

What is Softron Media Services M|family ?

The M|family consists of three software / hardware bundles:

- the M|80 the first high density multi-channel ingest solution for the Mac,
- the M|62 which provides six inputs and with two outputs,
- the M|44 has four inputs and four outputs.

Each bundle comes with :

- One SDI Video card from Deltacast card
- One Sonnet Echo Express SEL Thunderbolt 2 Expansion Chassis with power supply and power cable,
- One Black Thunderbolt cable,
- Eight Softron Media Services licenses on a single dongle
- Eight DIN to BNC jumper cables.

Softron has gathered what it thinks are the highest quality hardware components in order to ensure the best experience possible. All you need to do is connect the hardware to one of the three Thunderbolt 2 ports on a new Mac Pro, start MovieRecorder 3 and OnTheAir Video Express, and start ingesting and or playing out as the case may be.

Why did Softron choose to go with a Deltacast video card? Why not use a video card from from AJA or Blackmagic Design?

Deltacast has been a supplier of high quality video cards and OEM products for the broadcast industry for thirty years when Softron Media Services started selling the M|80. It had a product suitable for high density ingest at the time that Softron was looking for an appropriate solution and it was designed for higher density ingest than was permissible with any offering available from other manufacturers. The M|62 and M|44 are natural outgrowths of the relationship and experience with Deltacast. Softron Media Services of course does support the video cards from AJA and Blackmagic Design. It recommends those solutions often and its own hardware offerings are simply a way to deliver a complete package that Softron Media Services knows works and can support.

What is “high density ingest ?”

Softron defines high density ingest as the video capture of four or more streams.

Who needs high density ingest ?

High density ingest has been implemented by hundreds of organisations. In the past, people used single or multiple cards in a single computer to capture one or two streams – and then they used control software to monitor and control the ingests. That accounted for a lot of hardware. Today, a single M|80, a single MacPro and Thunderbolt 2 storage can provide the same ingest capability as 4 MacPros did just three years ago. The M|62 and the M|44 take things a step further by providing output capabilities. Oftentimes the video that is being ingested from multiple ISOs is used right away, to either edit or time slip. Rather than force the user to purchase an additional product for the output, Softron puts everything together in a single box.

Isn't it more expensive to use a member of the M|family than an alternative ?

The way the M|80 is priced, if you intend on capturing 4, 5, 6, 7 or 8 inputs, your costs will be less using an M|80 from Softron than with other solutions. This is because Softron, as an OEM provider, bundles the license and the hardware together and can configure the software in such a way that it is up to 50% less expensive than even using MovieRecorder 3 and other hardware from other providers.

Using the M|62 or M|44 allows you to do all of your inputs and outputs on a single video card that connects to the Thunderbolt 2 connection. There is no need to purchase a second video card or a second expansion chassis.

How do I install an M|family product on a MacPro ?

To install the M|80, M|62 or M|44 on a MacPro, you

- download and install [MovieRecorder 3](#)
- download and install the DUAL or QUAD versions of [OnTheAir Video Express](#)
- download the [Deltacast video card driver from the web](#), run the installer for the video card, reboot,
- plug in the USB dongle into an available USB port,
- plug in the Thunderbolt 2 cable to the M|box and into one of the three Thunderbolt 2 buses on the Mac Pro and you are ready to ingest.

Can I run an M|80, M|62 or M|44 on different MacPros ?

The M|family product plugs into a Thunderbolt 2 port on the MacPro. It uses a USB dongle to store the licenses. To move from one MacPro to another, just unplug the dongle and the thunderbolt connector from one MacPro and load the software and drivers on the new MacPro and you are ready to go.

Using MovieRecorder 3.2 software other Macs on the same network can access, control and monitor the ingest on the M|family product.

How many ingests can I reliably get using the M|80 ?

That is a very difficult questions because it does not depend on the M|80 nor does it depend on the software CODECS . It depends on a number of things that are beyond Softron's control. For example, what kind of MacPro are you using, e.g. how many processors does it have? What kind of storage are you using? What codec are you planning to capture into? What resolution are you planning to use. Softron's MovieRecorder software is available online and can be downloaded to test your system. You can and should then extrapolate your requirements from the results. Softron tests on a 12 core Mac Pro and 32 GB of memory as well as on a 6 core MacPro.

The M|62 and the M|44 ingest fewer streams however if the user does play out while ingest, performance can be very demanding.

Our results are (in 1080i and 720p):

- For ProRes (Proxy), ProRes (LT) or ProRes 422, a 6-core Mac Pro will be able to sustain the required CPU power to encode 8 streams
- For ProRes (HQ) or ProRes 4444 or DnxHD an 8-core Mac Pro will be able to sustain the required CPU power to encode 8 streams

You won't be able to encode 8 streams of HD in H.264, this is simply too much. With a 12- core Mac Pro, you will be able to record maximum 2 streams of HD in H264. If you need a smaller resolution than HD, then you will be able to do more.

What about 4K or 2K ?

With the M|80, you can capture eight HD streams simultaneously or four 2K streams or two 4K streams. With the M|62 you can capture 1 x 4K and 2 HD streams – with the M|44 you can capture 1 x 4K stream.

What about additional options such as Closed Captioning? Can they be added later ?

If you have an M|80, M|62 or M|44, your MovieRecorder 3 or OnTheAir Video Express license is on a dongle. That dongle can be updated at a later date to include the Closed Captioning option or the ProCodecs option. With the M|family, you only need to purchase one option of a kind and it will be valid for all the licenses on the dongle. For example if you need the Pro Codecs option for the M|80, you just need to purchase one option for the 8 inputs. This is a great value as normally (with MovieRecorder 3) you would have to purchase one option per channel.

What about using OnTheAir Video or OnTheAir Node instead of OnTheAir Video Express ?

If you have an M|80, M|62 or M|44, your MovieRecorder 3 or OnTheAir Video Express license is on a dongle. That dongle can be updated at a later date to include the Closed Captioning option or the ProCodecs option. With the M|family, you only need to purchase one option of a kind and it will be valid for all the licenses on the dongle. For example if you need the Pro Codecs option for the M|80, you just need to purchase one option for the 8 inputs. This is a great value as normally (with MovieRecorder 3) you would have to purchase one option per channel.