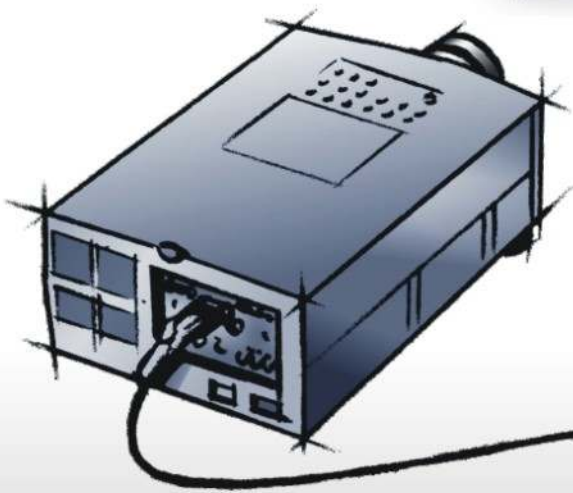


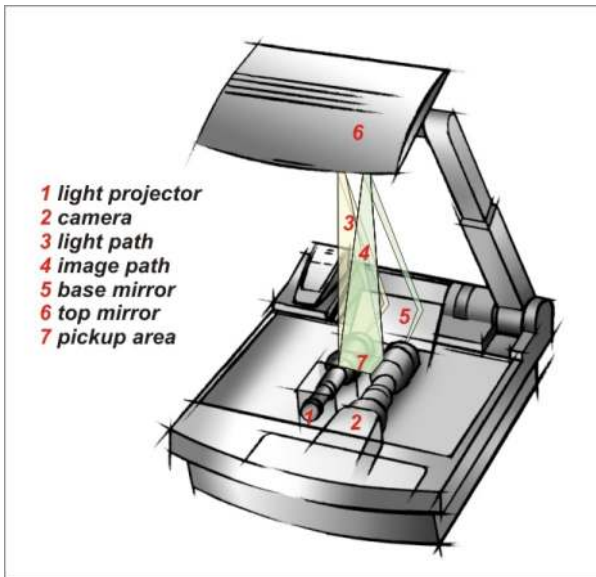
# WOLFVISION<sup>®</sup>

## *Visualizer Professional series*



**VZ-37**  
PAL / NTSC Video

# The professional WolfVision Visualizer technology:



## How it works:

A **light projector (1)** inside the unit projects a **light field (7)** the same size as the pick-up area of the built-in camera via the **base mirror (5)** and the **top mirror (6)** onto the working surface. The image is recorded by the **camera (2)** using the same path.

The lenses of the **light projector (1)** and the **camera (2)** are synchronized. Thus the size of the light field on the working surface changes when the user changes the zoom range of the camera.

This patented WolfVision scanning and illuminating system offers a number of unique advantages as described in this brochure.

## Excellent picture quality - best in the PAL/NTSC Video field

**PAL** or **NTSC** video is the "classic" technology which has always been used for Visualizers or document cameras.

"Video" based Visualizers sell at a lower price than the new "Progressive Scan" Visualizers and have the advantage that they can show **motion** in even better quality. This is because they pick up 50 (=PAL) or 60 (=NTSC) half-images (=fields) per second in interlaced mode.

WolfVision's **3-CCD Visualizer VZ-37** offers the maximum picture quality which can be achieved with the "video" technology.

A resolution of 800 horizontal lines, absolutely **lifelike colors**, a **true RGBS** output and even a component output (YUV). This is true **broadcast quality**.

## Easy positioning (with synchronized light field)



A light field, the size of the pick-up area of the built-in camera is projected onto the working surface. The illuminated part of the working surface is always identical to the pick-up area of the camera. When zooming in and out, the size of this lightfield changes accordingly.

This allows very **easy positioning of objects**. There is no need to look at a monitor. Just place the object in the illuminated portion of the working surface!

The synchronized lightfield is a special patent of WolfVision and can be found only on WolfVision's professional

## High end components



It's a common misunderstanding that the number of pixels of the CCD chip says everything about the resolution of a Visualizer (or any camera). Because if a cheap lens or bad electronics would be used, the resolution visible on the projection screen would be much lower than the built-in CCD could provide.

Only a combination of **high quality components** as used in all professional WolfVision's Visualizers can produce a high-resolution picture on your screen.

Especially WolfVision's **professional telezoom camera lenses** are of superior quality and allow the CCD to really "see" the pixels it is supposed to pick-up. Check out the exceptional **edge focus** of these lenses!

## Depth of focus (depth of field)



WolfVision uses professional telezoom lenses (without close-up adapter lenses) for the professional Visualizer series. Together with the **perfect lighting**, this results in a **superior depth of focus - even with big enlargements**.

The greatest depth of focus for objects on the working surface is:

**250mm (9.8") in wide position**  
= pickup area: 360 x 270mm (14.2" x 10.6")

**70mm (2.8") in tele position (without macro)**  
= pickup area: 42 x 32mm (1.6" x 1.3")

Due to the great depth of focus, an autofocus function is not necessary, as it is usually not necessary to adjust the focus.



## Shadow free illumination



As the camera and the light projector are situated side by side within the unit and follow the same path, shadows are almost completely eliminated.

During a presentation it is very often necessary to write something on a document on the working surface or to point to a certain detail with a finger or a pencil.

The professional WolfVision Visualizers are perfectly suited for this, as there is practically **no shadow** covering up important details.



## Illumination of hollow objects / No light adjustments



Due to the special light system of WolfVision's professional Visualizers, every part of the recorded picture is always perfectly illuminated.

**Hollow objects or complex 3-D objects** are always completely illuminated - even on the inside.

As a result there is never a need for adjustment of the light.



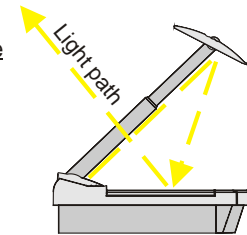
## Reflection free area



### Reflection free area

Due to WolfVision's special illumination system the whole working surface is a reflection free area.

No adjusting of lights is necessary in order to avoid disturbing reflections on glossy material (photos, transparencies etc.)



## Quick recordings outside the working surface



With WolfVision's professional Visualizers, recording outside the working surface can be done very quickly and easily by just tilting the top mirror. Recording is possible at any distance from the unit.

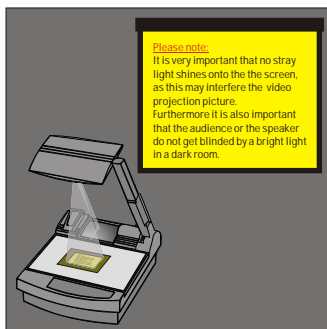
In this way, a WolfVision Visualizer works just like a camera on a tripod.

Even the zoom range outside of the working surface is the same as with most professional video cameras.

This feature is very important for picking up objects which are too large to be placed on the working surface or which need to be shown from the side.



## No disturbing stray light / No blinding the audience or the speaker



**Please note:**  
It is very important that no stray light shines onto the screen, as this may interfere the video projection picture.  
Furthermore it is also important that the audience or the speaker do not get blinded by a bright light in a dark room.

As the light of WolfVision's professional Visualizers is projected precisely onto the working surface and the light source is not visible, there is absolutely no stray light from the Visualizer.

This is very important for video projection. A WolfVision Visualizer can even be placed directly beside or in front of the screen without disturbing the projection.

Furthermore neither the audience nor the speaker will be blinded by the Visualizer's light.

## Optimized for video conferencing



WolfVision's camera electronics produce a very strong and stable picture, which is very important when a Visualizer is used as a document camera for videoconferencing systems. The even lighting, smooth autoiris and perfect focus are very important features, enabling video conferencing systems to digitize and transfer the picture from a WolfVision Visualizer much faster than pictures from other document cameras. Furthermore there is no blinding stray light from a WolfVision Visualizer, which could disturb the autoiris of the room camera.

Of course these features are equally important for live image presentations with a video/data projector and for other Visualizer applications.

## Motorized arm and top mirror (for scrolling)



By the push of one button, the motorized arm of the Professional Visualizers can be moved up and down automatically.

The top mirror is also motorized. This allows for scrolling text in a document or showing an object in detail by just pressing the up/down keys on the infrared remote control from anywhere in the room.



## 12 x optical zoom / macro position



The motorized arm of the professional Visualizers offers the possibility of increasing the zoom range from an optical 8.5 times zoom to an optical 12 times zoom.

In the fully extended position of the arm, the largest pick-up area is 360 x 270mm (14.4" x 10.8") and the smallest pick-up area is 42 x 33mm (1.6" x 1.3").

When the macro function is activated the length of the arm is automatically reduced, which allows for picking up objects as small as 30 x 22mm (1.2" x 0.9").

In other words: Objects **as small as a coin** or as large as an **open book** can be picked up in full size on the working surface.

## Very large built-in bottom light / special surface for transparencies



### Normal transparencies:

As on WolfVision's previous Visualizer models the working surface has a special crystalline white color. This is perfect for true color reproduction of **transparencies** with the Visualizer's **top light**.

### Slides, x-rays and darker transparencies:

For these objects the new professional Visualizer models are equipped with a very large built-in bottom-light. The size is: 380 x 280 mm (15" x 11") - this is the whole working surface. Furthermore, in certain situations the bottom light can be the better solution for transparencies (reflecting room light or very dark or wavy transparencies)



## Laser center marker

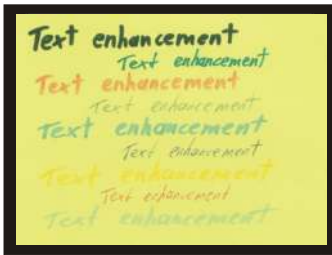


One of the main advantages of WolfVision's professional Visualizers has always been the synchronized lightfield which marks the pick-up area of the built-in camera.

However this function is not available when the bottom light or the macro function of the new Visualizers are used.

As a substitute, the VZ-37 is equipped with a laser pointer which marks the center of the pick-up area. By means of a special technique this laser pointer dot is NOT visible on the picture the audience sees.

## Text enhancement (in color)

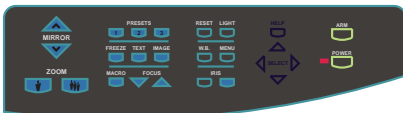


WolfVision's text enhancement function can be found on all four professional Visualizer models.

By pressing the "TEXT" button, the contrast of the picture is improved dramatically, resulting in much better readability of text, sketches and x-rays.

This contrast enhancement is utilized without losing the color of the picture.

## Intelligent control panel / Infrared remote control



Control panel in "unit off" position



Control panel in "unit on" position, text enhancement and macro function activated - camera menu and help not visible

### Intelligent control panel

With the Visualizer's intelligent control panel it is extremely easy to control the unit - even for non experienced users. Every key is equipped with a light and only the functions which are available in the current operation mode are illuminated.

### Infrared remote control

The most frequently used functions of the unit can also be controlled with its infrared remote control. After use it can be stored in a drawer above the working surface.



## Other features:

**Professional serial input (RS232) for external control** (including position setting and status report)

**User programmable presets** (for zoom, focus, iris, light, vertical scrolling position, camera settings etc.)

**Image on / off switch** (for all outputs, except Preview output for control monitor)

**Constant sync signal on all outputs** (no image distortion when switching the image on and off)

**Intelligent automatic lamp changer** (built-in spare lamp is automatically activated if the first lamp fails. An on-screen warning message indicates if a bulb is faulty)

**Halogen light** (with constant light spectrum, for true color reproduction)

**Lamp lifetime enhancement circuit and temperature management**

**Remote service and software updates** can be made through RS232 (through modem / internet in preparation)

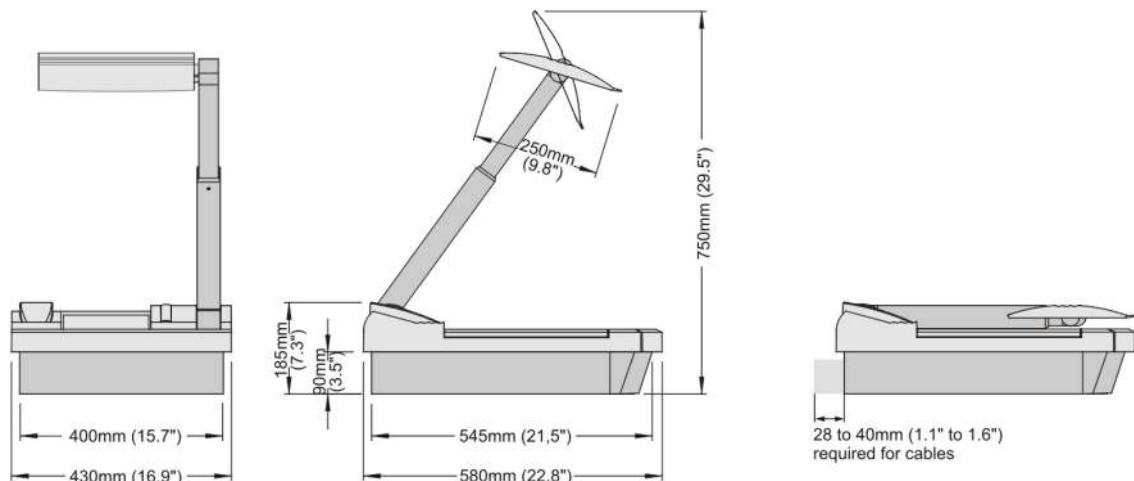
**Flicker-free scanning of monitors with a different image frequency possible**

**Positive/Negative switch**

**On-screen menu for basic settings of the unit and professional camera settings**

**on-screen help**

### Dimensions:



## Technical data:

	<b>VZ-37</b>
Technology	PAL or NTSC video
Camera	3-CCD 1/3"
Output signals	PAL or NTSC
Pictures per second (as picked up by the camera)	50 (PAL) or 60 (NTSC) fields (=half-pictures)
Horizontal resolution	800 lines
Vertical resolution (as measured with a testcard somewhere in the picture)	800 lines
Vertical resolution (in lines from top to bottom)	400 lines (PAL) / 350 lines (NTSC) = video standard
Effective Pixel (=pixels which are actually used for the image information)	3 x 752 x 582 (PAL) / 3 x 768 x 494 (NTSC)
Color reproduction	100% lifelike colors
Vertical image-frequency	PAL: 50 Hz / NTSC: 60 Hz
Horizontal image-frequency	15.7 kHz
Signal format	interlaced
Iris	automatic and manual
White balance adjustment	automatic and manual
Autofocus	not necessary due to high depth of focus
Manual focus	yes
Synchronized lightfield (in size of pick-up area of camera - for easy positioning of objects)	yes
Laser center marker (for showing center of pickup area of built-in camera, not visible to the audience)	yes
Text enhancement function (in color)	yes
On screen menu	yes
On screen help menu	yes
Menu reset function	yes
Upgradeable firmware (through software downloads from internet)	yes
Lens / Zoom	two telezoom lenses (12 x optical zoom, incl. Macro), f=2.0
Max object height on working surface	250mm (9.7")
Max. pick-up area on working surface	Length: 270mm (10.8"), Width: 360mm (14.4")
Min. pick-up area on working surface	30 x 22 mm (1.2" x 0.9")
Max. object outside of working surface	unlimited
Depth of focus on small object (42 x 33 mm)	70mm (2.75")
Depth of focus on large object (360 x 270 mm)	250mm (9.7")
Shadow free illumination	yes
Illumination of hollow objects	yes
Disturbing stray light	none
Blinding of audience or speaker	none
Light source	standard halogen lamp (12V/100W), 3200 Kelvin (constant light spectrum)
Automatic lamp changer (with built-in spare lamp)	yes
Reflection free area on working surface	whole working surface
Quick recordings outside of the working surface possible	yes
Motorized arm	yes
Motorized top mirror (for scrolling text with remote control)	yes
User programmable presets	3 (plus 8 fixed presets trough RS232)
Special working surface for transparencies	yes
Bottom light	built-in (size: whole working surface), light source: 4 x CCFL
Image on/off switch (with constant sync signal)	yes
Alternative Image display:	negative image
Y/C (=S-video) output	two (original S-video), 4-pin and 2x BNC plug
Composite outputs	two (BNC plugs)
RGBS (=video RGB) output (PAL or NTSC)	one (original RGB), 4x BNC plugs
Component output YUV (Y,R-YB -Y)	one (4x BNC plugs)
Genlock (Video Sync in)	yes, BNC plug
RS232 port and serial protocol with position setting and status report	9-pin Sub-D plug
Weight / Portability	17 kg (36 lbs)
Infrared remote control	yes
Power (external power pack on portable units)	multi range 100-240 V
Made in	Austria (European Union)

Specifications, design and availability subject to change!

Your WolfVision dealer:

More information on  
our Internet Homepage:  
[www.wolfvision.com](http://www.wolfvision.com)

**WOLFVISION**<sup>®</sup>  
*Visualizer*

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