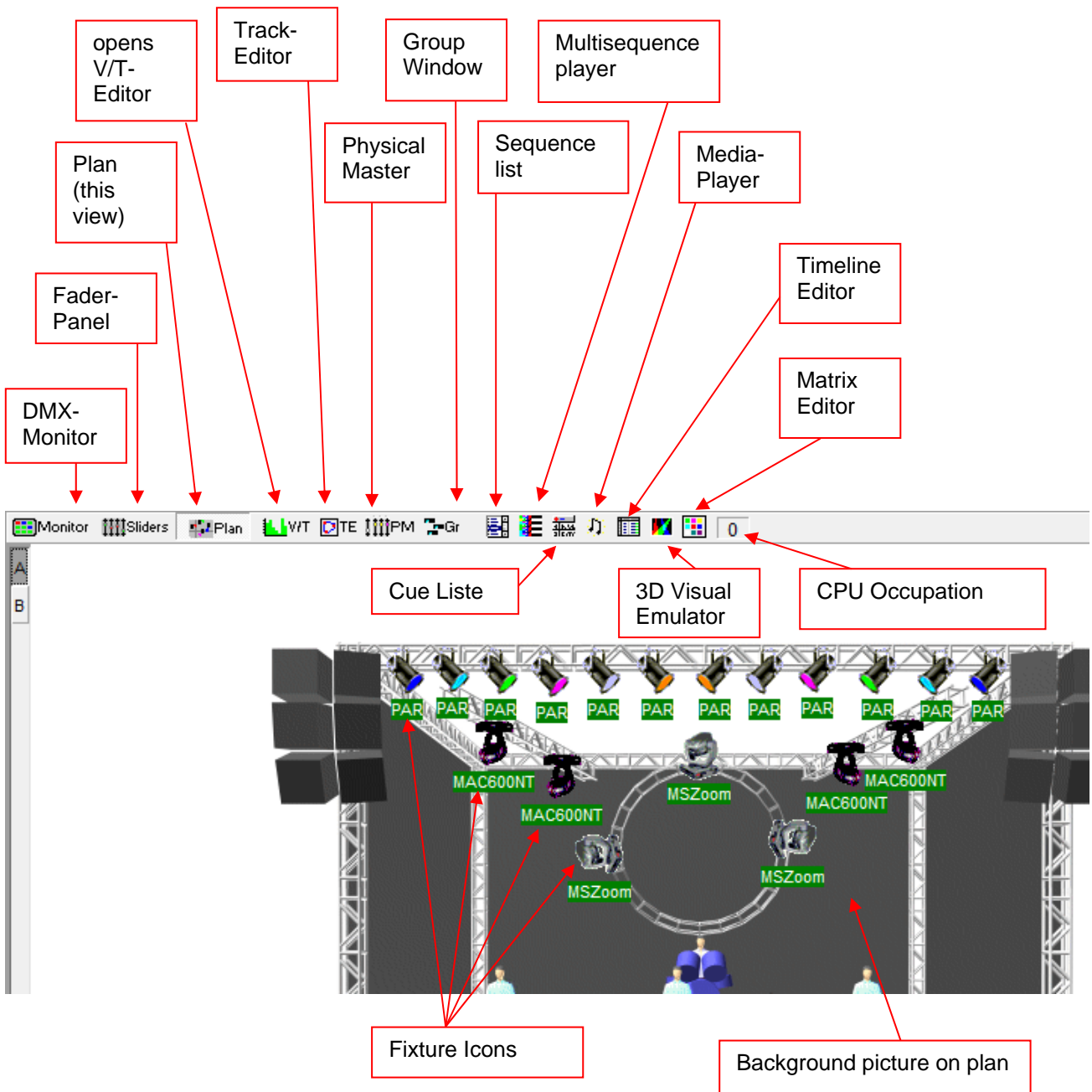
"COPY" copies the current Scene into a temporary buffer.

"INSERT" pastes the saved (copied) Scene to current location.

"Replace" replaces the Scene in current location with the saved Scene.



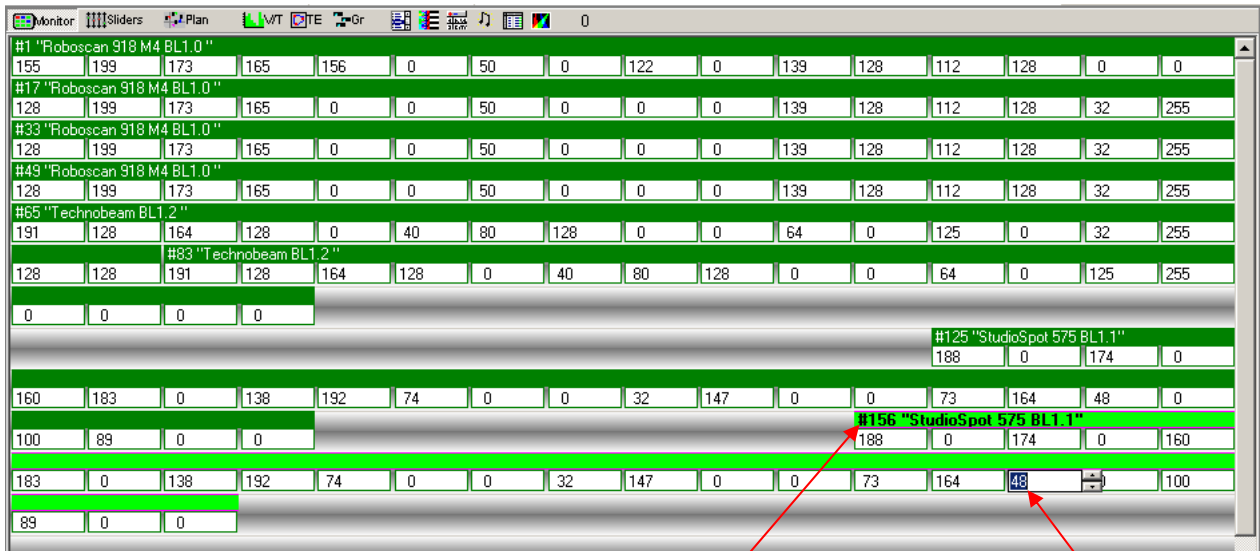
8.2 The Plan



The Plan is your workspace. When you create a new Show, the fixture icons appear in the upper left hand corner. You can drag and drop them in the place you desire using your mouse. By double clicking on the icons, it is also possible to rotate them 90 degrees at a time. After placing the icons in the desired spots, you can now lock them in place, by using the “lock icons” function in the “settings” menu. This is to prevent unwanted displacement of the icons whilst programming your Show

8.2.1 The DMX-Monitor

The DMX-Monitor is used to illustrate the decimal DMX-values (0-255) of a chosen fixture (green highlight).

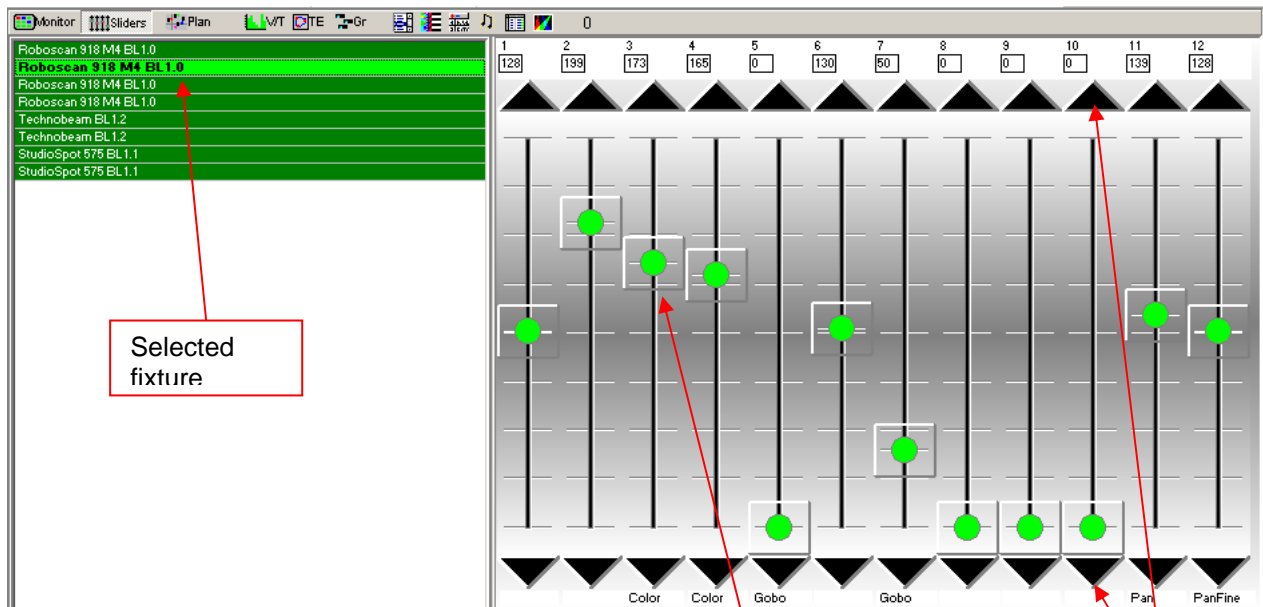


Starting address

direct entering of DMX-value

To enter a DMX- channel directly, click on its corresponding field

8.2.2 The Fader Panel



Selected fixture

one Fader per DMX-channel

fine tuning

Each used DMX channel of the selected fixture is represented by a Fader. You can adjust the DMX-values by using the Faders, or by using the fine tuning buttons

8.2.3 The Plan / Multiplan

8.2.3.1 Plan

The background of the Plan is a standard Bitmap picture. To create your own background picture, you can use the Windows™ program called “Paint” or any other software that can output bmp compatible files. The file name of the background picture is:

Planimg.bmp -it is located in the program directory (i.e. c:\program files\DMXWizard594\).

In the “Settings” menu, you can change the background image by selecting “Change Plan image”. Just enter the file name, and click on “open”.

The chosen image is copied and saved in the directory as Planimg.bmp.

The size of your image can be selected based on your screen resolution.

Screen Resolution	Recommended Picture Resolution (Pixel)
800 x 600	480 x 480
1024 x 768	600 x 600
1280 x 1024	820 x 820

File type: Bitmap (.bmp)
Colors: 16 or 256

There are some example images on the provided product CD-Rom available

Note: The Plan image will not be saved into the Show file. The Show file only save the plan image position i.e. c:\program files\DMXWizard594\image.bmp

8.2.3.2 Multiplan

If you are using a large number of fixtures in your Show, you can use the Multiplan feature, which gives you multiple layers of fixtures. This avoids confusion. From the “Settings” menu, select “Multi-Page Plan”

On the right hand margin of the Plan, a letter “A” will appear. To add more layers, click on the letter with the right mouse button, and select “Add Plan page”. You can do this up to 16 times, resulting in layers with the letters from “A” to “P”.

You can now add fixture icons to different layers by clicking on the desired icon with the right mouse button, and selecting “Place on page”. The next Plan (A-P) you choose will be the destination for the icon.

To move multiple icons simultaneously, use the “Master” or “Group” functions.

8.2.4 The V/T-Editor

Should you not be able to see the full picture at the bottom margin, press "F2", to restore the full picture.

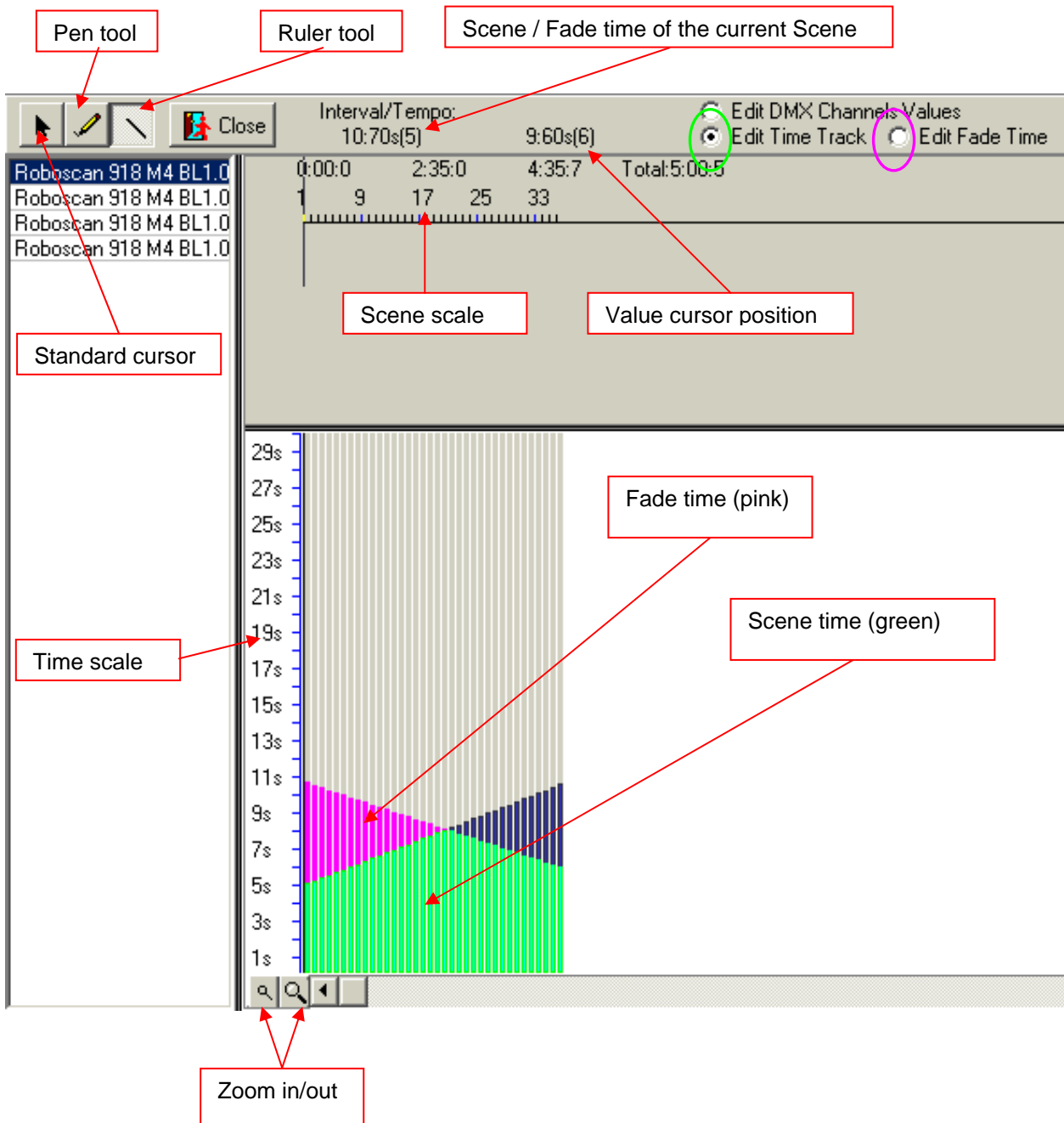
The V/T-Editor has three different graphical adjustment functions:

8.2.4.1 The Time- and Fade Track

After opening this feature, you can choose the values you wish to edit or illustrate from the field in the upper right hand corner.

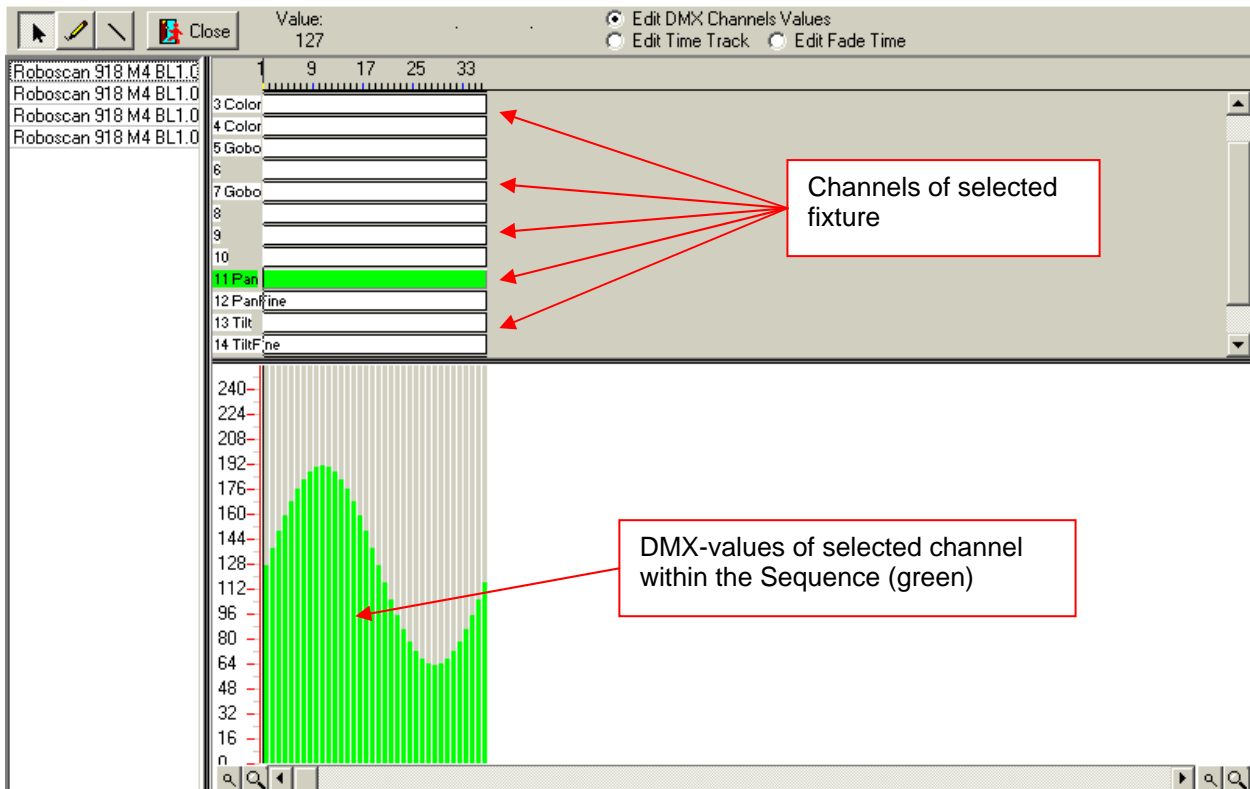
[Edit Time Track] Enables you to adjust the Scene time using either the pen or ruler tool

[Edit Fade Time] Enables you to adjust the Fade time between Scenes using either the pen or ruler tool.



8.2.4.2 Editing / Illustrating DMX Values

By choosing the “Edit DMX-Channel Values” from the upper right hand corner, you can illustrate or adjust the values of every DMX- channel within a given Scene/Sequence. The “pen” and “ruler” tools can be used here as well.



Select “Close” to leave the V/T-Editor

Copy / delete data:

Choose an area within the channel table, and outline while holding left mouse button down. Next, click on the outlined area with the right mouse button. A window will open and prompt you the following possibilities:

Copy Selected: Copies the defined area into a buffer memory. Select another area, and press the right mouse button on it to paste the copied area there.

Clear Selected: Deletes the defined area → sets the DMX values to 0.

8.2.4.3 The Effects Generator

Another tool placed into the V/T Editor is the “Effects Generator”. You have the possibility to create complex beam movements or brilliant color Fades (CMY fixtures) with just some clicks. At the moment there are two modules available: the “Wave Generator” and the “Fan for Group” function. The generation of these effects can be applied to groups of the same fixture type (two or more fixtures selected in Master or fixture group). The Effects may be used on any available channel of the fixture (not just pan/tilt or CMY)

The basic principal of the „Effects Generator“ is the conversion of mathematical/graphical elements into DMX-Values. Not like on some other controllers, an Effect will be applied always to a Sequence, that means the final look of the Effect is depending on how many Scenes the Sequences consists. Every step of the generated Effect may be edited manually using this technology.

Using the Faders of the “Effects Panel”, you are able to set different parameters to get a wide range different combinations. If you move one of the Faders, you will see a small preview window in the right side. It shows how the graphical waveform looks like. If you choose a fixture group, you will see the movement shift of the selected fixtures.

Note: To get a perfect wave movement on the tilt function, it's necessary to mount the scanners with ascending DMX addresses order.

Example with 6 similar fixtures:

No. of channels per fixture: 5

Mount from left to right: fixture with address 1, 6, 11, 16, 21, 26

The effects will be applied to all Scenes of the selected Sequence. The more Scenes in a Sequence, the smoother wave you get. Usually it's not necessary to use more than 10 Sequences if you use the “Equal Fade Mode” (see chapter 8.1.3 “The Fade Modes”)

Wave Generator Sine

The screenshot shows the 'Effect generator' window with the 'Wave generator' tab selected. The interface includes several sliders and checkboxes. Callout boxes provide the following explanations:

- Choose Wave Form (Sine, Rectangle, Random):** Points to the waveform selection icons at the top left.
- Apply wave to channels:** Points to the 'Apply' button.
- Choose between single fixture or Master /Fixture Group and reverse order selection:** Points to the 'Group' and 'Reverse order' checkboxes.
- Amplitude = maximum size of wave:** Points to the 'Amplitude' slider.
- Offset = offset for wave from zero line:** Points to the 'Offset' slider.
- Start phase of wave in degrees (-180 to +180):** Points to the 'Start Phase' slider.
- Set upper and lower DMX value limit:** Points to the 'Up Limit' and 'Down Limit' sliders.
- Shift of the waves between the fixtures in degrees (-180 to +180):** Points to the 'Shift (deg)' slider.

Wave Generator Rectangle

You have the same adjustment possibilities like on the sine wave. Additionally you may adjust the duration (Pulse with) of the rectangle.

Wave Generator “Half Wave”

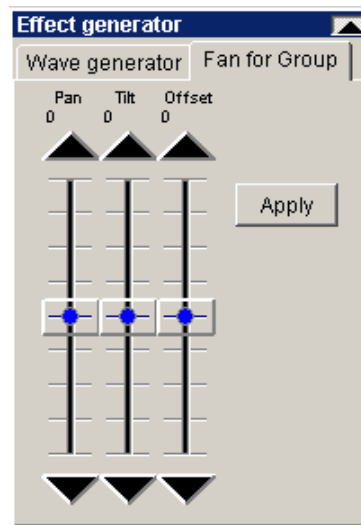
Identical attribute selection as with Sinus Wave Generator, however, only the positive or negative half wave is represented, depending on the selected amplitude and offset of the wave.

Wave Generator Random

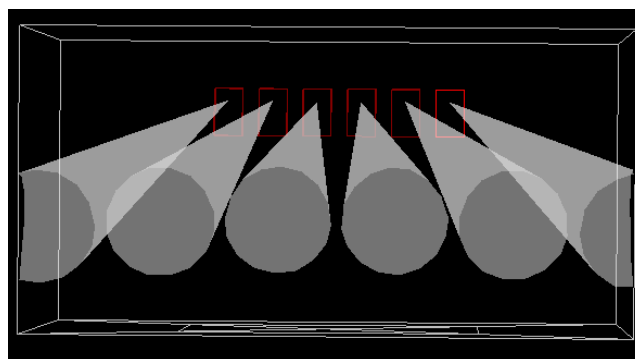
Using this mode, you are able to generate waves that are made of random values. At any key press on the random mode button, the system builds new random values. Parameters: amplitude, offset and shift.

The „Fan for Group“ Function

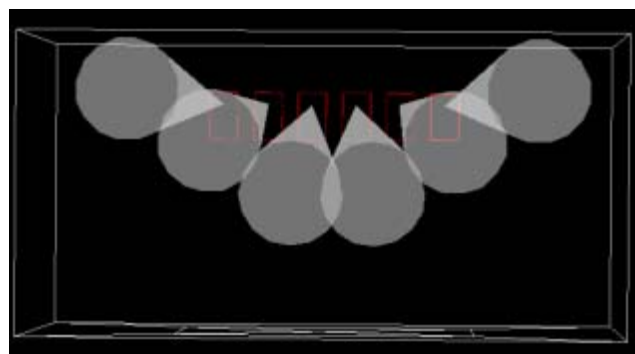
This feature allows you to “spread” or join beams of fixture groups or fixtures in Master (same kind of fixtures only). The generated fan is static and may be applied to pan/tilt on single Scenes only. However, if you create a Sequence with different Fan-Scenes, you will get a great looking Show prepared in just some seconds.



Two samples:



Pan Spread



Manual V1.9

Tilt Spread

Note: The „Fan for Group“ is only applicable on fixture groups with fixtures of the same type.

If you move one of the Faders, you will see a small preview window in the right side. It shows a preview of the beam position using the actual slider settings. As basic positions, the software uses the actual

programmed values (beam positions) of the Scene. Press the “Apply” button to load the generated positions into the Scene.

Note: To get a perfect spread or join effect, it's necessary to mount the scanners with ascending DMX addresses order.

Example with 6 similar fixtures:

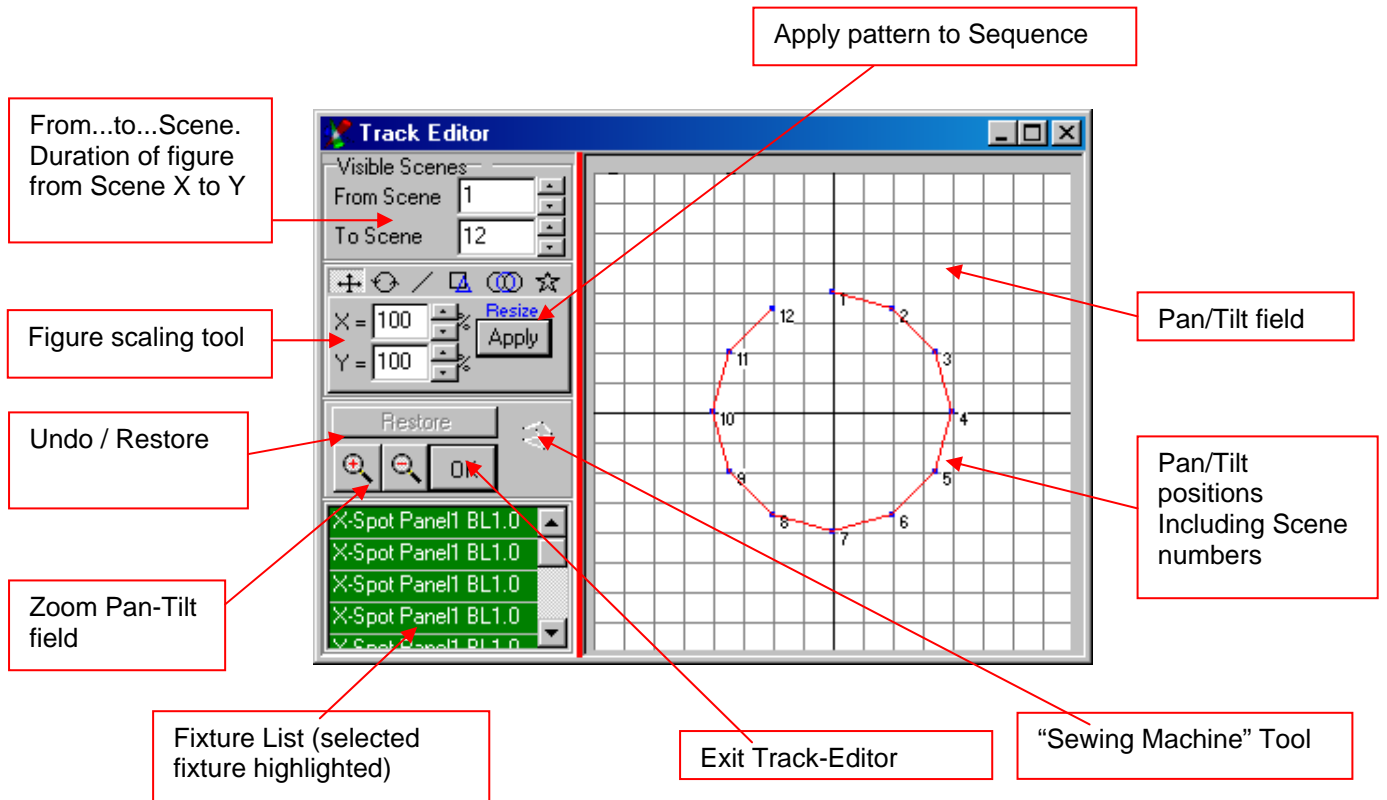
No. of channels per fixture: 5

Mount from left to right: fixture with address 1, 6, 11, 16, 21, 26

8.2.5 The Track-Editor

The Track Editor enables you to create geometrical movement patterns for moving yoke and mirror head fixtures

8.2.5.1 The main window with scaling tools

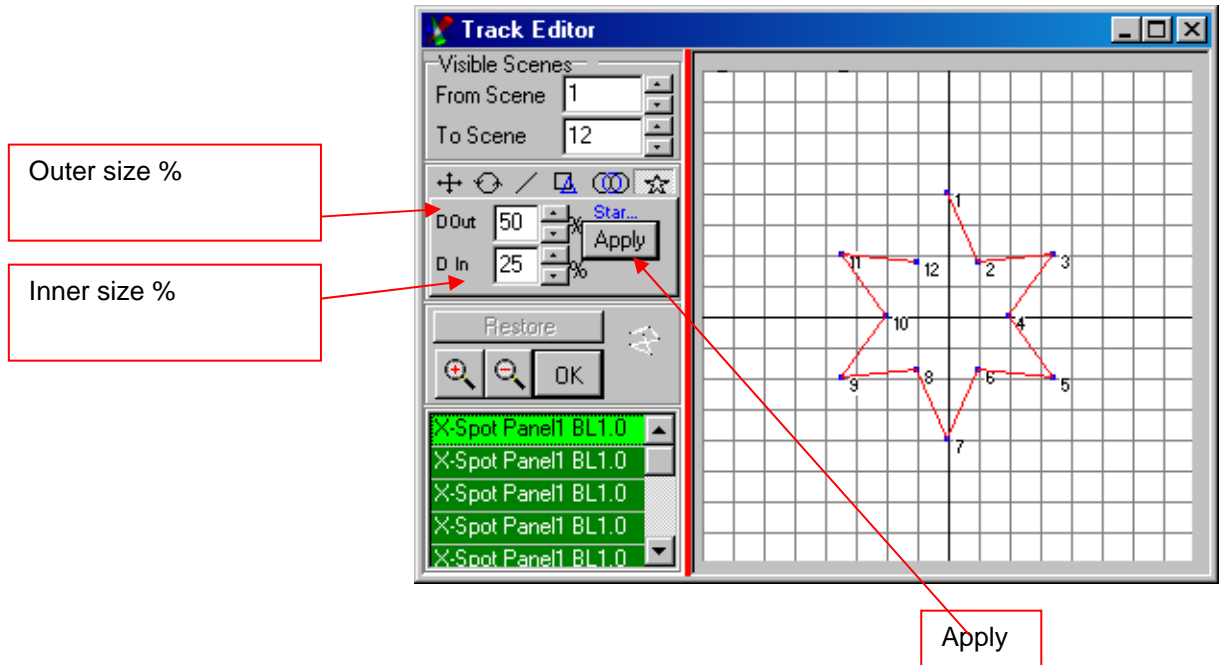


If you wish to adjust one or more positions manually, select the positions by pointing and dragging with the mouse. The selected area will be indicated in blue, and can subsequently be moved using the mouse.

The Sewing Machine Tool

This tool enables the user to create positions freely in the Pan/Tilt field. Every time you press the right button while moving the mouse within the Pan/Tilt field, this position is given a Scene number.

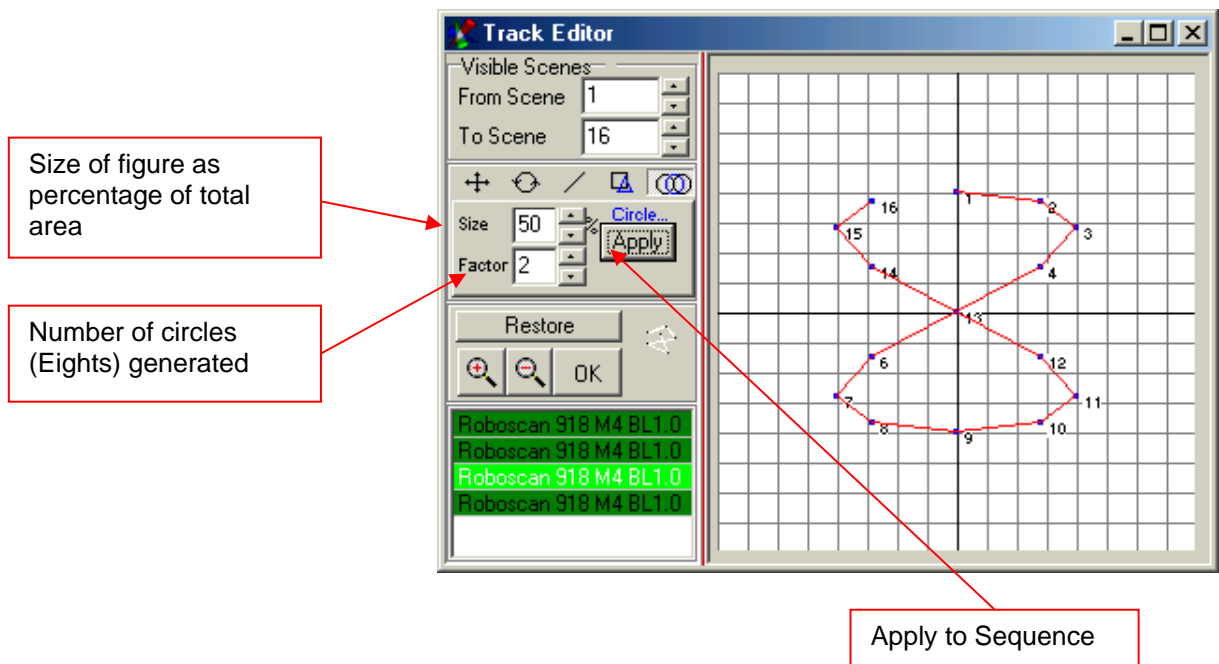
8.2.5.2 The Star Tool



Please note, that a Sequence needs at minimum 8 Scenes to create a full star shape.

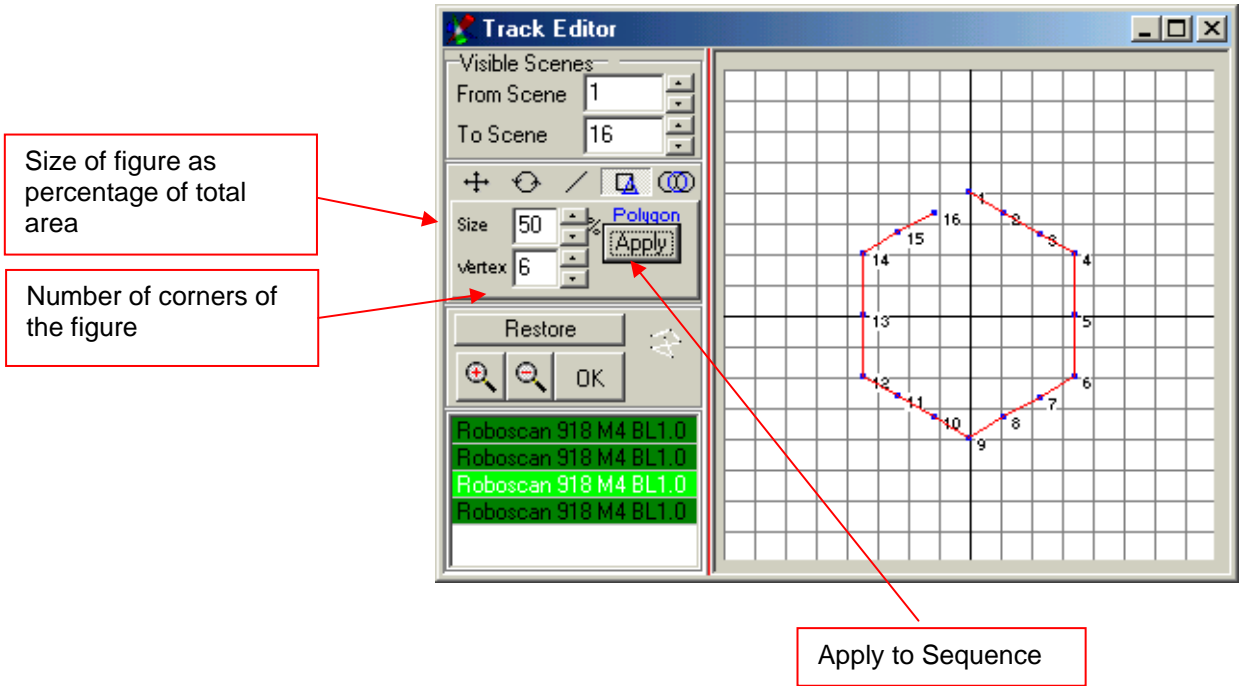
8.2.5.3 The Circle Tool

The Circle Tool enables you to create circles, figures eight etc. within the Pan/Tilt field.



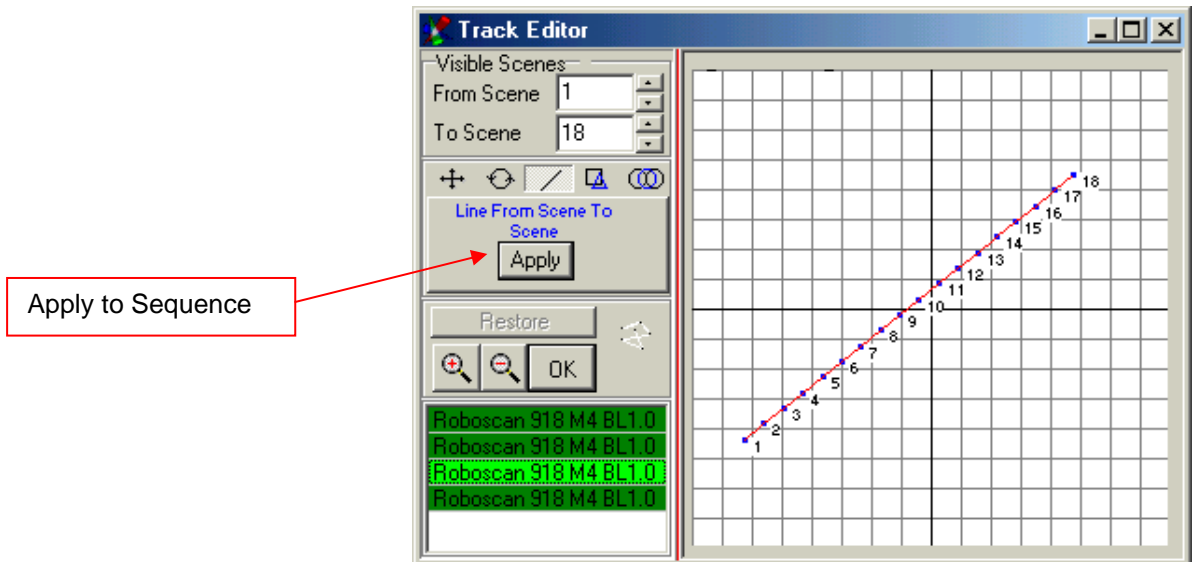
8.2.5.4 The Polygon Tool

The Polygon Tool enables you to create triangles, squares, pentagons and hexagons within the Pan/Tilt field.



8.2.5.5 The Line Tool

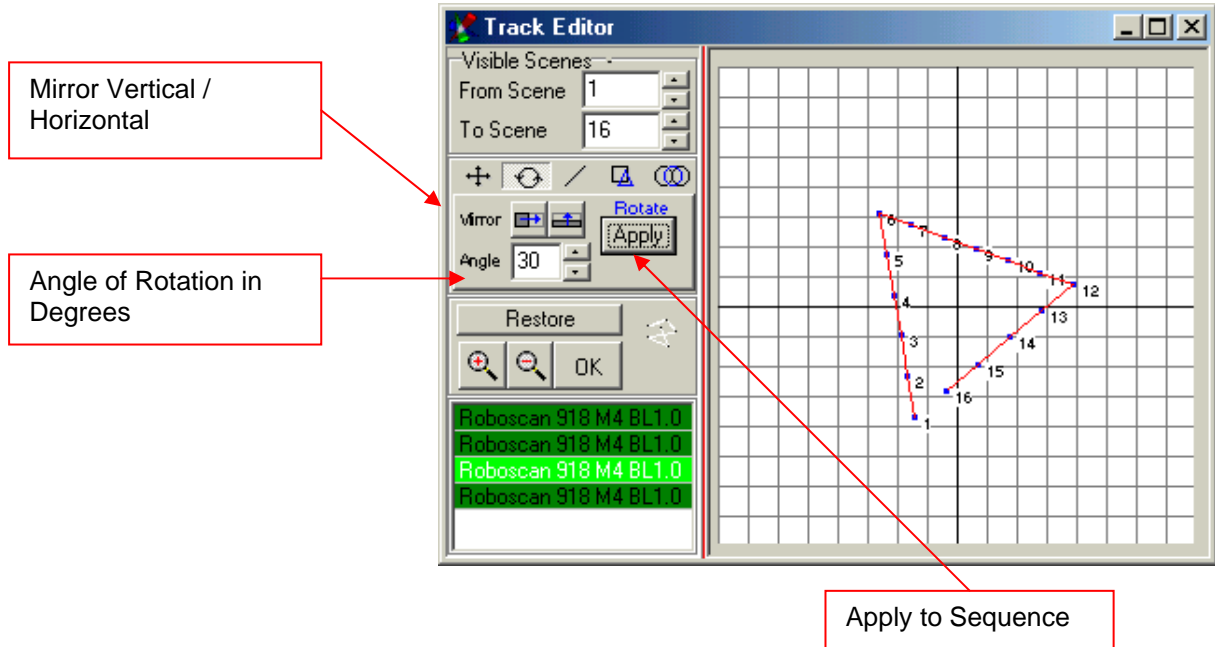
The Line Tool sets all position in a straight line.



You can adjust the line using the scaling and rotation tools or change each position manually.

8.2.5.6 The Rotation Tool

The Rotation Tool enables you to rotate / mirror any generated figure or existing Sequence within the Pan/Tilt field.



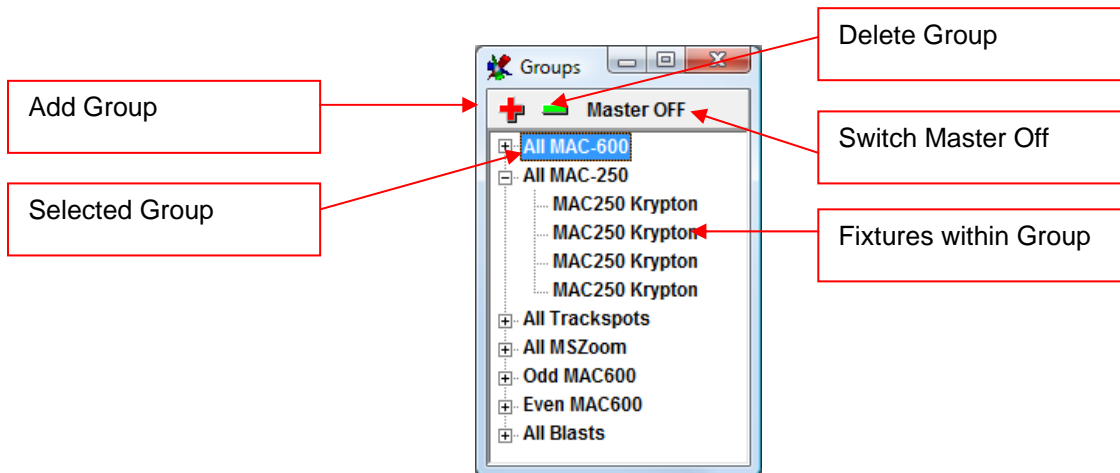
8.2.6 The Fixture Group Window

If you have a large number, or different types of fixtures within a Show, it is helpful to create fixture-groups for the Master. The creation of fixture groups is done in the same way as the selection for the Master-Mode:

Hold down the CTRL key on your keyboard, and select the fixtures for the group by pressing on their icons (the text under the icon will appear in red).

Should the fixture icons lie close to each other on the icon Plan, you can outline them by holding down the CTRL key, and pointing at the outermost fixture icon (the text field under the icon will appear red). Next, outline the fixtures for your groups by holding the left mouse button down, and dragging a box around the icons. All text fields of the fixture icons will appear in red.

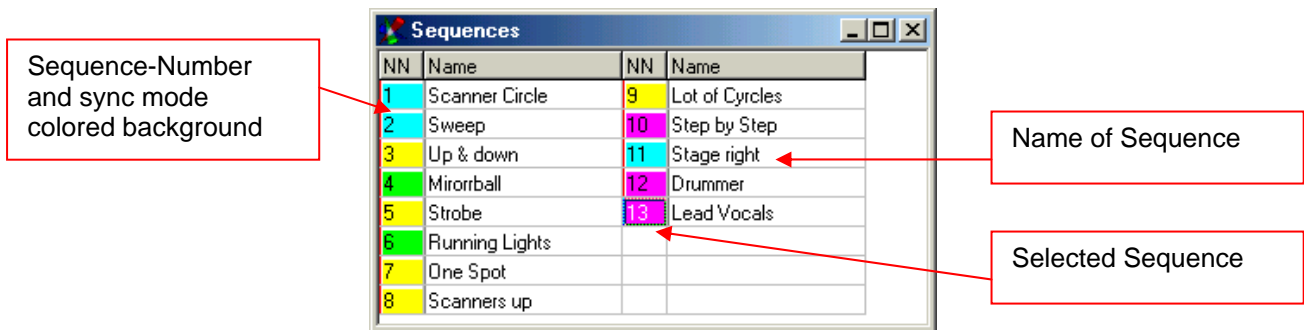
Open the Fixture-Group window, and press the "+" -button to create a group out of the selected fixtures.



Hint: it is also possible to program groups with different „Master for fixture groups“ presets (see section 6.6). This allows for quick access in live mode. The upper 8 groups into the window are assignable to a „Hot Key“ for quick selection.

8.2.7 The Sequence List

The Sequence List allows for quick access to all Sequences in a Show during programming or in live action.



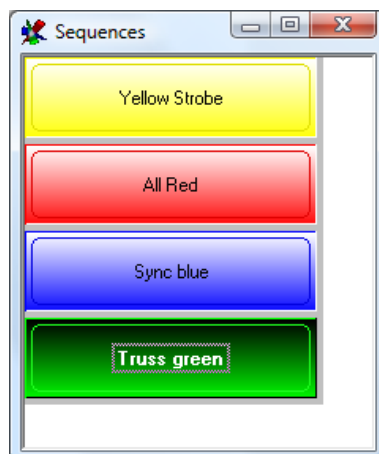
If you are not in Play-Mode, you can change the names and order of the Sequences directly within the Sequence List. The standard hot key to open the Sequence List is “F7”

Hint: By right-clicking anywhere on the Sequence List, you get the following options:

the window [Double Size] appears. Like this, the Sequence List can be enlarged for easy selection. (I.e. for touch screen applications). You can restore the original size by right-clicking anywhere on the list.

Hinweis: Durch einen Rechtsklick auf die Sequenzliste erscheinen folgende Optionen:

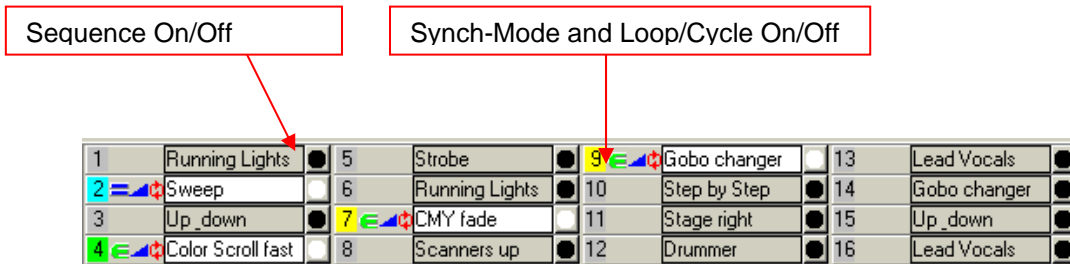
1. [Double Size] The sequence list will be enlarged for better visibility and selection and high resolution screens.
2. [View as button's field] Using this functions the view of the table changes to a „button style“ view. This is very comfortable if working on a touch screen. The size of the buttons can be changed: Point on one of the buttons, press „CTRL and pull with pressed left mouse button to the best size (up to full screen)
3. [Define Custom Color] Each sequence button may have its own color for better recognition. Chose your color from the color picker.



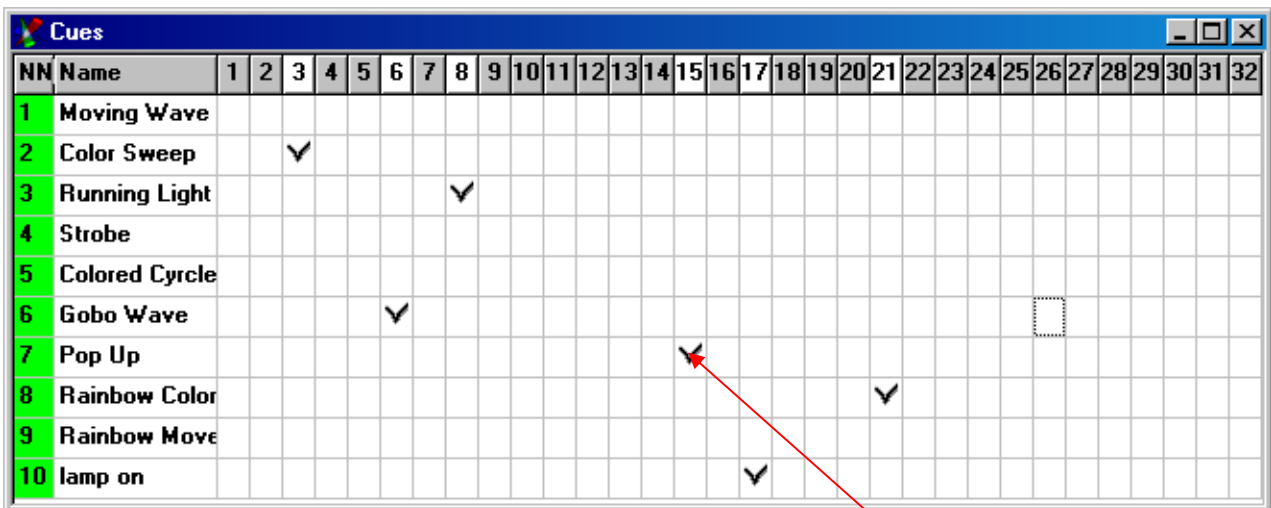
8.2.8 The Multisequence Player

The Sequence List only allows for play of one Sequence at a time. In order to play multiple Sequences at a time, you can use the Multisequence-Player. The standard hot key to open the Multisequence-Player is "F8"

The first 16 Sequences (of totally 32) players are Shown in the window below. You can select the Sequences to be used in the pull down menu, or in the Cues Window.



To use all 32 players, you have to open the Sequence list (F7 key). Check and uncheck the boxes to run and stop Sequences in corresponding players. If you like to adjust the speed of one of the sequences, just click on the sequence number on the left side and the tempo window will appear.

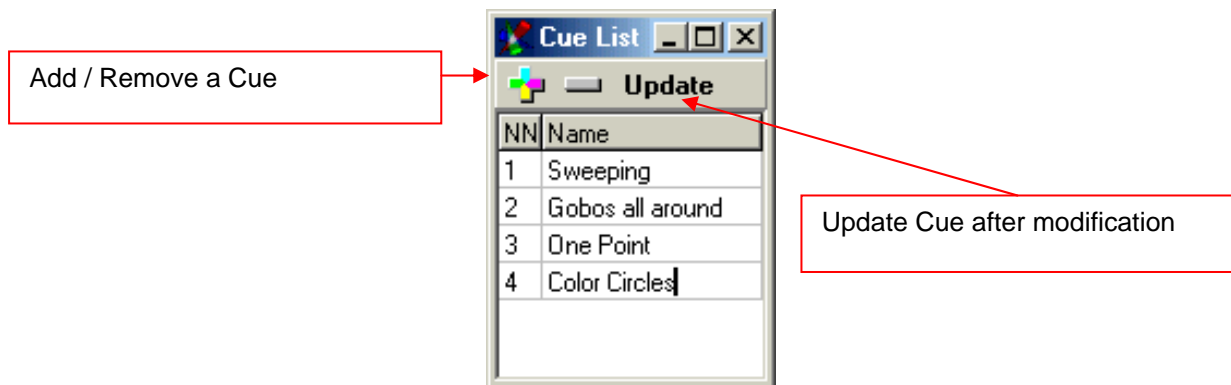


Sequence #7 is running on Player #15

Note: You may put a Sequence to different players at the same time. This allows special effects i.e. a parallel running light...

8.2.9 The Cue-List

The various settings within the Multisequence-Player are saved as “Cue”.

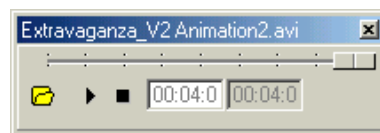


Hint: By right-clicking anywhere on the Cue List, the window [Double Size] appears. Like this, the Cue List can be enlarged for easy selection. (I.e. for touch screen applications). You can restore the original size by right-clicking anywhere on the list.

8.2.10 The Media-Player

The built in Media Player functions like the standard Windows Media Player. It can play multimedia files like MP3, AVI, Midi etc. independently from your Show.

The Media Player settings are not saved in the Show.



8.2.11 The 3D Visual Emulator

The 3D Visual Emulator is an excellent visualization tool, which can be used as aid while programming your Show. Even with no physical fixtures connected to the system, it will Show the “real” lighting situation on stage in real time! There is no need for video drivers. The use of a fast graphic card is recommended to have a good performance.

The fixtures are placed in a virtual 3D room. (The first pan placement of the fixture icons is adopted here). The emulator works for yoke- and mirror-heads, as well as fixed spots. The 3D virtual light beam is generated in the color and position programmed (for limitations, see also → [“The Panel Designer”](#)). Per fixture, up to two color wheels or one CMY/RGB plus one color wheel set is supported. If the fixture has a separate dimmer channel, the brightness of the beam will also be shown (using the right projection angle).

The representation of Gobos has been left out due to concerns regarding increased system requirements and complexity of creating fixture panels.

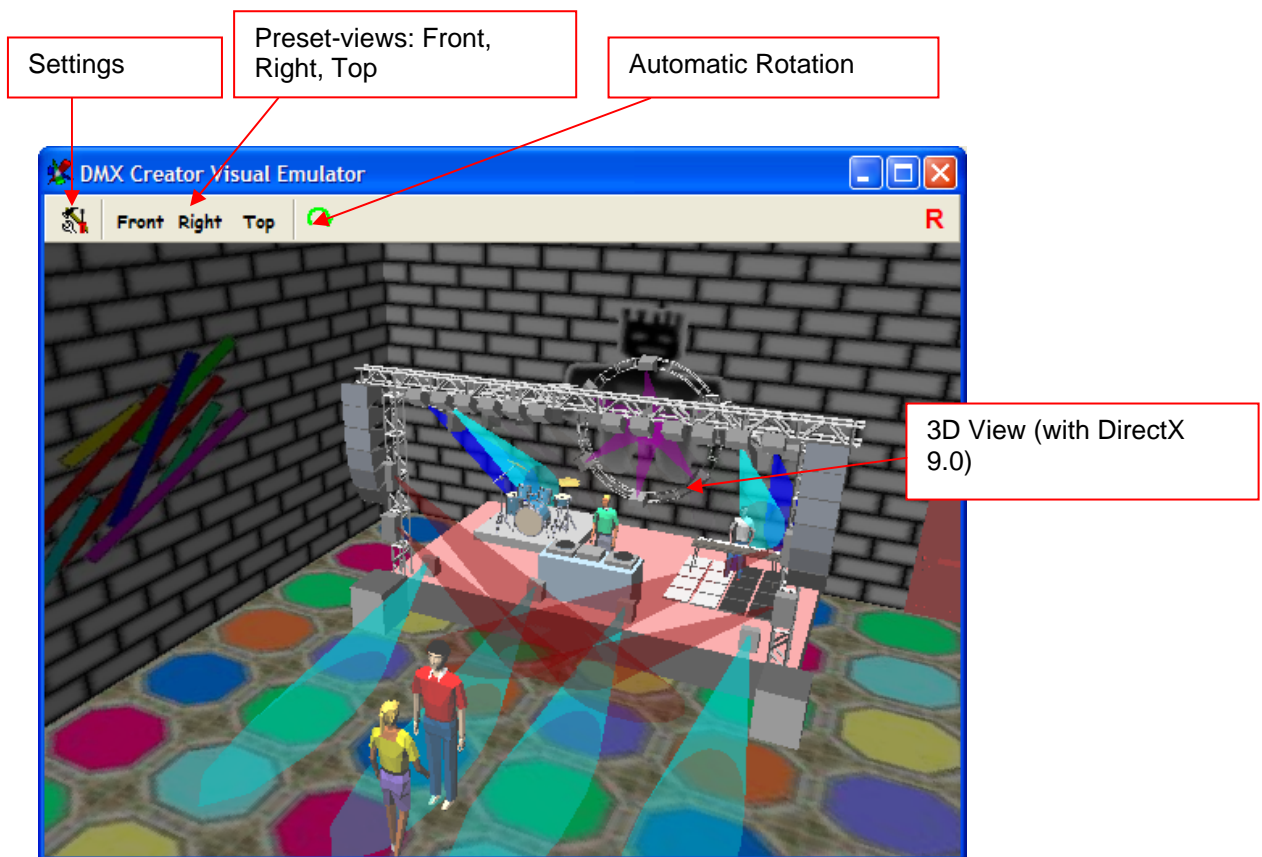
DirectX 9.0

If you are using a powerful computer with a good graphics card, you can create a more realistic representation of your environment with DirectX9.0 in the 3D Emulator (Windows XP and Vista) the graphics card must support DirectX 9.0.

Installation of DirectX 9.0:

1. Download the DirectX 9.0c End-User Runtime from www.microsoft.com (use search function)
2. Install DirectX 9.0 according to instructions
3. Start the DMX Wizard software
4. In the menu Settings, Synch & Hardware, Other, enable the following function: "Use DirectX 9.0 in Emulator"
5. Open the 3D Emulator.

8.2.11.1 Settings



Changing of viewing angle: hold down the left mouse button inside the Emulator window, and move in desired direction

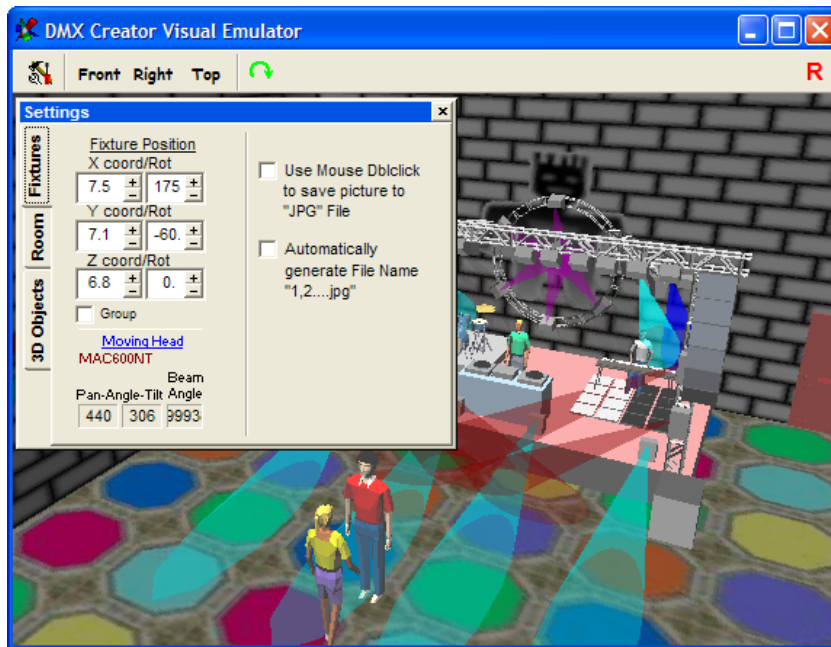
Changing of viewing distance: hold down the right mouse button inside the Emulator window, and move mouse up- or downwards.

Predefined views: use menu buttons [Front], [Right] and [Top] for the corresponding views.

Automatic rotation: press this button to enable automatic rotation of the room. It is not possible to adjust the rotation speed.

Positioning of fixtures:

In the [Fixtures] menu, the fixture positions can be moved or rotated along their X/Y/Z axis positions. The positions are saved in the show file. By selecting the [Group] option, it is possible to move multiple fixtures simultaneously.



Filling Beams / Lines: The Fader termed "Lines" adjusts the number of lines representing the virtual light beam of a fixture. A realistic view is provided if "filling" instead of "lines" is selected. Keep in mind that using "filling" mode, will increase computing requirements

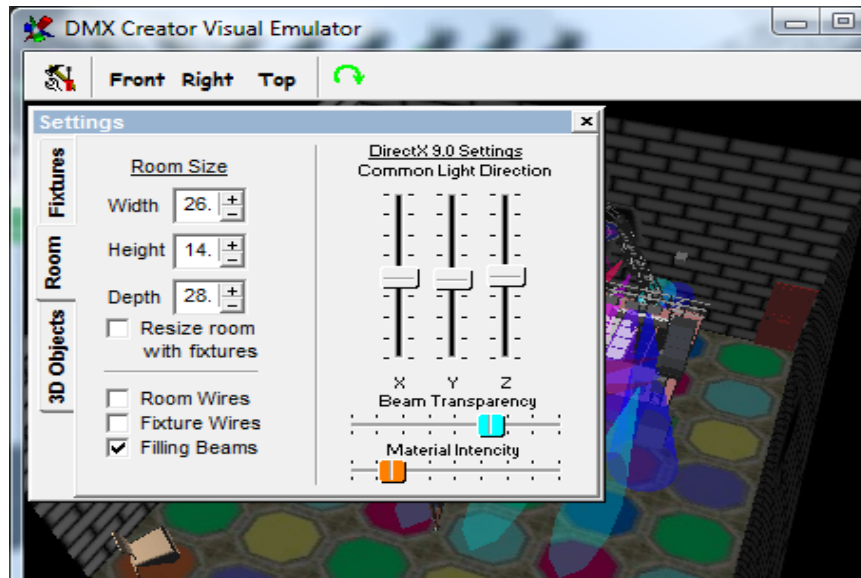
Use Mouse: You may save the current 3D view as image file (JPG) by double clicking on the 3D screen. To get a higher resolution picture, resize the window of the 3D Emulator.

Adjust room size and details:

Enter “Settings”, “Room Size”:

Room size: Adjust the proportions of the virtual room in terms of width, height and depth settings.

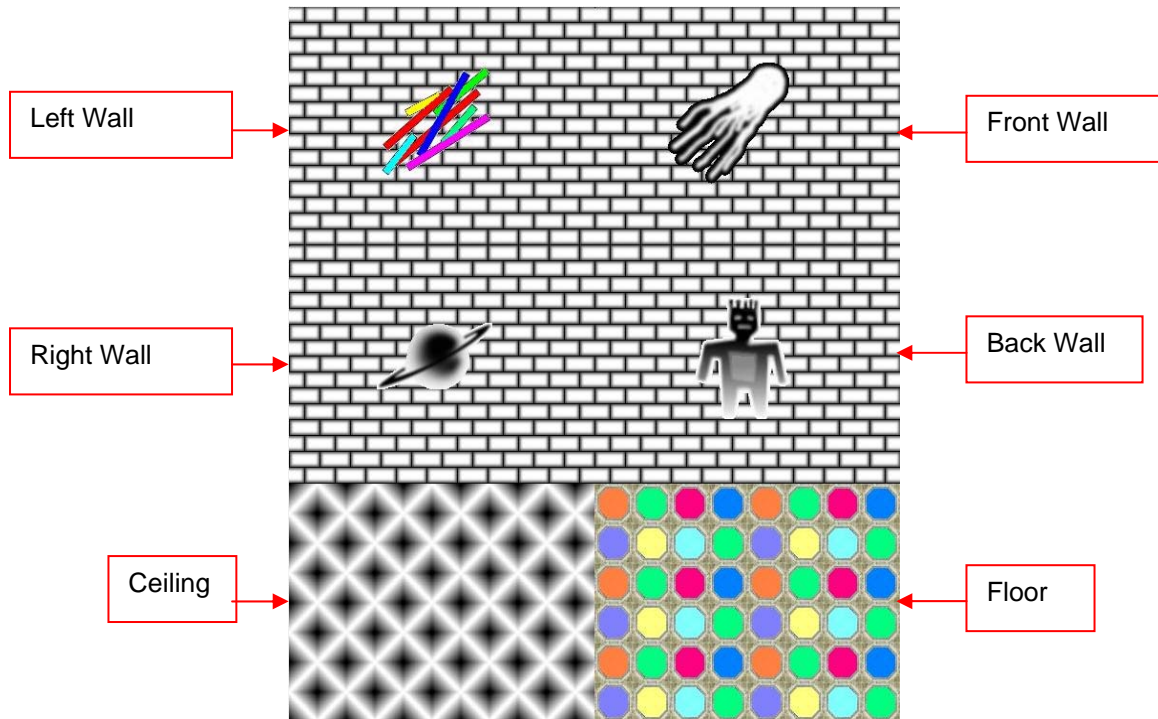
Room Wires / Fixture Wires: Shows or hide the outlines of the fixture bodies or 3D room



- With the installation of DirectX 9.0 (see above) the following attributes can be adjusted on the right hand side:

[Common Light direction] <position of light source>
 Beam Transparency] <intensity of light beams>
 [Material Intensity] < intensity of 3D objects>

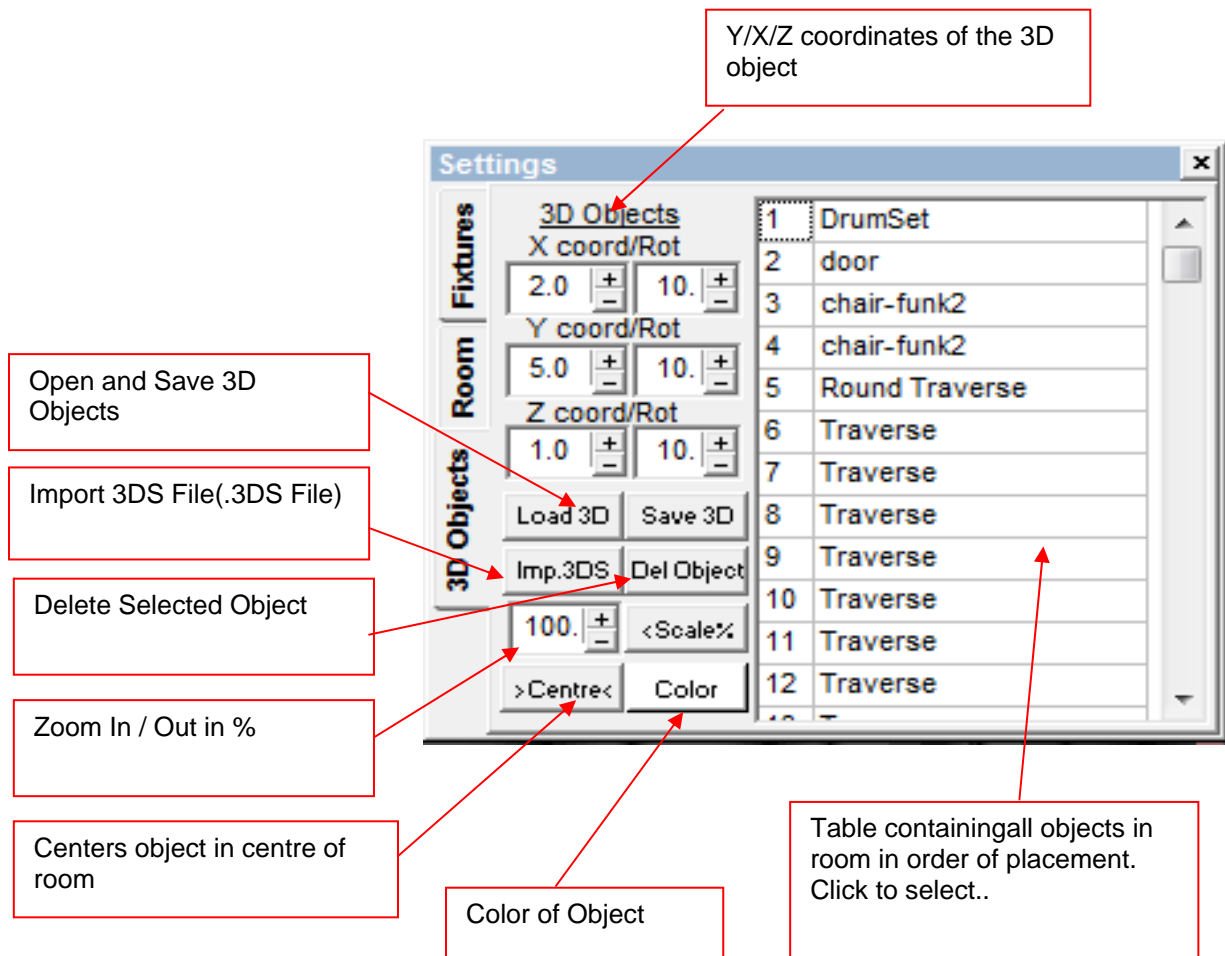
- Using the [Room Wires] options enables the conversion of the room borders (white lines) into a gray shaded wall representation. If Direct-X 9.0 is installed, it is possible to replace this wall with a user defined image. Because the room is limited to six sides, the DMX Wizard uses an overview that includes all six sides. The file has to be saved in the \3dobj\ folder. The following sample file is included with the software installation, and may be changed using the applicable software. The name of the file must be „room.jpg“.



Import Objects into 3D Emulator:

To get a better representation of the 3D room, you may load 3D objects such as trussing, speaker enclosures, furniture, musicians and so on... The objects have to be in a special format called 3DS (made by 3D Studio or 3DS MAX, manufacturer: Discreet)

To keep the processing power low, the objects are shown half transparent. Please note, that lot of complex objects needs more processing power of your system



Placement of Objects:

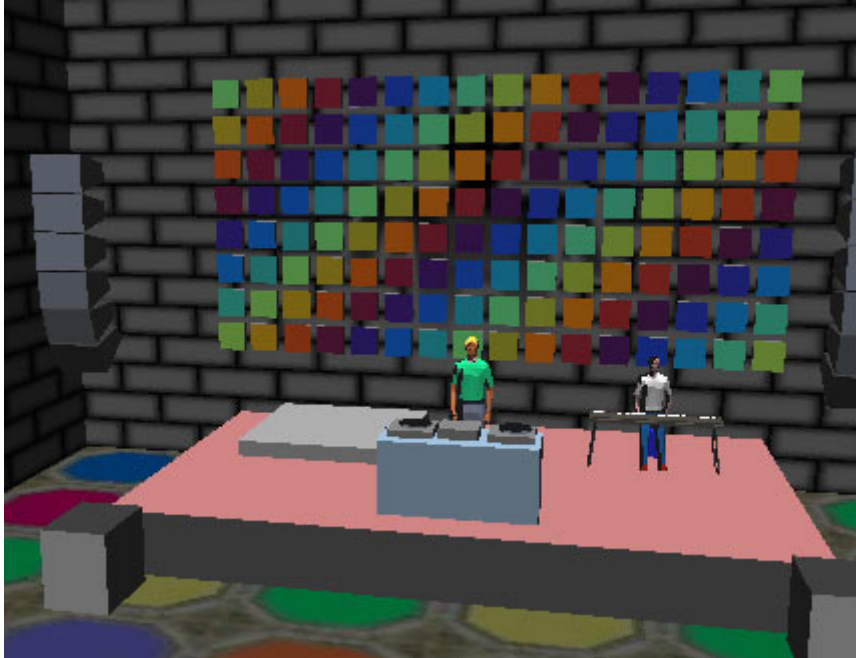
- Press the „Imp. 3DS“ button
- Indicate the source of the.3DS files
- Choose the file and press on „open“
- Next, press on the „Centre“ Knob, in order to center the object in the middle of the room.
- Now you can move the object about the room freely. Use the X/Y/Z – as well as the rotation coordinates. You can assign a color to the object using the corresponding button.
- Once you have placed all your objects, the entire “installation” may be saved and can be loaded for a later show (Save and Load)

Important: The objects in the 3D room are not saved in the show file, but the file path of the file containing the objects is. If the file is found when opening the show it is opened, and as such the 3D objects are loaded. Thus, make sure to save the current 3D object-setup before exiting the 3d Emulator (see above [Save]) If you wish to install the same setup on a different computer, you must copy the show file as well as the 3D-file. Normally, the 3D files can be found here: C:\Programs\DMXWizard594\3dobj

8.2.12 The Matrix Editor

The Matrix Editor is a tool for quick and easy programming of fixture arrays. A fixture array usually means a certain alignment of fixtures, for example 4 X 4 (16 fixtures) in a rectangle. The maximum size of a DMX Wizard Matrix is currently limited by the number of available DMX channels (1024).

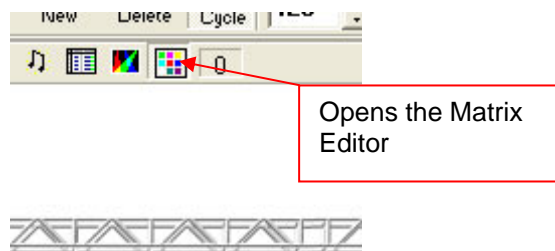
Example of a fixture matrix, represented in the 3D emulator:



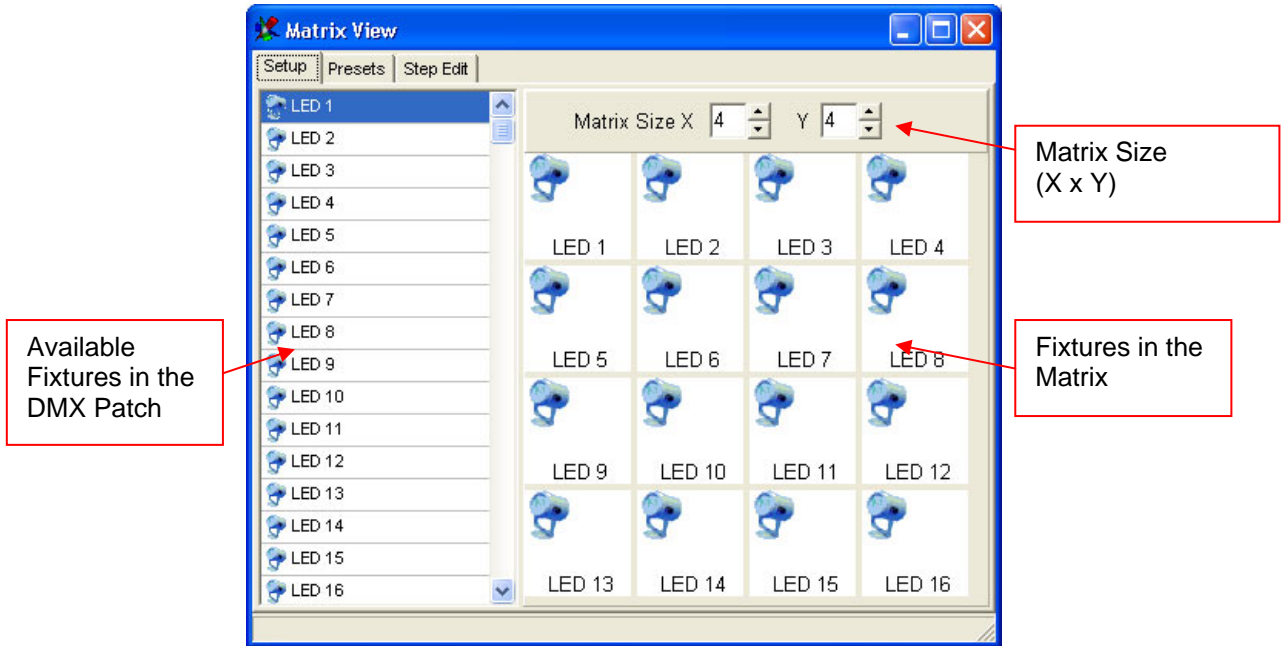
Fixtures to be used in a matrix must meet the following requirements:

- additive color system with RGB (Red / Green / Blue)
- subtractive color system with CMY (Cyan / Magenta / Yellow)
- 1 dimmer channel

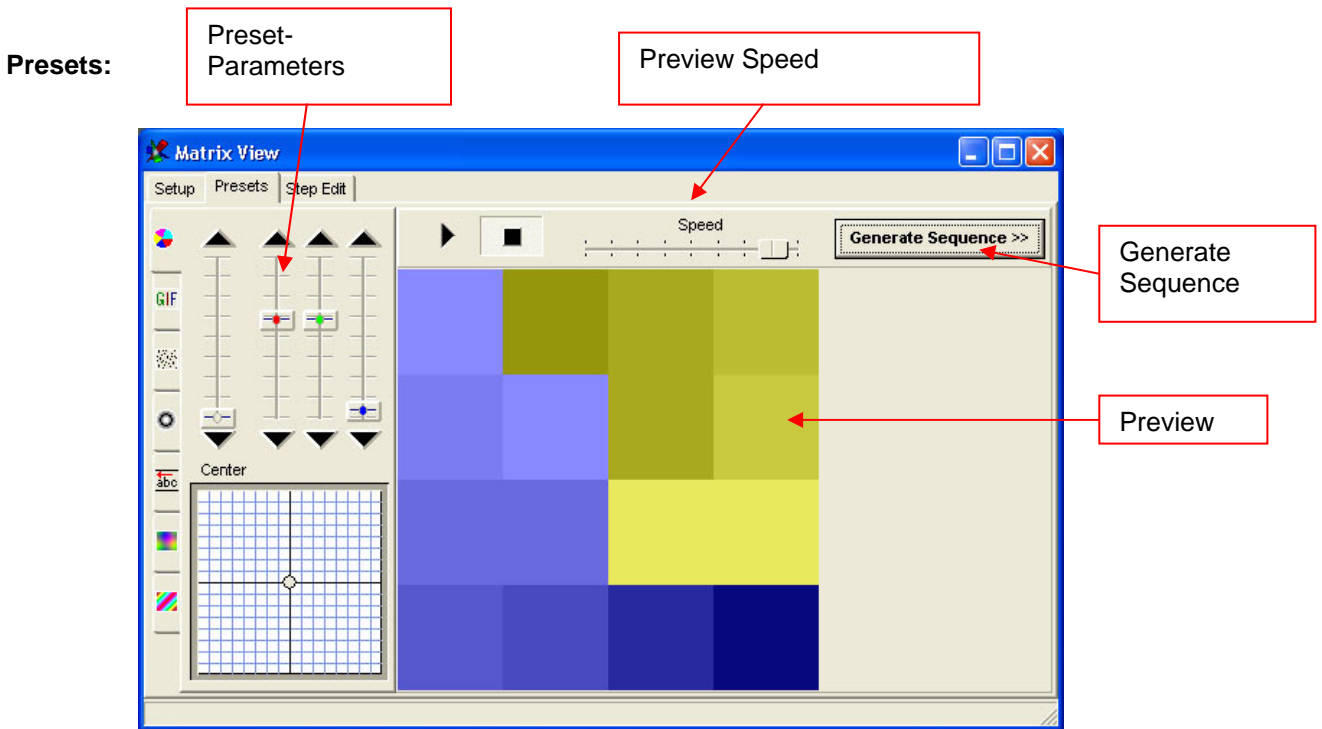
It is possible to have different types of fixtures in the matrix (i.e. RGB-LED floodlight and CMY-wash light). For best results it is advisable to use fixtures of the same type.










Definition of the Matrix:



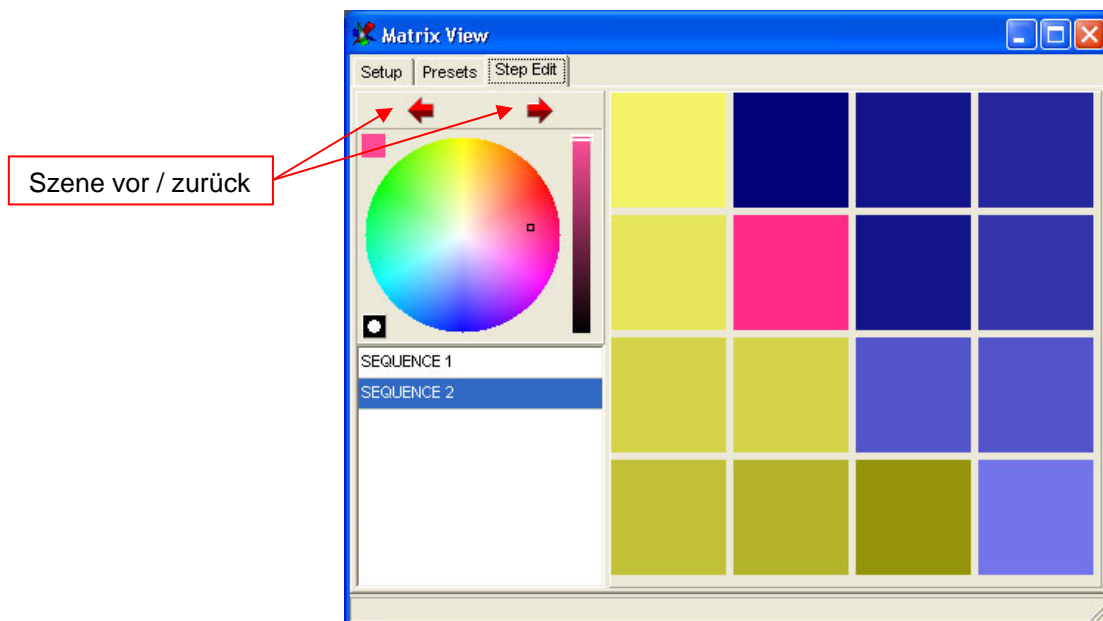
From the list on the left, drag and drop the desired fixtures to the appropriate position in the matrix. In order to select multiple or all fixtures at once, click on the first and the last fixture you wish to add while holding down the SHIFT key, and then drag over to the matrix window on the right while holding down the right mouse button. Assigned fixtures can be deleted from the matrix using the right-hand mouse button, or moved within the matrix using drag & drop.



The following presets allows for quick creation of graphical effects for the matrix. The effects are saved as scenes within an automatically generated sequence [Generate Sequence]. First, choose the desired preset on the left:

-  Rotating Color Circles
-  Animated GIF Player
-  Waterfall (colored or black & white)
-  Pulse
-  Text ticker (minimum matrix size of 7 X 7)
-  Plasma Effect
-  Color Sequence

Step Editor:



In order to edit the generated Sequences/ Scenes, every scene can be represented singly and have its color adjusted in the Step Editor. Just select the desired color, and click on the target pixel in the matrix on the right. In order to select the color of a pixel on the color wheel, just right-click on the pixel

8.2.13 The Multimedia Timeline Editor.

The Multimedia Timeline Editor allows for the creation of complex multimedia show cycles. Single sequences or Multisequence cues can be programmed with start- and end-times. Such events run simultaneously or in sequence. Commands such as [Play], [Goto], [Stop], [Black-Out], [End] and [Exit] can be used to pre-program additional events. It is also possible to import multimedia files to the show. Additionally, a timeline show can be started automatically using a command line

The Timeline Editor has its own file format and can be saved and loaded independently. For every show file, a playlist configuration is saved automatically.

If a video file is to be synchronized with the DMX Wizard, it is possible to run the file using the separate VGA/ video port of the computer (if available). Please enable following options to do this:

1. Open the [Settings] menu.
2. Open [Sync and Hardware].
3. Then, choose [Other].
4. Select [Synchronize Multimedia in Play List] in order to have the multimedia files run synchronised with the programmed show.

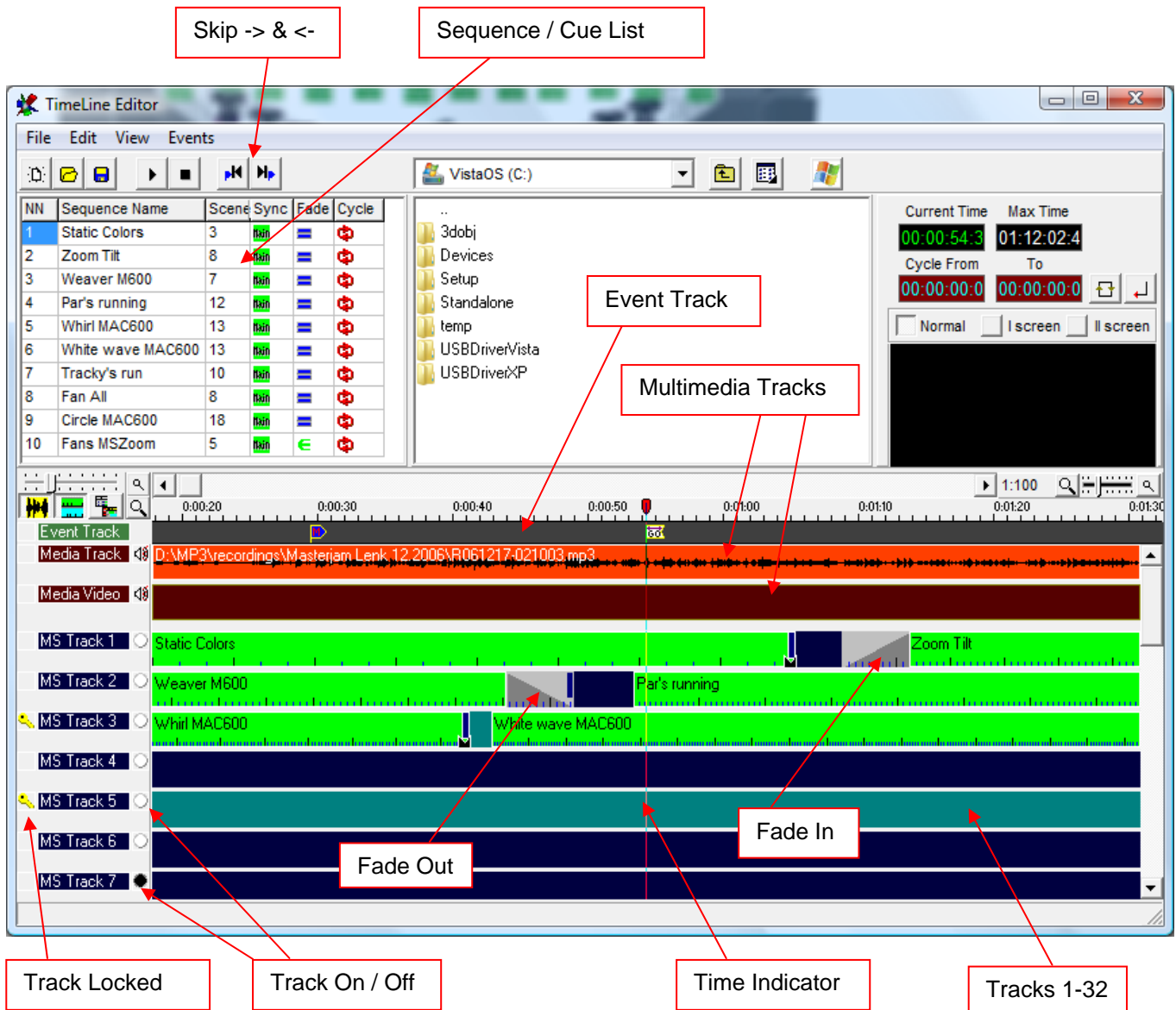
Ensure that the second monitor port is enabled in order for the DMX Wizard to display the video file. Instructions for this are available in the manual of the graphics card.

The Multimedia Timeline Editor features 32 independent sequence tracks, which allows for sequences to be layered according to the desired timing, similar to the Multisequence Player. Additionally, the Timeline Editor has 2 media tracks (MP3, Wave, MPEG, AVI) and an event track. The new Timeline Editor is mostly compatible with the Play List from previous software versions. However, it provides for these additional functions:

- independent fade-in and fade-out times for each individual sequence
- 2 multimedia files can be played simultaneously
- intuitive graphical user interface with drag and drop functions

Creating a Multimedia Show

- Open the Multimedia Timeline Editor.
- Select, and then drag & drop the desired multimedia file into one of the two multimedia tracks (dark red). To do so, use the integrated explorer window at the top centre.
- Choose the desired sequences and cues from the list on the top left-hand side, and place them on one of the 32 tracks (blue). To define the starting point, simply drag and drop the sequence bar (green) and place its left edge at the desired time. In order to set the duration of the sequence, click on the right edge of the sequence bar and adjust it to the desired time.
- In order to define fade-in and fade-out times, right click on the right and left edges of the sequence bar. The two fades are carried out by the dimmer channel defined in the Fixture Panel only.
-
- Cross fades are carried out for all channels that have been set as „Smooth“ in the panel definition, and can result in smooth transitions of pan/tilt movements between two sequences, for example.
-
- Hold down the Shift-key in order to select several sequences at once, and to adjust them.
-
- Press „Play“ to start your multimedia show.

**Important:**

- The last edited timeline show is saved in the show file. .
- Timeline shows can also be saved and opened as separate files, but they are always connected to the show in which they were created.

Main Window in the Multimedia Timeline Editor

File – [Open]: opens a previously saved Timeline show.
 File – [Save]: saves the current Timeline show as file.
 File – [New]: starts a new Timeline show

Edit – [Undo]: (Ctrl-Z) – undoes the last function performed such as “delete”, “paste”, and drag & drop

Edit – [Copy]: (Ctrl-C) – copies the selected element (sequence/media/event) to the cache.

Edit – [Paste]: (Ctrl-V) – places the element from the cache to the current marked time. [

Edit – [Delete]: (Del) – erases the selected element from the Timeline.

View – [Show Waveform Audio]: displays the waveform of the audio track (Not all files can be shown here. This depends on the used Codec)

View – [Show Scenes in Sequences]: represents the single scenes inside the sequence bar with lines. (only when image size is large enough)

View – [Switch Line/List]: converts the view to a list form (Playlist in former software versions)

View – [View Cue List]: shows Cue List in place of Sequence List

Events – [Insert Freeze]: –freezes the current fixture status as long as the Freeze event lasts.

Events – [Insert Blackout, Favourite]: inserts blackout or favourite for the duration of the event.

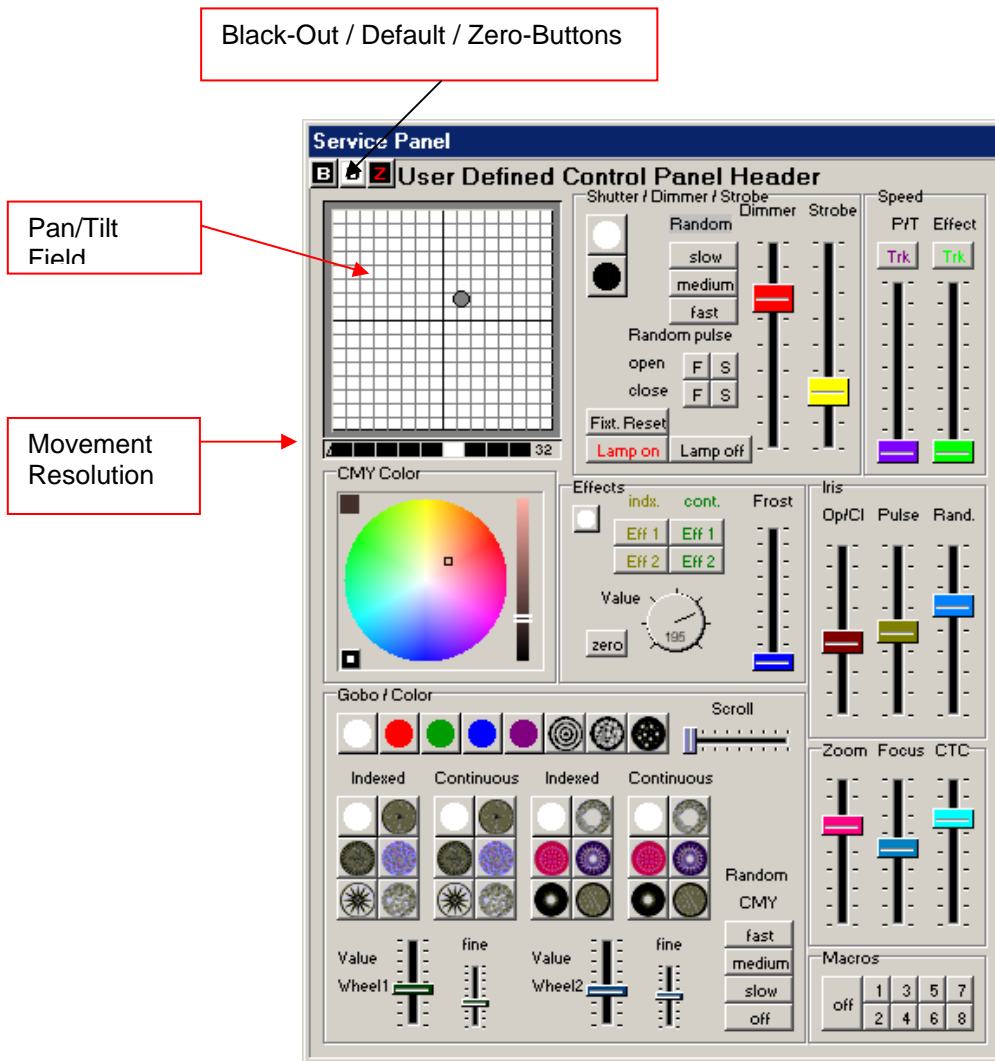
Events – [Insert End Play (stop), Creator Exit]: inserts a stop (End Play) or automatically shuts down the DMX Wizard software (Creator Exit).

Events – [Insert Wait GO]: stops the cycle until a „Go“ command is entered (through Hot-Key, for example)

Events – [Insert Goto Time]: show automatically jumps to selected position in the Timeline and as such creates an endless loop. Events – [Insert Marker]: Inserts a marker to which the time indicator jumps when the skip-key is pushed.

Hint: all events are inserted at the current position of the time indicator.

8.3 The Fixture Panel



The Panel is the “control-center” for all possible functions of a connected DMX-fixture.

8.3.1.1 The Pan/Tilt-Field

The Pan/Tilt field controls the movement of the light beam of a given fixture. Move the cursor within the field by holding down the left mouse button.

Locking the Pan-Axis: If you wish to move only along the Tilt Axis, hold down the “Shift” key on your keyboard while moving the cursor within the field.

Locking the Tilt-Axis: If you wish to move only along the Pan-Axis, hold down the “Ctrl” key on your keyboard while moving the cursor within the field.

Movement Resolution: Allows adjusting the movement resolution while programming. This feature is only enabled, if the fixture has 16bit movement control. If you choose a higher resolution, the fixture moves slower and positioning of the fixture’s beam is easier.

Note: The movement resolution is merely for manual use while programming, and has no bearing on the programmed fixture speed.

Fine adjustments: Keep the right mouse button pressed into the field to fine adjust the Pan / Tilt position. Use the "Movement Resolution" above to set the adjustment speed.

8.3.2 The B/D/Z Buttons

B-Button: Blackout. Closes the shutter or sets the dimmer channel to zero %

D-Button: Recalls the predefined default values for the fixture (i.e. no color, shutter open, dimmer 100%, no gobo inserted). The default values are stored into the panel file.

Z-Button: Puts all fixture channels to zero (0%). Use this function to start programming groups for Multisequence mode.

9 THE MENUS

Many functions of this software are accessible directly through fields or buttons on your working surface. All of these, as well as further functions can be accessed through the menus at the top margin of your screen.

9.1 The Show Menu

Standard Windows™ file functions such as:

- New Show
- Load Show
- Save Show
- Save Show as

9.2 The Sequences Menu

Standard Windows™ functions for working with Sequences.

- New
- Copy
- Insert
- Delete
- Load
- Save
- Rename
- Split
- Merge

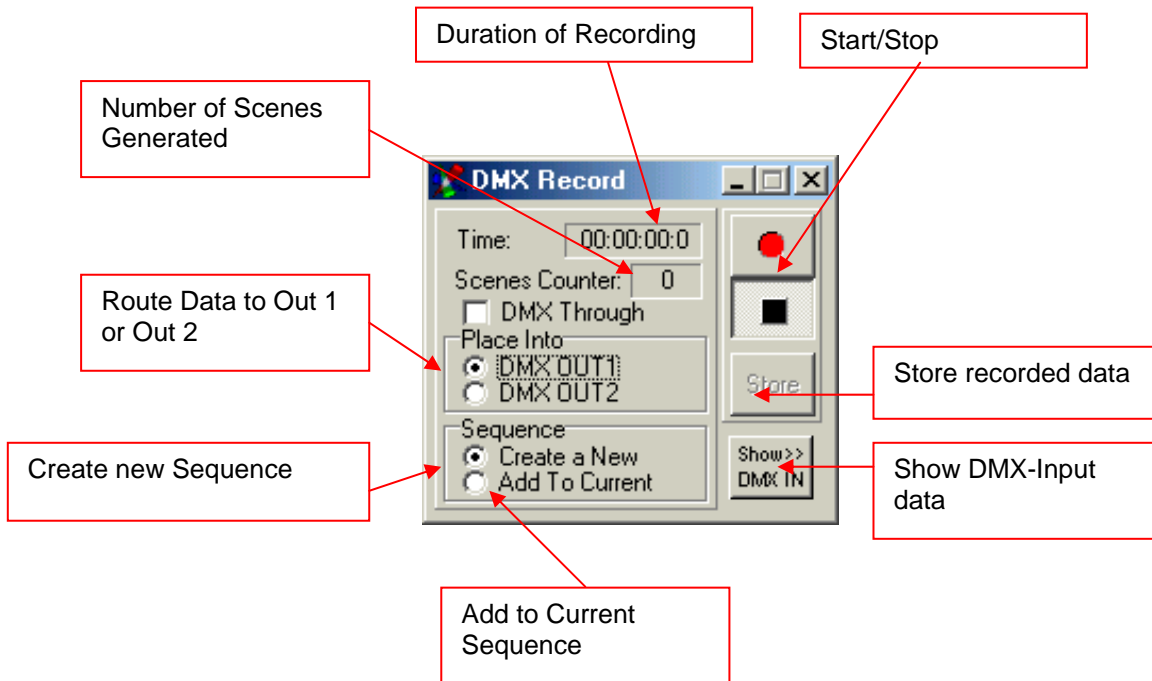
9.3 The Scenes Menu

Standard Windows™ functions for working with Scenes.

- New
- Copy
- Insert
- Replace
- Delete
- Rename
- Load
- Save
- Next
- Previous
- Refresh (simple undo function)

9.4 The Operation Menu

- Play/Stop
- Black Out
- Favourite -calls up the "Favorite Scene"
- Play in Background -lets you edit your Show while it is running in the background
- Record -opens the DMX Record window:



DMX recording is only available on the DMX Wizard512MK2 and DMX Wizard 1024 interfaces.

Please note, that recording of dmx data starts only if there is a change in DMX values

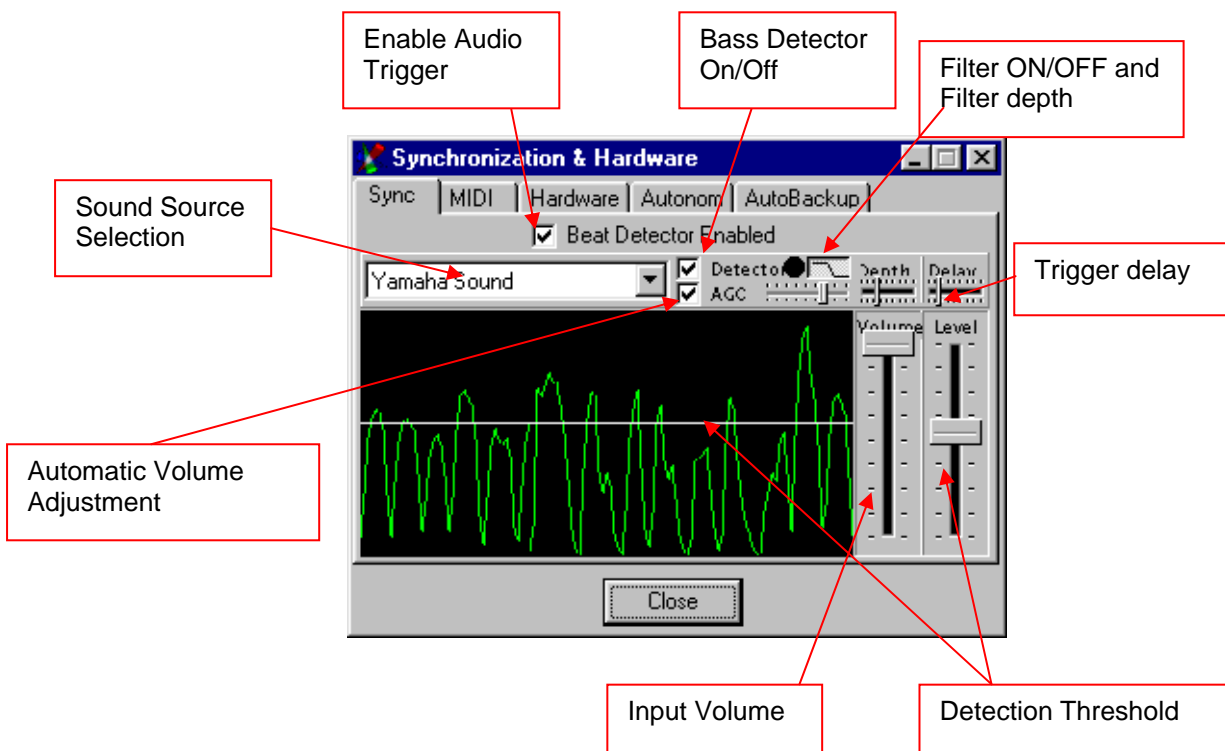
9.5 The Settings Menu

[DMX-Channels] - Opens the DMX Setup

[Synch and Hardware] - Opens the Synchronization and Hardware window:

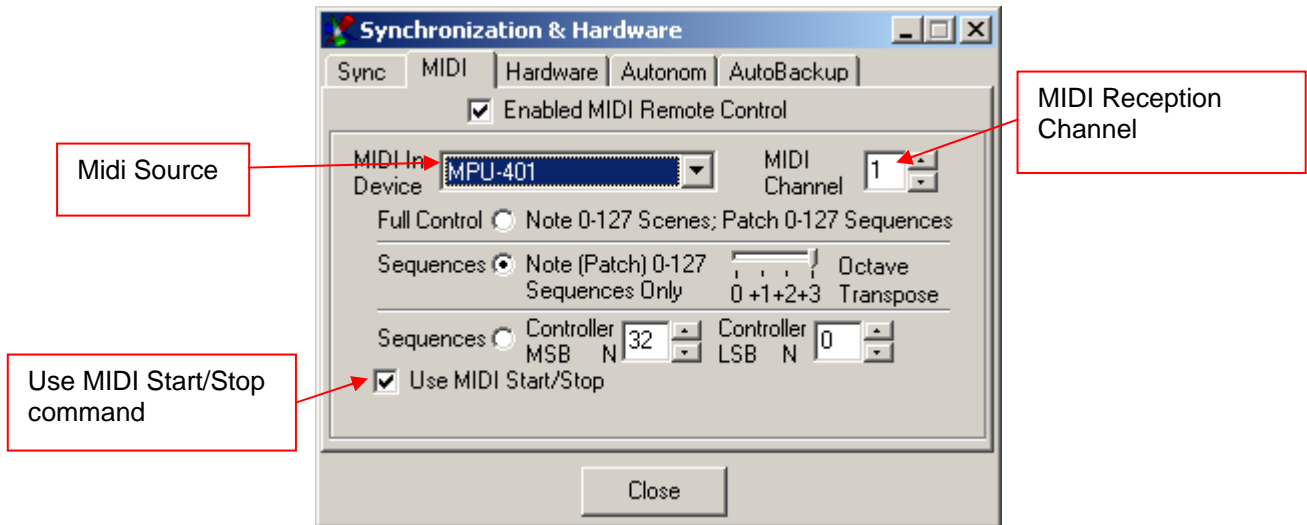
[Sync] - Synchronization:

This window lets the user adjust the settings for the Audio Trigger. In order to use the Audio Trigger feature, your PC must have a Sound Card installed.



[Midi]:

Sequences can be selected within a Show using an external MIDI keyboard or Sequencer

**Full Control:**

- Send Note on commands (0 to 127) to select the corresponding Scene of the actual Sequence.
- Send Program change commands (0 to 127) to select the corresponding Sequence.

Sequences 1:

- Send Note on or Program change commands (0 to 127) to select the corresponding Sequence

Sequences 2:

- Send Controller commands to select the corresponding Sequence (Necessary if you want to select from more than 127 Sequences)

Note: If you use a standard Midi keyboard to select Scenes or Sequences please remember the following:

Example:

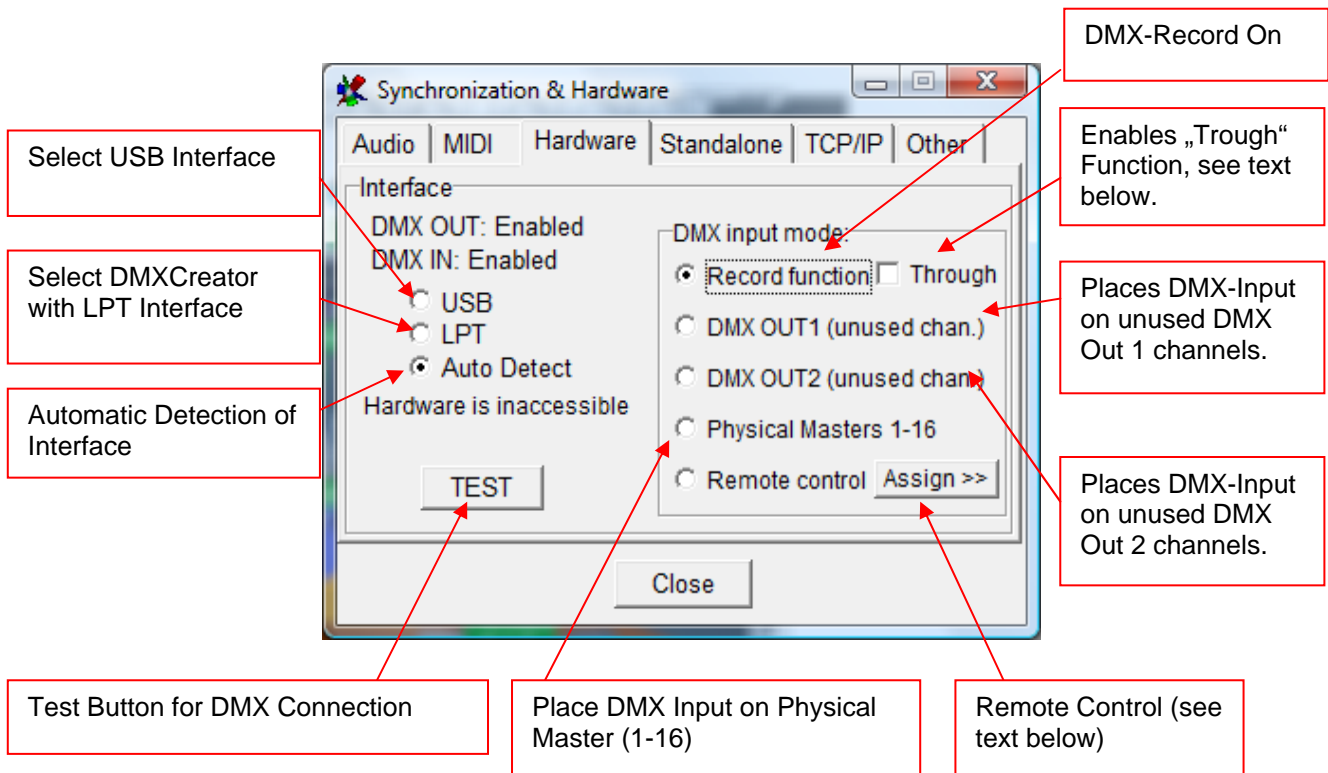
You like to control Sequences 1 to 24 (maximum in Sequences 1 Mode: 127 Sequences)
Your keyboard has 49 Keys (Maximum keys for Note commands: 127)

The lowest key of the keyboard does not trigger Scene one, as long as you don't shift the keyboard range to the lowest note. Use the octave transpose function to shift the range.

Note: The Midi input on the DMX Wizard 1024+ interface has no relation to the described Midi function above. It is only usable in stand alone mode.

[Hardware]:

This menu is used to control all the settings for the DMX512 interface.
In diesem Menü können alle Einstellungen für das DMX512 Interface gemacht werden.



Never remove the DMX512 interface while in use. This can result in system failures, among other things. In order to remove the interface, always shut down the computer first.

Record function „Trough“

If „Trough“ is enabled (only if the DMX-input is globally enabled), the dmx data from the dmx input will be sent directly to the 3D Visual Emulator. Using this function, it's possible to visualize the DMX data from an external DMX controller into the 3D Visual Emulator of the DMX Wizard. Please note, that the DMX address patch on both, the sending controller and the DMX Wizard has to be identical in order to get the correct view.

Hint: If „Trough“ is enabled, the DMX output of the DMX Wizard is disabled.

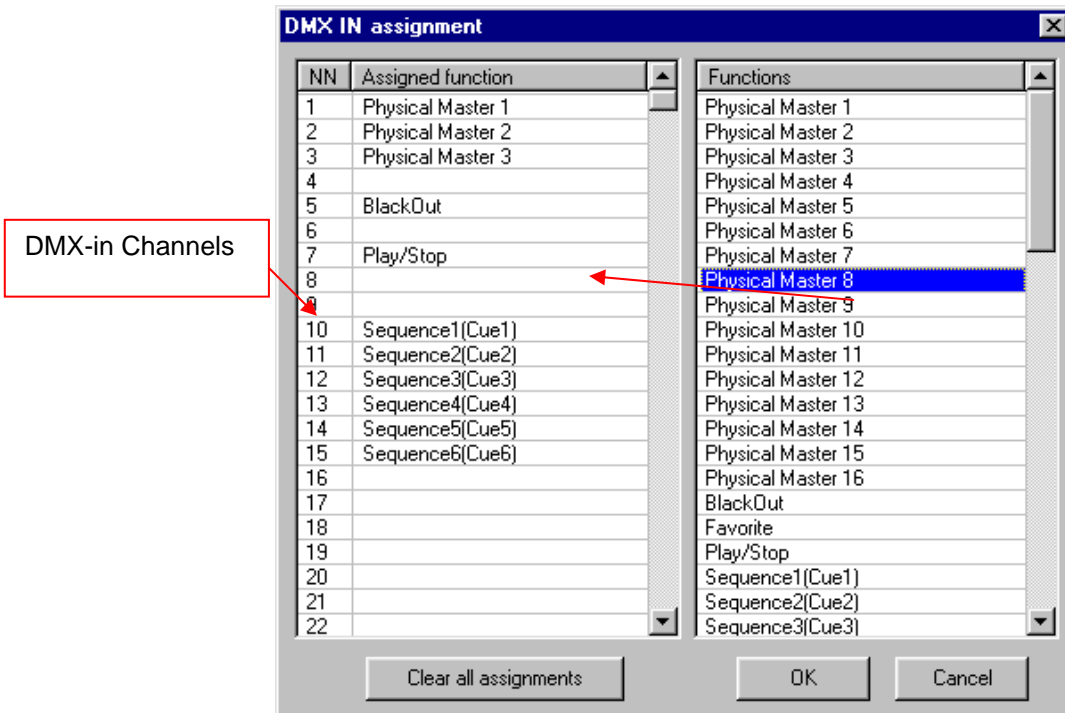
Remote Control

Using this feature gives the possibility to control software functions from an external DMX source (i.e. DMX-Desk or other controller). The external source has to be connected to the DMX-Input of the DMX hardware interface. The following control functions are available:

- "Physical Master" 1-16
- Blackout, value >128 = Blackout
- Start / Stop, value 0 to 127 = Stop, value 128 to 255 = Start
- Select 32 Sequences or Cues (the first 32 into the Sequence or Cue list), value >128 = Select
- Switching on/off of the 16 Multi Sequence players, value 0 to 127 = off, value 128 to 255 = on

The functions may be assigned to the DMX-in channels by moving the function from the right column to the left side (to the corresponding DMX in channel).

„Clear all assignments“ will clear all entries in the left side of the table.

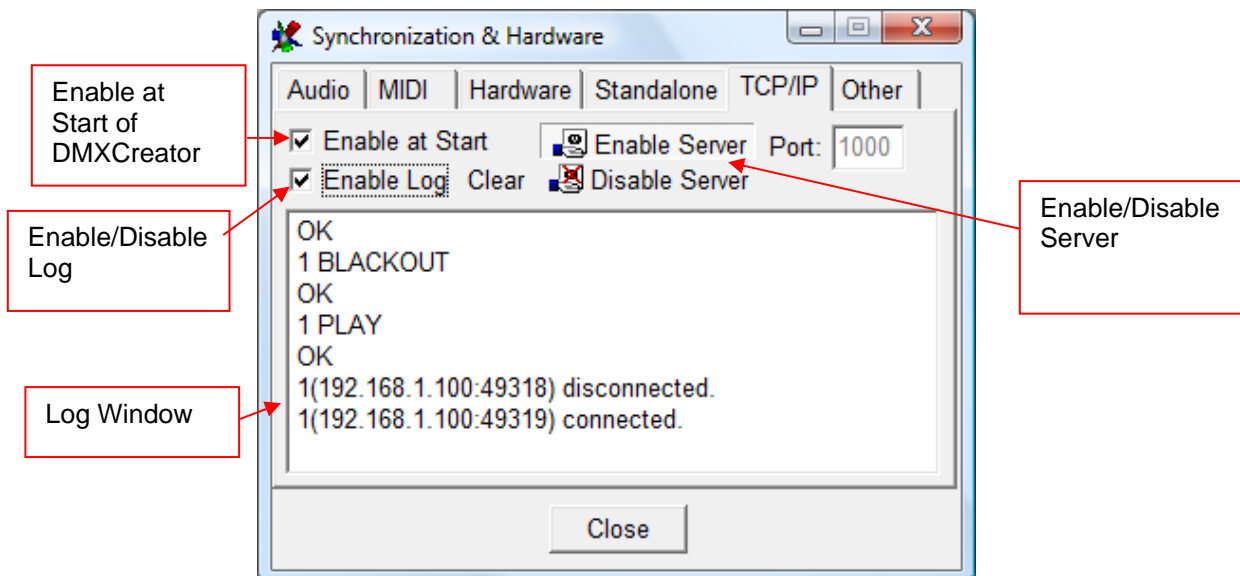


[Autonom]: See Chapter 10.0 Stand Alone Mode

[TCP-IP]:

It is possible to remote control the DMX Wizard software from a different computer in the network using a small additional application (DMXClient.exe). It is thus possible to access one or more DMX Wizards remotely from anywhere in the world.

The following adjustments can be made in the window below:



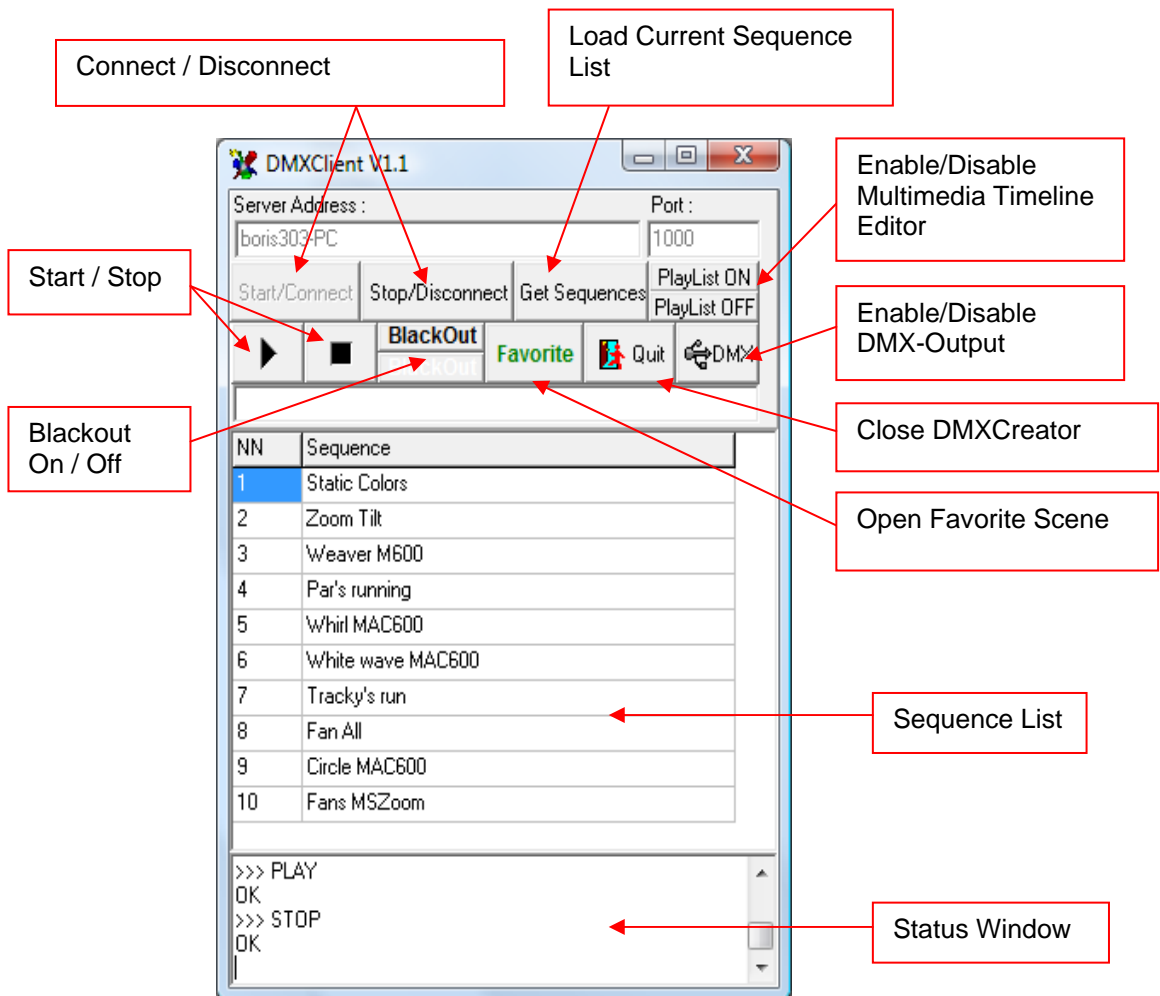
DMXClient.exe

The supplementary software “DMXClient.exe” is the remote control through which a separate computer can have access to the host computer via Ethernet/internet.

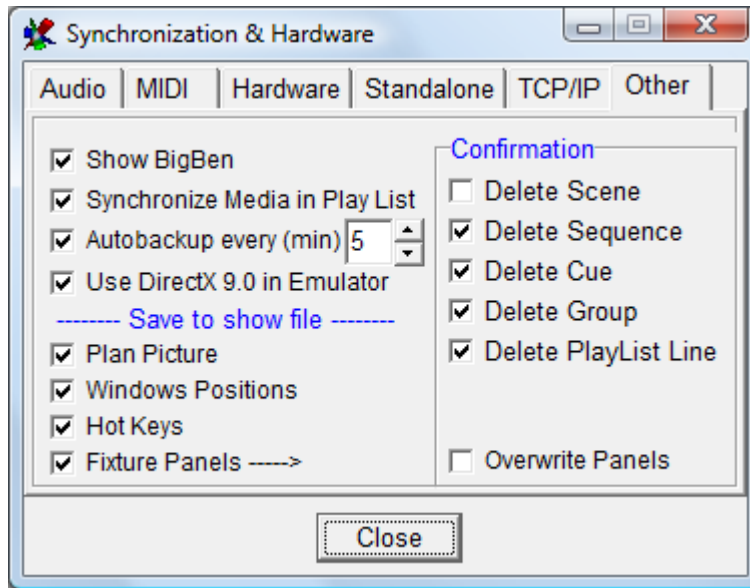
Operation:

- First, start the DMX Wizard software normally.
- Start DMXClient.exe on the external computer that will be used for remote control.
- Enter the server address (Host IP; i.e. 192.168.1.3) or computer name (i.e. boris303-PC) of the host computer in the appropriate field. Ensure that both computers share the same port.
-
- Press [Start/Connect] to establish a connection. If this has been done successfully, [Connected to Server] will be displayed below. To disconnect, presse [Stop / Disconnect]
- Press [Get Sequences] to get the current sequence list from the host computer.

Additional Commands:



9.5.1.1 [Other]

**[Show BigBen]**

displays current system time at top right

[Synchronize Multimedia in Play List]

When enabled, multimedia files in the Play List are synchronized with the light show. Internal time code is used

[Autobackup]

The Autobackup function creates a backup copy of the current show for user defined time intervals. The backup file is called **\$autobak.d1k** and can be found in the program directory. It can be opened like a normal show.

[Use DirectX 9.0 in Emulator]

See under 8.2.11 The 3D Visual Emulator

[Save to Show File]

Select these options to save additional files/information into the main show file like: plan picture (background), window positions, hot key assignments (DMX Wizard.hot) and all necessary panel files for the show (xxx.dsp). This is very convenient if you move a show from one computer to another.

[Confirmation]

Select this option if you would like to get confirmation messages for deleting items like scenes, sequences, cues, groups and play lists

9.6 Physical Master

The Physical Master makes it possible to adjust any desired DMX channels within a Show independently. It can also be controlled using the DMX-Input (e.g. using an external DMX-desk).

There are two different types:

Physical Master:

Channels assigned to this Master are excluded from programmed Scenes. They can be used manually only. Some applications:

- Fog machine control (using the bump function)
- Static dimmer channel control for surrounding lights in a club
- Strobe lights (using the bump function)

Dimmer Master:

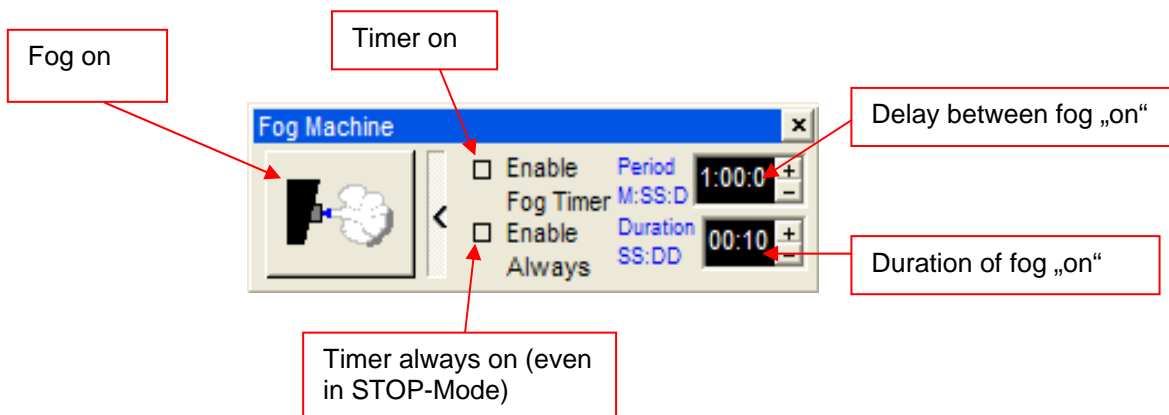
If a channel is assigned to this mode, it will work like a master dimmer channel. If you move the fader all the assigned channels will follow proportionally. Application:

- Master dimmer fader for all Moving head dimmer channels

Basically all of the 16 faders may be defined as Physical Master or Dimmer master.

To change the type of Master just right-click on the fader. If the table is open during this selection, you will see an option called „Search for free Dimmer channels“. If you select this option, all channels that are defined as „Dimmer“ (Aim of channel) will be assigned to his fader.

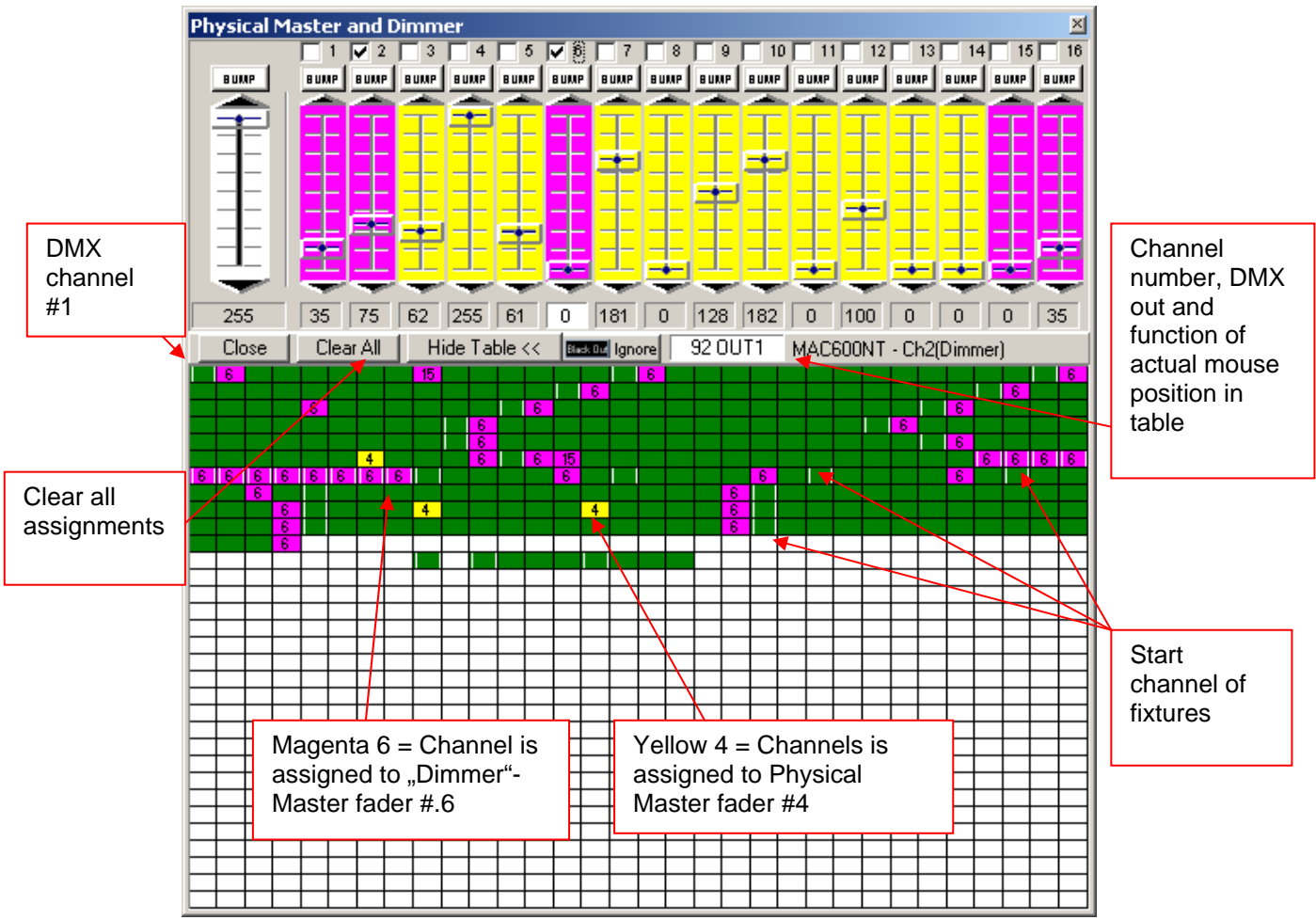
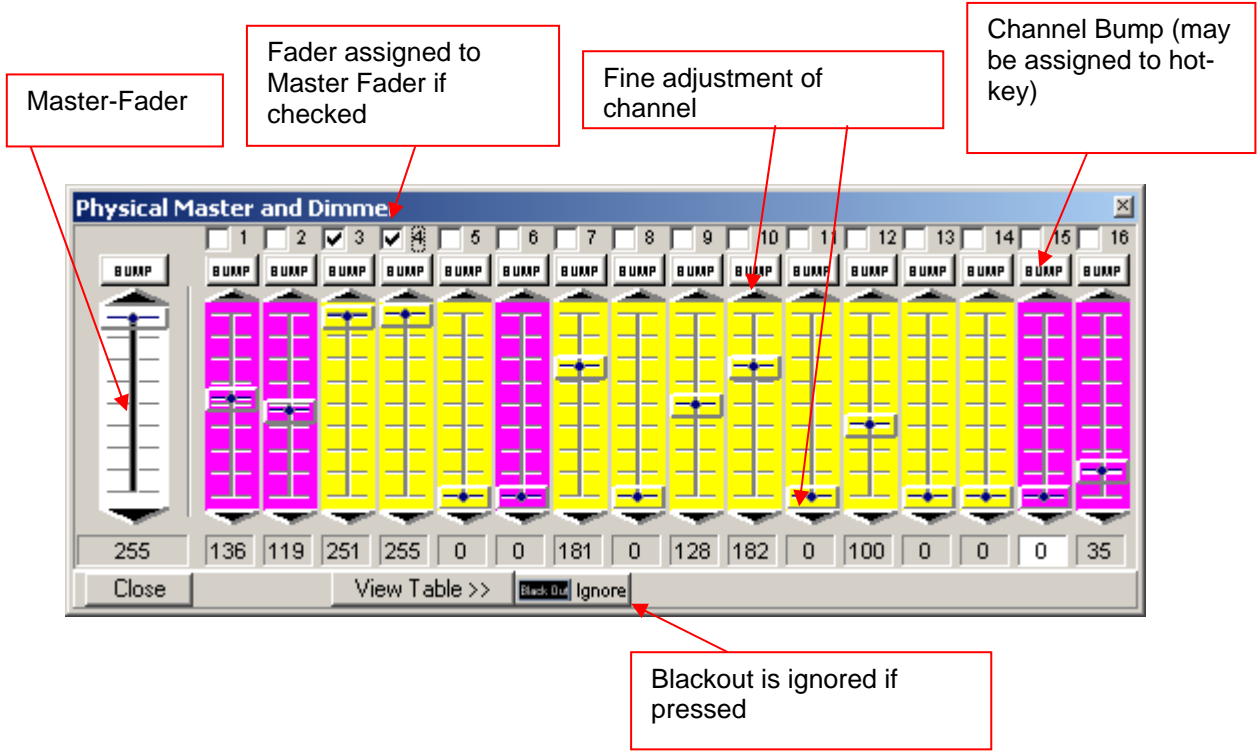
Another option is to assign one of the masters to a fog machine control. Chose [Connect to Fog Machine] to select the current master to control the fog machine. The following window opens:



The Physical Master may be remote controlled by an external DMX desk trough DMX input. If faders are set to remote control, they are no longer available for manual control.

Check the following chapter to enable DMX input to Physical Master → Look 9.5.2.3 Hardware

Assigning the DMX-input to the Physical Master → See the menu called “Settings” under “Hardware”



Channel Assignment:

1. Select the desired Fader above by clicking the DMX value display below the Fader.

2. Select the channels you wish to assign to the Fader from the DMX table.
The selected channels become yellow or magenta, and now display the number of their assigned Fader

[Position Memory]

The Position Memory is a function that is primarily helpful for Shows that take place at more than one venue. The different stage dimensions and the resulting focal length changes require the adjustment of both pan/tilt and focus. In order to avoid time consuming re-programming, or adjustment of individual Scenes, you can make use of the Position Memory.

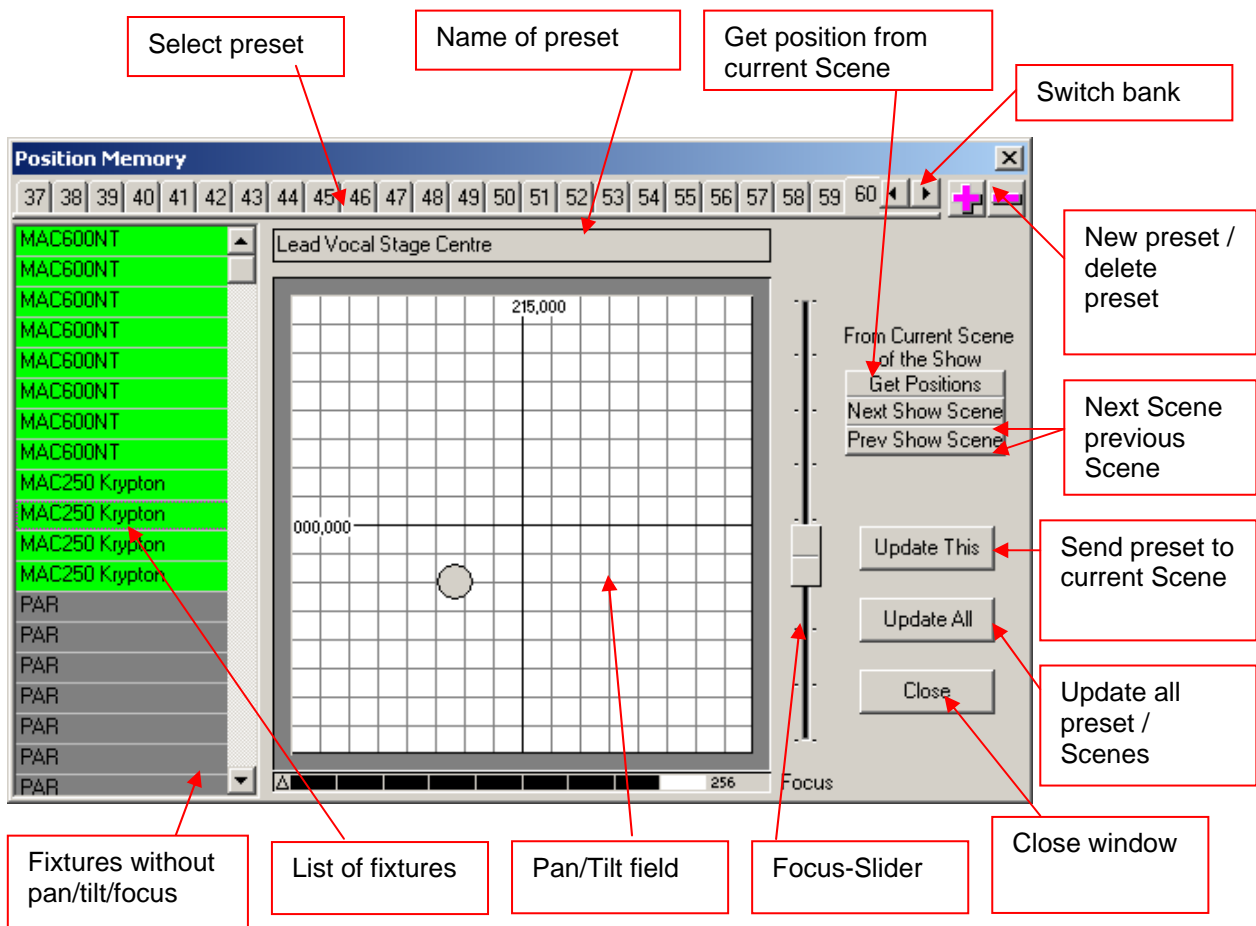
Assign the significant Scenes, where specific Pan/Tilt and/or focus values are of importance, to one of the 32 memory slots. One slot may also contain multiple Scenes that have equal pan/tilt and focus values.

Assigning Position Memory to Scenes:

1. Close the Position Memory window.
2. Click on the name of the Scenes in the “Transport” field with the right mouse button.
3. Select “Assign Position Reference”.
4. Select the number of the Position Memory slot.

The memory assignment can be removed or adjusted using the same procedure.

Now, when encountering different stage proportion, just adjust the presets by pressing “Update This” or “Update All” in order to adopt the new positions.



[Visual Emulator]	open the “3D Visual Emulator” (see chapter 8.2.11)
[Media Player]	open integrated “Media Player”
[View Play List]	open „Play List“
[View Sequence List]	open “Sequence List”
[Multi-Sequence Player]	open “Multisequence Player”
[Cue List]	open „Cue List“
[Full Screen]	Uses the full screen size for the DMX Wizard program. Work in this mode whenever possible, as you get the maximum desktop size.
[Transport Control]	Enables you to choose the location for the transport field as either “On Top” or “On Bottom” of your screen margin.
[Lock Icons]	Locks the fixture icons on the “Plan”, so that they cannot be moved by mistake.
[Change Plan Image]	Here you can also replace the background picture for the fixture Plan. →see also “The Plan / MultiPlan”
[Multi-Page Plan]	Here you can also replace the background picture for the fixture Plan. →see also “The Plan / MultiPlan”

[Hot Keys]

This table can be used to place virtually all functions of the DMX Wizard on the keys of your keyboard. Click on a field in the Hotkey column, and press on the desired hotkey on your keyboard subsequently.

Warning: Should you define “normal” keys like A-Z or 1-9 as hotkeys, those keys will always respond with the assigned functions. You can no longer use the keys to enter text or numbers within the software. In order to disable a hotkey, choose the field, and press the “Break” key.

The hot key definition is stored into the following file: DMX Wizard.hot in the program directory. Optionally this file can be stored in the show file as well.

[Access]

Should you wish to restrict access to the DMX Wizard, you can create a password, which only gives full access those that possess it.

Levels:

- | | |
|---------------|--|
| 1. Setup (L): | The user is restricted from changing the DMX setup. |
| 2. Edit (M): | The user is restricted from changing the Show (Sequences and Scenes) |
| 3. Play (H) | The user is restricted from starting or changing a Show. |

If any of these restriction levels are applied, their corresponding letters (L,H or M) are visible in the “Transport” field.

Apply for Current Session -Adopts changes to running Show.

If the “Visible” icon (eye) is crossed over, the password remains invisible while being entered.

If no password is entered, the access to all functions is unrestricted.

9.7 The View Menu

[Monitor]	open the "Monitor" view (see also chapter 8.2.1 "The DMX Monitor")
[Sliders]	open the "Slider" view (see also chapter 8.2.2 "The Fader Panel")
[Plan]	open the „Plan“ view (see also chapter 8.2 "The Plan")

9.8 The Fixtures Menu

[Copy Fixture Scene]	Copies current Scene of selected fixture into memory.
[Paste Fixture Scene]	Pastes Scene placed in memory to current position.
[Copy (Save) Fixt. Sequence]	Copy (Save) Fixt. Sequence: copies a range of Scenes of selected fixture into memory or file.
[Paste (Load) Fixt. Sequence]	Paste (Load) Fixt. Sequence: Pastes range of Scenes from memory or file to current position.

[Solo] Only selected fixture can be worked with. All other fixture icons disappear

[Master for Fixture Group]: See chapter 6.6.1 "The different Master Modes"

Enables you to select all Master settings that will be active the next time you choose the Master function.

[Groups]	<öffnet das Gruppen-Fenster> → Siehe auch „Das Gerätegruppen-Fenster“
[Values/Time Editor]	<öffnet den V/T-Editor> → Siehe auch „Der V/T-Editor“

9.9 The Help Menu

[Help]	open the Help Menu
[Search for Help On...]	search in Help
[How to use Help]	
[About]	About the DMX Wizard, Software Version

10 STAND ALONE MODE

The DMX Wizard 1024+ includes a special „stand alone mode“. The built in memory is able to run a Show without any PC connected.

Some sample applications:

- Shop window lighting
- Small clubs
- Architectural Lighting → Outdoor color changer
- Rental companies. User friendly controller

The **DMX Wizard 1024+** has the following additional features:

- Saving of shows to SD- MMC card (up to 10 shows, maximum card capacity is 4GB).
- Playback of up t 4 sequences simultaneously (quadruple Multisequence)
- PS-2 keyboard- and Midi-connector for show access and remote control
- Integrated microphone for music triggering

Autonome Mode with PC-Keyboard Connected to Interface:

The DMX Wizard 1024+ has a connector for the attachment of a regular PC- Keyboard with the PS-2 standard. The keyboard enables sequence- and tempo-selection, Blackout, Favourite and Play/Stop functions in autonome mode. Four sequences can be played simultaneously:

Sequence Selection:

First Sequence: choice of sequence by pressing it's corresponding key on your keyboard.

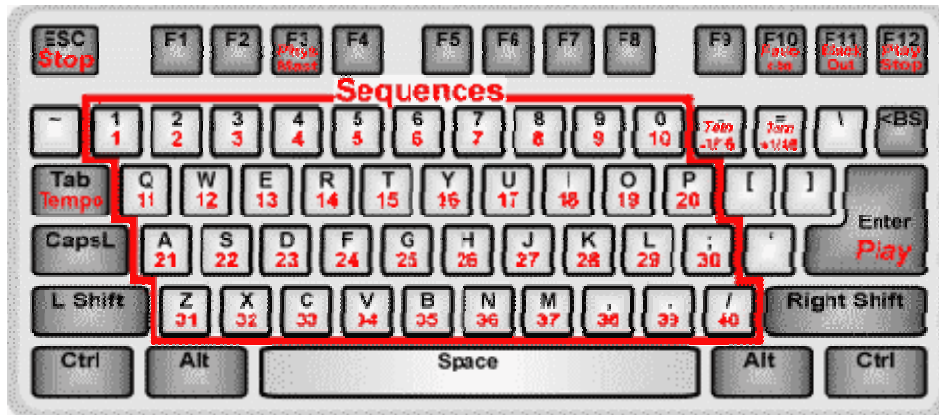
Second simultaneous Sequence: hold down the LEFT shift-key and press the key corresponding sequence key.

Third simultaneous Sequence: hold down the RIGHT shift-key and press the corresponding sequence key.

Fourth simultaneous Sequence: hold down the LEFT ctrl-key and press the corresponding sequence key.

- Alt key & numbers 1 through 0: Choose Show saved on SD-card.
- Start second (2.) sequence: left shift-key & sequence
- Start third (3.) sequence: right shift-key & sequence
- Start fourth (4.) sequence: left ctrl-key & sequence
- Stop 3. running Sequence: right shift-key & backspace
- Stop 4. running Sequence: left ctrl-key & backspace
- Stop 2. running Sequence: left shift-key & backspace

Keyboard Layout



- Sequence Choice: 1-0, A-Z, period, comma and / (instead of / one can also use –)
- Physical Master Off: F3
- Favourite Scene: F10
- Black Out: F11
- Play/Stop: F12
- Stop within Sequence: Escape
- Play within Sequence: Enter
- Tempo Tap for first running sequence: Tab
- Tempo Tap for second running sequence: Shift & Tab
- Tempo +/- first running sequence: - und = (oder , und ^)
- Tempo +/- for second running sequence: Shift & - and = (or , and ^)
- Manual Trigger for sequences programmed in manual mode: Taste ~
- Alt & 1 to 0: Choice of shows 1-10 on SD card
- Stop second running sequence : Shift & Backspace

A further possibility for stand alone (or autonome) control of the **DMX Wizard 1024+** is through the use of the integrated Midi connector.

Main features:

- Possibility of connecting a standard Midi keyboard for manual selection of sequences, and to control features such as speed, start and stop within a show.
- Possibility of integrating Midi-sequencer in a multimedia show(i.e. musicians using Midi-playback)

The following key commands have been implemented at this point:

Note C	Play / Stop
Note C#	Blackout
Note D	Tempo Tap
Note D#	Decrease tempo (for sequences using Main Tempo)
Note E	Increase tempo (for sequences using Main Tempo)
beyond Note F	Choice of sequences

- The Midi-input channel can be enabled if needed (see below).
- If a Midi-keyboard is being used, the key area may need to be adjusted by 2 or 3 octaves. (instructions below).

Autonome Mode without the Use of Keyboard or Midi:

Once the show is uploaded to the interface, it begins immediately if „Auto Play“ is enabled) as soon as the interface has electricity (and is not connected to the pc anymore). If a Loop is programmed for a sequence, it will continue endlessly.

Autonome Mode with External DMX-Desk Connected to DMX-Input

- The Physical Master (→ see 9.5.3 „Physical Master“) uses the same channels 1-16 in Sand Alone (autonome) mode
- DMX-data received from DMX-input can be mixed with the Data of the DMX Wizard, but only with unused channels

Guide to Programming

Program your show as usual using the DMX Wizard software.

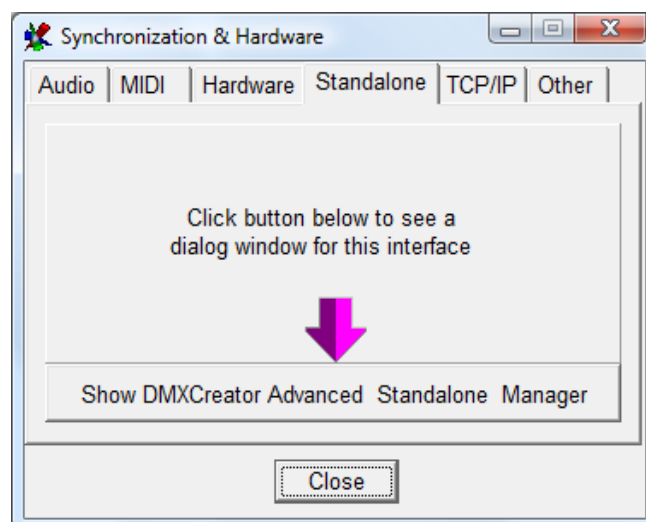
Framework:

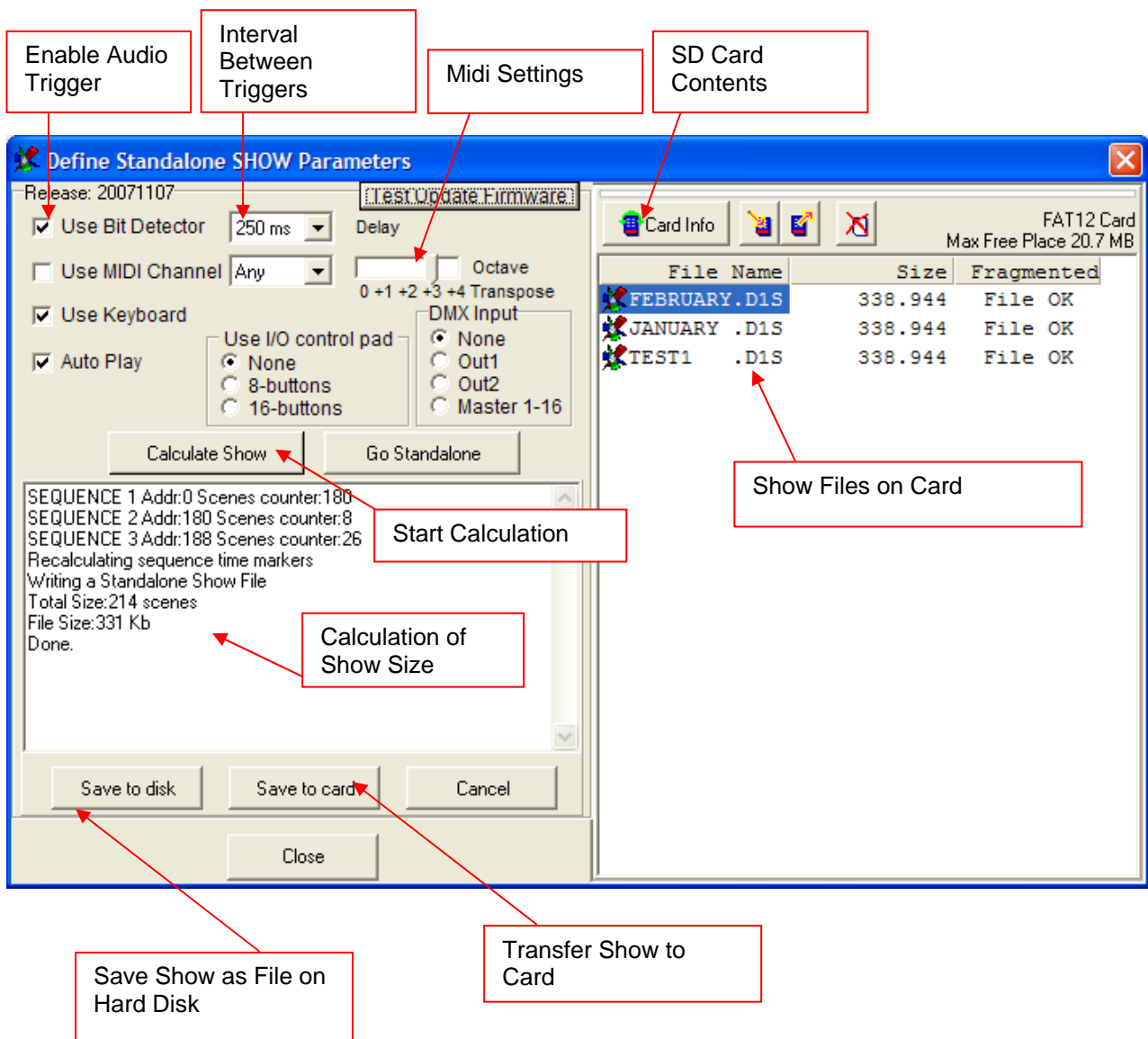
- The interface has a sequence upload capacity of 40, which can subsequently be selected using a pc-keyboard (see table below for key assignments). The numbering of the sequences is the same as in the Sequence List within the software.
- Up to 10 different show files with a maximum of 40 Sequences each may be uploaded to the SD-card for the interface. The maximum card size is 4 GB, which is equivalent of about 2 million scenes.
- If you are using the “Fade“-function in your show, the actual scene number is higher than the programmed amount. This is because the micro controller in the interface emulates the Fade-function by generating corresponding fade scenes. The longer the fade times, the more scenes are generated. It is for example possible for a very slow sequence with scene fades to use a few hundred scenes of memory in the Interface.

Once you have programmed the desired sequences and tested them, please proceed to the following menu:

- Settings, Synch and Hardware Standalone:

Press “Programming“, after which the following window opens:





- [Use Bit Detector] Sequences that have „Ext Sync“ enabled are triggered using the integrated microphone. The trigger mainly reacts to bass frequencies. The [Delay] function defines an interval between triggers. This can be of use if you only want the trigger to react to every second bass beat, for example.
- [Use Keyboard] The external PS-2 keyboard can be en- or disabled. I.e. for applications with no remote control possibility.
- [Use Midi]: Midi-input is enabled and the corresponding midi reception channel can be set. When [Any] is selected, the interface reacts to commands from all channels.[Octave Transpose] When a Midi keyboard is in use, it is possible that the keyboard interval has to be transposed by two or three octaves up or down, so that the first key on the keyboard controls the desired sequence.
- [DMX-Input]: Choose the desired function of the DMX-input.
 [None] no function
 [Out 1]: DMX-data from DMX-input is mixed with the data of the DMX Wizard (only unused channels) and sent out through DMX-output 1.

[Out 2]: DMX- data from DMX-input is mixed with the data of the DMX Wizard (only unused channels) and sent out through DMX-output 2.

[Master 1-16]: routs input channels 1 to 16 to Physical Masters 1-16

- [Auto Play]: When Auto Play is enabled, the first sequence of the first show on the SD card starts automatically when the power supply is connected.
- [Use I/O control pad] <connect switch interface>:

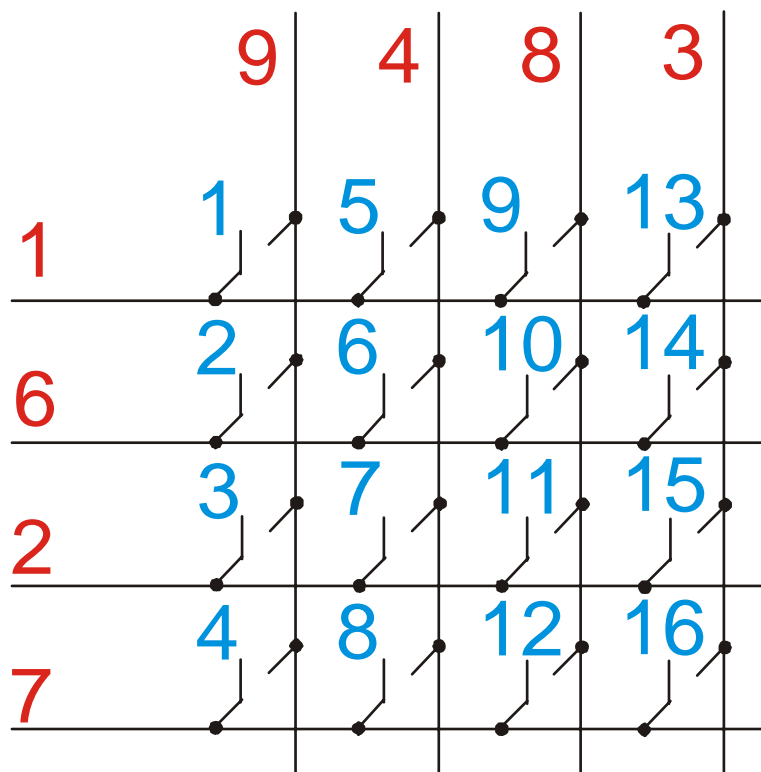
If you would like to use Stand Alone Mode with the DMX Wizard 1024 and would like to use existing light switches in an installation for lighting control, the DMX Wizard 1024+ offers a switch interface. This option allows for the connection of up to 16 zero volt switches. These switches are user definable, and thus offer great deal of flexibility in terms of finding the right look for a particular application or setting.

This function is available on DMX Wizard 1024 interface with a plastic cover located over the SD card Slot made of a 9-pin D-Sub connector

From your DMX Wizard dealer you can obtain a special cable which connects to the casing of your interface as mentioned. Connect the selected zero volt switches with a standard 9-pin D-Sub connector. The corresponding counter connector is included in the shipment.

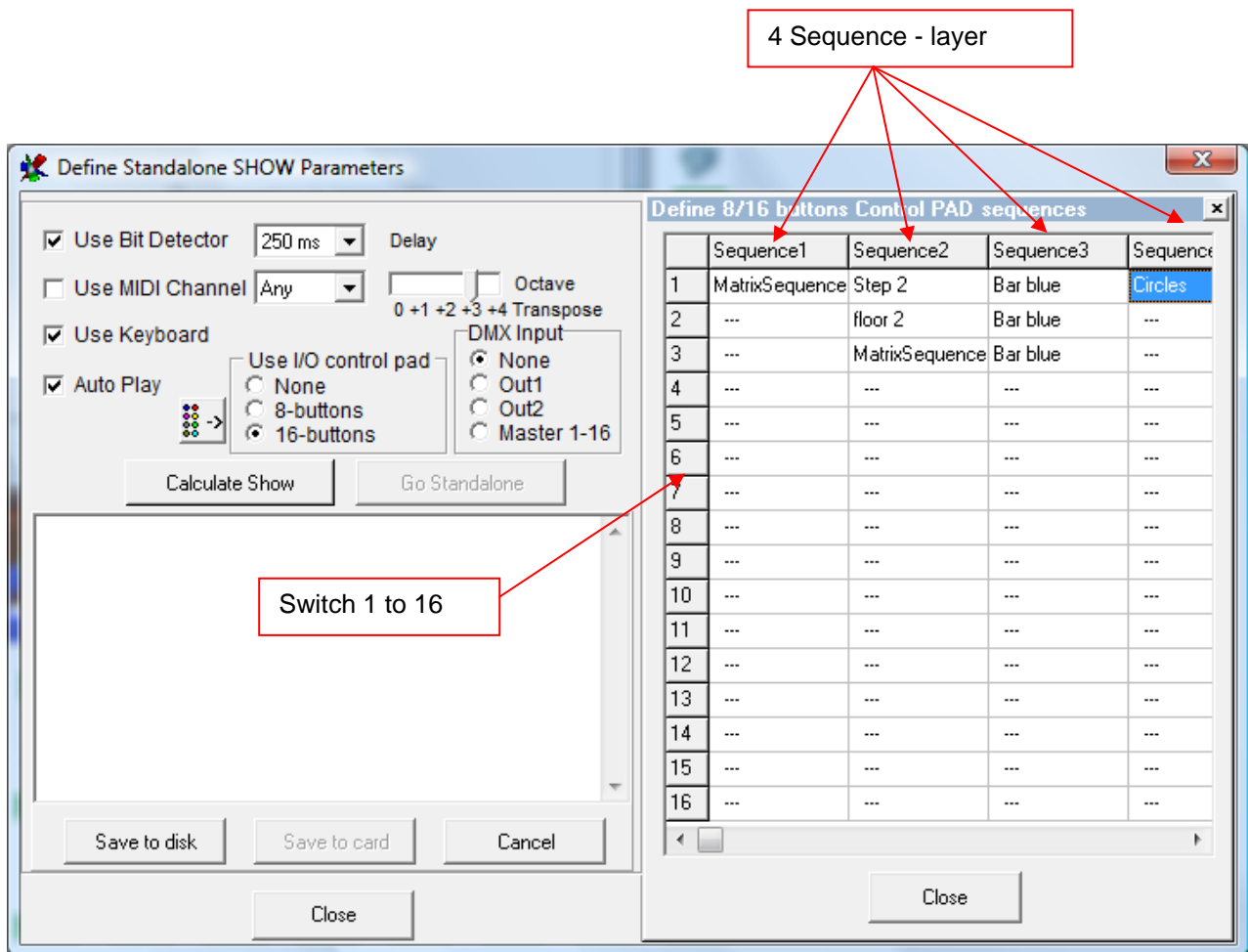
! IMPORTANT: Never connect voltage carrying switches (contact closures) to the pins of the D-Sub connector! This can lead to the destruction of the entire interface! Such defects are NOT covered under warranty!

Up to 16 switches can be connected as follows:



The red numbers correspond to the pin-number on the D-Sub connector.
The blue numbers corresponds to the Sequence that is triggered by the switch

The definition of available Sequences takes place in the window below on the right hand side:



Just as with the regular Multisequence Player (regular PC use) this feature uses HTP-mode (highest DMX value takes priority)

- [Test Update Firmware]: Tests whether or not the system software of the interface is updated. If not, the software can be uploaded directly to the interface. Follow the instructions.
- [Calculate Show]: Calculates the required memory capacity on the SD card for the currently open show. Calculations for large shows can take from a few seconds to several minutes. This is necessary before saving the show on either the hard disk or SD card.
- [Save to Disk]: copies the calculated show to hard disk
- [Save to card]: copies the calculated show file to the SD Card (as long as there is enough free memory available).
- [Go Standalone]: sets interface to Stand Alone Mode while still connected to the computer. This is useful for testing.
- [Card Info]: displays the content of the SD card
- [Copy File to card] : copies a show file from the hard drive to the SD-card
- [Copy File from Card] : copies a show file from the SD card to the hard drive
- [Erase selected File] : erases selected file from SD card

Important:

- SD- cards should be formatted according to FAT12, FAT16 or FAT32. If you are uncertain, format the card (all files will be erased!)
- Up to 10 show files can be selected from the SD-card (files 1-10 on the card) for Stand Alone Mode. Subsequent files (11 and up) are ignored.
- The names of a show file may not be longer than 8 characters. Long file names are not supported.
- Show files that are not copied to the SD Card from the DMX Wizard (i.e. from Explorer) must not be fragmented. They need to be copied in one piece. The DMX Wizard ignores fragmented show files
- If the interface is connected to the pc, please switch it to USB-power (switch on interface) and not to Ext. (power supply). Only use the power supply if the interface is to run in Standalone mode (USB cable disconnected).
- Subdirectories on the SD-card are ignored. Show files are only played from the main directory.

11 THE PANEL DESIGNER

The Panel Designer is used to create adjust the fixture panels that are used in the software. It is clear and easy to use. Nevertheless, some knowledge about DMX512 is required to use the Panel Designer effectively.

All defined channel values are entered in decimal (0-255)

The screenshot shows the 'Device Service Panels Designer' window for a fixture named 'XS-600Wash BL 1.0 <Stud'. The interface includes a menu bar (File, Edit, Help), a toolbar with icons for New Panel, Load Panel, Save Panel, and a 'Number of used DMX Channels' dropdown set to 14. A central table lists channel parameters:

NN	Used	Aim of Channe	Default State	BlackOut State	Smooth	Hint
1	✓	Color	0	-	-	Fixed Colors
2	✓	Color	0	-	-	Cyan
3	✓	Color	0	-	-	Yellow
4	✓	Color	0	-	-	Magenta
5	✓	Pan	128	-	✓	
6	✓	Pan Fine	128	-	✓	
7	✓	Tilt	128	-	✓	
8	✓	Tilt Fine	128	-	✓	
9	✓	Dimmer	255	0	✓	
10	✓	Undefined	0	-	-	Speed

Below the table is a 'Control Elements List' and a 'Control Element Properties' section with fields for Beam Angle (18.0), Pan Angle (54.0), Tilt Angle (27.0), Pan Invert, and Tilt Invert. A 'Fixture Type' section includes radio buttons for Scanner, Moving Head, Fixed Spot, and LED Panel. The interface also features a 'TEST' button, a 'Device Icon', and various checkboxes like 'Snap To Grid' and 'Lock Elements'.

In order to be aware of all possibilities when creating a panel, load an existing panel as an example. The installed panel files can be found in the following folder, or on the product CD-ROM:

i.e.: C:\Program Files\DMXWizard594\devices

Now you see a control window on the left side, and the panel in progress on the right side. The panel you are creating looks exactly like the finished panel in the software.

When creating a new panel, the following steps may be useful:

1. Obtain the DMX channel assignment table from the fixture manufacturer.
2. Press the button called "New Panel"
3. Enter the amount of DMX channels used by the fixture.
4. Enter the name or type of fixture. Please put the name of the manufacturer in <>brackets.
5. If you wish to use a custom picture icon, you can load a bmp picture with a dimension of 32X32 pixels and 16 colors. This will be the icon for your fixture in the "Plan".
6. Define the functions of the channels in the table on the right. The following functions are definable:

- Pan (16-Bit MSB)
- Tilt (16-Bit MSB)
- Color
- Gobo
- Pan Fine (16-Bit LSB)
- Tilt Fine (16-Bit LSB)
- Dimmer
- Focus

Should you have functions that are not definable within the parameters above, you can place them under "Undefined" and type the name of the function into the "Hint" column.

7. Define the value of channels in "default" state.
8. Define the value of the channels in "blackout" state (Shutter closed or dimmer = 0)
9. Choose "smooth" for linear channels (E.g. dimmer 0-255 or zoom 0-255). This does not apply for channels that work in snap mode. For example, Colors: 0 = white, 15 = yellow, 30 = blue etc.

! : "Fade" on channels is only possible if the channel is set to "smooth" into the panel file.

10. Close any unused in-between channels within the used column.
11. Enter the data for the 3-D Visual Emulator in the lower most field.

- Beam Angle Exit angle of beam in degrees. For fixtures with zoom function, enter a median value.
- Pan Angle Max. Pan range in degrees
- Tilt Angle Max. Tilt range in degrees
- Invisible in Emulator For fixtures without light output (fog machines), or if you set multiple dimmer channels on one panel.
- Fixture Type Moving mirror, Moving Head, Fixed Spot or LED panel.

Please note that the 3-D Visual Emulator only generates one light beam per panel. For example, if you place multiple dimmer channels from a dimmer pack on one panel, only one beam will appear in the emulator.

12. Next, implement all the functions of the fixture in the panel using its available components. In order to easily place the components, enable the "Snap to Grid" function. First, click on the desired function, then on the panel in order to place it.

The Functions:

- **Container:** This function gathers and groups together components. In order to have a better overview of your panel, it is useful to create separate functional groups using Containers. For example, have separate groups for colours and gobos etc. The background and font colours can be adjusted for each Container.
- **Pan/Tilt Field:** This field is for fixtures that have pan and tilt ability.

First, enter the channels for pan and tilt (fine). Next, the following specifications can be made:

Half Size	-Size of field is cut in half.
Pan/Tilt 16 Bit	-For fixtures with 16Bit pan/tilt resolution (2 channels per axis).
Inverted	-For special fixtures, pan/tilt axes are inverted.

- **Color Button:** Creates buttons for color selection. The color can be specified for each button, according to the colors available of the fixture. The color selected for the button also serves as reference for the 3D Visual Emulator. Channel number, as well as DMX value must be entered for each color.
 - **Picture Button:** Creates buttons with pictures (gobos) or text. Small Bitmap pictures (size according to button dimensions) can be loaded to buttons. Format: BMP file, 16/256 colors, around 20X20 pixel. Channel and DMX values must be entered.
 - **Dial Knob:** Generates DMX values for defined ranges, such as for dimmer or focus functions etc. Always enter the maximum value first, then the minimum value for the desired range.
 - **Faders:** Generates DMX values for defined ranges, such as for dimmer or focus functions etc. The output values can be inverted. Always enter the maximum value first, then the minimum value for the desired range. Some fixtures have functions with high resolution (16bit) and use two channels. In this case enable "16bit" and you will get one coarse and one fine fader.
 - **Text:** Used to label functions or indications. The font itself, as well as font size and color can be adjusted.
 - **Color Mixer:** For fixtures with CMY/RGB color mixing system. Color Mixer field size is variable.
 - **Multi-Button:** The Multi-Button can adjust multiple DMX values from varying channels simultaneously. (E.g. for switching off lamp)
13. Once the fixture has been connected to the DMX interface, you can test your Panel directly. Enter the starting address to the field on the left (must be the same as for fixture), and press the Test button. Test all the components in the panel to the right.
 14. Save the panel and exit the "Panel Designer"

12 TROUBLESHOOTING

Problem:	Verify
The DMX512 interface is not accessible	<ul style="list-style-type: none"> - Is the data cable between PC → connected properly? - Is the USB driver installed properly? Check in Windows System Settings. Reinstall driver
The connected fixtures are not reacting.	<ul style="list-style-type: none"> - Is the DMX512 line connected to the port of the DMX512 interface? - Are the starting addresses on the fixtures correct?
The fixtures are not reacting correctly.	<ul style="list-style-type: none"> - Is the cable used a DMX512 standard cable? Do not use microphone cables. - Is there a DMX Termination Resistor at the end of the DMX512 line? (120Ohm resistor between Pin 2 and 3 of XLR-plug. - Are the starting addresses on the fixtures correct?
When the computer returns from “Standby mode”, the fixtures are no longer at their programmed positions	<ul style="list-style-type: none"> - Disable any “Standby” and “Power Save” functions of the PC