

MEMO_MINUTES

Paderborn, 08/04/2010

Contact: tech.support@malighting.com

Transition from grandMA video to MA VPU

I would like to officially inform you about the next steps for the MA VPU and the transition from grandMA video to the MA VPU Software.

If you or your customer has grandMA video it is most likely that the following situation will arise: grandMA video software is installed on a computer (self designed or mediaPC) with some content, likely the MA original content, plus additional custom-made content. Mainly this will be QuickTime coded content. Also the software is installed on additional computers, like laptops, to use it as pre-visualization or control suite stations without any dongles in use.

The situation with the VPU Software is slightly different: There is one dedicated piece of hardware which means the dongle is "built-in" and the software is dedicated to that hardware. The VPU does not have an "open" operating system with any kind of default driver, which is all to improve the performance of the VPU. The decoder has also changed, this means completely new content is needed because the new one is based on MPEG-2! There are a few Gigabytes of content delivered with the VPU.

What are the advantages of the new system and why the change?

- Performance increased tremendously – at least 4+ layers of 1080p are possible with 60fps.
- The VPU is more integrated into the network than grandMA video ever was
- Effects are added per layer and per output – each of them can handle 4 effects at the same time.
- Colorkeying is built in now – even with a tolerance value for smooth transitions.
- 3D keystone is possible by adding a 3D model on the output layer (real warping to come in one of the next releases)
- Much easier Fixture handling by only 2 fixture types – the output fixture includes keystone, master, softedge and so on...
- Prepared for Pixelmapping "in the console" – but still all the other ways are available.
- The VPU is able to run either with grandMA series 1 or grandMA2 – safe investment.

How to change now and what needs to be done?

After downloading the software from our webpage you just need to install it. The look & feel will be like the grandMA2 software. Then you need to download a new MPEG-2 decoder from Main Concept (link: www.mainconcept.com/site/prosumer-products-4/mpeg-2-22078/information-22089.html?L=0) and actually pay for it.

This should not be more than 40€. **Attention: Keep the key number!!**

From now on the software will be fully functional. Please be aware of the fact that old shows from grandMA video can not be loaded anymore. Therefore the new showfile is absolutely compatible to grandMA2. All custom-made content might need to be re-rendered into MPEG-2. Now there are several ways to do this...

As a former user of grandMA video you will easily discover the new functionality of the MA VPU Software. Some functionality has changed as well as some naming. Please refer to the documentation like the online manual to learn about it. If you use the VPU Software with an external dongle (old grandMA video) you will have the same performance as a MA VPU Plus – in other words: You have now two individual outputs with much more performance than before! To really achieve this performance please refer to all other documentation on our webpage: www.malighting.com/support.html

Here are the major changes in a rough overview:

- Decoder and codec has changed! From QuickTime to MPEG-2! You need to buy it (with the VPU it is included)
- Old shows are obsolete!
- Old content needs to be re-rendered!
- New fixture types for VPU!

I hope this document helps a little for the transition from grandMA video to the VPU Software. The grandMA video software will end with the first release of the MA VPU Software. For any further information please get in contact with us – we are glad to assist you!

About MPEG-2:

MPEG is the name of the “Moving Pictures Expert Group” who created a couple of international standards. One important one is the MPEG-1/2 (ISO/IEC 13818-part x) standard which will be used for the MA VPU. As MA uses Microsoft’s DirectShow to render the textures (pictures) it will need a Codec¹ to be able to read in these pictures. This codec is the MPEG2 one from MainConcept. There are several formats that can contain MPEG2 videos, below are some well known ones:

- .mpg (MPEG-1 or MPEG-4 possible)
- .mpeg (MPEG-1 or MPEG-4 possible)
- .m2v (MPEG-2 Elementary Video Stream)
- .m2a (MPEG-2 Elementary Audio Stream)
- .m2s (MPEG-2 Elementary Data Stream)
- .ts (MPEG-2 Transport Stream)
- .ps (MPEG-2 Program Stream)
- .vob (DVD Video Object)
- .vro (Video Recording Object)

The MPEG2 standard allows a couple of variations which are not so important to know but which will influence the quality of the picture. They are defined to be able to run several resolutions, full HD for example. This can also influence the bitrate which can vary from approx. 3 to over 80 Mbit/s. As the bitrate gets higher the more the workload for the CPU, RAM & so on.

MA Tipp:

Please refer to our Hardware Specifications for the right hardware to build your own VPU and to our Software Specifications & Main Concept Reference to learn how to get a proper result in recoding your Content!
Also our Tech.Support is more than happy to assist you if any questions need to be answered!

¹Codec is short for 'compressor-decompressor', a piece of software that is able to decode and encode a certain format. By this definition, a DirectShow filter is not a codec.