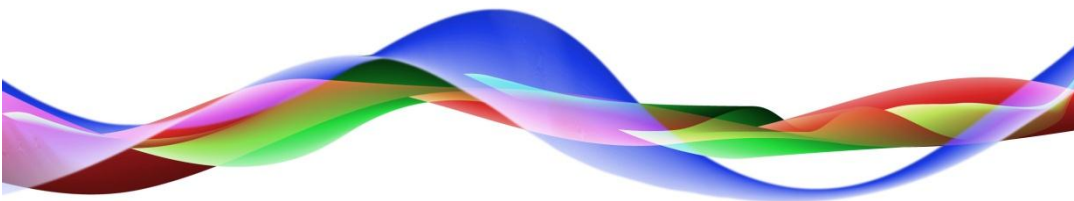


# 04 Layers

**vsmStudio**

**Manual**



# Legend



*Please note: This information is of prime importance.*

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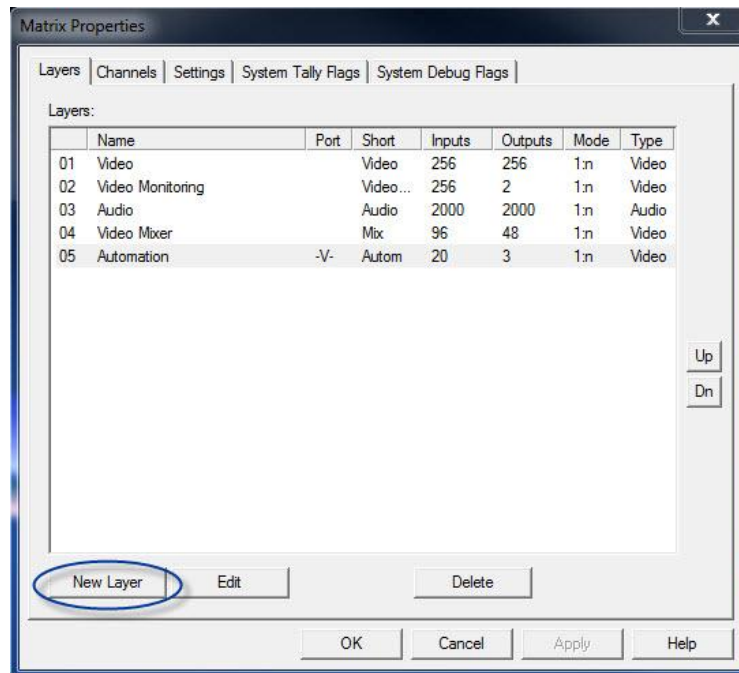
# Content

1	New Physical Layer .....	5
1.1	Switch Behaviour of the Router .....	5
1.2	Comment und Short Form .....	6
1.3	In- and Outputs of the Router .....	6
1.4	Router Type .....	6
1.5	Layer in the Master Matrix .....	7
1.6	Server Synchronisation .....	7
1.7	Definition of the Control Instance.....	7
2	New Virtual Layer .....	8
2.1	Switch Behaviour of Virtual Layers .....	9
2.2	Peculiarities of Virtual Layers .....	9



Go to *Matrix Properties* to set up a new layer.

After the size of the virtual matrix has been defined (see chapter 3.1.1 Size of Virtual Matrix), it is possible to set up layers. Open the window *Matrix Properties* by selecting the wrench symbol in the main menu. All existing layers are shown under the first tab *Layers*. They can be edited or deleted there. The layers can also be sorted in that view by pressing the *Up* and *Dn* (Down) buttons.

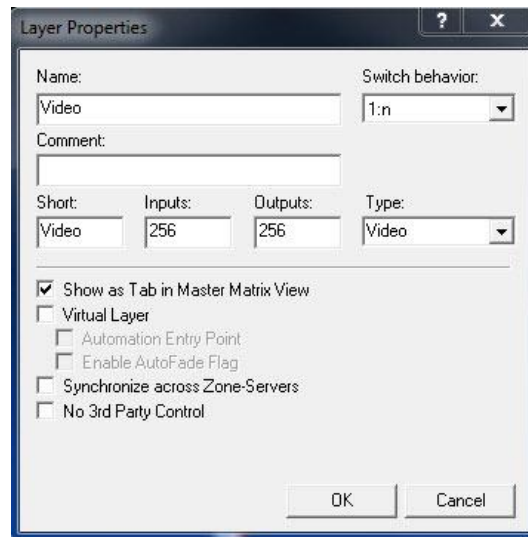


Overview of existing layers and creation of new layers

In general, every router represents a separate layer. There are, however, routers with multiple layers, such as audio and video. The audio- and video layers are set up individually.

Left-clicking on *New Layer* opens a window, in which the properties for the newly set up layers can be defined. There are two different types of layers: physical and virtual layers.

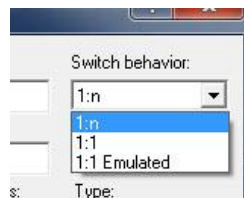
# 1 New Physical Layer



*Layer properties*

Enter a unique name for the router in the field labelled *Name*, for example “Video”.

## 1.1 Switch Behaviour of the Router



*Drop-down-Menu Switch Behaviour*

The operating behaviour of the router is defined in the drop-down-menu *Switch Behaviour*. The following behaviours can be defined here:

- *1:n*: The router allows the connection of one source to multiple destinations.
- *1:1*: The router allows one connection per source (typical for RS-422 routers).



*Please note: This definition requires a blind signal.*

- *1:1 Emulated*: While the router allows the connection from one source to multiple destinations (*1:n*), the switch behaviour is that of a *1:1* router.



*Please note: This definition also requires a blind signal.*

## 1.2 Comment und Short Form

*Comment, short form, in- and outputs, and matrix type*

The field *Comment* is not required and can be labelled in any way (for example with the name of the console's manufacturer). The field *Short* is limited to a maximum of eight characters. The short form entered here can be found in the signal path list (see chapter 5.1 Signal Path List) and in the master matrix view (see chapter 6).

## 1.3 In- and Outputs of the Router

The actual physical size of the layers must be defined in *Inputs* and *Outputs* (two separate windows).



*Please note: If the matrix is smaller than the entered value, this can prompt an error message..*

## 1.4 Router Type

Like the field *Comment*, the field *Type* is not required: Defining the router type (freely selectable) may improve the ability to differentiate between the individual layers. One useful differentiation, for example, would be the division by types: video-, audio-, and remote matrices.

## 1.5 Layer in the Master Matrix



*Display of the layer in master matrix view*

The setting *Show as Tab in Master Matrix View* is checked by default. This attribute allows the layer of the virtual matrix in question that to be viewed individually by selecting its individual tab (see chapter 6.5 Layer and Position Display). In this layer view, the layout of signals cannot be changed. It depends on the physical assignment on the router.

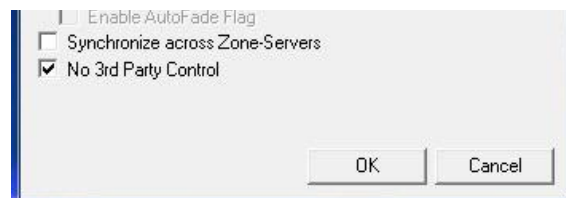
## 1.6 Server Synchronisation



*Settings for server synchronization*

*Synchronize across Zone-Servers* is only used with so-called dummy layers. In this situation, the used layer has no physical counterpart. Therefore, there is no feedback from the crosspoints. It is possible, to assign a simulated feedback to such a layer (see chapter 8.1.7 VSM Dummy X-Switch). The crosspoint changes have to be transferred to other servers in the cluster, as these simulated feedbacks only take place locally on a PC or server. This can be activated by checking the box here.

## 1.7 Definition of the Control Instance

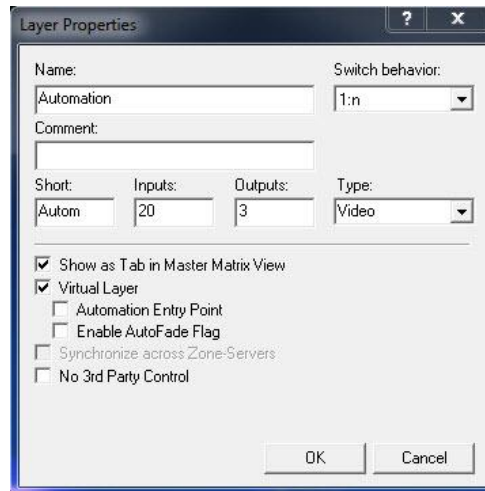


*No external control*

The setting *No 3<sup>rd</sup> Party Control* is activated if VSM is the only controlling party, and no other control or automation systems or other devices from the manufacturer are used for the control of the terminal equipment. With this setting activated, the behaviour of virtual devices

changes (see chapter 5.4 Virtual Signals) depending on switches that are executed by another control instance.

## 2 New Virtual Layer

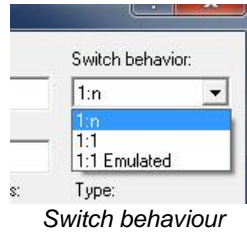


*New virtual layer*

A virtual layer, or vLayer, commonly serves as connection of automation systems that should only have access to a section of the available routers. It can also be used as protocol converter. For example, if an automation system cannot control a router due to a missing protocol, the VSM control system will provide the automation system with a known protocol (ProBel SWp08, ProBel SWp02 or Quartz Native-1). The switch information is directly forwarded to the terminal device.

The properties of a new, virtual layer are defined in the same window. Similarly to the physical layer (see chapter 4.1.1 New Physical Layer), a unique name for the virtual layer must be entered in the field *Comment*.

## 2.1 Switch Behaviour of Virtual Layers



The switch behaviour of a virtual layer must always be *1:n*. It primarily depends on which signals are assigned to the virtual layer.

## 2.2 Peculiarities of Virtual Layers



If *Virtual Layer* is activated, two additional properties become available in addition to those described in chapter 4.1.1 New Physical Layer:

- The attribute *Automation Entry Point* is checked if there is a connection to an automation system.
- When receiving a switch from an automation system, the attribute *Enable AutoFade Flag* prompts a fade out of the current source and a fade in of the new source. This requires the proper configuration of the AutoFader module.

The remaining attributes are not used in combination with virtual layers.

