 Copyright Lighting&Sound America

ChamSys MagicHD Media Server

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Three things have completely transformed live event production in my lifetime: computers, media servers, and LEDs. Despite what some people might think, I wasn't around to witness the birth of computers, although I was around when the desktop computer was popularized. At the time, I was a substitute teacher during the day and an aspiring musician by night, and the head of the science department where I taught told me that they had just bought an IBM PC. He asked me if I would take a look at it and see what we could do with it.

I had been programming computers since I was 15 years old, and I took a lot of computer programming classes in college, but this computer was different. There were no punch cards, no batch processing, and no waiting in line to get your printout. You could simply turn on the computer and type whatever you wanted at the DOS prompt. That was it. There were no windows and no applications. There was nothing but a handful of very exciting commands like PRINT, TYPE, and SCANDISK. Type a command, and the computer would give you an instant result in the form of a green dot matrix font. It wasn't until later on that the school bought a spreadsheet program and the science department began using it to log grades.

Since then, computers have really accelerated the development of hardware, software, and its application in every aspect of our lives, including live event production. We're experiencing a renaissance and it's gaining momentum as we enter the age of the Internet of Things. Soon, everything will have an IP address and will reside on a network, and that will change things even more. Computers are getting much cheaper—as cheap as $8 for a C.H.I.P. computer with a 1GHz processor, 512MB of RAM, 4GB of storage, Wi-Fi, and Bluetooth—and more applications are being developed, including those in live event and video production. We now have lighting console emulators, off-line editors, visualizers, and even media servers that can run on a laptop or tablet.

MagicQ/MagicHD software is free to download and offer powerful features.

Among the various media server apps out there, there's one in particular that recently caught my attention, at first because of its price—$0—and then because of its features. The ChamSys MagicHD is free and it's surprisingly good. You can run it as a stand-alone application on a network along with a ChamSys lighting console, or you can run it as part of MagicQ PC, the free PC-based lighting control software. The content is output

as a second screen, which can be a monitor, projector, video wall, or anything that displays video.

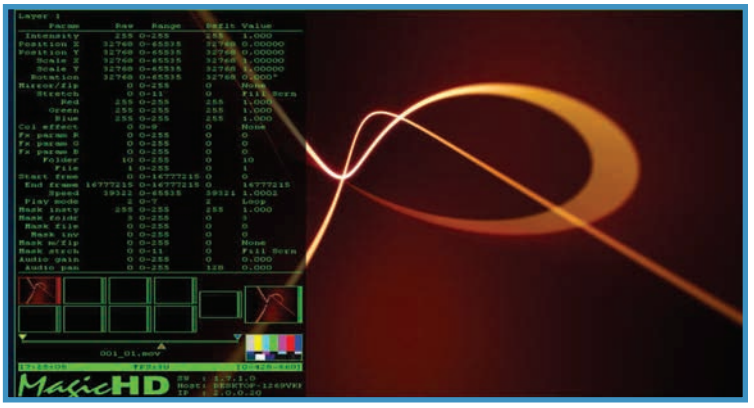
You can download the software from the ChamSys website (www.chamsys.co.uk/download), and it runs on a Mac, PC, or even a computer running Linux. You have to download and run MagicQ to get MagicHD, because it's the same software. I ran the combined version of MagicQ and MagicHD (version 1.7.1.0) without a console using a Microsoft Surface Book running Widows 10 Pro. It has a Core i5-6300U processor running at 2.4GHz and 8GB of RAM. Because the native resolution of the Surface Book is 3000 x 2000 pixels, the default settings in MagicQ PC make the console appear very small—too small for my eyes and fingers to control well. I experimented with changing the screen resolution until the console filled the screen to my satisfaction, which was 1280 x 1024. I left the resolution of the second screen at the default setting, which was 1920 x 1080, and it worked great. (After talking to Phil Watson, the president of ChamSys USA, I found out that there is a setting in the software that allows you to input the resolution and type of monitor you're using so that the software will size the display accordingly. It's in the setup menu.)

The media server has eight layers, and settings allow you to manipulate the intensity, position on the projection surface, scaling, rotation, color, masking, text, and effects, as well as keystoning (or "frame"). The framing has eight points of adjustment, which give you a lot of flexibility.

The software comes with its own content library, though it's somewhat limited. It includes some videos and masks, but, of course, you can also add your own content. The file structure is similar to other media servers; the content file folders have to be named 10 through 255, and the files have to be named 1 through 255. Folder numbers 1 through 9 are reserved for MagicHD's content library. The files and folders can be given names as well, but they have to start with a number followed by an underscore, and then the name. If you're like me and you tire of having to number your file names, fear not. There is a built-in utility that does it for you. All you have to do is click on the media player tab and then click on "convert file," and then watch the progress bar rename and number your file while it converts it.

The media player window in MagicQ shows up when you press the "media" button in the programmer, and it displays thumbnails of the eight layers, along with several programming and editing buttons. The layout and syntax feels logical and familiar. I like the way the programming buttons have small red LED indicators that give you hints about what it's doing and which operations are active. I also like the way you can double-click to confirm instead of having to use the pop-up windows. When you use touch screens, like I did, that makes it very quick and easy to move around the console and program your show. I don't know that these are unique to this console but it's how all consoles should work.

What is unique about this media server, as far as I know, is the heads-up display (HUD). It appears as an overlay on a portion of the output display when it's turned on. It shows detailed information about all of the parameters, including the current DMX values, DMX ranges, default values, and "converted values" (i.e., human value instead of DMX value) for each parameter. It also shows thumbnails of all eight layers along the bottom, plus the text layer and output layer; also included: a media progress bar, color bars, the current file name, software version, and more. It's a great troubleshooting tool and it gives you a lot of information at a glance.



The HUD overlays specifics for each parameter and adds thumbnails for each layer and the output, plus more.

The system supports Art-Net, sACN, CITP, and MSEX. There is also a free visualizer, though I have yet to turn it on and use it. There is, of course, much more to this media server than can be covered in this brief article, and there are several very good tutorials on YouTube. The user manual also appears to be well-written and complete, and there seems to be an active online community on the company's forums, with support for four different languages including English, German, French, and Spanish.

Even though this software is free, don't confuse free with not valuable. It's a powerful media server. Of course, no company can survive on free downloads alone, so the hope, I'm sure, is to get you hooked on using it so that you'll want to purchase the hardware. That's a fair deal. In fact, I think it's a great deal because you can actually purchase the MagicDMX USB-to-DMX dongle for US$100 (£60 or €72 in the UK or Europe, respectively), which allows you to output one universe of DMX from your PC or Mac. My hope is that ChamSys will be successful and that more companies will follow its example.