

Topic of the press release: 3D PluraView - stereoscopic desktop monitors for military use - shielded and zoned according to NATO standards  
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## 3D PluraView – stereoscopic desktop monitors for military use – shielded and zoned according to NATO standards

Today, armed forces worldwide use digital, 3D stereoscopic monitors for visual interpretation tasks. Stereoscopic image analysis is a key technology, as it provides access to image content that can be interpreted much better than monoscopic, single-image coverage from the same source and resolution. In the context of military geo-information applications, the latest generation stereo display technology for the desktop is based on passive, dual-screen systems. These are predominantly used for photogrammetry and GIS/mapping, satellite imaging, UXO identification, operations planning and airspace coordination. The German company Schneider Digital is one of the few manufacturers worldwide for future-proof, stereoscopic desktop and large-scale projection systems, manufacturing also professional workstations and servers. All workplace components, i.e. workstations, stereoscopic desktop and large-format 3D stereo visualization solutions, can be shielded or 'zoned' to reduce or eliminate any electromagnetic emissions, according to the NATO SDIP-27 standard (Level A, B and C).

With a resolution of up to 4K per screen, the dual-screen 3D PluraView monitors are directly compatible with most stereoscopic software applications, i.e. no middleware, special graphic drivers or stereo signal emitters are required. Stereoscopic images are viewed on the 3D PluraView through very light-weight, passive and cross-polarized glasses.

The left image is displayed on the vertical monitor, the right image is electronically mirrored, displayed on the upper monitor and viewed through a so-called 'beamsplitter' mirror, creating a holographic object effect in 3D space.

The additive combination of the two screens results in a very bright stereoscopic visualization which, in contrast to active LCD shutter glasses, allows for permanent use in normal daylight office or lab environments. With two screens, the full monitor resolution of up to 4K (UHD) is achieved for each stereo channel and therefore each eye. Furthermore, the passive, dual-screen stereo principle is completely flicker-free, as the left and right images are displayed on separate monitors, permitting comfortable, long-term work with stereoscopic content.

### Stereoscopic displays for military applications

The 3D PluraView stereo monitors are designed and built by Schneider Digital to be extremely rigid and stable, using solid-metal CNC-machined precision components made of steel or aluminum. This construction allows for the precise, long-term calibration and co-registration of the two monitors, providing optimal stereo image quality, which is especially important for military applications:

- 3D PluraView are available in two different assembly sizes with four screen diagonals: 22"/ 24" and 27"/ 28" – for optimal adaptation to workplace and software application;

- Highest resolution from Full HD to 2.5K (WQHD) up to 4K / 10 Bit (UHD) per monitor and stereo channel for extremely sharp, bright and high-contrast image display;
- Absolutely flicker-free, supporting relaxed, fatigue-free work in 3D-stereo with extremely lightweight, yet robust polarization glasses;
- Suitable for normal office daylight environments, no dark-phase 120Hz switching, maximum brightness and full resolution, as separate monitor are used for each stereo channel / each eye;
- Very wide 170 degree viewing angle – flexibility enabling image exploitation or consultative viewing by several people at the same time;
- Perfectly suitable for direct connection to laptop workstations - plug & play with just two monitor cables - ideal for mobile use, field operations;
- Certified for use with BAE Systems (Socet GPX), Thales (GeoMaker), Collins (Sci-X) and Esri (ArcGIS Pro);
- Functional design with optimized space requirements;
- Highest quality – Engineered & Made in Germany;
- Certified zoning available, according to NATO SDIP-27 standard (Level A, B, and C)

The electronic components used in the 3D PluraView have very low electromagnetic emissions even without additional measures. They have been certified by the German Federal Institute for Information Security (BSI), the Swiss Federal Office for Topography (swisstopo) and the US National Geospatial Agency (NGA). In combination with high-performance workstations from Schneider Digital, the stereoscopic 3D PluraView monitors offer maximum security, performance and long-term stability in military environments. Available as complete workplace solutions from Schneider Digital (monitor + workstation + input devices), they can be shielded and zoned according to the NATO SDIP-27 standard. The initial SDIP-27 shielding level (Level C) for the 3D PluraView monitors can be executed with minimal effort and cost involved.

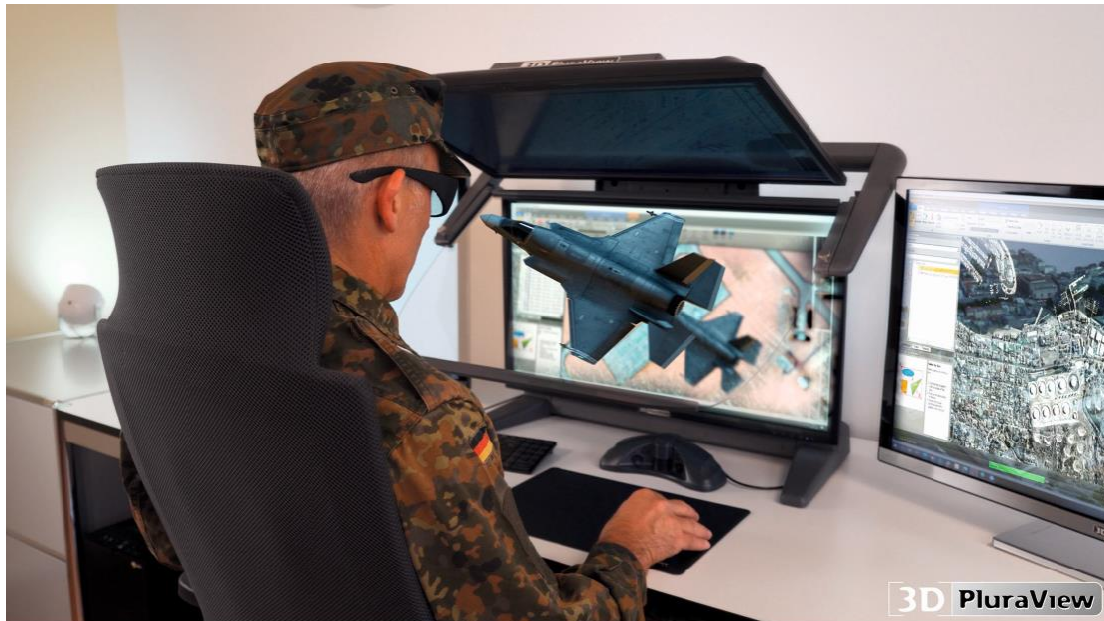
While there is certainly not a single "ideal" stereoscopic or holographic 3D display that meets all requirements, purposes and wishes, passive stereo display technology with two individual screens is established on the market for 16 years, has been available continuously and is absolutely mature. With its 3D PluraView monitor series, Schneider-Digital is established as the de-facto standard in the military sector and is by far the market leader for military 3D-stereo desktop displays.

Together with the 3D PluraView display systems, stereoscopic software packages, such as Socet GXP, GeoMaker and Sci-X can provide their full potential to military users for stereoscopic display, data capture and editing operations. This perfect hardware/software match also applies to the new generation of mesh-based 3D-reality modeling applications, for instance nFrames SURE.

With the new versions of ArcGIS Pro, the US-company Esri, the world leader for Geographic Information Systems, has created a universal stereoscopic software platform. ArcGIS Pro automatically displays stereo images or video from satellites, aircraft or drones together with all other 3D content, such as LIDAR, CAD & mesh datasets on connected 3D display hardware. This application is an excellent example for a comprehensive and intuitive integration of multi-source 3D datasets in a unified stereoscopic data environment on the 3D PluraView monitors by Schneider Digital.

Further information at: <https://www.3d-pluraview.com/en/application-field/3d-pluraview-in-geo-applications>  
And on YouTube: <https://www.youtube.com/watch?v=IQ-K6oZv0gs>

**Bildmaterial:**



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3D PluraView by Schneider Digital: stereoscopic displays especially for military application areas

#### **Schneider Digital – The company:**

Schneider Digital is a global full-service solution provider for professional 3D-stereo, 4K/8K and VR/AR hardware. Based on its 25 years of industry and product experience as well as its excellent relationships with leading manufacturers, Schneider Digital offers innovative, sophisticated professional hardware products and customized complete solutions for professional use. Qualified advice and committed after-sales service are the company's own standards.

The Schneider Digital product portfolio includes the right professional hardware solution for the respective requirements in these areas: High resolution 4K/8K to multi-display walls. Schneider Digital is the manufacturer of its own powerwall solution smartVR-Wall and the passive stereo monitor 3D PluraView. Performance workstations and professional graphics cards from AMD and NVIDIA as well as innovative hardware peripherals (tracking, input devices, etc.) round off the product range. Many articles are in stock. This guarantees fast delivery and project realization.

Schneider Digital is an authorised service distributor of AMD FirePRO/Radeon Pro, PNY/NVIDIA Quadro, 3Dconnexion, Stealth int., Planar and EIZO. Schneider Digital products are used primarily in graphics-intensive computer applications such as CAD/CAM/CAE, FEM, CFD, simulation, GIS, architecture, medicine and research, film, TV, animation and digital imaging.

Further information is available at [www.schneider-digital.com](http://www.schneider-digital.com) and [www.PluraView.com](http://www.PluraView.com).

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