



# Maestro | Virtual Set

Where ideas become reality



Produce captivating 3D video game-quality virtual studios that make your broadcasts stand apart from the competition. With Maestro™ | Virtual Set, you can design rich, photorealistic graphics and environments—powered by Unreal Engine—to elevate production value, engage viewers, and enhance your storytelling. It's ideal for creating unique studio settings, showcasing content in more compelling ways, and adding visual impact to elections, sports and entertainment shows, news programs, and other live broadcast productions.

## CAPTIVATE VIEWERS WITH AN IMMERSIVE SOLUTION

You spend tons of time perfecting your stories. Now present them in the most captivating ways imaginable. Maestro | Virtual Set provides all the tools you need to create and control fully immersive 3D virtual studio environments to enhance your storytelling. With its limitless creative possibilities, it offers an effective way to capture audience attention and add visual excitement to any production.

## PRODUCE UNREAL GRAPHICS

Up the “wow” factor in all of your studio productions. Maestro | Virtual Set now supports Epic's Unreal Engine, giving you even richer, sharper graphics capabilities than ever before. With Epic's Unreal Editor, you can produce higher resolution, more photorealistic imagery with dynamic shadows, reflections, and lighting options. The new hybrid setup enables a single operator to incorporate graphics seamlessly from both Unreal Engine and Avid® RenderEngine on the same HDVG4 real-time graphics rendering platform—from a single interface—for a significantly more efficient and pain-free workflow.

## DESIGN HIGH-END VIRTUAL STUDIOS

With tight integration between its dedicated HDVG4 rendering hardware, software, and camera tracking technologies, Maestro | Virtual Set makes it easy to design unique virtual environments that might not be physically or financially possible with a conventional set. The system delivers unmatched flexibility and power for any type of production environment and enables a single operator to easily control everything from one interface.

## GAIN EFFICIENCY WITH DATA-DRIVEN GRAPHICS

Maestro | Virtual Set features a new set of tools that makes it easy to insert real-time, data-driven graphics into your virtual studio productions. Because these graphics can be updated automatically from a connected data source, you can ensure your content is relevant and always up-to-the-second accurate.

## GET UNMATCHED TRACKING ACCURACY

Maestro | Virtual Set comes with Avid's highly advanced Xync infrared camera tracking system. Comprised of all-new high-resolution surveillance camera hardware and software, Xync offers a larger multicamera tracking area, so it requires fewer surveillance cameras. With a full 360-degree range of movement, you gain free mobility within any virtual or conventional studio, enabling you to produce the most realistic virtual studio productions.

## EXTEND YOUR CREATIVE POSSIBILITIES

Maestro | Virtual Set can dramatically change the look and feel of your studio environment to elevate production value cost-effectively. In addition, it can be paired with Maestro | AR to integrate 3D virtual objects into your virtual or conventional set. You can also use Maestro | PowerWall to control your virtual studio, augmented reality graphics, and video walls in one simple workflow.

## KEY FEATURES

- Create stunning 3D video game-quality virtual sets and objects to change your entire studio's look and feel
- Produce sharper, richer, and more dynamic-looking imagery more efficiently with support for both Unreal Engine and Avid RenderEngine rendering on the same platform
- Create higher quality content faster and get additional capabilities when using the latest Unreal Engine
- Introduce real-time, data-driven graphics, video, and other content into your virtual studio productions
- Control every object in your scene, including its scale, position, and angle
- Run multiple productions in real time with the powerful Avid HDVG4 real-time graphics rendering platform
- Insert up to 16 full-resolution SD/HD video streams to enhance your virtual or conventional studio environment
- Track an unlimited number of studio cameras in real time with Xync (included), with unmatched accuracy
- Work with your favorite 3D modeling software, including 3ds Max, Maya, and Cinema 4D, or use VRML, COLLADA, or FBX formats to import 3D models
- Get flexible camera tracking with support for Avid and third-party tracking systems
- Control everything with one operator
- Get smooth performance and the utmost reliability
- Create flyby movements with Xync's trackless capabilities
- Easily integrate Maestro | Virtual Set with existing MediaCentral® environment, newsroom, and automation systems



FOR MORE INFORMATION, VISIT  
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## HDVG4 real-time graphics rendering platform

<b>Motherboard</b>	Intel Haswell platform
<b>Graphics card</b>	2 NVIDIA GTX 1080
<b>CPU</b>	Intel 2 x 2.4 GHz 6-Core
<b>Operating system</b>	64-bit CentOS 7 Linux with kernel 3.10
<b>Memory</b>	32 GB DDR4
<b>Internal storage</b>	240 GB SSD system disk (RAID 1) Hard disks for clips storage
<b>Ethernet</b>	2 x 1000 BASE-T (RJ-45)
<b>Ports</b>	2 Serial, 2 USB (front), 2 USB (rear)
<b>Control interfaces</b>	2 x Serial, 4 x USB, 2 x Ethernet (1Gbit), HDMI
<b>Supported video standards</b>	3G: SMPTE 424M HD: SMPTE 260, SMPTE 295, SMPTE 274, SMPTE 296 SD: SMPTE 259 ITU-R BT.601
<b>Video in (mixer)</b>	1
<b>Video in (insertion)</b>	Virtual Set: 8 x 1080i, 4 x 1080p RenderEngine: 8 x 1080i/p
<b>Video output</b>	Virtual Set: Up to 2 x 3G (fill and key) RenderEngine: Up to 4 SDI (1080i) or up to 2 SDI (1080p) (fill or fill and key)
<b>Video references</b>	Bi / Tri level Sync
<b>Audio</b>	Embedded audio support; 20-bit/48 kHz in SD and 24-bit/48 kHz in HD
<b>Size (H x W x D)</b>	7.1 x 17.4 x 24.8 in (180 x 443 x 631 mm)
<b>Weight</b>	55.1 lbs (25 kg) approximate
<b>Power supply</b>	Redundant Power Supply: 100-240 V; Frequency: 47-63 Hz/ 2 x 750W (max)

## Xync infrared camera

<b>Camera lens</b>	2/3" 8mm F/1.4
<b>Data interfaces</b>	Reference input: Genlock; video signal; Ethernet port
<b>Size (H x W x D)</b>	1.4 x 4.6 x 3.6 in (36 x 117 x 91 mm)
<b>Weight</b>	1.1 lbs (.5 kg) approximate

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VDI-40 HD/SD video data inserter	
<b>Video connections</b>	4 SDI channel signals with or without embedded audio 4 BNC (HD or SD NTSC/PAL)
<b>Supported video standards</b>	HD: 1035i 60Hz SMPTE 260 30I, 1035i 59.94Hz SMPTE 260 29I, 1080i 50Hz SMPTE 295 25I, 1080i 60Hz SMPTE 274 30I, 1080i 59.94Hz SMPTE 274 29I, 1080i 50Hz SMPTE 274 25I, 1080p 30Hz SMPTE 274 30P, 1080p 29.97Hz SMPTE 274 29P, 1080p 25Hz SMPTE 274 25P, 1080p 24Hz SMPTE 274 24P, 1080p 23.97Hz SMPTE 274 23P, 720p 60Hz SMPTE 296 60P, 720p 59.94Hz SMPTE 296 59P, 720p 50Hz SMPTE 296 50P, 720p 30Hz SMPTE 296 30P, 720p 29.97Hz SMPTE 296 29P, 720p 25Hz SMPTE 296 25P, 720p 24Hz SMPTE 296 24P, 720p 23.97Hz SMPTE 296 23P  SD: PAL/NTSC ITU-R BT.601
<b>Size (H x W x D)</b>	1U rack-mount, 1.7 x 17.3 x 7.9 in (44 x 440 x 200 mm)
<b>Weight</b>	4 lbs (1.8 kg) approximate
<b>Power consumption</b>	Voltage: 90–260V; Frequency: 50–60 Hz, 70W (max)
<b>Environmental specs</b>	Non-operating temperature (storage): 5°F–140°F (10°C–60°C) at sea level Operating temperature: 50°F–95°F (10°C–35°C) at sea level
ASB-9 audio sensor box	
<b>Supported video standards (Genlock)</b>	Bi-level (PAL and NTSC), Tri-level (50 Hz and 60 Hz)
<b>Data interfaces</b>	Target/Power—power in (TrackingSet) or power + target communication (Xync) Lens Z/F—to read Z/F encoders Camera P/T—to read P/T encoders Lens D/A—to read analog or digital lens RS232/422—tracking data out (in TrackingSet) or communication with MU in the infrared camera REF—Genlock in Data Audio—data audio out (in TrackingSet) Ethernet port Reset—restarts ASB encoders data reading
<b>LED status</b>	Xync: Red—power is connected; Green—camera is locked and recognized; Red flashes—camera is not locked and not recognized by the system Genlock: Green—valid Genlock is connected; Red—no valid Genlock is connected
<b>Size (H x W x D)</b>	4.4 x 6.3 x 5.1 in (113 x 161 x 130 mm)
<b>Weight</b>	1.8 lbs (.8 kg) approximate
<b>Power consumption</b>	Voltage: 12V DC $\pm$ 10%, 15W max (with infrared camera target and encoders)
Star camera target	
<b>Size (H x W x D)</b>	15.7 (from camera base) x 23.6 x 23.6 in (400 x 600 x 600 mm)
<b>Weight</b>	3.5 lbs (1.6 kg) approximate (without adaptors)
<b>Power consumption</b>	Direct power when working with ASB-9; 12V DC PSU (110V/220V compatible)
<b>Environmental specs</b>	Operating temperature : 50°F–95°F (10°C–35°C) at sea level

Please note that all specifications are subject to change without notice.

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