



Wedding Videographers give a "Thumbs Up"
to United Media's On-Line Express
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Part I

By Marc Franklin

United Media's On-Line Express was first shown to pro wedding and event videographers at WEVA EXPO '99; it tucked away in the corner of the Medea Corp. booth, running with their SCSI RAID storage arrays.

I was immediately struck with awe! Up until then, I had thought there was no efficient way to edit multiple camera events on a nonlinear system, and linear was the only way to go. But the On-Line Express proved me wrong when, about one year and several software enhancements later, I finally had the opportunity to use the system on a number of projects. United Media started out in 1976, making tape based linear systems (they must be pretty good because in talking to other video editors, many systems are reported to be still in service). What makes United Media, Inc. (UMI) unique as a company is they are small and listen very well to their customers, as well as this reviewer. They are also one of the few companies that were able to make the transition from linear to NLE.

The On-Line Express software (MSRP \$2995) currently runs only on Matrox hardware; for the DigiSuite LE and the new LX, the software is priced at \$2995, while the version for DigiSuite uncompressed video is priced at \$4495 - the reason for the price difference is due to the nature of the DigiSuite hardware and the way that it works with uncompressed video.

On-Line Express requires Windows NT 4, or Windows 2000. My review system included software release version 2.8, driven by dual 700 MHz Pentium III processors, with 512 MB of RAM and the DigiSuite hardware already loaded.

For storage it was connected to a Medea Corp 4/120RT RAID Array. The system was also supplied with a shuttle panel that controls the VTR during the logging process and for scrolling through the time line (for more information on the hardware used in this review, please see the sidebar story).



Looks Can Be Deceiving

Upon booting up On-Line Express (OLE), it looks pretty much like other NLEs that are out there; there's a timeline, input/output window and clip bins, but looks can be deceiving. OLE is a lot easier to navigate than Adobe Premiere 5.1 or especially Avid Media Composer, two systems with which I have the most experience. The differences are apparent immediately if you start a new project, and when you are finished with it. In most systems, you go to file and choose "Open", "Save" or "Save as". There may be other choices like "Load" or "Close", but not here. Here there are only have two choices "New" and "Exit."

You may be saying to yourself, "What about save? Isn't the first rule of computer usage Save and Save Often?"

Well not here. UMIs programmers found a way for the computer to log every keystroke and every move of the mouse, and remember it until you delete the project. That means in the rare instance where it does crash, when you reboot the program or even the computer, everything except possibly the operation that caused the crash is exactly where you left it. Once you use this system it is difficult to go back to anything else, once you get used to not having to save all the time. It also speeds up workflow.

Your next question may be, "How then do you work on multiple projects if OLE automatically loads the last project?" Well you simply go to File > New, where it prompts you to name it, you hit enter, and it clears the timeline. If you want to go back to your previous project, there is a window that is much like Windows Explorer, where you can access your projects, audio, video and graphics files; to open it, double click on the project.

You can have multiple timelines "active" but only one is viewable at a time. You can for instance, put together an opening on one timeline, then copy and paste onto a timeline that has the ceremony already.

Now that we have the basics, let's get started with the first major step in nonlinear editing, capturing the footage.



Capturing Video with On-Line Express

There are two schools of thought here among editors. The first is "I have lots of storage, I don't know how to use timecode (numbers scare me). I just want to manually hit record on the capture window or escape on the keyboard for selected clips, or I'll just digitize it all while I'm out on a long lunch and sort it out later."

The other more refined approach is to log and then batch capture only the required footage.

This system accommodates both approaches. For the first, there are no limits on file size, so hit play on the VTR and record on the computer, and as long as you don't overfill the drives you should be OK. The longest clip I captured at one time was around 30 minutes (you can tell I'm with the other school of thought). On the long captures neither the system nor the Medea RAID even blinked.

For those of you who take the more refined approach of batch capturing you are in for a treat. OLE has the best logging and batch capture utility I have ever seen. Adobe Premiere 5.1 is mediocre at best and requires third party hardware and software to work with Adobe's capture window, which basically provides a capture window graphical interface for solutions like Pro VTR, Videonics' Media Motion, or various FireWire systems (personally, I think it was better under 4.2.) Avid has a very good capture utility, but in my opinion, that is the high point of the entire Avid package.

OLE's logging and batch capture utility goes far beyond naming and capturing the clips. You can specify if you want only the video, audio channels one through four or any and combination thereof for each clip. You no longer have to capture video and two channels of audio if you only need some music from the second channel. In the same window you can also specify the compression ratio. I used 3:1; DigiSuite can do uncompressed.

You can also make bins for each type of clip. For instance, I tested the system while working on a two-camera bar-mitzvah reception shoot. I made one bin for the establishing shots from Camera One, and then another bin for those from Camera Two. I then did the same for each of the dances, speeches, and cutaways. Interviews I divided into kids, friends and then close friends and family. This made it much easier to find the clips I needed when I was working on a particular part of the video.

You can organize it this way in Premiere, but you need to capture it all first then create new libraries then sort it by hand, or abort the capture process every time you want to redirect a clip to a different library bin. That is very time consuming and just not worth the effort. On-Line Express really puts you in the fast lane.

Using the OLE shuttle panel (there is no jog), I found logging a tape was a quick and painless activity. In the logging window, unlike the timeline, you do have to save the list. When you are done logging and begin capturing, it captures everything the way you want it and puts it where you want it. I never saw the system abort the capture or drop a frame.



The Timeline and Effects Editing

The editing interface has a timeline interface that many editors will find familiar, but there are a few things that are noticeably different.

The timeline is limited to four video tracks and eight mono (really four stereo pairs) tracks – meaning there is no effects track - YAY!!! I hate Premiere's effects track.

OLE gets around using an effects track by having the effect placed on top of the higher track (In OLE, the higher track always has visual priority).

To have a dissolve between Clip A and Clip B, you drop Clip A on track 1 and overlap Clip B on track 2. You then drop a dissolve on top of that overlap. Pretty simple. What happens if you want to add Clip C between A and B? Simple again. Drop Clip C overlapping Clip A on track 3 and push B over so C is overlapping it. Then drop fade in and out C and delete the previous effect from B. In Premiere you would have to work with moving clips from track to track, deleting and reapplying effects. It is a lot more work than some slip and sliding. OLE gets big thumbs up for this feature.

If you choose, there are about 100 real-time wipes that you can use but I would say that unless you are an "effects maniac" you'll find 98% of these cheesy.

Luckily the system allows you to build and save libraries of real-time DVEs. It is not at all hard to program an effect, including picture in picture, slides and flips. With a little practice you can make effects that you would swear were 3D instead of 2D. Unlike Premiere, you can watch what your effect will look like on your NTSC monitor instead of a postage stamp size preview. This makes making effects a lot easier.

The next big feature is the simplicity with which you can move clips around on the timeline. To do a ripple edit you need to only right click on the clip from where you want to ripple and push or pull the timeline. To do one clip highlight it then right click and move the one clip. To move a group, click and drag a box around the clips right click on one of them and then move them. In Premiere you need to go through a couple menus to do the same thing. In short OLE is just faster to work with.



Multi-Cam Editing Turns Heads

One of the main features that attracted me to OLE is one that is not apparent when you boot up the system. It is the "Multi-Cam" edit mode.

This is actually the first feature that caught my interest in OLE back in '99. Until I saw this, I didn't think there was a practical way to edit synchronized multi-camera shoots on an NLE (except for expensive systems, in the six figure range, like LightWorks or Avid). United Media took a simple concept and found the simple answer that until now no one could figure out how to do at a reasonable price.

Editing Multi-Cam is basically as simple as putting the clips (one for each of up to four camera angles) on the timeline; getting them all synchronizing may be the only hard part (I'd recommend, if possible, having all the cameras focus in on someone clapping their hands together, or setting off a photoflash, so there is an audio and video reference point.)

Once you put the clips on the timeline and sync them up, the hard part is done. From there you go to the "Views" menu and choose the Multi-Cam mode in either full or small mode. As OLE works best with two computer monitors, I would recommend using one with the Full Screen Quad Edit Mode. This will bring up a quad split monitor view that displays a frame from each of the clips where the timeline cursor is parked. Currently empty tracks are shown as black, but in the next release of software you will find additional Multi-Cam mode choices, including a two-camera A/B mode that shows just two tracks without wasting screen space on black.

The one drawback here is that you must scrub the timeline by dragging the cursor needle, as you cannot yet play back four streams of full frame video at once. I'm sure that with computer speeds getting faster every day that will be possible very soon. From there simply drag the cursor through the timeline and hit the 1, 2, 3, or 4 key to choose track of the clip that you want. After pressing the key for the appropriate track, it will delete the unused portion of the other clips up to that point, just leaving the segment that you want of the track you want.

There is going to be an added feature in an upcoming release that will automatically allow you to insert dissolves between tracks. On a multi-camera wedding edit, I can see this saving hours of work. If you change your mind about a cut, you can either do Control-Z to undo it, or manually drag and clip it. While this approach is not quite as intuitive as a good A/X roll edit system, with a little patience and practice it will become second nature.

On an Avid (that I took a class on last year), the only way to do multi-cam is to digitize first in low quality, quarter screen mode, do your edits, save the program and then re-digitize at high-resolution mode. On-Line Express lets you do this with full quality uncompressed video, saving you the time of re-digitizing process, and at a third of the price of the comparable Avid.



Audio and On-Line Express

Another benefit to this system is audio editing. In comparison to Premiere 5.1, there is far more user friendliness and functionality.

To work on an audio track in OLE, first you click on a track button that will expand the view. If you want to see the waveform on the track you click another button. This is actually more functional in OLE than Premiere. In OLE as you click and drag the "handles" you actually see the waveform change. This is helpful if you want to know if your adjustments make it peak or clip without having to play it.

Where it really shines is you can adjust the left and right tracks together or independently. You can also pan left or right without essentially making the clip the same on both channels, instead of Premiere's "Take left or right" command, which leaves a channel without sound. When it comes to adjusting the handles, by pointing and clicking on the "rubber band" the left and right channel are adjusted simultaneously.

If you want to adjust them independently hold down the shift key and then click, which will only affect that track. If you need even more precise control (and who doesn't with audio controls), you right click on the handle and it will bring up an audio slider that can precisely control that specific handle or the entire clip. Normally with Premiere (5.1 at least), you would have to shut Premiere down, bring the clip into a program like Sound Forge adjust it, close the clip, restart the project in Premiere, then re-render the audio - not quite as quick.

One benefit that the newly released Premiere 6.0 has over OLE is the real-time "mixer" that lets you watch your program and, using your mouse, adjust the sliders in real time. In OLE, however, you have the unique ability to record a voice-over into the computer as the computer is playing back the video program. This is something unique to the OLE, from my experience.

Conclusions And Expectations

The software-only package is \$2995 and full-blown turnkey systems can run over \$12,000. That may seem a bit hefty compared to other systems, but On-Line Express is by far one of the most time efficient editing programs around. The time it saves you in the long run may be worth the price tag.

I believe that United Media's On-Line Express has the potential to be the perfect editing application for event videographers, let alone every other type of editor.

Rob Ricci, United Media's product specialist, said that the company is very excited about this year's WEVA EXPO, where United Media will have their own booth for the first time. The company intends to have a number of new features and/or products that will be of great interest to WEVA members, he said, including a hands-on training area with systems loaded with the latest version of On-Line Express.

In Part II of this article we will look at United Media's expansion of OLE, including the latest shipping software version 3.0 and how it works with the newly-released Matrox DigiSuite LX board (it features FireWire capture as well as MPEG-2 edit and export), along with Matrox's new 3D Max board for real-time 3D effects. We will also look at some newer plug-ins, such as the latest from Boris FX (among other interesting add-on tools that are now available).

Hardware Sidebar (\$)

Matrox DigiSuite Full Board Set (MSRP \$9995)

Matrox's DigiSuite was the heart of the hardware of the system I reviewed.

It comes with a breakout box that has connections for three VTRs with Component, YC and composite. It also has a break out cable for audio that includes four channels of balanced XLRs in and out.

What sets the DigiSuite apart from the rest of the DigiSuite family (LE, LX, etc.) is its ability to do uncompressed digitizing and editing.

I tried digitizing and editing at levels from 3:1 to uncompressed from my S-VHS sources. They all looked fine. Where the uncompressed really comes in handy is where you need to render a major color correction filter. I needed to render a clip in Premiere 5.1 because it had a little more flexibility than OLE's real time adjustments. In compressed modes it looked noisy. But uncompressed it looks great.

Although most of the time you won't need the uncompressed mode, especially if you are using a DV codec, its nice to know it is available if you need it. Otherwise the footage and audio looked great going in and out. The other nice part of the Matrox hardware along with the OLE software is you can build effects and look at the preview on an NTSC monitor and not be confined to a postage sized preview on the computer monitor.

Medea RAID VR 4/120 RT (MSRP \$1999)

I have been using and abusing Medea RAIDs ever since people were impressed with a drive capacity over nine GB.

In those early days, back when the president of the company would frequently answer the phone, Medea challenged me to put their internal 13 GB IDE RAID against my super fast nine GB SCSI. I watched in disbelief as it hammered the SCSI!

Within a year they abandoned the internal design for a new external case that housed the IDE drives and their new proprietary IDE RAID to SCSI interface. This one required no special software just an external SCSI interface on the computer. I have been using the 2/26 unit since the end of 1999 with out a problem. For my review of the On-Line Express, the VR 4/120 (120 GB) that I was supplied with did not miss a beat or a frame.

It was on for hours and hours and never had a sputter. It easily handled two real-time streams of mildly compressed 2:1 M-JPEG video. It was so stable that I did something I usually don't trust to hard drives - duplication. Twice I played back a two-hour bar-mitzvah reception into my duplication system from the RAID with no problems, for six great copies.

Aside from performance the other great feature is the five-year warrantee. So if my 2/26 GB RAID goes out next year and the smallest drives made are 40 GB it will be replaced by a 2/80 GB RAID. Not a bad deal. Don't go dropping it out of a two-story building though; the warranty doesn't cover physical abuse.

Based on the success I've had with their SCSI RAID products thus far I wouldn't hesitate to recommend any of their current RAIDs.

On-Line Express Realtime Nonlinear Editing Systems and Accessories for Windows 2000/NT

OLE LX – MATROX LX BOARD (MPEG-2 VIDEO)
\$2,995 MATROX MAX BOARD (REAL-TIME 3D AND 1394)
MATROX G450/400 (VGA BOARD)

OLE DTV MATROX DTV BOARD (MPEG-2)
\$2,995 MATROX G450/400

OLE LE MATROX LE BOARD (MJPEG)
\$2,295 MATROX G450/400

OLE MATROX DIGISUITE BOARDSET
\$4,495 UNCOMPRESSED

REMOTE SHUTTLE KNOB
\$1,000

KEYBOARD STICKER KIT
\$100

RS-232 TO RS-422 CONVERTER
\$150