# **VS-TV** User manual



Virtual Matrix

**ENGLISH** 

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# **1** Introduction

The VS-TV unit is a virtual matrix to visualize on a VGA monitor, camera images from one or multiple installations that are controlled by VX units range.

With this unit you can display on a monitor up to 16 video signals from one or from several units of the VX product range choosing how many cameras you want to watch at a time and in which quad each one must be displayed.

This document describes the main characteristics, installation and configuration of the VS-TV units.

## 1.1 Features

The main VS-TV characteristics are the following:

### Video from units

VS-TV is able to collect images from the cameras connected to any VX unit, regardless the model or where is located.

### TCP/IP communication

VS-TV connects to the units via TCP/IP (LAN, WAN or ADSL) with no need of additional software.

### For VGA monitors

With VS-TV the video signals collected from the units can be displayed in VGA monitors, being necessary one VS-TV for each monitor.

### Up to 16 video signals per monitor

The same monitor can display up to 16 video signals from a same unit, from different units of the same installation or from different units of different installations.

### Remote configuration from Internet Explorer

The selection of the units and cameras as well as the total number of quads and the position of the cameras in each one can be made from any PC with Internet Explorer or by using the Supervisor VS reception software

# 2 Installation and set up

For the installation of a VS-TV unit check the unit package contents and follow these steps.

### 2.1 Unit package contents

Open the box and check that the following items are included in it:

- Required model.
- Power supply.
- RJ45 cable for TCP/IP communication.
- Crossover network cable for direct connection.
- CD including the VS-TV manual (this document) and VSFinder software necessary for the network configuration of any VS-TV unit.

### 2.2 Installation

To install the unit connect the supplied network cable to the network connection (A), next connect the video cable (not supplied) to the video output VGA (B) and finally connect the power supply (C). The unit will start immediately.



# 2.3 Unit set up

The initial unit configuration must be always performed from the local network, it is necessary to connect the unit and the computer to the same sub-network or to use the crossover cable provided by the unit.

Once the physical connections are established, start the *VSFinder* program contained in the installation CD. This program identifies all the VX units connected to the network. If several units appear in the list of units found, you can identify the one you are about to configure through its serial number, which can be found in a label stuck to the unit and is also in the first column "id/model". Select it by clicking the corresponding line.

Finder application,	version 1.0.4	rch	-	
		s found		
id/model	mac	ip	http / rtsp	
000101.0001.0001	00:40:63:E9:BE:06	192.168.5.51	80 -	P
000101.0001.0003	00:40:63:E0:D8:27	192.168.5.53		
060228.0001.4027	00:40:63:E0:D7:40	192.168.4.69		
071023.0001.0001	00:40:63:DD:32:9B	192.168.6.40		
071023.0001.0002	00:40:63:E0:D7:76	192 168 6 41		
071023.0001.0003	00:40:63:DD:81:97	VS unit network co	nfiguration	
071023.0001.3562	00:40:63:E0:D4:73		in Baranan	_
071107.0001.0000	00:40:63:DD:82:A9			
010105.8103.0001	00:01:29:08:E9:C4			
000000.0092.0000	00:01:29:05:E8:CC			
010105.C092.0004	00:01:29:08:E9:E0	ID	06022800014027	
010105.C092.0005	00:01:29:08:7D:6E	MAC	00:40:63:E0:D7:40	
012345.C092.0001	00:01:29:6F:0F:BD	IP	192.168.4.69	
000101.C1A2.1234	00:01:29:6F:10:8B	Default gatewa	av 192.168.1.61	
012345.C1A2.0003	00:01:29:09:B4:35			
040316.C1A2.6334	00:01:29:6F:11:49	Mask	255.255.0.0	
060110.C1A2.3040	00:01:29:16:EA:6B			
060110.C1A2.3041	00:01:29:16:88:B9	Submi	t (remote reset)	
080124.C1A2.6969	00:01:29:F2:ED:DB		(()))))))))))))))))))))))))))))))))))))	
300508.C1A2.1234	00:01:29:A2:8B:2E			
770820.C1A2.1233	00:01:29:6F:0B:E3			
012345.C1A3.0005	00:01:29:F5:F7:A4			
050616.C1AA.0525		192.168.6.34	80 -	T
040513.C262.7048				ľ
060110.C262.3043	00:01:29:16:D7:22			
061011.C262.8083				
150570.C262.0001	00:01:29:F5:83:E1			1
012345.D002.0002				
012345.D102.0004	00:01:29:0E:85:21			1
				1
000101.D300.0009	00:01:29:0A:44:9B	192.168.5.109	80 8554	

Fig. 2 .- VSFinder application

Then you will see a screen to enter the IP address, the gateway address and the network mask, values that should be provided by the network administrator. From that moment on you will be able to access the unit through its IP address, whether local or remotely (through ADSL). This configuration using the VSFinder only has to be done once.

# **3** Configuration from the Internet Explorer

The configuration of a VS-TV unit can be done from a PC with an Internet Explorer or from the Supervisor VS software.

Once the unit has been configured with the VSFinder you can connect it through the IP address. The initial screen shows two tabs; first one "Quads" allows configuring the quads and the unit images displayed. Second one "Configuration" contains the VS-TV general data.



Fig. 3 .- General application screen

# 3.1 General data configuration

In this screen you can configure the unit general data; each option has a button to change the original data:

Name	Monitor 10	CHANGE
Output mode	vga-640x480 🔽 Scale factor 100 🗹 %	CHANGE
Network configuration	IP address 192.168.6.49 Mask 255.255.0.0 Gateway (Router/Proxy) 192.168.1.217 Primary DNS server 80.58.0.33 Secondary DNS server 80.58.32.97	CHANGE
HTTP Port (80-120)	80	CHANGE
Language	English 💌	CHANGE
Language Date and time	English 🗸 23 🗸 - Ene 🗸 - 2012 🗸 12 🗸 07 🗸 10 🗸	CHANGE
Date and time	23 🗸 . Ene 🗸 . 2012 🗸 12 🗸 07 🗸 10 🗸	CHANGE
Date and time Timezone	23 🗸 . Ene 🗸 . 2012 🗸 12 🗸 07 🗸 10 🗸	CHANGE CHANGE CHANGE SET

Fig. 4 .- Configuration screen

### Name

By default the unit name is VsTvUnit

<u>Output mode</u> There are one output mode available VGA output, depending on the monitor you can choose between size five output types.

### Network configuration

Next parameters are configured:

- IP address.
- Mask.
- Gateway: It's necessary to access a VS-TV that does not belong to a local network unit.
- Primary DNS server: It should be used when a quad is configured with the unit name instead of the IP address.
- Secondary DNS server.

When the "Change" button is pressed having carried out a modification a data confirmation is made. In case is not correct it will show which data is failing.

### HTTP Port

Configuration of the unit web server connection port.

### Language

Available Spanish and English.

### Date and Time

It is used to register the date and time in the system unit files.

### <u>Time zone</u>

Has the same purpose as the date and time used in the system unit files.

### **Factory settings**

It is restoring the unit factory settings except by the network configuration (IP, mask, gateway and DNS servers), and the date and time.

The rest of the values for general data and quad configuration are deleted.

### Insert upgrade

Sends upgrade files to VS-TV units.

### Restart unit

It restarts the unit.

# 3.2 Quad configuration

The quads and the units from which the VS-TV gets the images are configured in this screen.

When the "Quads" tab is selected it appears a screen divided in two zones. In the upper part there is a panel with the saved configurations (A) and in the lower one the panel shows the type of quads that can be selected and its configuration (B).



Fig. 5 .- Quads screen

### 3.2.1 Display types and compositions



When we first connect to a VS-TV unit no option is configured. At the top part of the quad panel inside "Display type" the type of quad composition that is going to be displayed is chosen. By default it appears selected the "Single Quad" option.

We can choose between the following quad composition types:

X	It doesn't shows video	
Single Quad		
	2x2 Quads	
	1+5 Quads	
	3x3 Quads	
	1+12 Quads	
	4x4 Quads	

Once the type of quad composition desired is selected, it is necessary to add the units for which we want to display information.

Select on the chosen quad. To add a unit, select the "Change viewer parameters" option and introduce the IP address, port, user (operator, supervisor or administrator), password and camera that is going to be displayed.



Once the data has been introduced, click on "Apply". When this button is pressed the new quad data is stored and the corresponding video is displayed in the video output.

To configure another quad repeat the process over each one of the selected quads. Introduce the unit data in the "Change viewer parameters" panel and select the corresponding camera. When the button "Apply" is pressed the quad shows the selected camera and the "known units" list is updated.

Change to unit (Known units):	
operator@VS-DVR 2:192.168.6.3 operator@VS416L-DVR:192.168 administrator@VS416L-Showroo	.6.36:82 💻 DELETE
Change viewer parameters:	
IP Address: 192.168.6.36	HTTP port: 82
User: Operator 🛛 👻	Password: ••••••
Camera: <mark>4 ⊻</mark>	APPLY
1 2	
Last unit selected: 4	
administrator@VS416L-Shov <mark>5</mark>	92.168.6.34:86
Camera Domo Y	

The "Change to unit (Known units)" panel displays the VS unit list that has been defined to be used in the quad composition configurations.

Change to unit (Known units):				
operator@VS-DVR 2:192.168.6.30:82				
operator@VS416L-DVR:192.168.6.36:82	DELETE			
operator@VS-DVR 2:192.168.6.30:82 operator@VS416L-DVR:192.168.6.36:82 administrator@VS416L-Showroom:192.168.6.34:86				

The units are defined with the following format: user@unit\_name:IP/DNS:HTTP Port. For example: <u>operator@VS-DVR:192.157.20.4:80</u>

At the same time a new input is added to the known list of VS units and the information displayed in the "Selected viewer parameters" is updated.



This is an informative panel and displays the camera and VX unit used in the quad presently selected. In the low part the "Last unit selected" panel displays the information of the last unit that has been used to configure a quad.



This option make easier to configure several quads when the same unit is going to be used in all of them since only it's necessary to select the desired camera and press the "Apply" button.

### 3.3 Favourites: How to save different compositions

Different quad configurations can be created with each type of quad compositions; once the configuration is defined it can be stored with a name to make the selection easier.



To save a new configuration it's only necessary to write the selected name and press the "Save" button.

In the drop down menu "Saved Confs." There will appear the configurations already saved and the type of compositions to which they belongs to (1, 2x2, 1+5, 3x3, 1+12 y 4x4). Once the configuration is selected press the "Display" button and the VS-TV screen will be refreshed with the selected information.

The "Info" button opens a new window in the Internet Explorer with detailed information about the selected configuration.

Viewer	VS Address	Camera	Camera name	HTTP port	User	Ref. Image
1	192.168.4.45	2	Salida	81	supervisor	
2	192.168.6.34	2	Acc Show	86	administrator	
3	192.168.6.34	3	Showroom	86	administrator	
4	192.168.6.34	6	Almacen	86	administrator	
5	192.168.6.34	10	Oficina	86	administrator	
6	192.168.6.36	1	Acceso	82	operator	
	CLOSE					

The "Delete" button allows the deletion of the selected configuration, but it doesn't change the quads displayed on the screen.

# 4 Configuration from the Supervisor VS

The VS-TV units can be configured from the Supervisor VS software.

The configuration from the Supervisor VS software is simple because it has the complete data base of the VS units as well as the camera reference images.

It's advisable to use the Supervisor VS for the VS-TV due to its ease of use and configuration. For further information please consult the Supervisor VS application manual available from www.visual-tools.com.

# 5 Apendix 1: Technical Specifications

MODELS:	Virtual matrix to visualize cameras from VX remote units.
USER INTERFACE:	WEB Interface for remote access from any PC with MS Internet Explorer.
COMUNICATION:	TCP/IP with Ethernet 10/100 base T internal adapter and RJ45 connector.
VIDEO OUTPUTS:	1 VGA video output
MATRIX:	Up to 16 video signals per monitor, coming from one or multiple VX units. Quads: 1x1, 2x2, 1+5, 3x3, 1+12, 4x4.
CONFIGURATION:	Remote configuration from Internet Explorer or Supervisor VS software.
POWER SUPPLY:	External power supply UL, FCC and CE marked. Voltage: 12 Vdc. Current maximum peak: 5A (12V).
PHISICAL DATA:	Width: 302 mm x Height: 68 mm x Depth: 235 mm.
CERTIFICATES:	CE.



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