ArKaos Stadium Server and MediaMaster Pro V3.1

By Vickie**Claiborne**

L ast year, ArKaos launched Media-Master Pro 3.0 at PLASA 2012 and then recently continued their evolution with the announcement of a new division called ArKaos Pro at Prolight+Sound 2013. ArKaos Pro has been formed to focus on the specific needs of the large scale events and professional markets, and they have already released their first new server aimed at meeting the demands of this market head on: the Stadium Server. Not to be confused with the A30, this server is a standalone media server system designed for the professional lighting designer that targets the touring and large venue markets. Here's a closer look under the hood of the new Stadium server from ArKaos.

> The ability to map video to surfaces and 3D objects while also having the ability to edit and adjust the settings for those objects directly from within the application make this a solid media server solution for the 3D mapping market.

» Hardware

The first thing I noticed about the new Stadium Server is its size. Right out of the box, it looks impressive. Why so big? The rack size had to increase because of the additional video cards. The Stadium server now features six DVI/HDMI EDID managed outputs. All of these outputs means you don't have to use those video splitter/EDID management boxes to increase your total number of outputs. Plus, in the ArKaos GUI, you now have the ability to route any of the layers (up to 12 full HD layers) to any single output, group of outputs, or to all outputs.

Built on the new v3.1.2 MediaMaster Pro engine, the Stadium server allows for video mapping of all these layers along with controls for geometric image correction and soft edge blending across multiple outputs. ArKaos added some real horsepower to this server to handle all this processing: multiple AMD FirePro GPUs. These GPUs combine to give the server its rendering power for a visual buffer of up to 16K; simply put, it means you can create a setup with several outputs that can output up to 16K resolution.

The server has been updated to have two HD-SDI inputs for video inputs from cameras or other video devices, and these inputs can be routed to any of the content layers just like a video clip. Two SSD drives (including the main SSD 120GB and SSD 480GB for data storage) have been added as well to improve the reliability and performance of the server for those long months on the road and to be able to handle the demands of a large scale show like the Super Bowl halftime show or the opening or closing ceremonies at the Olympics.

» Software

Also at Prolight+Sound 2013, ArKaos Pro released MediaMaster Pro version 3.1, building on the release of MediaMaster Pro 3.0 with significant new functionality including:

1. Video Mapper version 2: The Video Mapper extension for ArKaos MediaMaster is

MediaMaster Pro
video mapper
(above)

powerful and straightforward to use. I was easily able to set up a simple map of a few surfaces in various configurations, and from the ArKaos GUI, I chose the map and the layer played back on those surfaces. With additional and updated controls for cropping, geometric correction, circle primitives, and soft edge blending, the MediaMaster engine can handle most of the complex video mapping applications that I have seen in recent shows and installations, without requiring the programmer to learn a new interface or programming language.
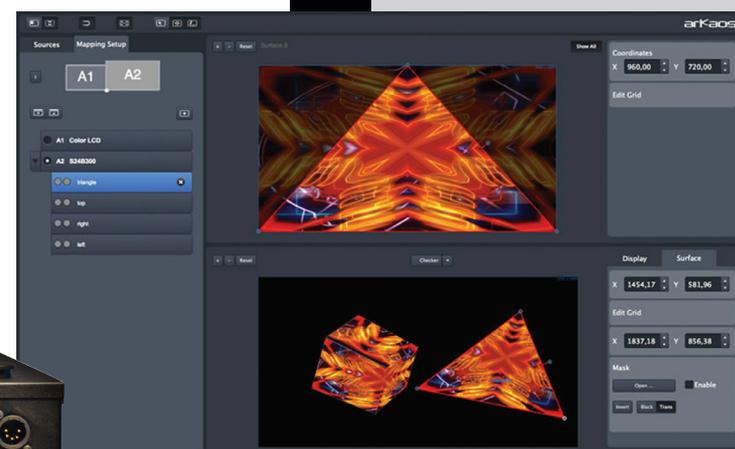
2. Video output support for higher resolution; up to 8K video (8192 × 4320 pixels) on a single layer when natively encoded as MPEG 2 because of its new multi threaded decoder, which uses H-264. Only a few media servers marketed to the lighting market are capable of handling 8K resolution content on a single layer; the Stadium Server with v3.1.2 software is one of these.

3. Each layer can be sent individually to Art-Net Mapper, Kling-Net Mapper, or the Video Mapper. This functionality is very powerful and useful, because it lets users send any layer to any output, video map, or pixel map directly from the same GUI that they use to play back the layer — again, greatly simplifying the process of output management.

4. Supports MA-Net2 protocol. This allows CITP communication between console and server along with thumbnails support on

the console. ArKaos has always been on the cutting edge with regards to communication between networked consoles via CITP/MSEX protocol. Because the grandMA2 is one of the leaders in the lighting console market, and it has implemented CITP protocol functionality over its own MA-Net2 protocol, ArKaos can now be connected to the gMA2 in its own preferred protocol. This feature means that video content from the server will now be displayed on the lighting console, making the job of programming with via DMX a less painful process.

What always impresses me with ArKaos software and servers are how powerful they are yet straightforward to use. There is a lot of thought that gets put into the user interface of the software as well as the user's physical interaction with the hardware, and it seems like the developers at ArKaos understand that users want to spend less time configuring their systems and more time creating with them. Features like hardware connection color coding, professional grade connectors, automatic video encoding when importing media, convenient LCD feedback display on the front of the Stadium server, supporting plug-in applications like Video Mapper, LED Mapper and Kling-Net, and interconnectivity support for third party protocols like Syphon and MA-Net all add up to a robust and professional media server system with virtually unlimited potential. **PLSN**