EYE Camera Systems
WolfVision is a worldwide provider of products and services to leading universities, businesses, schools, and other organizations. An acknowledged “technology leader” in the Visualizer and presentation solutions market, WolfVision is the company that takes the lead, setting standards worldwide for innovative, reliable, user-friendly, high performance presentation solutions.

The EYE-12 and EYE-14 are powerful HD Live Image Camera systems that give outstanding results, whether used as a Ceiling Visualizer (without light), or when mounted on tripods, pan-tilt zoom mounts or wall mounts designed for video or surveillance cameras. For ceiling use, these units can either be mounted directly onto the ceiling or integrated into a suspended ceiling.

Our extensive knowledge and expertise across all application sectors enables us to offer comprehensive consultative guidance on customized combinations of Visualizer and camera hardware, software, and accessories, which enhance communication, collaboration, and knowledge sharing across all environments. As part of each individual Solution we offer not only pre-sales advice, but also post-sales support, training and service, ensuring that you receive maximum benefit from your investment.

Driving the Creation of Knowledge. Since 1966.
When you’ve got something to say, we believe it is important that getting your message across and making an impact should be as easy as possible.

Our aim is to help you to explain it better, to give you the freedom to share your knowledge with others - however you want, and whenever you want, when your audience is in the same room or on the other side of the world.

Because knowledge matters - to all of us.

Our Vision
WolfVision Live Image Camera systems are well-known for their unrivalled imaging quality, which is due to the perfect combination of high quality components and remarkable expertise. Our cameras deliver high resolution throughout the entire picture, true-to-life colors, and consistently high frame rates to ensure smoothness of motion. They have fast and accurate autofocus and zooming, giving best results every time!

WolfVision’s state-of-the-art YSOP1 image processing engine enables the fast and efficient processing of high volumes of data ensuring the consistent real-time display of impressive high definition pictures with unsurpassed levels of accuracy and detail.
Key Features

- **Powerful HD Cameras**
  The EYE-14 features a 1-CMOS native 1080p HD camera giving 980 lines of visible resolution in every part of the picture including the edges. The EYE-12 comes with a high definition 1-CCD camera which can output native resolutions of SXGA-, WXGA and 720p.

- **Large Zoom Range**
  The EYE-12 and EYE-14 come with 12x and 14x optical zoom respectively. This gives great flexibility in presentations, because objects as large as an open book or as small as a postage stamp can easily be picked up - and for enlarging even smaller objects, a 4x digital zoom is also provided.

- **Center Lasermarker for Easy Positioning of Objects (EYE-14)**
  A small dot of laser light, projected from the camera head down onto the working surface marks the center of the pickup area of the camera. This makes it very easy to position items correctly under the camera. The lasermarker is synchronized with the camera so that it does not appear in any onscreen or recorded images.

- **Optional Dry-erase Working Surfaces**
  Self-adhesive dry-erase working surfaces are available as optional accessory items. This enables an EYE camera system to be used as a whiteboard or ‘digital flip chart’ for making handwritten notes during a lecture or presentation.

- **Plug-and-Play Connectivity**
  WolfVision’s EYE-14 camera system supports the UVC standard, providing plug-and-play connectivity to Windows, Linux, and OS X (Mac) devices.

- **Power over Ethernet (PoE)**
  The LAN port provides Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) to the EYE-12 and EYE-14 respectively. This is a popular way of saving on cabling and installation costs.
Recording Made Easy

HD Video Recording (EYE-14)
The EYE-14 Camera system features onboard recording functionality allowing entire presentations and lectures to be captured in exceptional quality. It’s the quickest and easiest solution for in-house production of training videos or lecture capture. The EYE-14 is an innovative ‘all-in-one HD recording solution’.

The easy-to-use interface requires no advanced technical knowledge, enabling presenters to capture exactly the material that they wish to record. Using the pause button allows multiple segments of a presentation to be recorded and saved as a single file, eliminating the need for subsequent editing and time-consuming post-production. A line level input is provided for situations where audio capture is required.

Flexible Memory Options
Recorded videos and pictures can be saved to the 8GB internal memory of the EYE-14 which has enough capacity to store thousands of images, or an average of 10 hours of video footage (depending on the content). USB sticks or external hard drives can also be used to provide additional storage space if required. The EYE-12 can store up to 9 images internally, and recall them by pressing one of the numerical keys on the remote control.

Optional BYOD Pack (Feature Pack for EYE-14)
The optional BYOD feature pack enables wireless connectivity. It comprises a WLAN stick and an accompanying firmware upgrade that allows wireless configuration of the camera. The EYE-14 can either provide its own WLAN to users, or it can be integrated into existing WLAN infrastructure. This feature pack also enables the EYE-14 to be used with our powerful vSolution Connect for iPad app.
Using an EYE-14 combined with a WolfVision Dry-erase working surface gives you the freedom to present your ideas visually to both small and large groups. Handwritten material is easily displayed onscreen, and for lecture capture applications, it’s a perfect way to ensure that every last detail of your presentation or lecture is recorded using the onboard recording feature.

**Lecture recording - for all of your material!**

\[
F_c = \frac{m v^2}{r} = \frac{G M m}{r^2} = F_g
\]

\[
V^2 = \frac{G M}{r} = \left(\frac{2 \pi r}{\tau}\right)^2
\]

\[
p^2 = \left[\frac{4 \pi^2}{G} \right] \frac{a^3}{M}
\]

NVK3L = Weigh the universe!!
Innovative Sharing Options

Efficient Knowledge Transfer via Streaming
EYE Camera Systems or connected WolfVision vSolution Link software can stream video and audio to computers, tablets or smartphones on the internal network or the internet.

Quick and Convenient Distribution
WolfVision offers several possibilities for taking snapshots with EYE Series cameras, and emailing or printing them using our software components. This facilitates quick and easy distribution of materials during a presentation when required.

Easy Cloud Storage / FTP Upload (EYE-14)
Using the BYOD Pack upgrade for the EYE-14 enables vSolution Connect software for iPad to be used. This facilitates uploading and downloading of material to and from Dropbox. When using vSolution Connect during a presentation, content stored in Dropbox is always easily available. The EYE-14 also enables videos and pictures to be either automatically or manually uploaded directly from the camera to an FTP server if required.
Flexible Network Integration

Single User Authentication
When using a smartphone or iPad with EYE Series systems, Single User Authentication ensures a quick and easy wireless connection between device and Camera, and prevents any third party from interrupting the connection during a presentation.

Wired or Wireless Network Connection
For maximum stability and reliability, EYE System Cameras can be connected to existing wired LAN infrastructure using encrypted security. Ethernet functionality of the Camera can be restricted and access can be password protected. Using the optional BYOD Pack with the EYE-14 adds wireless connectivity and facilitates integration into existing wireless LAN infrastructure using encrypted security.

Wireless Encryption (EYE-14)
The EYE-14 with BYOD Pack upgrade supports WEP, WPA and WPA2 wireless encryption. This allows for straightforward integration into the enterprise level IT networks commonly found in universities and other organizations, and ensures that no compromises in network security are required.

Wireless Connectivity (Access Point)
The EYE-14 with BYOD Pack upgrade can also be configured to operate using an encrypted ad-hoc wireless network. This ‘standalone’ option allows for the direct wireless connection of smartphone, tablet, and PC devices, and means that full bandwidth is available for EYE-14 use. It gives users maximum flexibility, particularly if the camera is required to be used in multiple locations.
Connecting an iPad to an EYE-14 (optional BYOD Pack required) allows it to be used as a multimedia control dashboard during a presentation or lecture. All media types can be integrated and controlled from a single device, allowing material stored either locally on the iPad or in Dropbox to be added seamlessly into presentations.

The easy-to-use recording functionality of vSolution Connect also enables entire presentations including any external content, to be recorded, and saved to the iPad’s memory. A Live Image preview shows exactly what the audience sees onscreen at all times and wireless connectivity allows presentations or lectures to be delivered from anywhere in the room.

The annotation feature is ideal for making notes, sketching, and highlighting documents, charts, and pictures. A dedicated whiteboard function also provides a separate space for making and displaying notes onscreen during a presentation.
Transforming Presentations

✓ vSolution Control for Smartphones
The vSolution Control App enables EYE-12 and EYE-14 cameras to connect to an iPhone, Windows 8, Windows Phone 8 or Android device via WLAN. This intuitive and easy to use app allows presenters to use the device keypad and Live Image Preview to control a presentation or lecture wirelessly from anywhere in the room.

✓ vSolution Link for PC and Mac
vSolution Link allows a user to connect a computer directly to an EYE camera. The software allows for saving, printing and emailing of images, recording of videos, adding annotations and video streaming. It also provides useful tools for automatically applying firmware updates, which helps to extend the life of your investment, and allows new features and technical improvements to be added at no cost!

<table>
<thead>
<tr>
<th>Feature</th>
<th>Smartphone</th>
<th>PC/Mac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast Multimedia Source Switching</td>
<td>✔ ✔ ✔</td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Camera Remote Control</td>
<td>✔ ✔ ✔</td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Live Image Preview</td>
<td>✔ ✔ ✔</td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Image Snapshot</td>
<td>✔ ✔ ✔</td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Video Recording with Audio</td>
<td></td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Image Annotation</td>
<td></td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Live Web Streaming</td>
<td></td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Access to Web-based Material</td>
<td></td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Display Content From Device</td>
<td></td>
<td>✔ ✔ ✔</td>
</tr>
<tr>
<td>Multiple Source Preview</td>
<td></td>
<td>✔ ✔ ✔</td>
</tr>
</tbody>
</table>

More features available in future releases!
## Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>EYE-12</th>
<th>EYE-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera</td>
<td>1/3&quot; CCD</td>
<td>1/3&quot; CMOS</td>
</tr>
<tr>
<td>Pictures per second (as picked up by the camera)</td>
<td>30 frames (in all resolutions)</td>
<td></td>
</tr>
<tr>
<td>Effective Pixel (pixels actually used for image information)</td>
<td>1280x960 (+1,228,800)</td>
<td>1920x1080 (+2,073,600)</td>
</tr>
<tr>
<td>Total pixels of camera sensor</td>
<td>1,228,800</td>
<td>2,073,600</td>
</tr>
<tr>
<td>Pixels processed per second (effective pixels x frames per second)</td>
<td>36,864,000</td>
<td>62,208,000</td>
</tr>
<tr>
<td>Color reproduction / precision</td>
<td>very good colors (in all color precisions)</td>
<td></td>
</tr>
<tr>
<td>Native signal output</td>
<td>SXGA: (1280x960), WXGA: (1280x800), SxP HD (1280x720)</td>
<td>SXGA: (1280x1024), XGA (1024x768), SXGA (800x600), UXGA (1600x1200)</td>
</tr>
<tr>
<td>Converted output signals (4:3 and 5:4)</td>
<td>SXGA: (1400x1050), SXGA (1280x1024), XGA (1024x768), SXGA (800x600), UXGA (1600x1200)</td>
<td>SXGA (1280x1024), XGA (1024x768), SXGA (800x600), UXGA (1600x1200)</td>
</tr>
<tr>
<td>Converted Widescreen output signals (16:9 and 16:10)</td>
<td>1080p HD (1080x1080), WXGA+ (1680x1050), WXGA+ (1440x900), WXGA (1360x768)</td>
<td>WUXGA (1920x1200), WXGA (1280x800), 720p HD (1280x720)</td>
</tr>
<tr>
<td>Resolution (measured)</td>
<td>820 lines</td>
<td>980 lines</td>
</tr>
<tr>
<td>Brightness control</td>
<td>automatic and manual</td>
<td>automatic and manual</td>
</tr>
<tr>
<td>Manual focus</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Center lasermarker for easy positioning of objects</td>
<td>-</td>
<td>yes, single dot, in center of working surface, invisible onscreen</td>
</tr>
<tr>
<td>On screen menu, and onscreen help</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Firmware Updates via</td>
<td>USB, RS232, LAN</td>
<td>USB, LAN, USB stick</td>
</tr>
<tr>
<td>Zoom</td>
<td>4x optical zoom, 16x digital</td>
<td>5x optical zoom, 16x digital</td>
</tr>
<tr>
<td>Lens</td>
<td>71mm wide angle, f=5.8 - 90mm</td>
<td>71mm wide angle, f=5.7 - 66mm</td>
</tr>
<tr>
<td>Solution Link Software (USB / LAN, for controlling, image and video capture and firmware updates)</td>
<td>included (for 32- and 64-bit Windows and Macintosh, Twain/WA compatible, with video capture driver)</td>
<td></td>
</tr>
<tr>
<td>1x DVI cable / DVI port</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>User programmable presets</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Browsable memory (scrollable thumbnails + 1 larger preview image)</td>
<td>9 picture 'show-all' split screen function</td>
<td></td>
</tr>
<tr>
<td>User defined settings on USB stick</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Special working surface for transparencies</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Alternative image display</td>
<td>negative / negative-true / black and white</td>
<td></td>
</tr>
<tr>
<td>Seamless cross-fading between image sources</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Connectors</td>
<td>1x DVI Out, 2x RGB (15-pin D-Sub/PXGA-plug), IP</td>
<td>1x HDMI Out, 1x RGB (15-pin D-Sub/UXGA-plug), IP</td>
</tr>
<tr>
<td></td>
<td>adressable LAN port 10/100Mbps with PoE, Trigger port (PCA (+BNC adapter), max. 15 pulses / sec, delay: 1/10 sec, RS232 (5-pin D-Sub), 1xUSB 2.0 Device port</td>
<td>adressable LAN port 10/100Mbps with PoE, Trigger port (PCA (+BNC adapter), max. 15 pulses / sec, delay: 1/10 sec, RS232 (5-pin D-Sub), 1xUSB 2.0 Device port</td>
</tr>
<tr>
<td>Outputs</td>
<td>DVI (and HDMI via optional DVI-HDMI cable or adapter), RGB</td>
<td>HDMi (and DVI via optional HDMi-DVI cable or adapter), RGB</td>
</tr>
<tr>
<td>LAN streaming modes (multicast and unicast)</td>
<td>MUP3</td>
<td>MUP3</td>
</tr>
<tr>
<td>WLAN (Dual band stick for 2.4GHz and 5GHz)</td>
<td>optional</td>
<td>optional</td>
</tr>
<tr>
<td>Onboard video recording including audio</td>
<td>yes (720p HD), up to 30 frames per second, AVI container, H.264 codec, .AVI file format</td>
<td>yes (Audio Line in, Line Out)</td>
</tr>
<tr>
<td>Audio</td>
<td>yes (Audio Line in, Line Out)</td>
<td>yes (Audio Line in, Line Out)</td>
</tr>
<tr>
<td>Advanced controlling with professional protocol</td>
<td>yes, via RS222, LAN, and USB</td>
<td>yes, via LAN and USB</td>
</tr>
<tr>
<td>Dimensions in operation (L x W x H)</td>
<td>333mm x 190mm x 97.5mm (13&quot; x 9 3/4&quot; x 3 3/4&quot;)</td>
<td>127mm x 129mm x 90mm (5&quot; x 5 1/8&quot; x 3 5/8&quot;)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.8 kg (1.7 lbs)</td>
<td>1.0kg (2.2 lbs)</td>
</tr>
<tr>
<td>Infrared remote control (including laserpointer)</td>
<td>yes, internal infrared, optional: external receiver (with 10 m cable and status LED)</td>
<td>yes, internal infrared, optional: external receiver (with 10 m cable and status LED)</td>
</tr>
<tr>
<td>Anti-theft device</td>
<td>yes, internal infrared, optional: external receiver (with 10 m cable and status LED)</td>
<td>yes, internal infrared, optional: external receiver (with 10 m cable and status LED)</td>
</tr>
<tr>
<td>Tripod mount / ceiling mount</td>
<td>2 tripod mounts (on top and bottom, 1/4-20 UNC plus u-shaped mounting clip (for attaching the camera on the back of the unit)</td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>External power pack: multi range 100-240V, 10W power consumption, Power over Ethernet (IEEE802.3at standard)</td>
<td>External power pack: multi range 100-240V, 21W power consumption, Power over Ethernet (IEEE802.3at standard), adjustable standby power consumption</td>
</tr>
<tr>
<td>Warranty</td>
<td>5 years</td>
<td>5 years</td>
</tr>
</tbody>
</table>

*All units made in the European Union (Austria)*

*Design and specifications subject to change!*

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