Schneider-Digital: We do Photogrammetric Hardware Solutions

Josef J. Schneider – CEO

TARGET3D
THE MECHANICS BEHIND CREATIVITY

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Professional 3D-Hardware

We are – a full-service GeoIT hardware provider

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Professional 3D-Hardware

… for professional 4K, 3D-display and GeoIT hardware

27 Years

- As a specialist IT hardware manufacture, we are principal software vendors neutral
  We perfectly networked to all major geospatial and hardware vendors
- Focused to provide best display and processing hardware price/performance,
  matching the software requirements to user and project resources
- We are passionate about stereoscopic visualization and data interaction,
  act as development partner for many software companies!
- We are driving development: Bi-directional, active collaboration with soft- and hardware manufacturers, connecting hardware capabilities to geospatial applications.

Compatible with all operating systems – from Windows XP to Windows 11

PLANAR SD monitors and the Schneider Digital 3D PluraView
use the ‚**passive Stereo**' principle with dual screens for full stereo resolution per eye
and passive (no batteries), cross-polarized glasses.

- ✓ very light-weight, comfortable glasses ➡ no flickering ➡ no headaches
- ✓ bright & contrast-rich image ➡ daylight compatible

2005 — 3D PLANAR SD1710

3D PLANAR SD2020

3D PLANAR SD2220

3D PLANAR SD2420W

2016 — 3D PluraView 22“, 24“ and 27“, 28“

2022, 2023, 2024,...

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3D GlobeView by Schneider Digital

3D GlobeView

80“ passive 3D-Stereo Monitor

- UHD-resolution, 8 MP (3.840 x 2.160)
- Native 4K-Resolution @ 120Hz with 10bit
- Circular line-by-line polarization 3D technology
- Optional Head-Tracking and gesture control
- Innovative, height-adjustable mounting solution

Complete stereo workplace equipment by Schneider Digital

Photogrammetric Workstations (PW)

- **Workstations** ➡ tailored to your specific requirements!
  - CPUs by Intel or AMD – your choice!
  - Professional graphic cards by NVIDIA or AMD
  - All options for internal storage & network connectivity
  - Ultra-compact to full-size workstation tower

- **3D Stereo-monitors** 22” & 24” 27” & 28”

3D PluraView

- **Stealth 3D-controllers**

Performance-Workstations

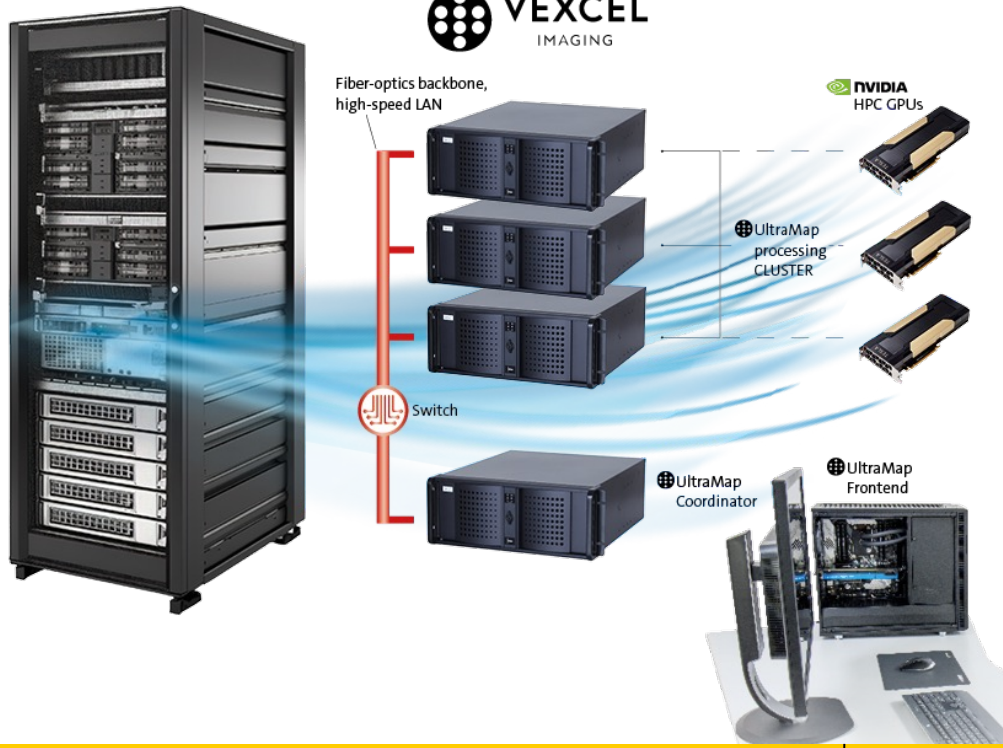
High-End Workstation-Solutions for professionals

- Latest Intel Xeon, AMD EPYC,
  AMD ThreadRipper processor technology
- High-speed CPU´s
  (up to 56 cores on Intel, up to 96 cores on AMD)
- Up to 2-TB fast DDR-5 ECC memory
- Up to four (4) high-end graphics cards for CUDA
  or OpenCL applications in a single workstation
- High performance RAID with up to 24-Gb/s.
  Transfer rate (SAS 4.0 technology) on request also
  with lightning-fast SSD (Solid State Disks)
  with up to 96-TB of NVMe disk space per unit
- Optionally - ultra-fast 25 or 100-Gbit/s LAN
  connection to ultra-fast file servers
- Highest quality for all components
- Server and cluster solutions for your requirements!

UltraMap processing equipment by Schneider Digital

UltraMap Processing Clusters

- Scalable and upgradable processing nodes (each 16 up to 96 CPU cores)
- Each processing node upgradeable with up to 4 HPC GPUs
- Fast UM network switch and corresponding network cards (25 or 100-Gbit/s)
- Fast File server for UM processing nodes (SSDs)
- Backup server for longer-term storage (HDDs)



UltraMap Osprey 4.1: Processing load & storage example

Project example: Osprey4.1 flight, AOI 4700 sq.km, 7.5cm nadir resolution

- Approx. 60,000 nadir images, plus 4 x 60,000 oblique images
- Lvl00 nadir+oblique dataset = 3.1-GB on FDU (uncompressed)
  - Lvl03 nadir+oblique RGB, 8bit = 2.5-GB / 150-TB for AOI
  - Lvl03 Nadir-only RGB-I (288MPx), 14bit = 1.6-GB / 100TB for AOI
- Add multiple products and versions for DTM/DSM, Ortho, 3D mesh – **1 PetaByte storage is realistic!**
- Translated to a fast file-server requirement (SSD-based) = 50 to 100-TB (10 to 20 **SSD** 8-TB drives)
- Translated to a backup server requirement (HDD-based) = 1-PB (50 to 60 **HDD** 20-TB drives)
  - Consider RAID-50 or RAID-60 with data redundancy for backup server
  - Consider RAID-0 for higher workloads / high-speed for SSD file-server (>128 UltraMap cores)

CopyStation / CopyStation PRO mobile Workstation

Professionally-built compact workstation for remote area operations

- Hard-shell trolley, easily transportable
- **CopyStation**: primarily intended to offload/copy FDU to internal NVMe (up to 96-TB internal NVMe)
- **CopyStation PRO**: adds serious **processing** capability, e.g. fast LvL00 to Lvl02 (or Lvl03) image copies
  - Up to 64-cores @ 3.5GHz and 1-TB of 3200MHz memory
  - SAS 12Gbit/s port option for external NAS connectivity
  - IPMI remote management onboard
  - Professional Stereo graphics card configurable
  - 270 mm (W) x 212 mm (H) x 393 mm (D)

3D PluraView – compatible geospatial stereo-software

Monthly updated list for stereoscopic software & vendors, current PDF on our website!

ArcGIS Pro
Metashape
SOCET GXP v4.5
Sci-X
Summit Evolution
ESPA 3D
VRTwo
TerraStereo
Atlas
Vexcel UltraMap

ImageStation
Stereo Analyst
Inpho
OSGeo
PurVIEW
TNTgis
Scene
LaserControl
CloudCompare

3DM Content
Photomod
Simwright StereoGIS
JewelSuite
RiSCAN Pro
3d Zephyr
STK
Petrel
DJI Terra

KomVISH
sure aerial / Pro
Go2VR / D2P
Photosoft
GoCAD
Kingdom
Unity 3D
DPS / Delta

LiMON Viewer PRO
Vizable
uSmart
StereoCAD
ContextCapture
Eternix Blaze Terra
Micromap Manager

Delmia
Geovia
Creo View MCAD
DeltaGen Rhino
Precision 3D Topo
WinATLAS

How about your software application(s)?

Thank you for your attention!

Josef J. Schneider

More information online:

www.schneider-digital.com

www.3d-pluraview.com

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