

**New!**  
**PLANAR-Replacement**



# **3D PluraView**

The Reference of 3D-Stereo Displays



- Flicker free for professional continuous use
- Highest Brightness – Daylight suitable
- Wide Visual Angle – Multi-User capability
- Certified for Photogrammetry and GIS



## The innovative stereo photogrammetry monitor 3D PluraView – The sustainable High-End-Display

Flicker free and high-resolution visualization for a perfect 3D-Stereo experience

The 3D PluraView is the further developed successor of the folded PLANAR Beamsplitter-series. Innovative, reliable technology is the foundation for precise, pixel accurate, stereoscopic image evaluation in highest quality, even in daylight. The 3D PluraView Beamsplitter technology delivers the full monitor resolution up to 4K in brilliant brightness, thanks to one display per eye.

That allows users to work comfortable and effortless in all 3D-Stereo-Applications. The new BlackTuner-Technology of the 3D PluraView supports the user even in dark picture areas to detect objects easily. A response time of only 1 ms reduces “Ghosting” and fuzziness. That’s the key to a perfect 3D-Stereovisualisation in all professional areas of applications.

### 3D PluraView - The Reference of 3D-Stereo Displays

- Flicker free for professional continuous use
- Highest Brightness – Daylight suitable
- Wide Visual Angle – Multi-User capability
- Highest resolution - up to 4K/UHD
- Certified for Photogrammetry and GIS
- Elegant Design and highest Quality – Made in Germany

# Designed for GIS-Professionals

Unique 3D-Stereo experience – Daily continuous operation experience


The new 3D PluraView monitor provides an innovative Beamsplitter-Technology for highest quality in stereoscopic illustration at desktop monitors. The 3D PluraView is ideally suited for all Stereo-Software-Applications in highly diverse branches:

- GIS / Mapping
- Photogrammetry
- Oil & Gas prospecting
- Molecular research and design
- CGI / 3D Video editing
- Mechanical Design / CAD
- Crystallography / biochemistry
- Industrial Measuring / Laser Scanning
- Computed Tomography and surgical planning
- Simulation & VR training
- Archeology
- 3D City model visualization

## 3D PluraView supported applications:

 Z / I ImageStation

 Vr Two


 Summit Evolution

 Digi3D

 Softplotter / KDSP

 Gcarto

 Geomedia

 Leica Geosystems

 Match-AT / DTMaster / UASMaster

 TerraStereo

 PurVIEW

 IMAGINE Photogrammetry (LPS)

 Socet Set / Socet GXP

 Atlas

 Strabo

 Photomod

 uSMART

 VirtuoZo

 ArcGIS

 RhinoTerrain

BlackTuner-Technology  
for easy object detection  
in dark picture areas

# NEW!

## 3D PluraView





### 3D PluraView functions and advantages

Including experienced users, our engineers developed the PLANAR Beamsplitter-Technology:

- Synchronous, latency-free image signal thanks to a new developed, in monitor case integrated mirror card
- Significantly reduced ghosting thanks to our exactly adjusted mirror and optimized polarization glasses
- Innovative BlackTuner technology for reliable object detection in dark image areas
- Easily accessible DisplayPort 1.1 ports
- Centralized power supply with an integrated power switch for complete disconnection from the mains supply. Therefore 0 watt energy consumption with the power switched off
- Mirror fine adjustment for exact alignment
- Highest product quality – Made in Germany

### Limitations of alternative 3D-Displays

- The active Shutter-Technology provides as a matter of principle a very dark 3D-Stereo image.
- High-frequency shutter causes little tiredness on the eye and enhances quick fatigue.
- Ambient light additionally strengthens flickering.
- Line by line circular polarized displays reduce the resolution by 50%:
- Pixel-precise work is impossible with line by line polarized monitors. Writings and menus are difficult to read.
- The Filter on the monitor and 3D glasses lead also to a dark 3D-Stereo image.

**Choose the reference in stereo visualization!**



# GIS Performance-Workstations

Our partner Schneider Digital has been specializing in tailor-made hardware solutions for professional 3D graphics since 1995. The company's expertise is focused on the conception, build and configuration of performance workstations, which are exceeded by flexible upgrade options and long-term upgrade ability.

By the collaboration with many hardware manufacturers, software companies and independent research institutes we're informed at first-hand about the most recent developments. Our close contacts to various users are equally valuable for us. The result is a Workstation solution from practical experience for practical application.

The challenge for GIS-applications is the combination of loading quickly large data quantities and visualizing them in a stereoscopic image on a suitable 3D monitor. Only if all hardware components display the required capacities and specialization, a fast motion within orthophotos is possible.

We not only know your applications in the main area of application for photogrammetry, geodesics, but also right up to the creation of 3D city models, digital GIS landscape models or even special tasks like architecture and accident photogrammetry.



By additional sound isolation and customized cooling solutions our workstations are furthermore very pleasant "employees".



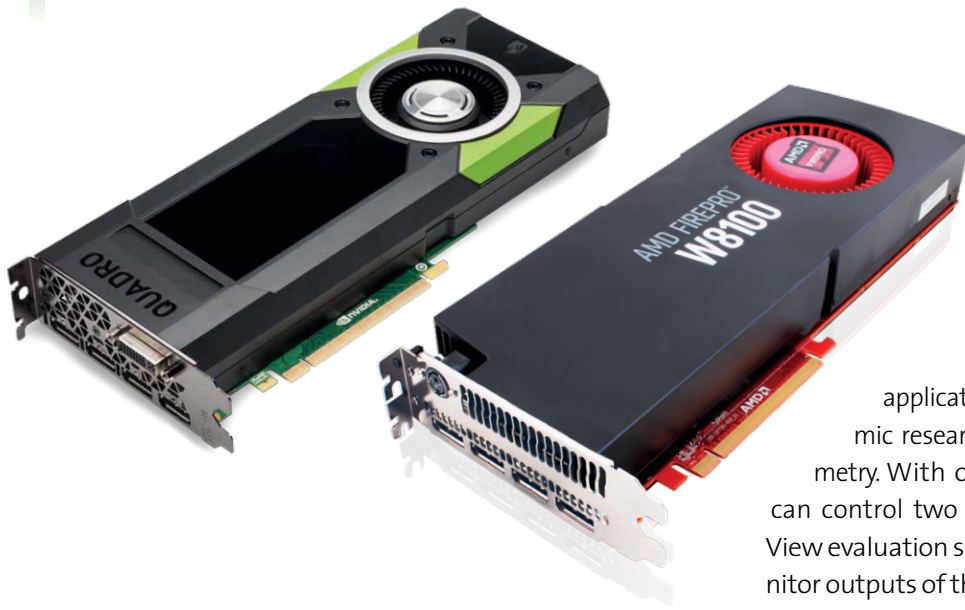
## High-End workstation solutions for complex GIS requirements



- Newest Intel Xenon or AMD Opteron processor technology
- Up to four high-end graphic cards for CUDA or OpenCL applications in one workstation
- High speed processors (up to 2x 22 cores on Intel platform, up to 2x 16 cores with AMD Opteron)
- Up to 1 TB fast DDR-4 ECC memory
- High performance RAID with up to 12 GB/s transfer rate (SAS 3.0 technology), high speed SSD (Solid State Disks) up to 10 TB memory on request
- Optional ultra-fast 10Gb LAN for connection to the file server
- highest quality of used components
- 19" Rackmount compatible
- Also server and cluster solutions possible



# Most powerful graphic cards for GIS



applications such as biomedical sciences and seismic research, oil and gas prospection or photogrammetry. With only one professional graphic card, you can control two monoscopic monitors and one 3D PluraView evaluation screen at the same time with the four monitor outputs of the Fire-Pro W8100. Even two 3D PluraView stereo monitors are selectable with just one graphic card.

## AMD FirePro W8100 and NVIDIA Quadro M5000

The right choice of graphic cards is a big part when determining quality and performance. With 8GB high speed GDDR-5 ECC RAM, Open GL 4.5 support and 2.560 OpenCL capable parallel processing units, the AMD FirePro W8100 delivers outstanding performance and quality. Only the AMD FirePRO cards have implemented the mirroring and rotation functionality to drive the 3D PluraView with 2x 4k with QuadBuffer Stereo.

NVIDIA Quadro M5000 offers an up to now not achieved performance and scalability, for analyzing and visualizing large databases. With up to 2.048 CUDA/OpenCL programmable, parallel processing units and a graphic memory of 8GB GDDR-5 ECC, the Quadro M5000 is the perfect solution for complex

The use of the correct driver is just as important, because only the ideal interaction between graphic card driver and application ensures full graphic card performance. It takes constant adapting of hardware drivers to guarantee a smooth operation with perfect results thus explaining the immense development effort from AMD and NVIDIA.

If the OpenGL core is up to date the graphic memory bandwidth measured by GB/sec and main memory size of the graphic card is more significant. Modern OpenGL commands are loading the complete model into the graphic card RAM. All further changes are triggered by short OpenGL commands to the GPU and being utilized directly at the graphic memory. The finished result is transferred to the monitor outputs immediately.

All GIS graphics cards are suitable for multi-monitor operation.



# Stealth 3D-Mouse


The perfect input device for GIS applications

The Stealth Mouse is an ergonomic, high performance 3D hand controller proven to enhance productivity and comfort for users of the demanding 3D software applications. With 10 programmable buttons and 33 programmable functions, the user can have functions and macros right at the fingertips. Operating together with or without the traditional mouse, the Stealth 3D Mouse delivers an efficient and balanced way to work while reducing hand fatigue.

## Functions & advantages

- USB plug-and-play compatibility.  
(COM port still available if required)
- Supported by ALL Photogrammetric Application Software
- Made in the USA and design protected by USA Patent number D457, 884 (S1), D615,980 (S3), D718,309 (S4)
- Manufacturer Warranty Repair and Hardware & Software support at our Sales & Service Centers
- Comfortable two-handed operational grip for GIS, Photogrammetry and Mapping Applications use
- Optical mouse mechanism for fast high resolution that works well on ALL non-reflective surfaces and requires no maintenance
- High resolution Z-wheel with 1.024 steps per revolution providing fast and accurate pointing
- High precision X-Y-laser navigation for accurate position control. Soft acting force, long life buttons rated at 10 million cycles for maximum productivity



 *Stealth 3D Mouse*

Support for ALL Windows, Linux & macOS  
including 32 & 64 bits.



3D PLURAVIEW MONITOR SPECIFICATIONS		
	27" Full HD	28" 4K/UHD
Display	27" (16:9) Screen Size 1.920 x 1.080 Resolution (2.1 MP) 16.7 Million Colours (8-Bit)	28" (16:9) Screen Size 3.840 x 2.160 Resolution (8.3 MP) 1,073 Billion Colours (10-Bit)
	LED Backlight-Technology BlackTuner for lightening of the shades 300cd/m <sup>2</sup> Brightness Contrast Ratio: 12 000 000:1 ACR 1ms Response Time 170°/160° Viewing Angle (H/V)	
3D Displays	180cd/m <sup>2</sup> Brightness with glasses 1.920 x 1.080 per Eye Resolution	180cd/m <sup>2</sup> Brightness with glasses 3.840 x 2.160 per Eye Resolution
	Linear Polarization 45°/135° Beamsplitter: half transparency Mirror	
3D-Compability	Quad Buffered OpenGL Applications Side-by-Side mirrored Applications Top-Bottom mirrored Applications	
General Features	Windows, macOS-Compatibility Windows-10 Certification Energy Star 6.0-Energy	
Power	Power Consumption 75W, typical; max. 1W in Power Management Mode Annual Power Consumption 132 kWh / year	Power Consumption 70W, typical; max. 1W in Power Management Mode Annual Power Consumption 130 kWh / year
	Power Management VESA DPMS™, Energy Star Efficiency Class B	
Weight	25kg, set weight with stand	26kg, set weight with stand
Measurements	80 x 68 x 54 cm (WxHxD)	80 x 68 x 54 cm (WxHxD)
Interfaces	2x integrated HDMI ports incl. 2x DisplayPort/HDMI cables	2x DisplayPort 1.2 cable incl. mini DisplayPort adapter 2x integrated USB ports
	1x main plug AC 100 – 240 V, 50 / 60 Hz	
Audio	Integrated Speaker 2 x 2.5 W	Integrated Speaker 2 x 3 W
Design	Diamond Dark Aluminum Construction Integrated Electronics Adjustable Stand Made in Germany	
Technical Notes	Works with NVIDIA Quadro or AMD Fire Pro Graphic Cards Support AMD FreeSync™ Technology	Works only with AMD FirePRO & RADEON PRO with native DisplayPort or mini DisplayPort connection
Warranty	1 Year Warranty without exclusion, with carepack extended up to 5 Years	



## Graphic Card Recommendation

Any quadbuffercapable NVIDIA Quadro and AMD FirePro cards possessing at least 2x DisplayPort 1.1 monitor outputs. Utilizing an additional side monitor with the 3D PluraView is recommended. For the 4K/UHD only AMD FirePRO / RADEON PRO with 2x DisplayPort 1.2 or mini DisplayPort 1.2 will work.



ILV-Fernerkundung GmbH

Wallstraße 15/15a  
D-10179 Berlin

Tel.: +49 (30) 240485-0  
Fax: +49 (30) 240485-19

E-Mail: [ilv-fernerkundung@t-online.de](mailto:ilv-fernerkundung@t-online.de)  
Internet: [www.ilv-fernerkundung.de](http://www.ilv-fernerkundung.de)



**3D PluraView**

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