DUTCH MEDIA TOOLS

Pixelmesh P12,5 V2

ORDERCODE 101390

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SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!
You have bought a great, innovative product from DMT.
The DMT Pixelmesh P12,5 brings excitement to any venue.

You can rely on DMT, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@dutchmediatools.info

You can get some of the best quality, best priced products on the market from DMT.
So next time, turn to DMT for more great lighting equipment.
Always get the best -- with DMT !

Thank you!

DUTCH MEDIA TOOLS

Showtec

DMT Pixelmesh P12,5™ Product Guide

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Warning

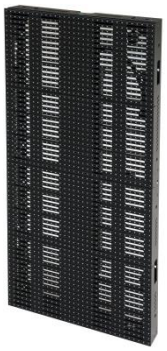
FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- DMT Pixelmesh P12,5
- User manual



LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. It is estimated that a viable lifespan of 40,000 to 50,000 hours will be achieved under normal operational conditions. If improving on this lifespan expectancy is of a higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.

Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

**CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the device and do not modify the device.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.
- Do not connect this device to a dimmerpack.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Do not switch the device on and off in short intervals.
- Never use the device during thunderstorms, unplug the device immediately.
- Avoid flames and do not put close to flammable liquids or gases.
- Only operate the device after having familiarized with its functions.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your DMT device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your DMT dealer for service.
- The user is responsible for correct positioning and operating of the LED Pixelmesh. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.
- WARRANTY: Till one year after date of purchase.

Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light-output and the illuminated surface must be more than 0.5 meter.
- The maximum ambient temperature t_a = 45°C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 45° C.
- If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.

You endanger your own safety and the safety of others!

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:

- If the LED Pixelmesh is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the LED Pixelmesh, with the riggingmodule (**101441/101442**), to the trussing system.
- The LED Pixelmesh must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the device, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
⏚	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!

⚠ Return Procedure ⚠

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

1) Your name
2) Your address
3) Your phone number
4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

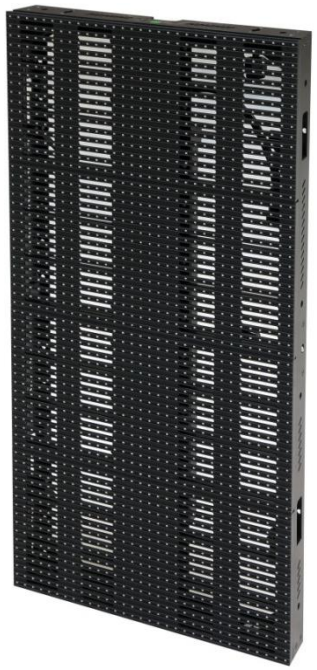
It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device



Features

The Pixelmesh P12,5 is a fabulous LED panel from DMT.

- IP Protection rate: IP-44 (INDOOR ONLY)
- Fullcolor indoor LED screen
- Rental version
- Dimensions: 400 x 800 x 59 mm (LxWxH)
- Weight: 6 kg
- Max Power Consumpion: 100W
- Average Power Consumption: 34W
- Data connection: RJ-45
- Power connection: Dedicated connector
- Maximum hanging height: 8m (10 modules)
- Easy to mount
- Easy to service
- Cooling: Convection
- Well suited for permanent installations
- 5 different angle positions
- Ideal size ratio for creative set-ups
- Nearly unlimited freedom to build your screen in any shape
- The right indoor tool for the most demanding and creative visual designer
- Combination of high transparency with a very flexible rigging system which allows for curved shapes with the panels.
- Possible to adjust every panel both horizontally or vertically in five different angle positions (15°,7.5°,0°,-7.5°,-15°).
- Power supply: AC 100 - 230V - 50/60Hz
- Refresh rate: Variable <1000Hz
- Cabinet area: 0,32m²
- Cabinet ratio: 1:2
- LED Lightsource:SMD3528 RGB
- Pixel Pitch: 12,5 mm
- Pixels per screen: 32 x 64
- Density (Pixel/m2): 6400
- Viewing Angle: 140˚ Horizontal, 140˚ Vertical
- Luminance: 1.200 nits
- Transparancy: 35%
- Control mode: LED Studio- DVI through PC Sendercard
- Operating temperature: 0 ~ 45°C
- Operating humidity: 10% - 90% RH
- Mechanical connection: Fastlock system
- Flightcase for 8 panels Pixelmesh P12,5 (**101393**)
- Riggingmodule for Pixelmesh Riggingbar for 1 piece Pixelmesh P12,5 (**101391**)
- Riggingmodule for Pixelmesh Riggingbar for 2 pieces Pixelmesh P12,5 (**101392**)

Control

- Software: LED Studio
- DMT Video Processor (101414, 101415, 101416, 101417)
- DMT Senderbox (101418)
- Applications: Rental installations, small or large, interior / advertising /stage
- Works with other manufacturer's software: Arkaos (see page 8)
  Recommended Arkaos Grand VJ, DMT Vision Express or Arkaos Mediamaster Pro

Overview

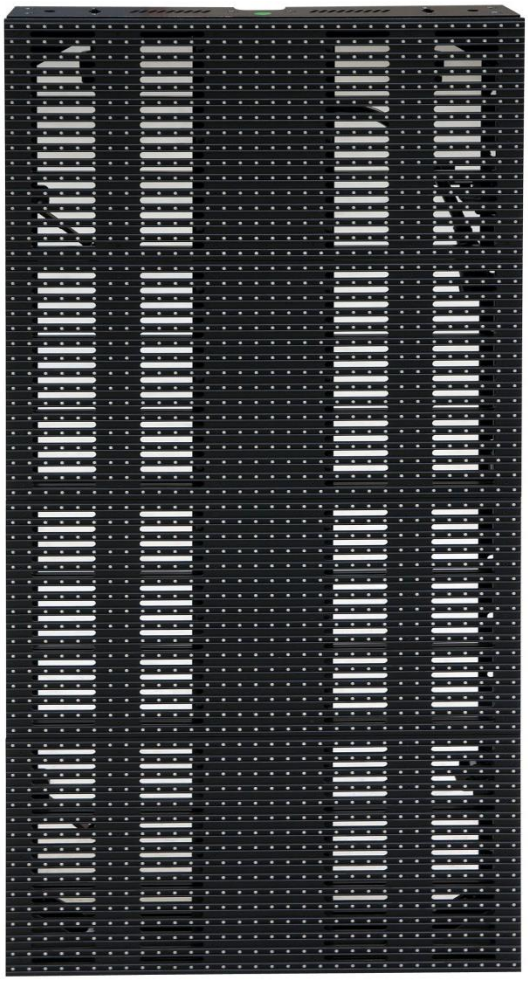


Fig. 1

Flightcase for 8 Pixelmesh P12,5 screens (101393)

Fig. 2

VIDEO (Arkaos or DMT)

In combination with Arkaos or DMT Software, you are able to play video over the Pixelmesh.

⚠ **Just click on the following pictures or ordercodes for more information** ⚠

50190 Arkaos Studio server

50192 Arkaos Stage server

50227 DMT Vision Express: Easy to use and high performance at an affordable price

50223 Arkaos Grand VJ 2.0: Video Mixing Software - Midi controllable

502266 Arkaos Grand VJ XT Full package: Midi VJ Software with Videomapping capability

502267 Arkaos Media Master Pro 4.0: DMX Controllable Media Server software

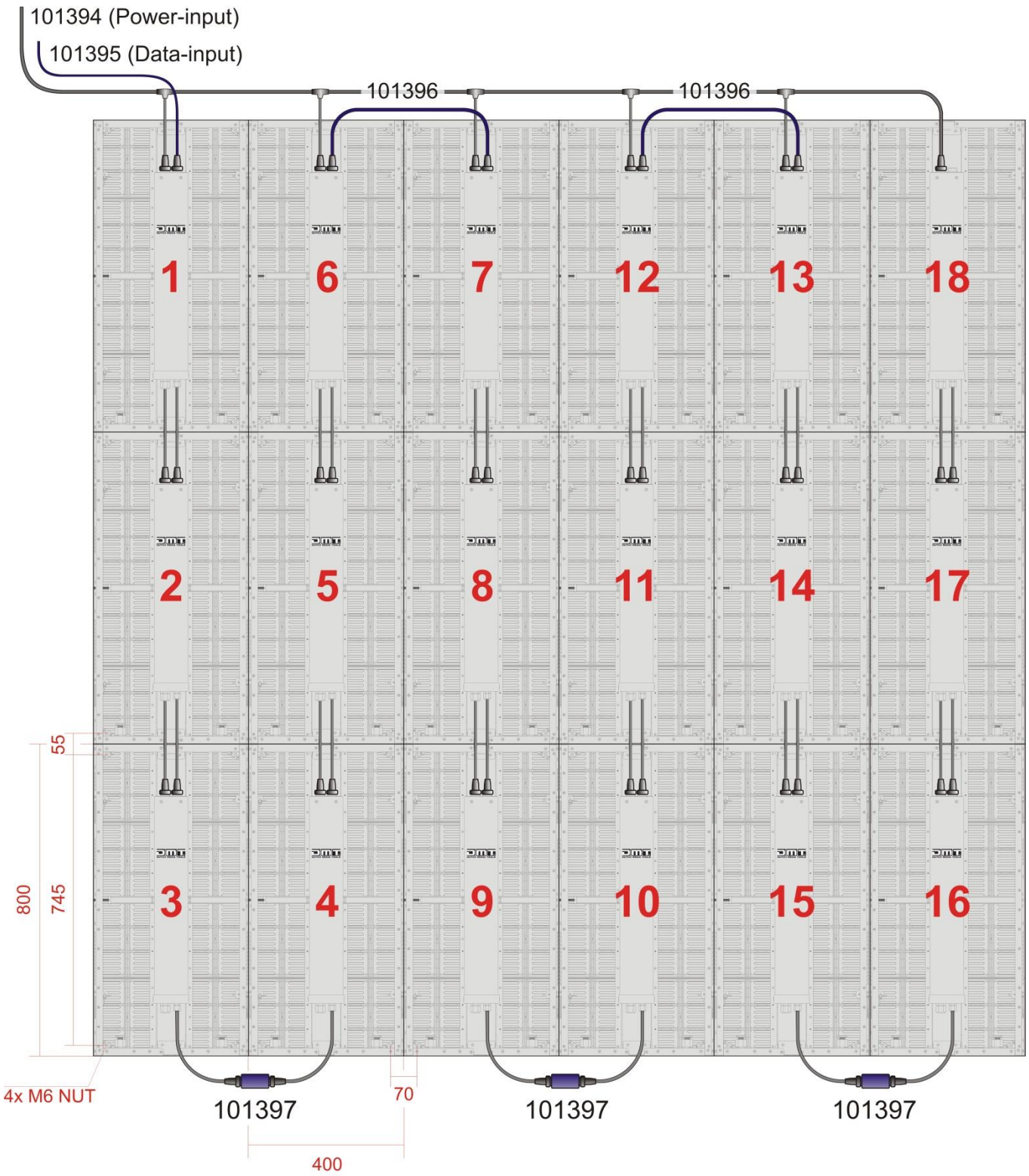
Set Up and Operation

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

The Pixelmesh P12,5 can only be used indoors. The Pixelmesh P12,5 can be viewed during night-time as well as day-time. Due to the clever mounting system it is easy to setup. The Pixelmesh P12,5 excellent design allows you to vary the setup in many shapes and sizes.

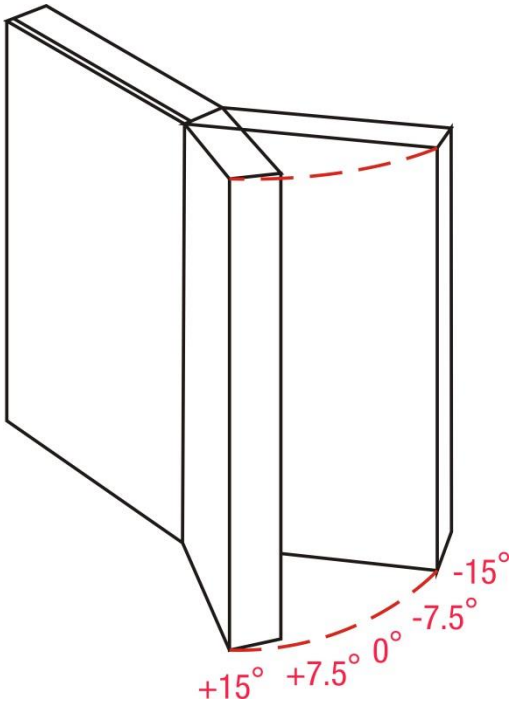
Signal- and Powercable Connection

Installation-Example 2,4 x 2,4 mtr / 18 Panels



101390	Pixelmesh P12,5
101391	Riggingbar for 1x P12,5
101392	Riggingbar for 2x P12,5
101393	Flightcase for max 8 pcs
101394	Power Inputcable 10m, 6 outputs. Max 30 panels
101395	Data Inputcable 10m
101396	Data Linkcable
101397	Data-Coupler

Setup Beam Angle



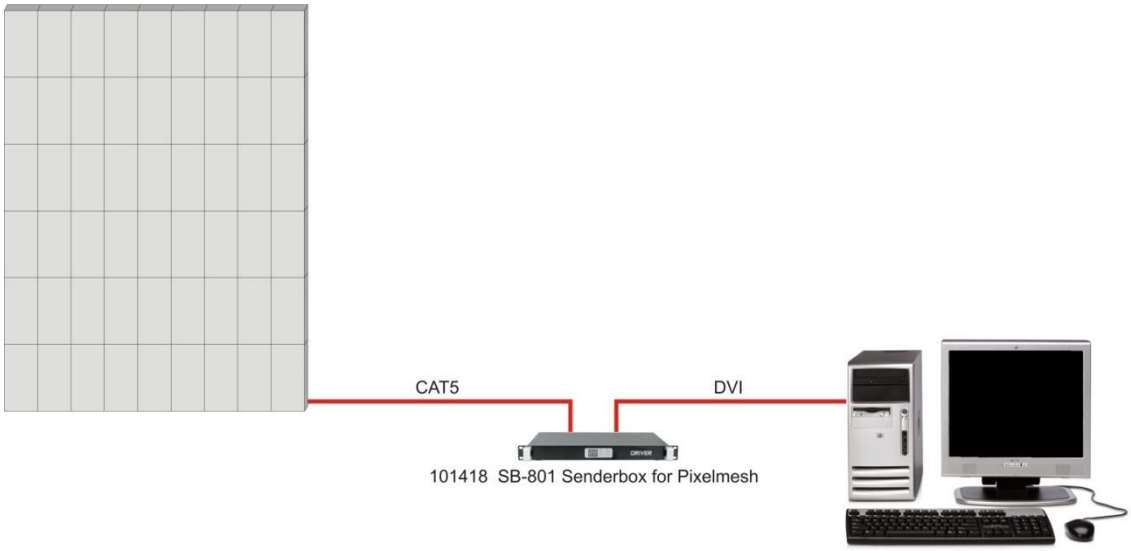
Truss Installation

Riggingbar for 1 piece Pixelmesh P12,5 (**Ordercode 101391**)

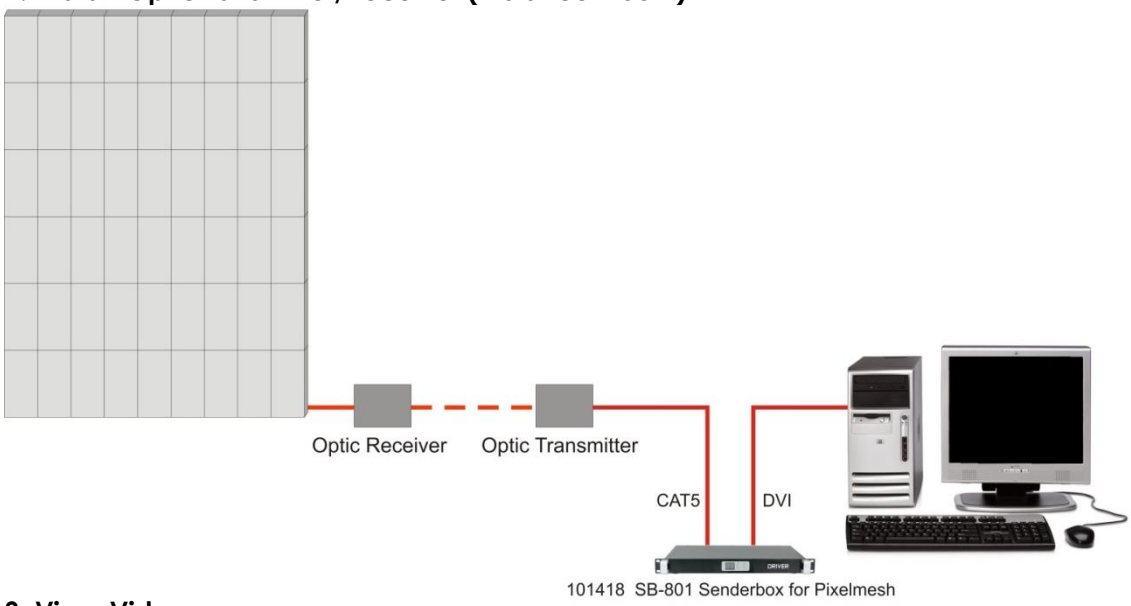
Riggingbar for 2 pieces Pixelmesh P12,5 (**Ordercode 101392**)

Setup Possibilities

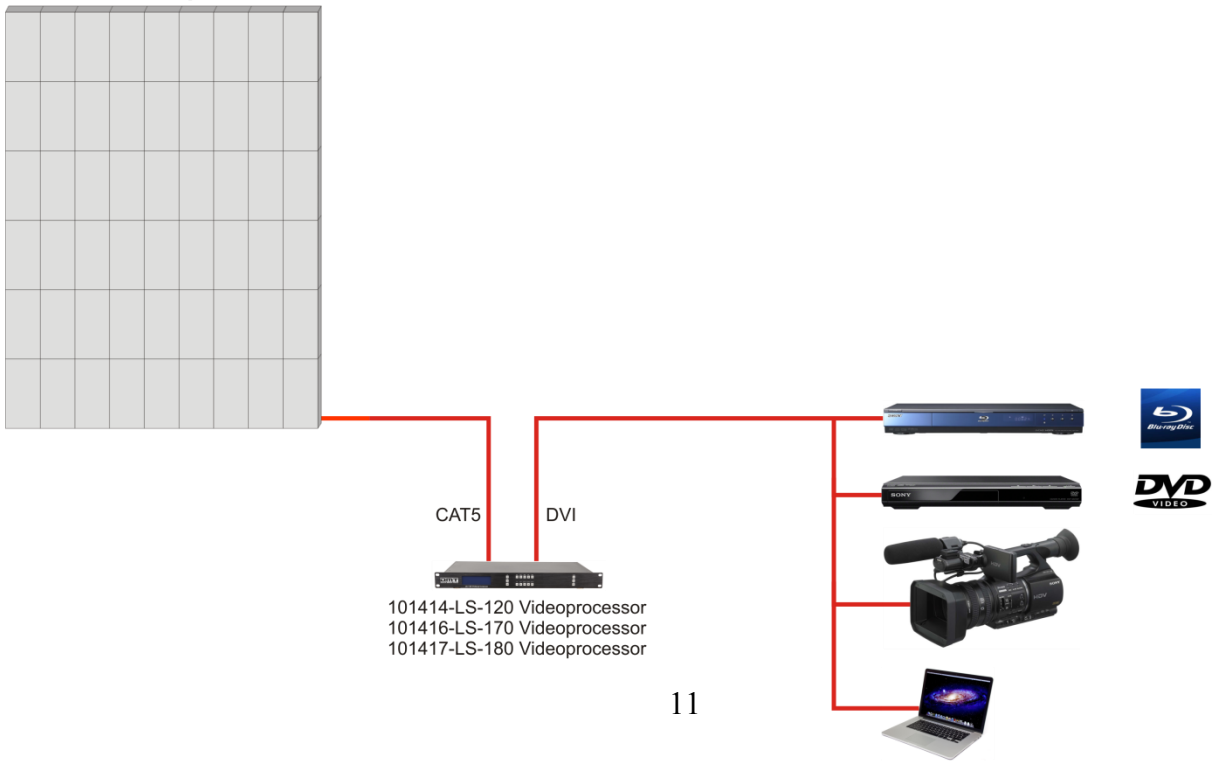
1. Directly to a PC (via Cat5 max 75m)



2. Via an Optic Tansmitter/Receiver (Distance > 50m)



3. Via a Videoprocessor



Connecting cables, power supply

CAUTION!!!
Power supply cables have a high voltage of 240V cables. Extreme precaution should be taken when connecting them to the Pixelscreen. Do not supply power before the whole system is set up and connected properly.

Communication Wire Facture

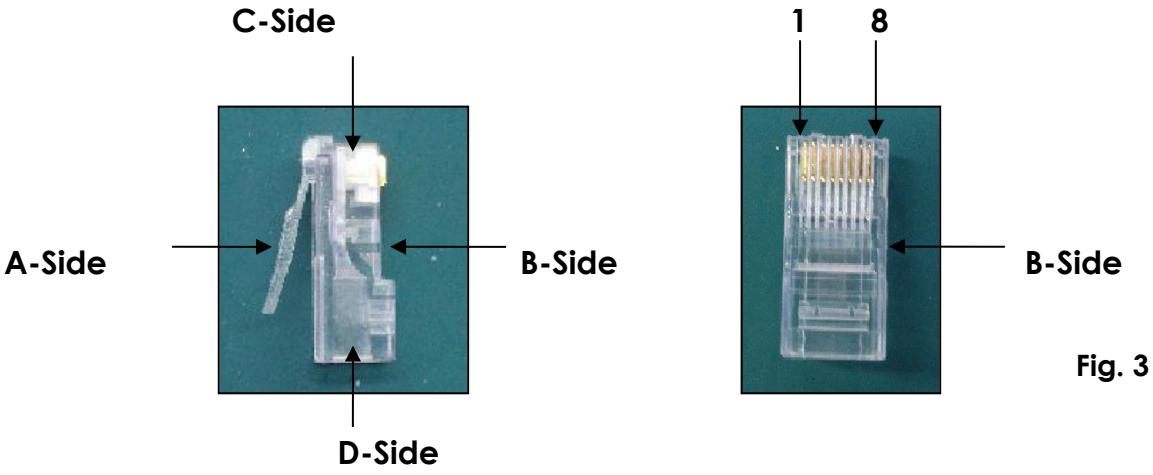


Fig. 3

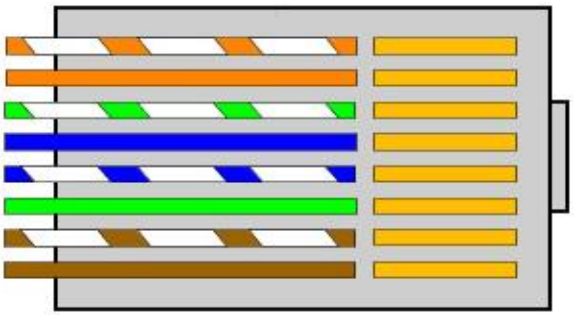
Making an additional Data cable

A Standard NET CABLE can be used to replace the DATA CABLE required to transmit the information for the LED Pixelmesh.

Please follow the following instructions in order to create extra NET CABLE.

Take a standard net cable (Cat5/ 5E /6) and connect it to the RJ-45 connector just like displayed on the picture. The wires should now be colored as following:

1- white & orange
2- orange
3- white & green
4- blue
5- white & blue
6- green
7- white & brown
8- brown



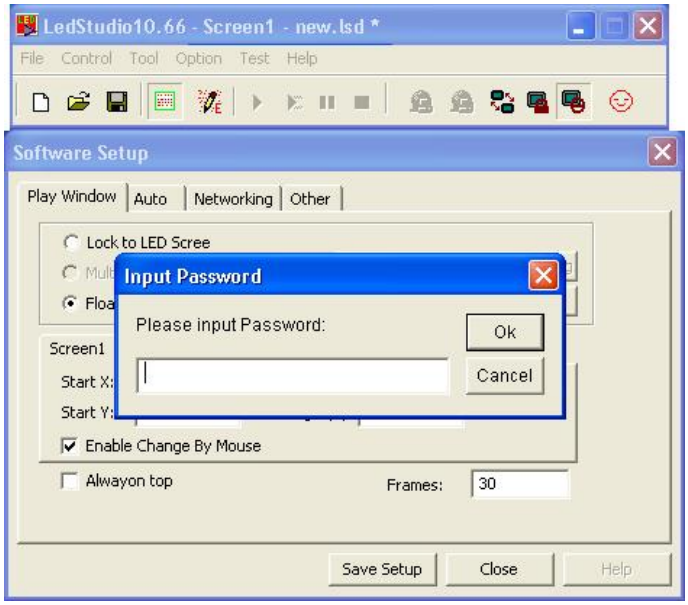
RJ-45 Connector

Insert each wire into an RJ-45 connector with the white & orange wire connected to PIN 1, the orange wire connected to the second PIN, etc.
Both ends of the NET WIRE are connected in this way.

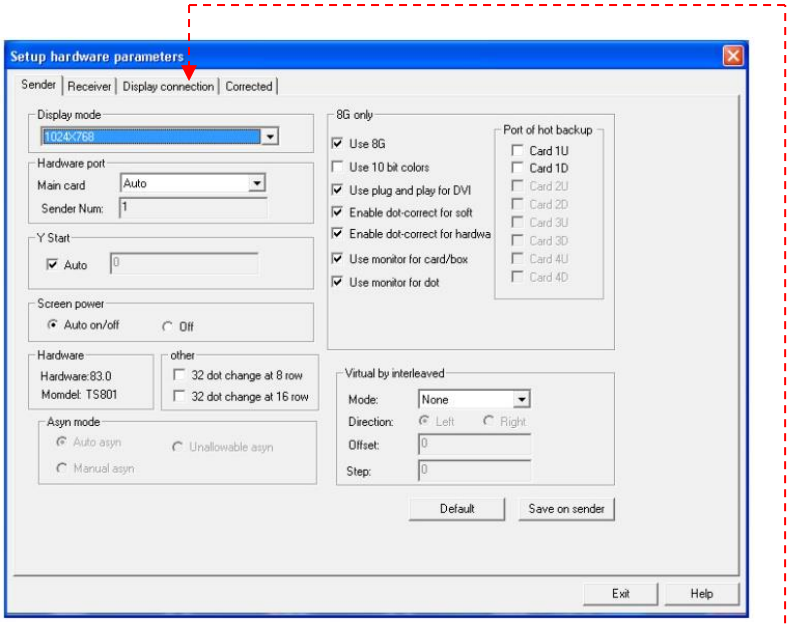
Addressing cabinets

Cabinets are addressed from computer, by use of LED STUDIO 10 software.

After opening the main window of LED STUDIO, please go to **Option** and click on it with the left mouse button. A new window will appear, choose **Software Setup** and click the left mouse button.

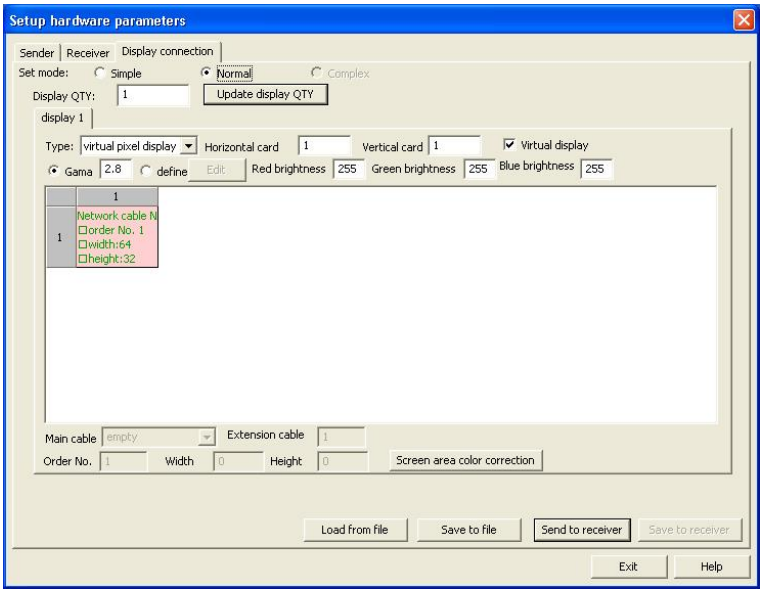


When the **Software Setup** window appears on the screen, just type **linsn** on your computer keyboard.
Note: no dialog box will appear on the screen to type it in.
After this another new window will open, requesting for a password. Now type the password: **168**



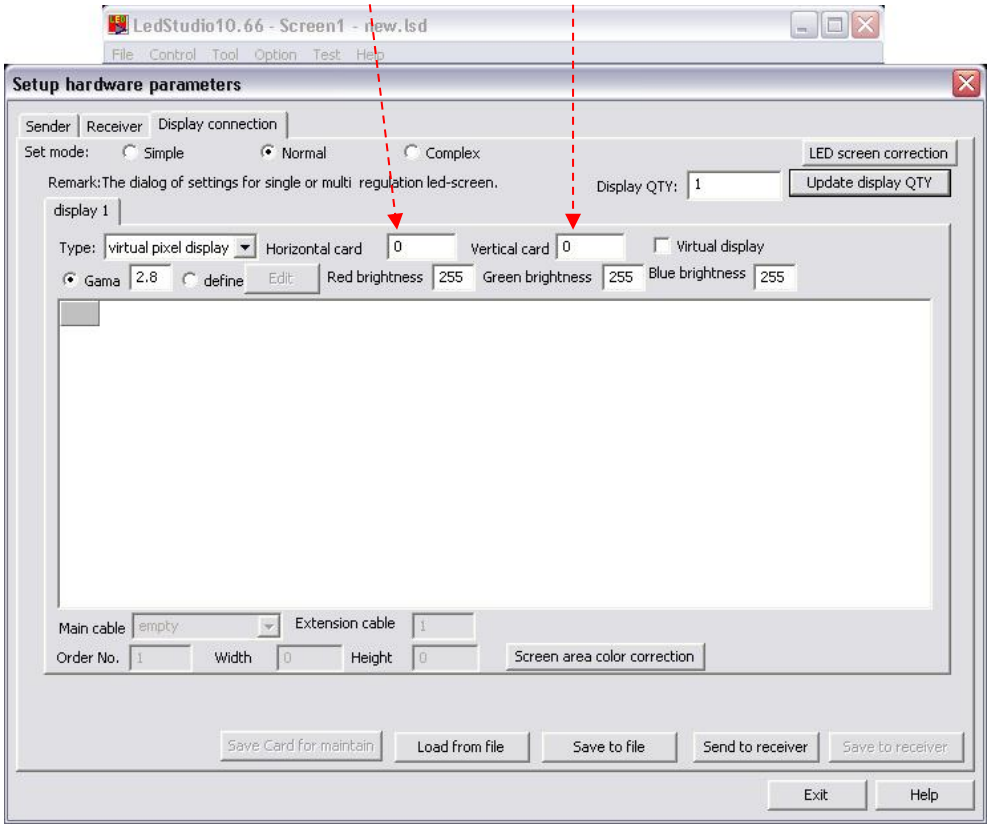
On the new window go to the **Display connection** tab, and click on it with left mouse button.

The display will show:

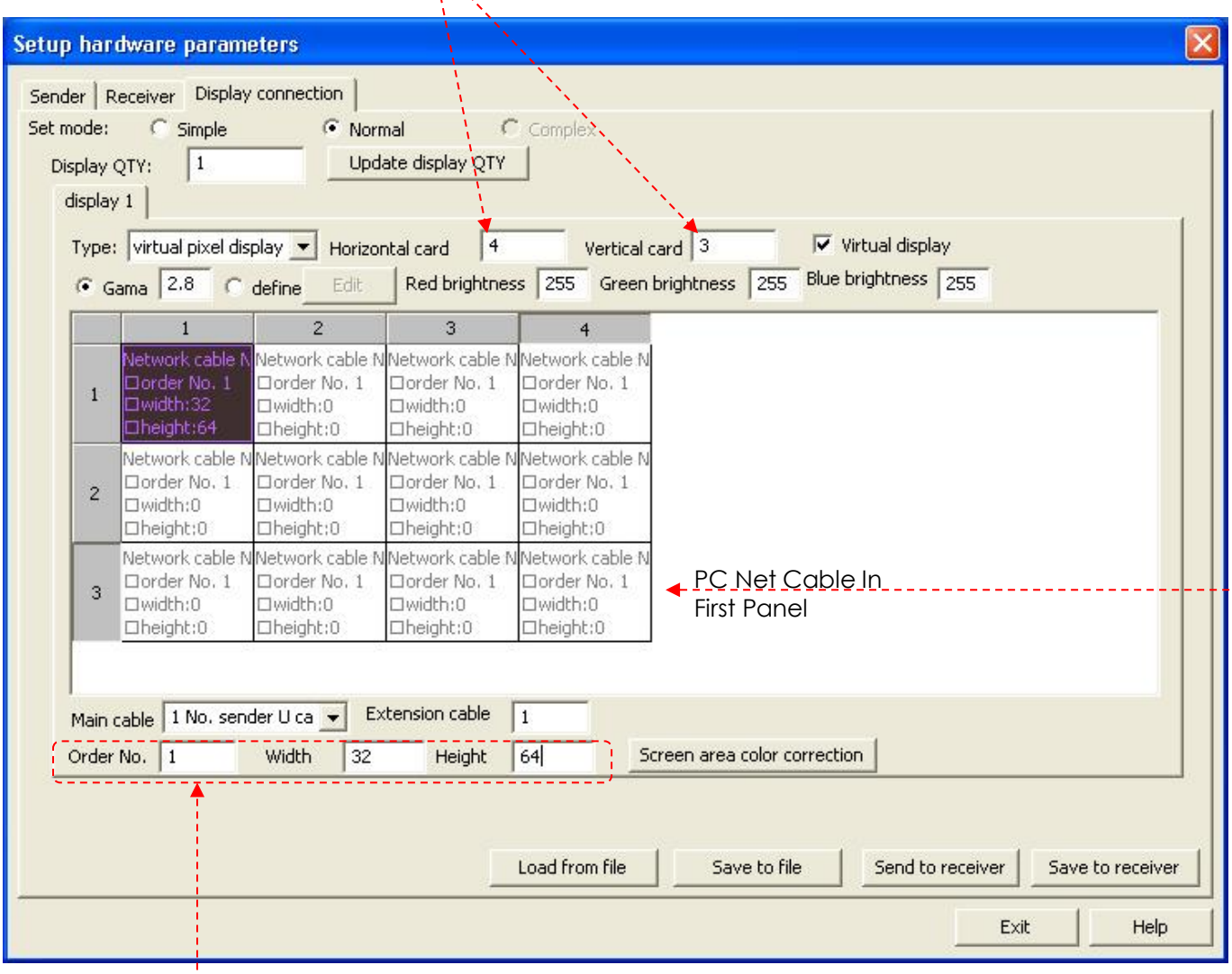


Patching the LED Pixelscreens

If we need to change the amount of panels used in the setup, we have to instruct the software how many cabinets we want to control.
We can do this by entering the number of cabinets in our display panel.
First input horizontal card = 0; vertical card 0
To reset the settings on your display, enter the number of panels in your setup.



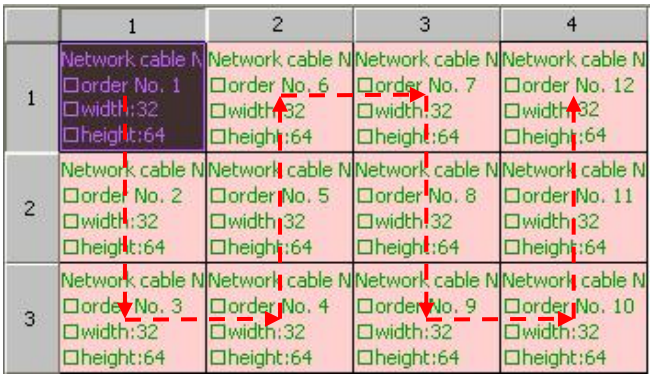
As an example we have chosen 4 x 3 cabinets. Please enter the desired number of cabinets you are using in your setup). After setting up the number of cabinets, the display will show:

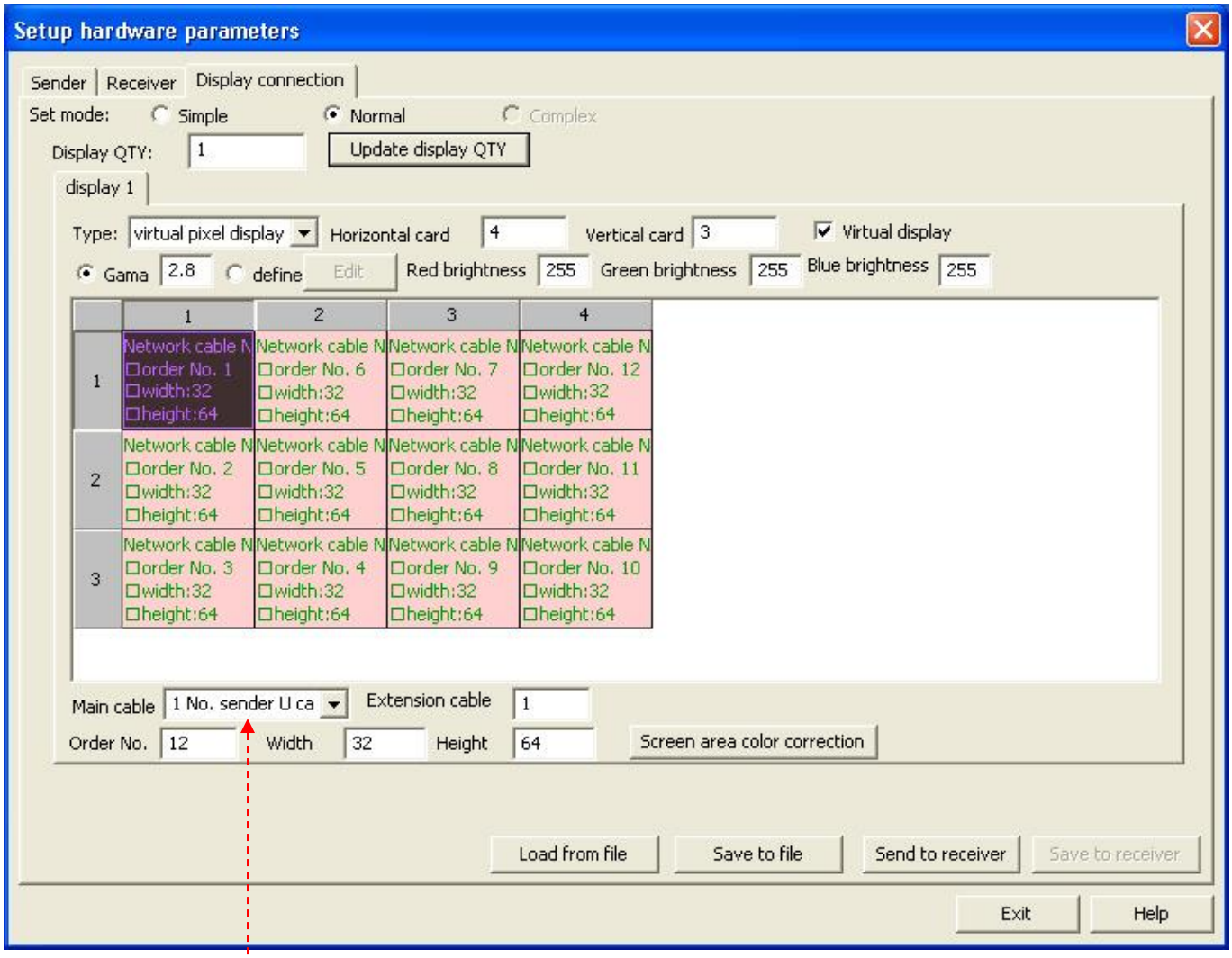


We have to inform receiving card installed in our "first cabinet", to which Ethernet slot 'U" or "D" signal cable is connected. (Signal cable from our computer to LED display panel).
The **First cabinet** is the cabinet to which the data cable from computer is connected.

The next step is to inform the receiver card how many pixels are in one cabinet.
For the Pixelmesh P12,5 screens, this is 64X72 pixels tell the software which is the first screen and then click on the grey block.

Now jump with the arrow keys to the next panel and follow the order in which the screen is wired.

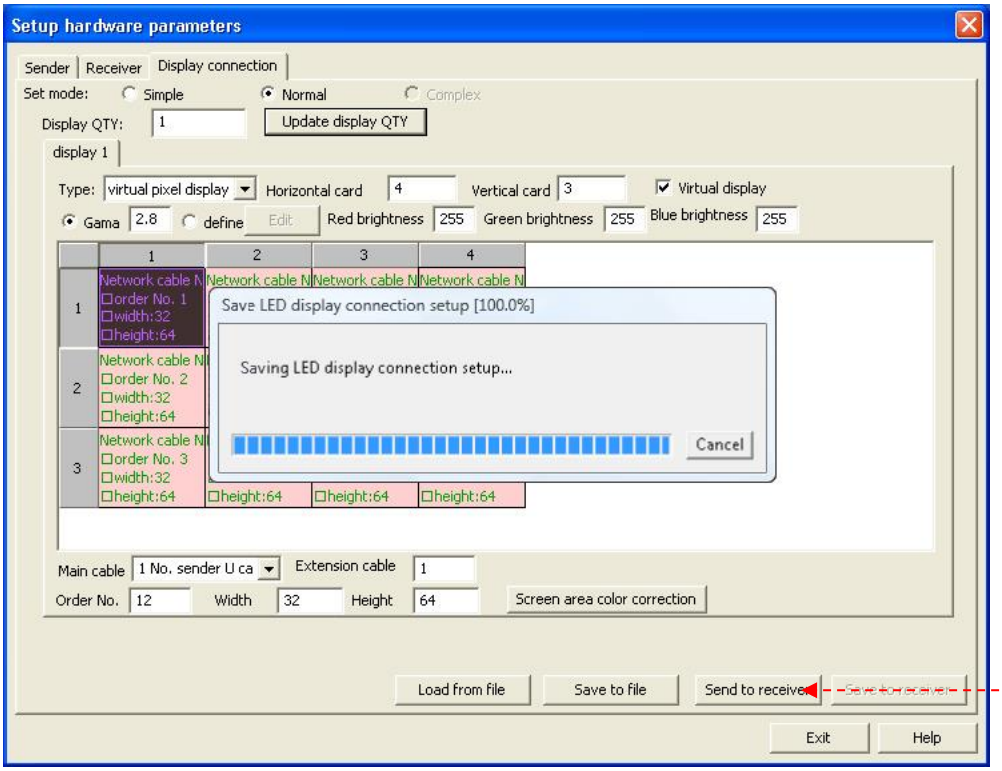




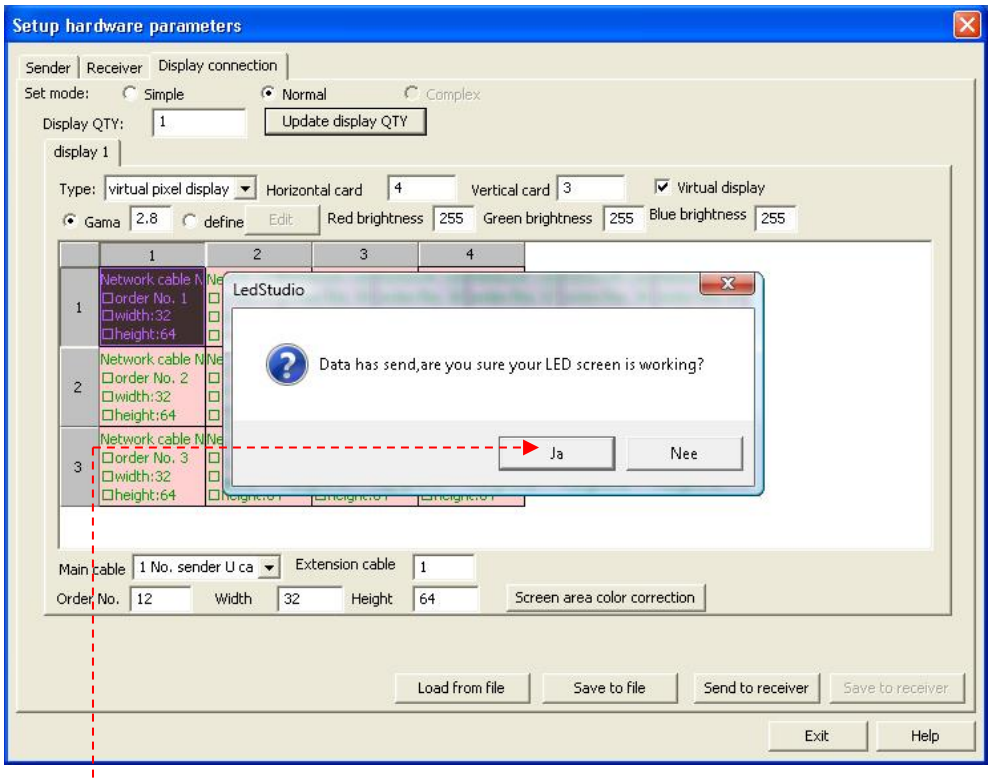
Please be sure to select the proper main cable (**1 No. sender U cable**).

Then press "send to receiver"

The display will show:

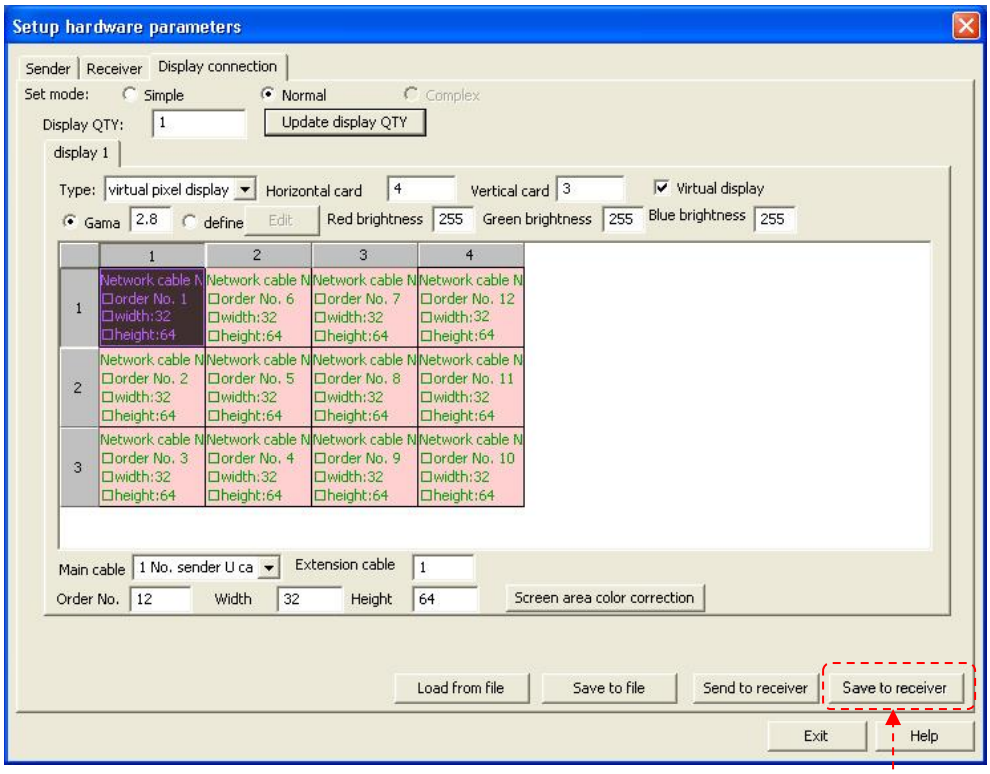


And the data will be uploaded to the receiver.

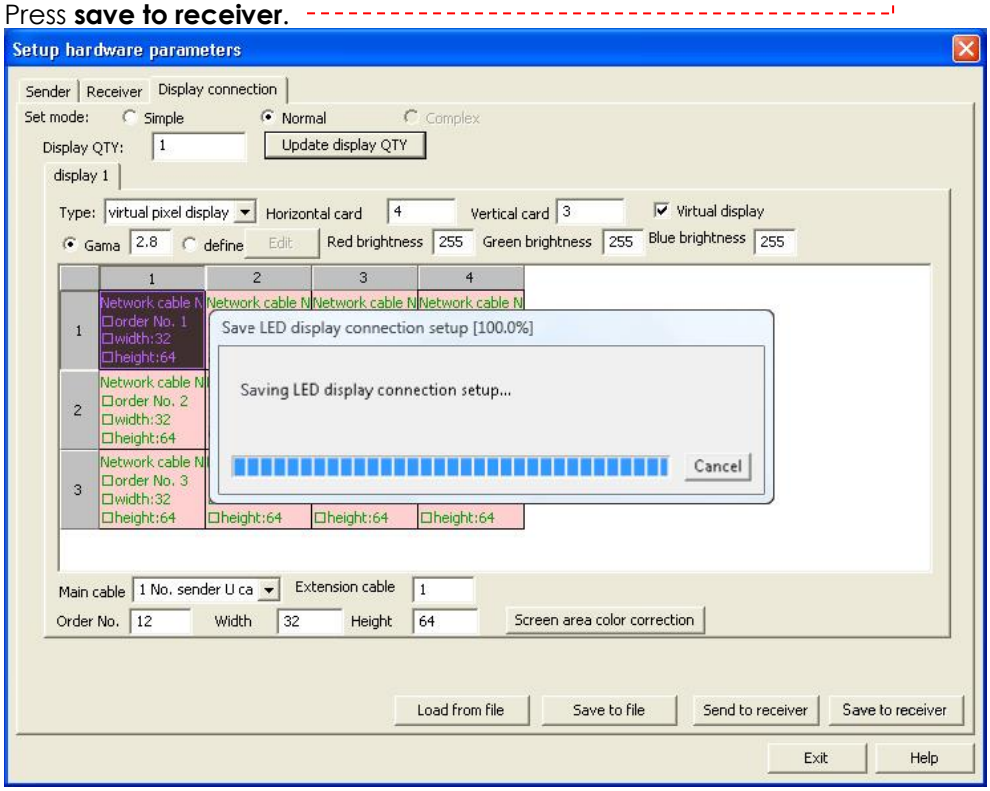


Press OK, when this procedure is finished.

The display will show:

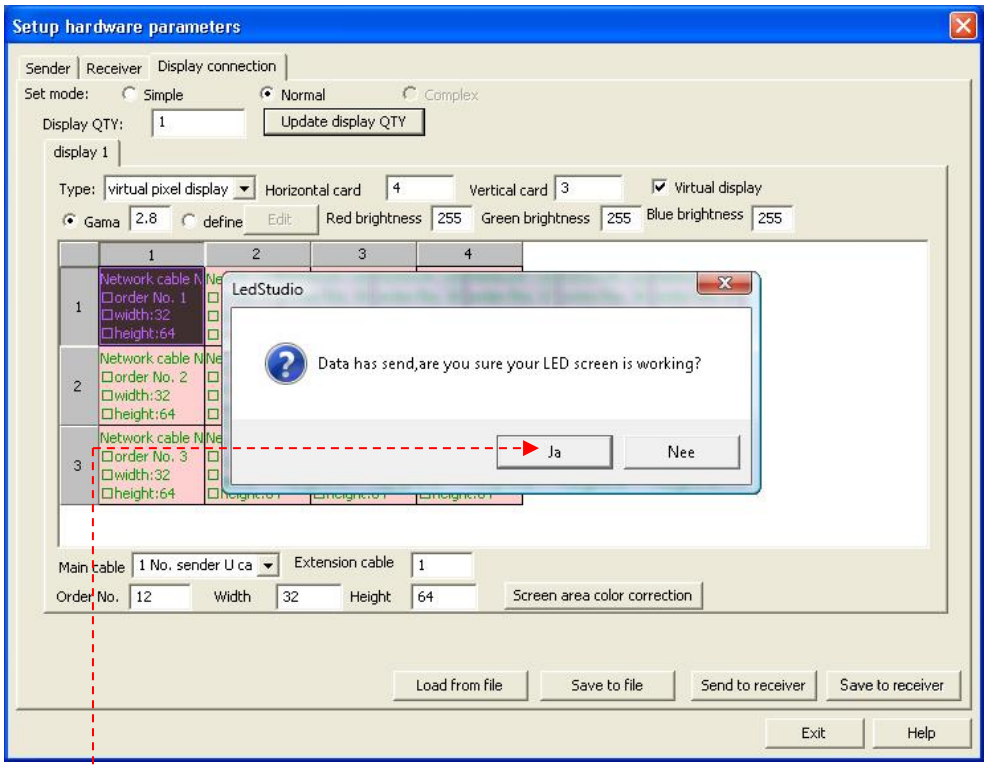


Now **"save to receiver"** will be lit.
Press **save to receiver**.



And the data will be saved to the receiver.

After that, the display will show:

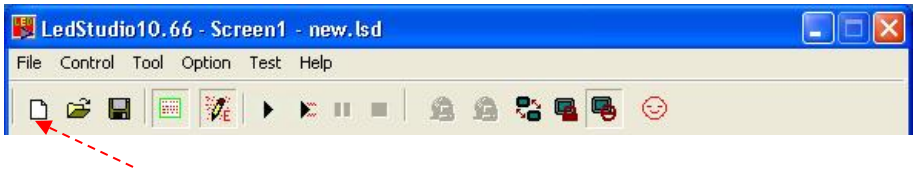


Press OK. This procedure is finished and you're ready to go.

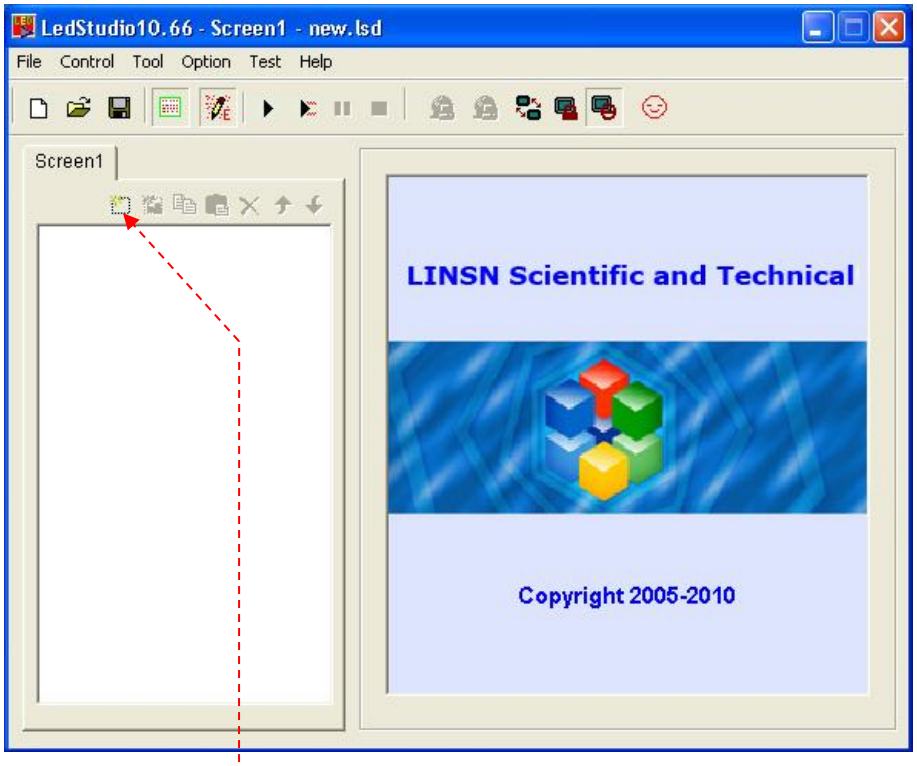
Working with LED Studio

LED Studio

1) Open LED studio by clicking on the icon.
The display shows:

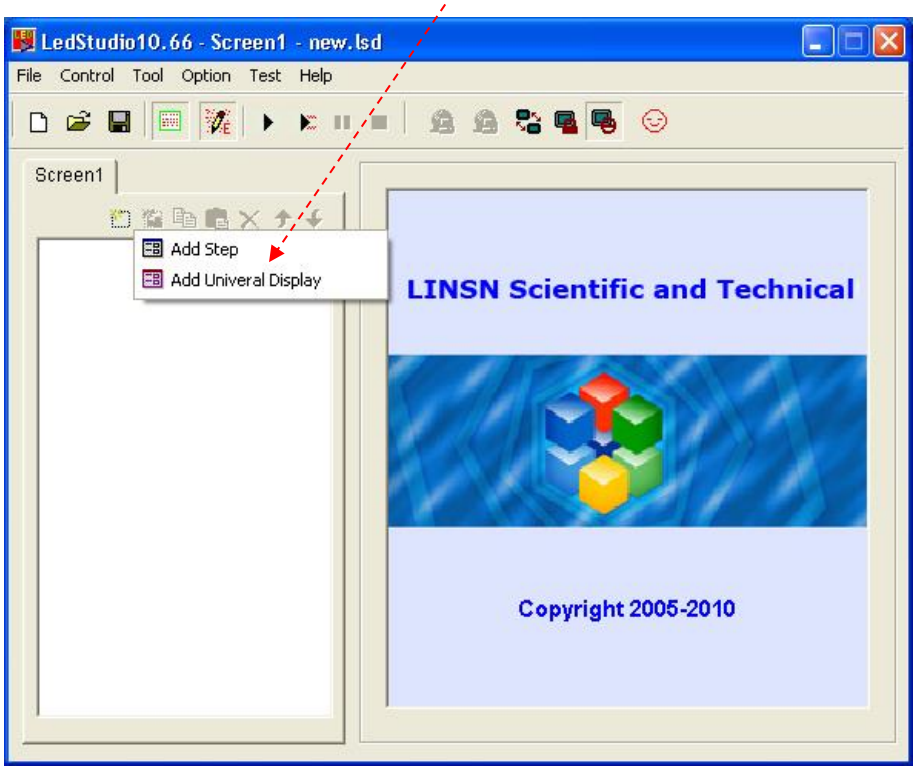


2) Click here to open a new file.

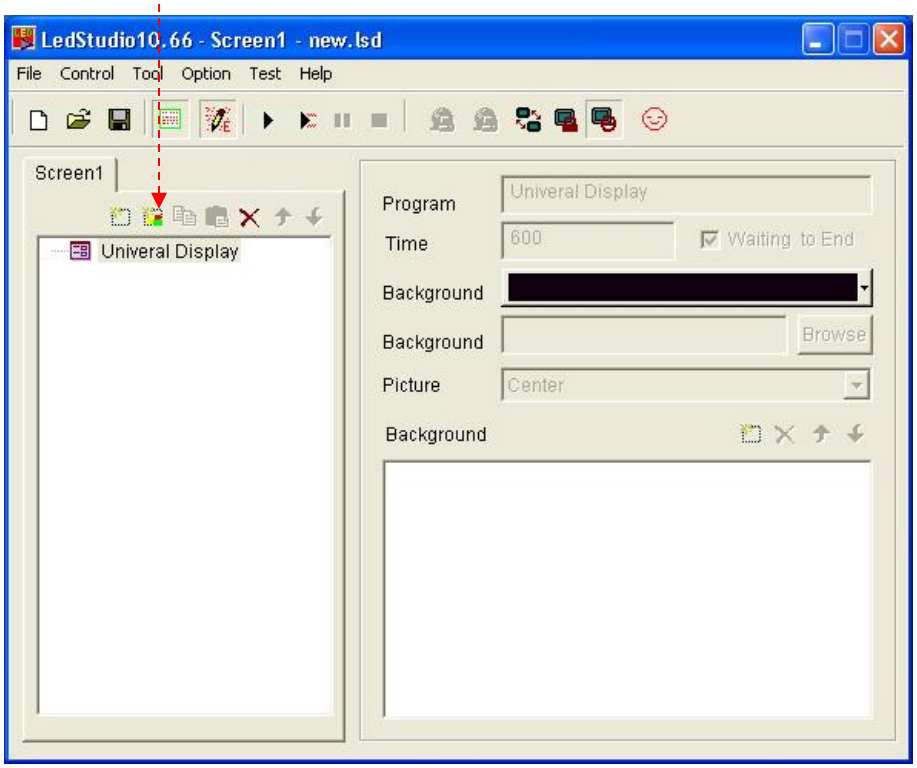


3) Click on **new page of program** Button.

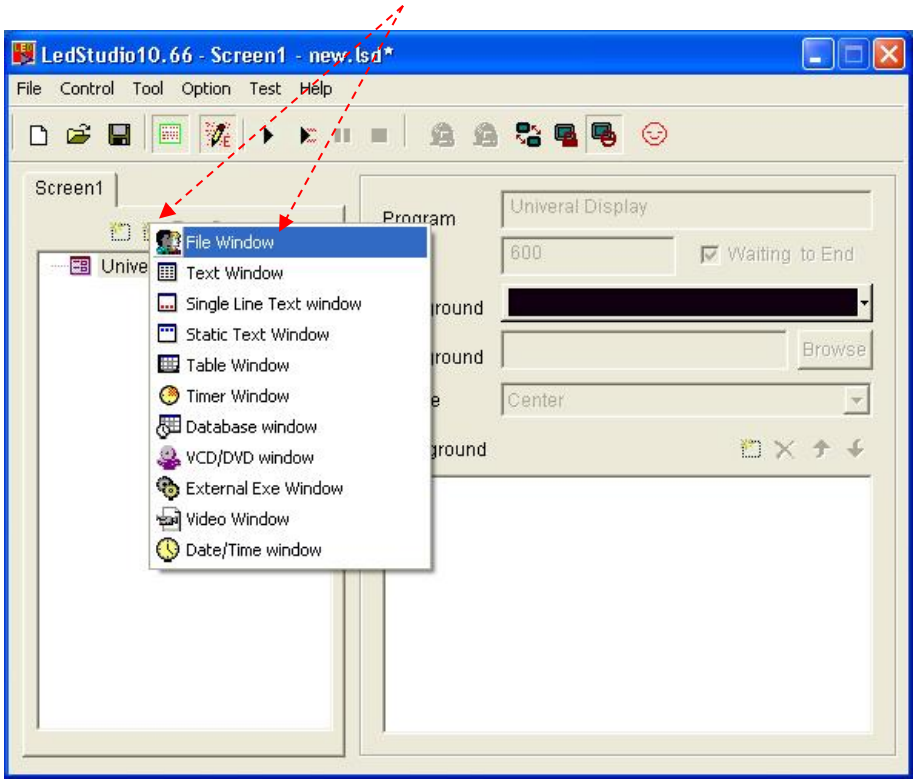
4) Choose a universal program (Loopplay) or normal program (play in order one by one).



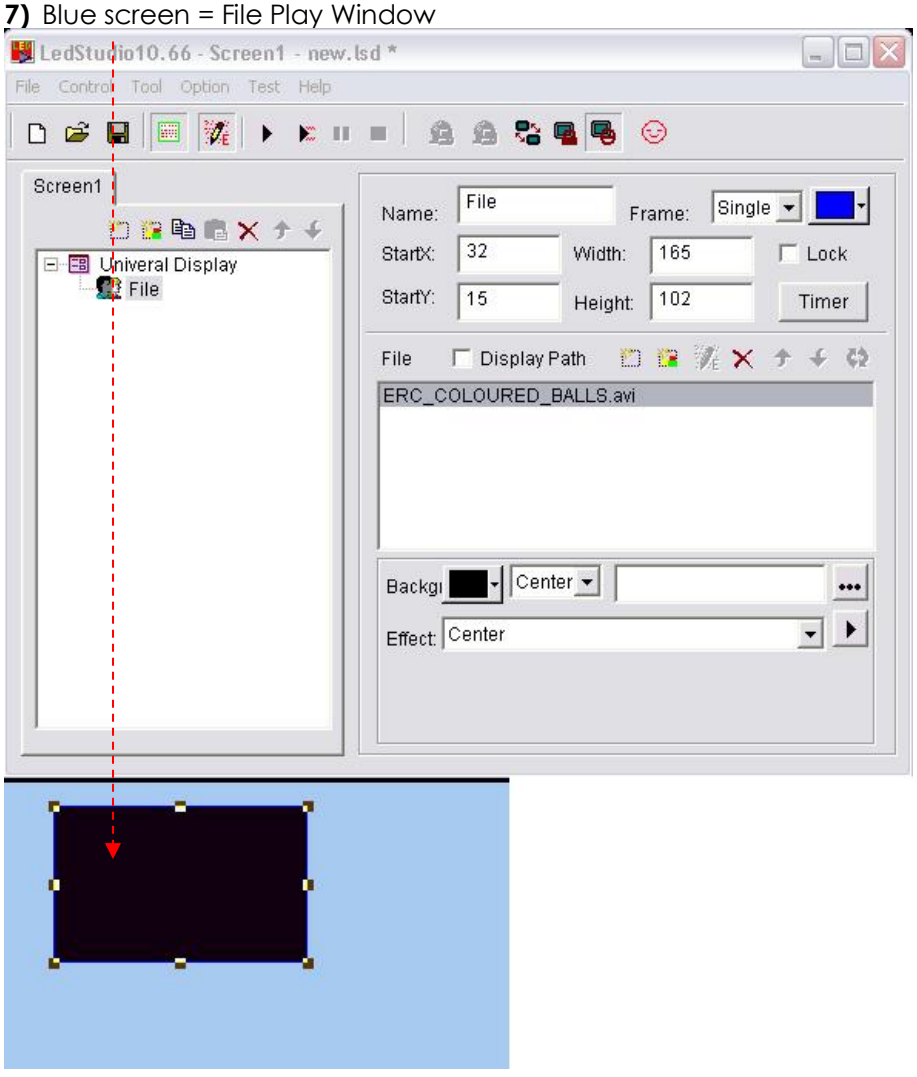
5) Click **New Window**.



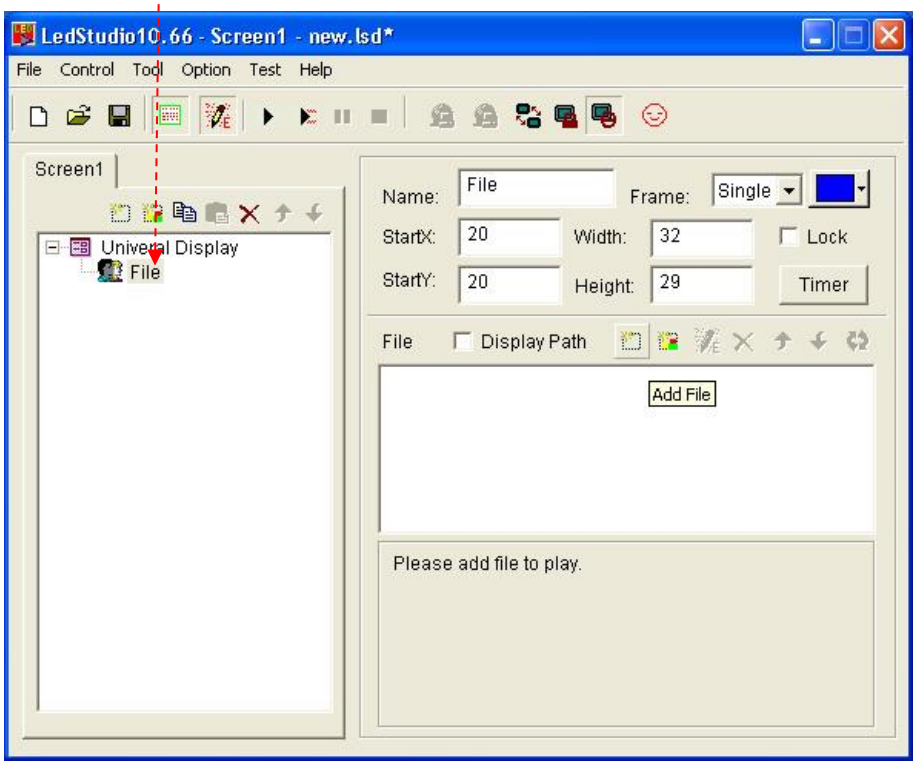
6) Each program window can play different words, pictures, tables, cartoons, and videos, etc. In total, there are twelve kinds of program windows available.



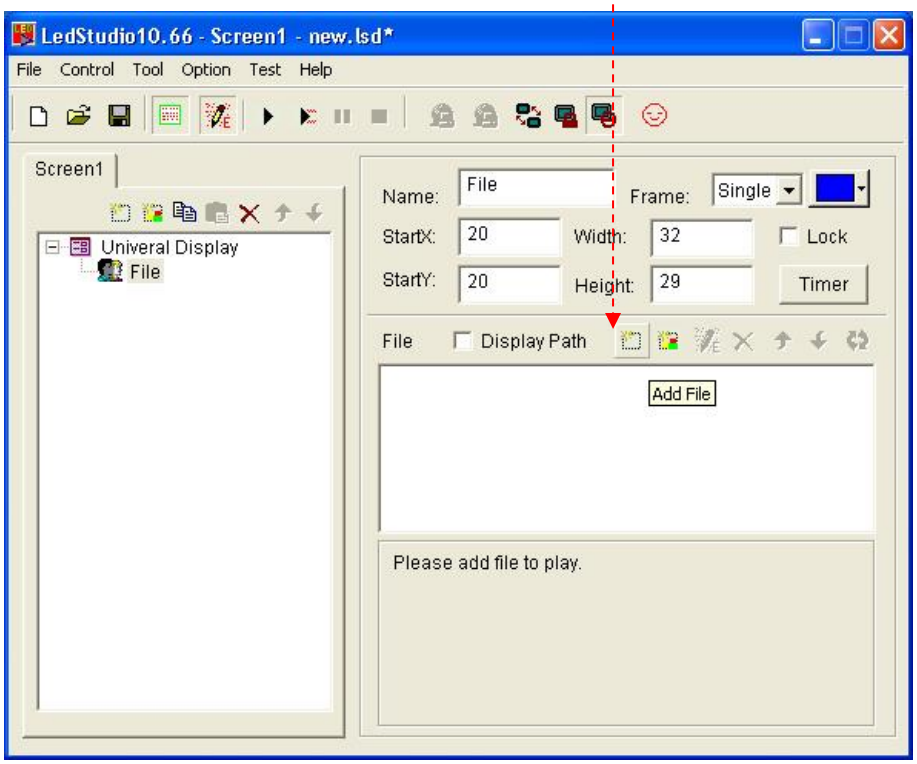
7) Blue screen = File Play Window



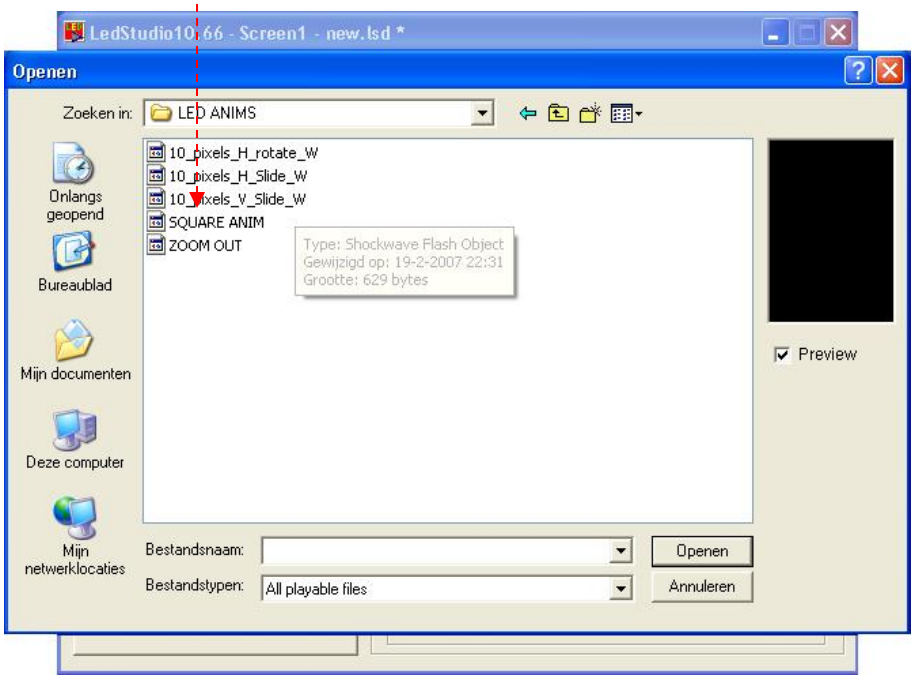
8) Click **file**.

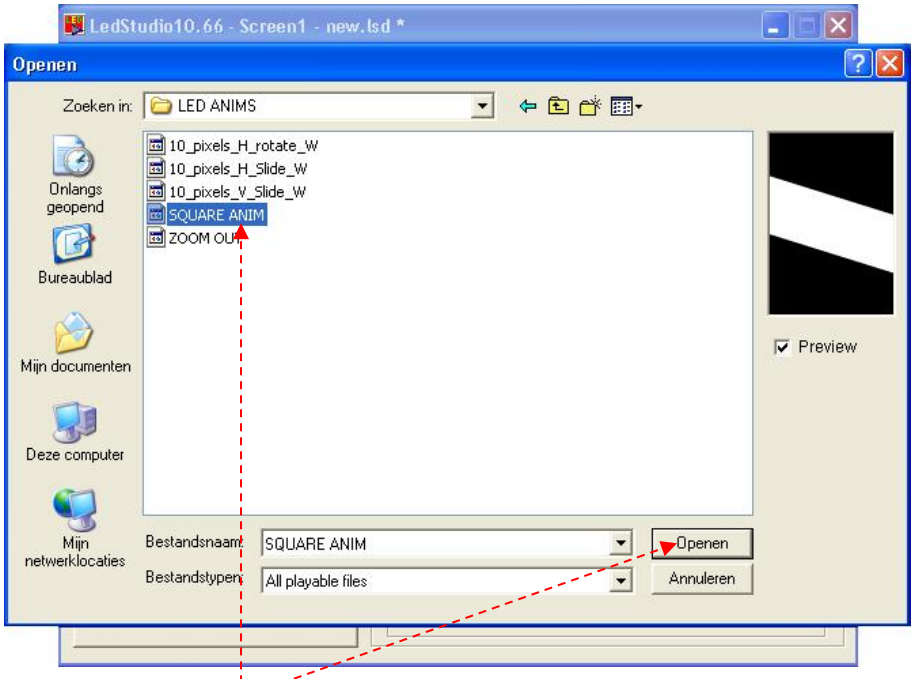


9) Click **Add File**.

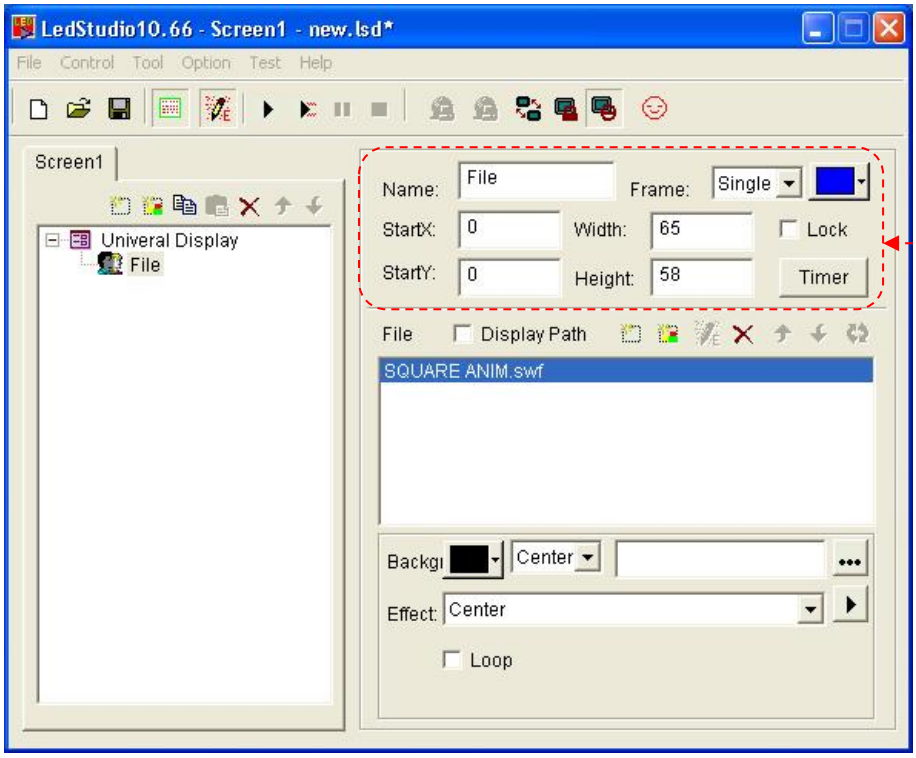


10) Choose a file.



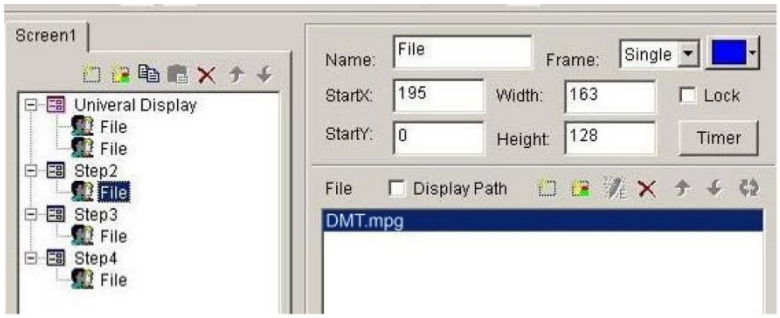


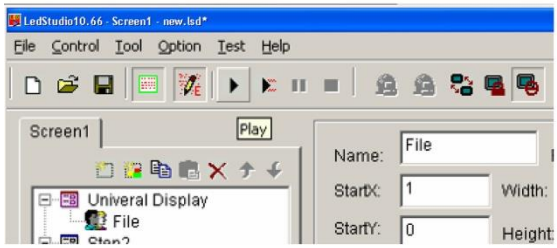
11) Click the file you want and press open.



12) You now can set up your desired settings in the display area. You can control the width, height, etc.

13) After this you are able to choose more playable files until you are satisfied with the setup.

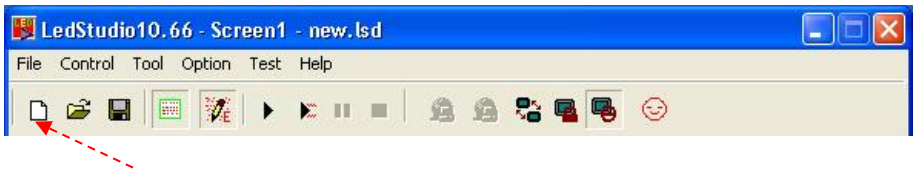




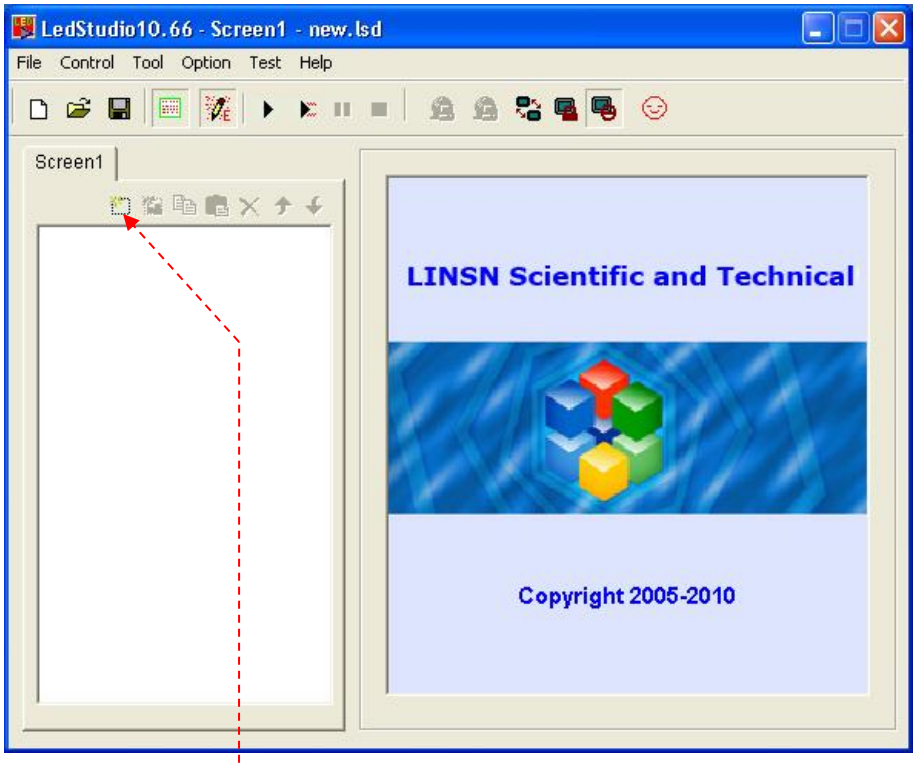
Setting the Clock in LED Studio

LED Studio

1) Open LED studio by clicking on the icon.
The display shows:

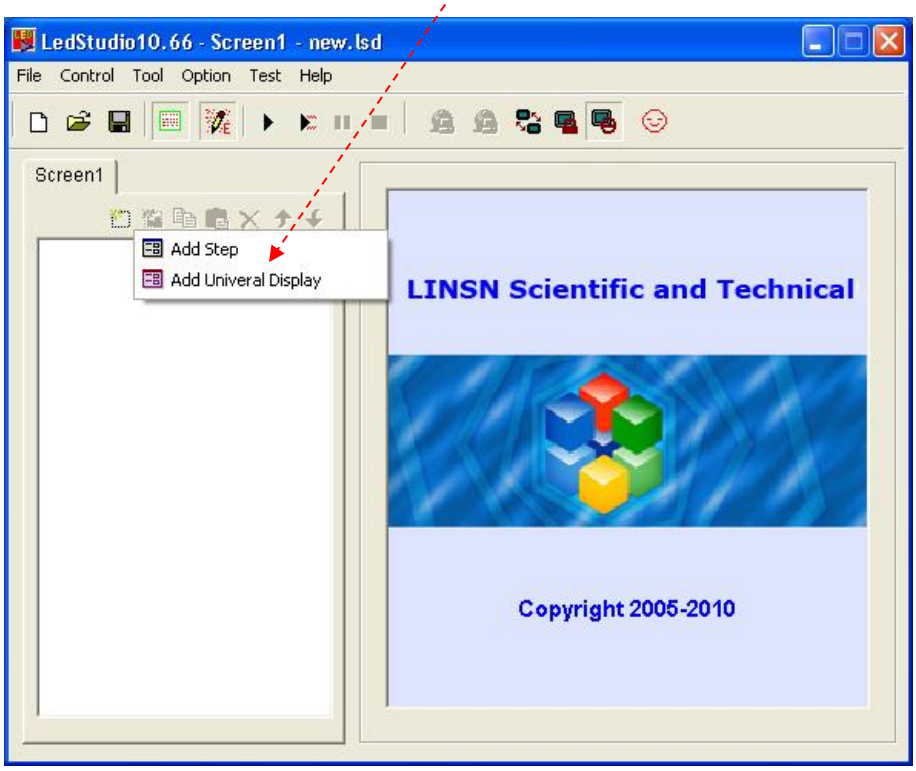


2) Click here to open a new file.

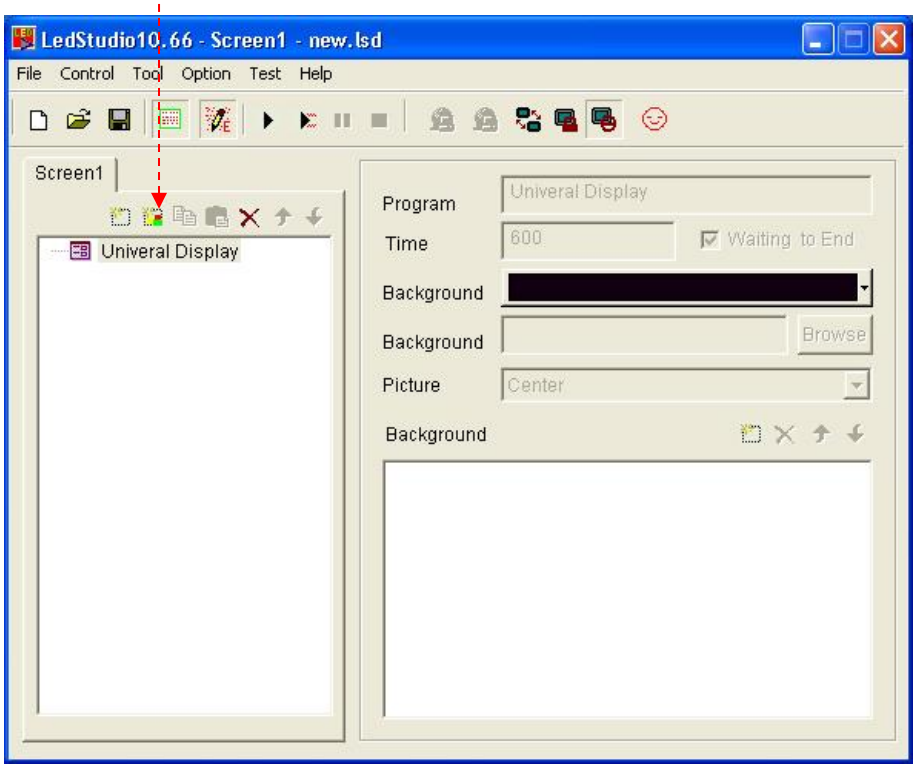


3) Click on **new page of program** Button.

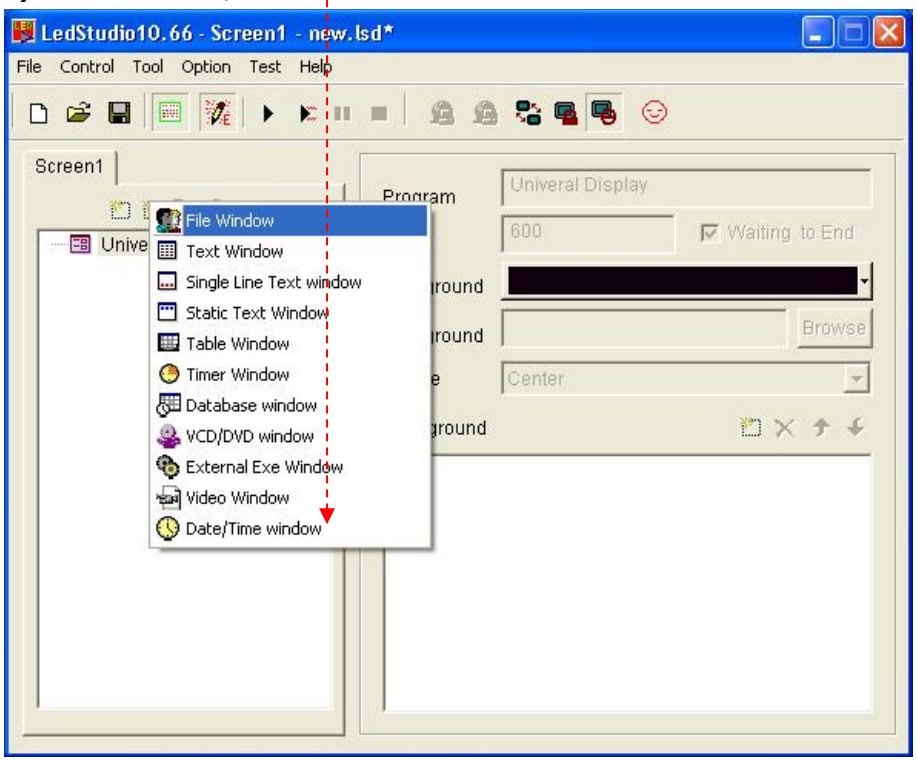
4) Choose a universal program (Loopplay) or normal program (play in order one by one).

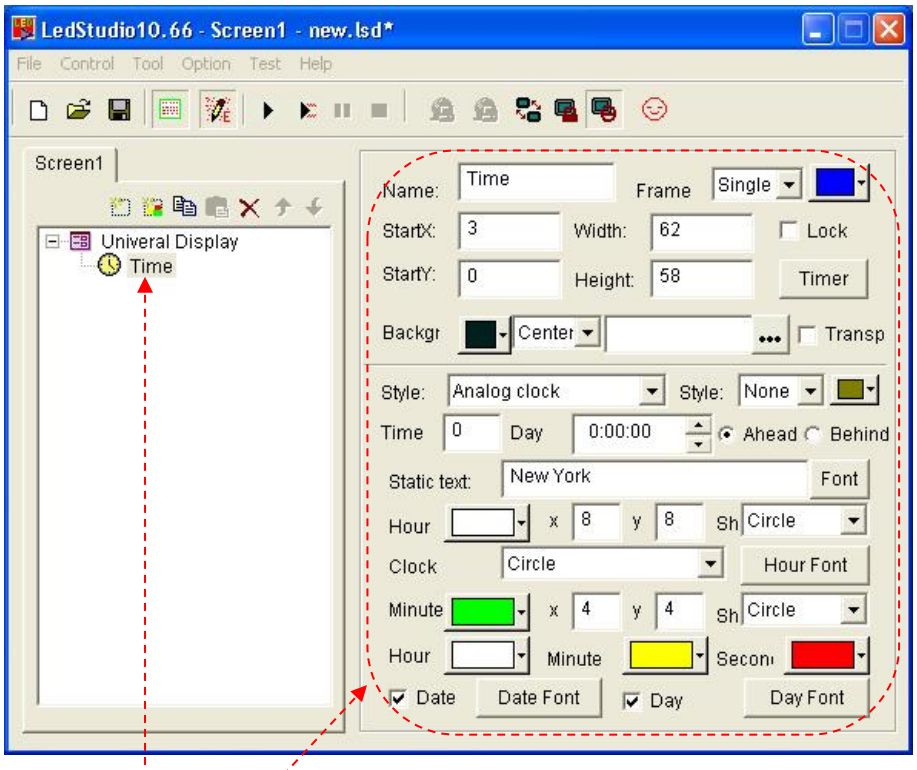


5) Click **New Window**.



6) Click the **Date/Time Window**





7) If you want to set a clock in the display, open a clock file in the Universal Display and set the specifications of the clock. The clock will be displayed all the time.

Additional Accessories

101391-Riggingbar for 1 piece Pixelmesh P12,5

101392 Riggingbar for 2 pieces Pixelmesh P12,5

101393 MCA-PIXM2
Flightcase for 8x Pixelmesh

101394 Powercable

101395 P12,5 Data Inputcable

101396 Data Linkcable

101397 Data-Coupler

101401 DMT S8020 Sender Card

101414 LS-120 Videoprocessor

101416 LS-170 Videoprocessor (incl sender card)

101418 SB-801 Senderbox

101417 LS-180 Videoprocessor (incl sender card)

101419 SD-8 Signaldistributor

Maintenance

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by an expert after every four years in the course of an acceptance test.
The operator has to make sure that safety-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.

The DMT Pixelmesh P12,5 requires almost no maintenance. However, you should keep the unit clean for a better product life and performance. Buildup of dust, dirt, smoke particles, fog fluid residues, etc. degrades the panel's light output.

Cleaning schedules vary greatly depending on the operating environment. It is therefore impossible to specify precise cleaning intervals for the Pixelscreen. In extreme cases panels may require cleaning after surprisingly few hours of operation. Environmental factors that may result in a need for frequent cleaning include:

- Use of smoke or fog machines.
- High airflow rates (near air conditioning vents, for example).
- Presence of cigarette smoke.
- Airborne dust (from stage effects, building structures and fittings or the natural environment at outdoor events, for example).

If one or more of these factors is present, inspect panels within their first 25 hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation. If in doubt, consult your DMT dealer about a suitable maintenance schedule.

Do not use alcohol , abrasive, caustic or solvent-based products for cleaning, as they can damage plastic or painted surfaces.

To clean the panel:

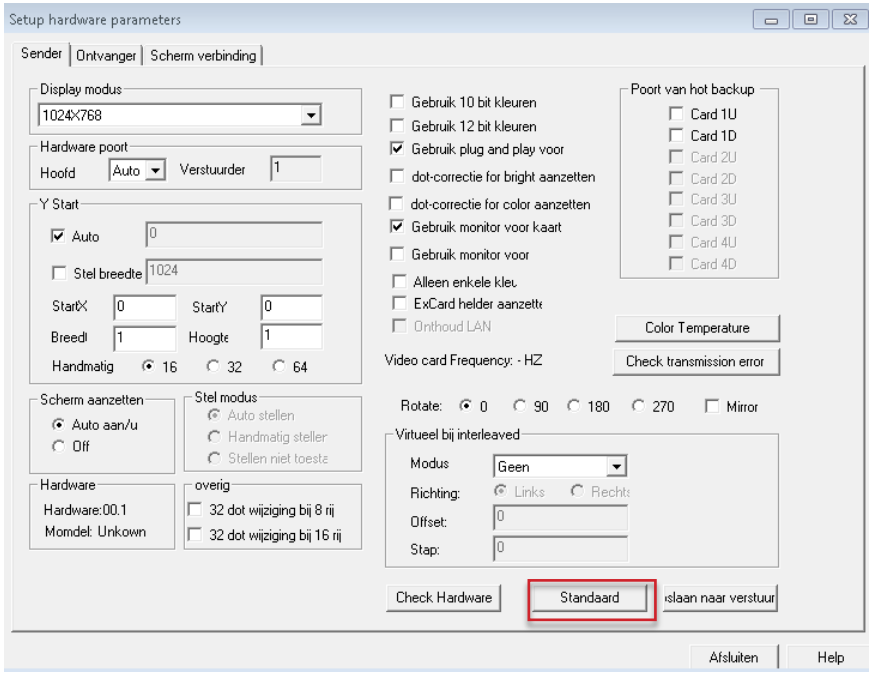
1) Disconnect the panel from power and allow it to cool for at least 10 minutes.
2) Vacuum or gently blow away dust and loose particles from the fan blades and grilles in the base of the panel with compressed air.
3) Wipe the outside of the Pixelscreen with a soft, lint-free cloth.

Make sure connections are thoroughly dry before linking equipment or supplying electric power.

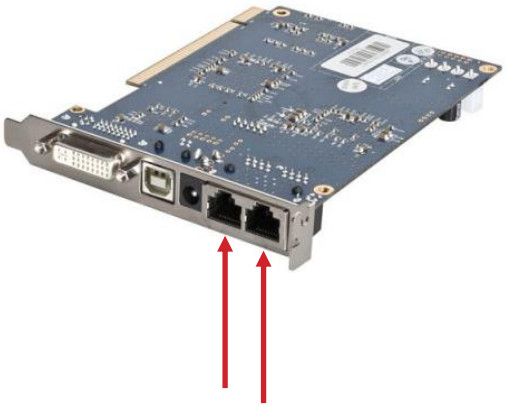
Troubleshooting

Problem : no video on the led screen

1) Check if the red LED on the back of the panels is ON. If not, go to step 2. If the LED is ON, go to step 3.
2) No red LED means the led panels are not getting any power. Please check the power connections.
3) Check if the green LED is flashing. If it is not flashing, go to step 4.
4) No flashing green LED means, the panels are not receiving any data signal. Please check the data connection from the sender card to the led panel or preform a factory reset of the sender card, see 7.
5) Check if the green LED on the sender card is flashing. If the green LED is not flashing, please go back to step 6.
6) If the Sender card is not receiving a video signal, please check if the DVI input is receiving a video signal from the video source.
7) The factory reset of the sender card can be done within Led Studio software. Start the Led Studio software and go to: option - software setup - linsn - 168 – and the push the button.



8) If the green LED is flashing, on both the sendercard and the led panel and no video is showing, please try to change the cable on the output.

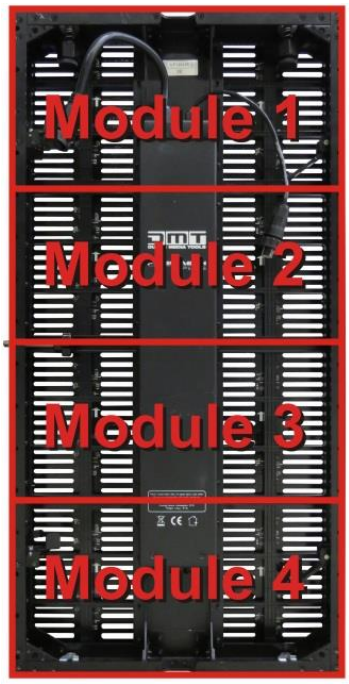


Led Studio Software says : No Led Screen Found

When this messages appears, then it is clear that Led Studio software cannot find the sender card.
1) Connect the sender card to a different USB port.
2) Check if Windows has installed the proper USB driver for the sender card.
3) Check if the COM port settings are ok. Normally the sender card is on COM port 5, but sometimes Windows installs the USB driver on a higher port such as 25 or 28. In this case you must change the COM port to 5, even when Windows says this port is already in use !

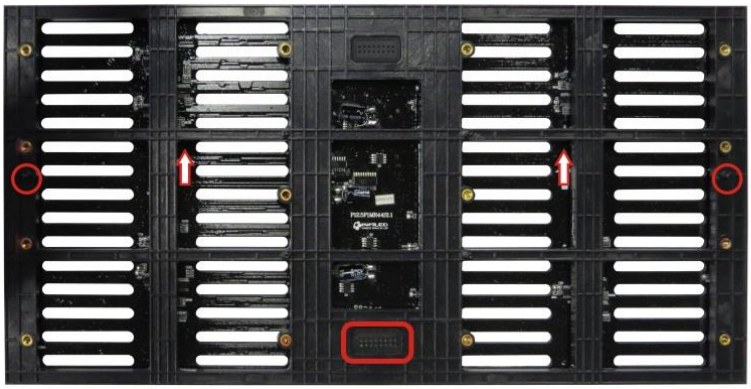
LED Module selector for 101390 Pixelmesh P12.5

How to determine the correct spare LED module for your 101390 Pixelmesh P12.5?



Straight Line

Quadrant



Straight Line

Quadrant

1. Choose the correct module number by looking at the connector, arrows and guide pins on the back.
2. Choose the correct LED type. The **vertical** LED has the four colors stacked on each other in **a straight line**. The **quadrant** LED is divided in four sectors (clearly visible sections).
3. Select the part number from the table.

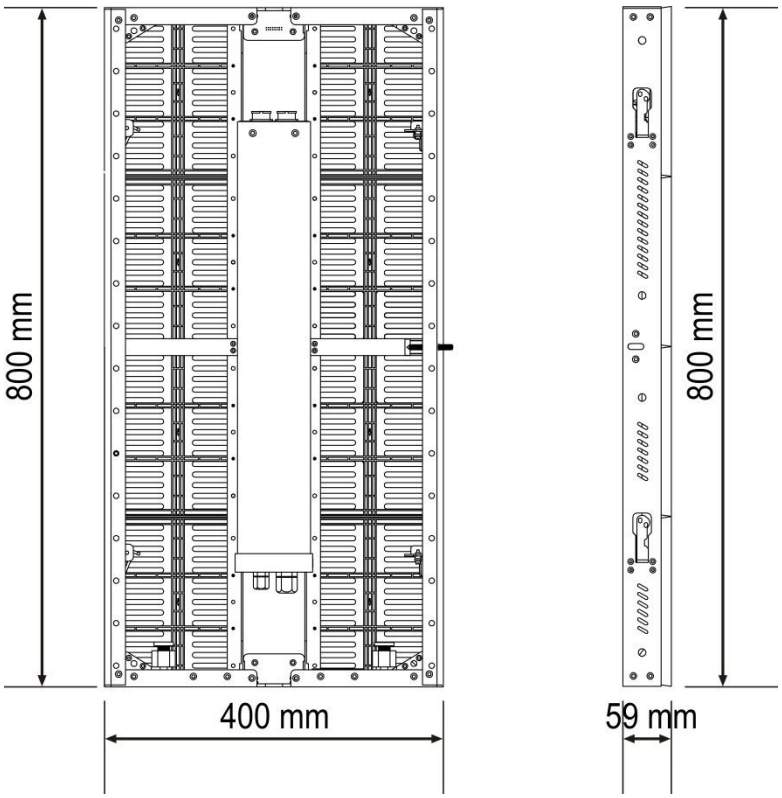
LED partition

Straight line	Quadrant
SPINFI0043	*SPINFI00432*
SPINFI00431	*SPINFI00433*

Dimensions Flightcase for 6 pieces Pixelmesh P12,5

45 Kg

Dimensions Pixelmesh P12,5



6 Kg

Specifications

DATA SHEET	101390 Pixelmesh P12,5 Module 400 x 800 x 59 mm	
(1) Pixel Parameter		
NO.	**Item**	**Parameter**
1	Pixel Pitch	12,5 mm
(2) Module Parameter		
NO.	**Item**	**Parameter**
1	Module Size	400 x 800 x 59 mm
2	Module Resolution	(**32x64 Pixels**)
3	Density	6400 Pixels/m^2
4	Angle of View	140˚ Horizontal, 140˚ Vertical
5	Luminance/Brightness	1200 Nits
6	Optimum Viewing Distance	10 - 100m
7	Working Voltage	AC 100 - 230V - 50 Hz
8	Module Weight	6 kg
9	Refresh Rate	Variable <1000Hz
10	Control System	LED Studio - DVI through PC Sendercard
11	Control Distance	<75m
12	Operation Temperature	0˚ - 45˚
13	Operation Humidity	10% - 90% RH
14	Protection Rating	IP-44 INDOOR ONLY
15	Certification	CE
16	LED Lightsource	SMD3528 RGB
17	LED Arrangement	3 in 1 SMD
18	LED Module Replacement	32 x 16 Pixels
19	Cabinet Area	0,32 m^2

Design and product specifications are subject to change without prior notice.

CE

Website: www.DutchMediaTools.info
Email: service@highlite.nl

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