mo-sys VP Pro XR

Cinematic LED content server solution

VP Pro XR is a purpose designed cinematic LED content server solution from Mo-Sys, a world leader in virtual production (VP), remote production and image robotics with over 25 years' experience of tracked virtual graphics solutions. NAB Product of The Year 2021 winner – VP Pro XR has been developed and refined by Mo-Sys' experienced technicians. The solution offers unique patented cinematic features and unrivalled image quality. Mo-Sys has been involved in LED use for high-profile feature film virtual production since our equipment was used extensively on "Gravity" (2013).

Features/Benefits

- **Multi-Cam full resolution camera switching** (New!) – full UHD4K switching between multiple cameras, with LED delay orchestration for clean switches

- **NearTime™ auto-re-rendering** (New!) – patented solution that uniquely solves the real-time VFX virtual graphics quality problem that all virtual productions have

- **Digital stars** (New!) – VP Pro XR, with StarTracker Mo-Sys's camera and lens tracking solution, can use digital tracking stars for LED volumes with deep LED ceilings. This is a collaboration with Brompton, and is designed for where it is not possible to see retro-reflective markers on a studio ceiling

- **Cinematic XR Focus** – patent-pending solution for pulling focus between real and virtual elements (Cine Gear 2021 Technical Award Winner)

- **Any size/shape LED volume** – VP Pro XR uses Epic's nDisplay to scale the Unreal graphics output to any size or shape LED volume

- **Precision Set Extensions** – precision matched set extensions with colour tools to blend accurately with LED volume

- **Minimal delay** – VP Pro XR software is embedded in the Unreal engine resulting in minimal delay between tracking data and the rendered Unreal image displayed on the LED volume. This enables faster camera movement, and smooth Unreal graphics.

Licencing model

- **Single multi-node licence** – A VP Pro XR system or software licence is a one-time purchase, no additional licence is required to drive an expanded LED volume

- **Commodity PC/GPU hardware** – VP Pro XR can be supplied as a complete configured system, as a software licence only where the customer sources the hardware, or as a software licence that can be added on top of an already operational nDisplay stack. In either case commodity PC/GPU hardware is used

Technical Specifications

VP Pro XR – ConductAR (hardware)

- **Dual PC base unit**
- **Delivers 1x UHD 4K output** (3840 x 2160)
- **Offers simultaneous AR and XR**
- **Enables Cinematic XR Focus** (customer sourced Preston wireless hand unit and motor controller required)
- **NearTime rendering enabled** (for green screen use only)

PC Specification
1x Lenovo P620 AMD Threadripper Pro 3955WX 16 Core Processor, NVIDIA RTX 3090 16GB GPU 32GB RAM 512GB SSD, M.2 2280, PCIe NVMe Gen3x4, TLC, Opal 2.0 2TB SSD, M.2 2280, PCIe NVMe Gen3x4, TLC, Opal 2.0 AMD Integrated controller Windows 10 Pro 64 1000w PSU
Plus
1x Lenovo P620 AMD Threadripper Pro 3955WX 16 Core Processor, NVIDIA A6000 16GB GPU, NVIDIA Quadro Sync II, 32GB RAM 512GB SSD, M.2 2280, PCIe NVMe Gen3x4, TLC, Opal 2.0 2TB SSD, M.2 2280, PCIe NVMe Gen3x4, TLC, Opal 2.0 AMD Integrated controller Windows 10 Pro 64 1000w PSU
or
1x HP Z4 Intel i9-10980XE 18 core, NVIDIA RTX 3090 16GB GPU 32GB RAM 512GB SSD
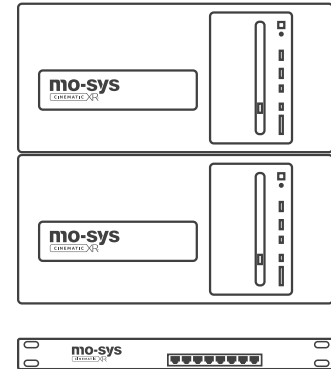**Plus**
1x HP Z4 Intel i9-10980XE 18 core, NVIDIA A6000 16GB GPU 32GB RAM 512GB SSD, NVIDIA Quadro Sync II
or
PC equivalent hardware, with identical GPU and Sync2 cards to above specifications

1x GigE Network Switch
1x 8-port or greater Gigabit Ethernet switch

VP Pro XR – Render Node (hardware)

- **Single PC unit**
- **Delivers 1x UHD 4K output** (3840 x 2160)
- **Offers render expansion for VP Pro XR ConductAR**, for LED walls that require greater than a single UHD 4K output
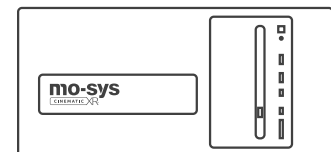
PC Specification
1x Lenovo P620 AMD Threadripper Pro 3955WX 16 Core Processor NVIDIA A6000 16GB GPU, NVIDIA Quadro Sync II, 32GB RAM 512GB SSD, M.2 2280, PCIe NVMe Gen3x4, TLC, Opal 2.0 2TB SSD, M.2 2280, PCIe NVMe Gen3x4, TLC, Opal 2.0 AMD Integrated controller Windows 10 Pro 64 1000w PSU
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or
PC equivalent hardware, with identical GPU and Sync II cards to above specifications

For more information
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