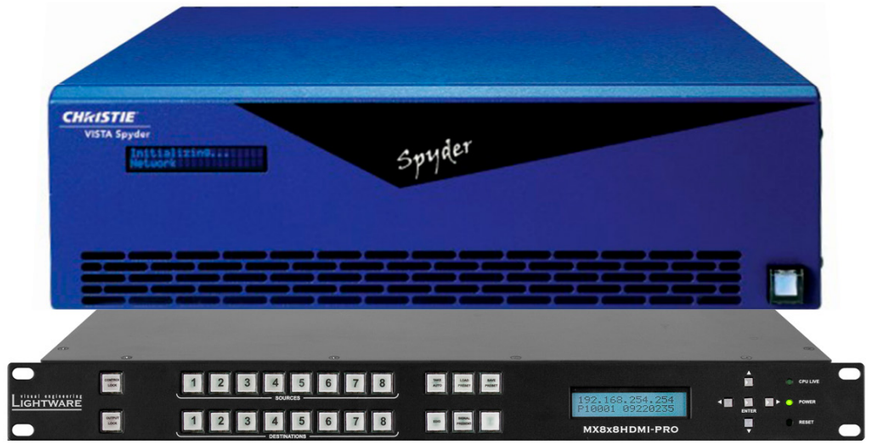
visual engineering
LIGHTWARE

Application Notes



Lightware Matrix – Vista Spyder

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Introduction

This Install Guide helps to connect and setup a Lightware Matrix to a Vista Spyder Video Processor.

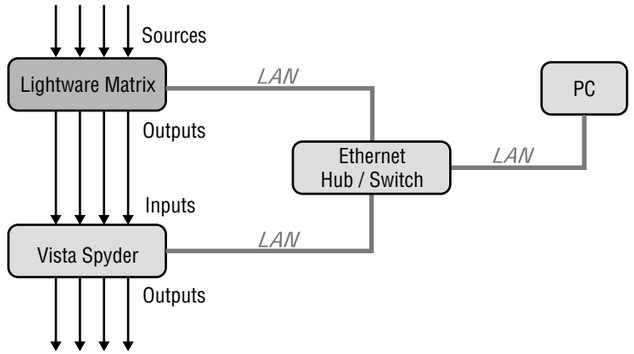
1.1. Connecting via Local Area Network

There are two methods to connect a matrix to the Spyder, the first one is via LAN:

Step 1. Connect the Outputs of the Matrix to the Inputs of the Spyder.

Step 2. Connect the Spyder and the Lightware Matrix by patch (straight) Ethernet cables to an Ethernet Hub/Switch. Creating a real local network without connecting to other network is recommended.

Step 3. Connect a PC also and install **Vista Spyder Control Suite** software.



Connecting via Local Area Network

Step 4. Set the IP address of the Matrix and the PC in line with the followings:

- **IP address**: 172.16.1.2-99
- **Subnet mask**: 255.255.0.0

Step 5. Set the IP port number on the Matrix to **10001**.

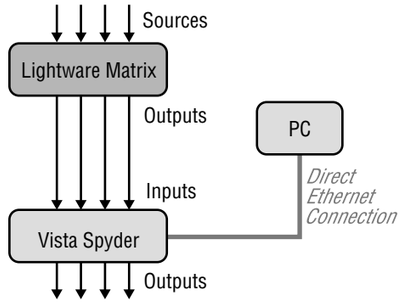
Step 6. Check the protocol settings of the Ethernet port in the Matrix: **Protocol 1** has to be active.

1.2. Connecting via RS-232 Serial port

The second method to connect a matrix to the Spyder is to use a serial connection:

Step 1. Connect the Outputs of the Matrix to the Inputs of the Spyder.

Step 2. Connect the Spyder to the Matrix by a straight serial cable. Lightware Matrices have female RS232 connector, Spyder can be assembled with male or female connector – select the serial cable accordingly.



Connecting via Serial port

Step 3. Connect the Spyder to a PC by a cross-link Ethernet cable and install Vista Spyder Control Suite software.

Step 4. Set the serial port in the Matrix and in **Vista Spyder Control Suite** software with the same values: Baud rate, Data Bits, Parity and Stop Bit.

Step 5. Check the protocol settings of the serial port in the Matrix: **Protocol 1** has to be active.

Step 6. Set the IP address of the PC in line with the followings:

- **IP address:** 172.16.1.2-99
- **Subnet mask:** 255.255.0.0

1.3. Software settings in Vista Spyder Control Suite

Run **Vista Advanced** from the PC and connect to the Spyder.

Add new source

Right click on the sources tab and select from the submenu.

Source properties

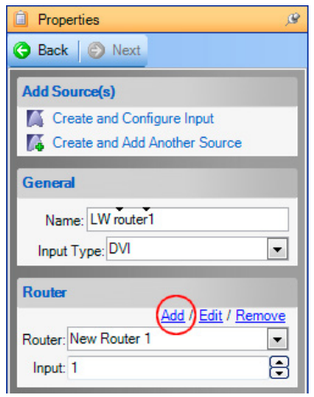
Set the followings on the **Properties** tab:

Step 1. General:

- Name (e.g. LW router1)
- Input Type (e.g. DVI)

Step 2. Router:

- Click on **Add** to set the properties of the Matrix.



Router properties

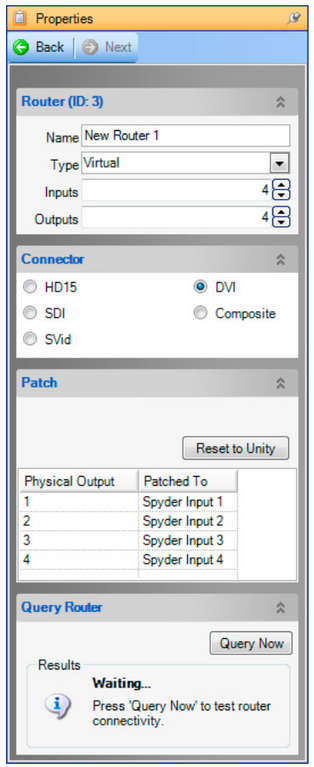
Step 3. Router:

- Name (e.g. MX8x8DVI-HDCP-Pro)
- Type – select as follows:

  Lightware: if the Matrix is connected via serial connection

  Lightware IP: if the Matrix is connected via Ethernet

- Input/Output: Set the exact port numbers of the Matrix as these values are the base of Patch settings.



Step 4. Connector (e.g. DVI)

Step 5. Connection:

- If the Matrix is connected to Spyder via RS232 serial connection, select the appropriate port (e.g. Serial Port 1).
- If the Matrix is connected to Spyder via Ethernet, **Additional Information** section will be displayed instead of **Connection**; type the IP address of the Matrix into the appearing field.

Step 6. Patch:

- Assign the outputs of the Matrix to the inputs of the Spyder according to the cabling.

Step 7. Query Router:

- Check the connection between the Matrix and the Spyder by clicking the **Query Now** button. This feature was not properly handled in previous software versions; from Control Suite v3.5.7 the function has been working correctly.

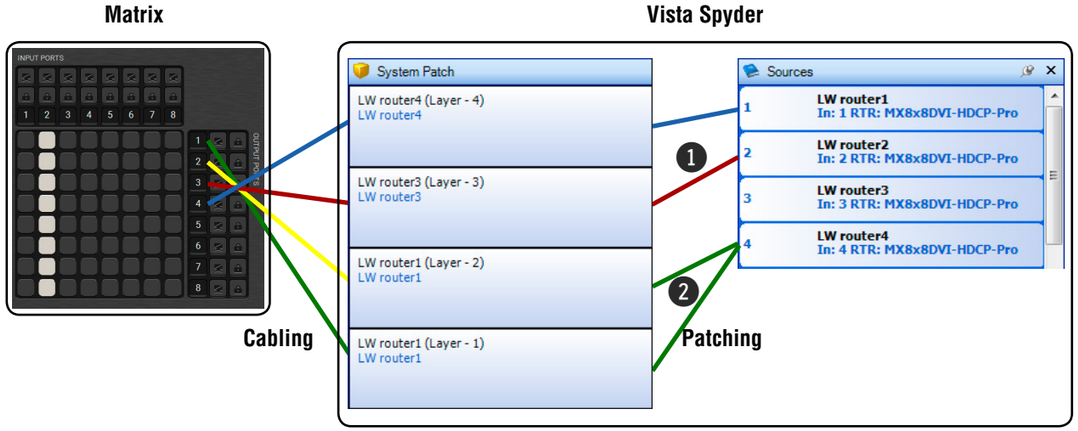
Input / Output patching and crosspoint controlling

The number of the layers represents the available inputs of the Spyder. A source can be patched to one or more layers just drag & drop the selected source onto the desired layer. If the source is changed, all patched layers will be affected too.

System example

On the following layout there are four inputs (layers) available in the Spyder. Four outputs of the Matrix are connected to the Spyder in the same order (Output1 to Input1, Output2 to Input2, etc...).

Four different sources are defined with the same Router (Matrix) which allows the sources working independently from each other.



1 LW router3 (Source#2) is patched to Layer 3 (Output 3 on the Matrix). If the input is changed in Vista Advanced at LW router3, it will be affective only on Output 3 in the Matrix.

2 LW router1 (Source#4) is patched to Layer 1 and Layer 2 (Output 1 and Output 2 on the Matrix). If the input is changed in Vista advanced at LW router1, it will be affective on Output 1 and Output 2 in the Matrix.

Changing crosspoint settings in the matrix in the software

Select a source from the **Sources** panel and see the **Properties** panel. Open the **Sources** section; the **Input** value means the active input of the Source.

The active input port number is also visible on the Sources panel.