

Pinnacle's Liquid Products Are Now A Part Of The Bigger Broadcast Picture

Oliver Peters

When the small German NLE manufacturer, Fast Multimedia, sold the assets and intellectual rights of its editing products to Pinnacle Systems last year, many feared that the company's products would simply be absorbed and go away. Fortunately, that hasn't happened. At the NAB convention in Las Vegas, the newly renamed Liquid line of NLE products drew consistent crowds and was a prominent part of Pinnacle's broadcast and professional market strategy. With Discreet discontinuing its PC-based **edit** product line, Pinnacle Liquid is in a fine position to become the major "number two choice" behind Avid for Windows-based NLEs.

With the move to the Pinnacle fold, the former Fast product line of "color" products has been streamlined. It now includes blue, silver, purple and Field. blue is an innovative product, which takes different digital media formats and allows you to work with them and mix them on a timeline in their native form. Dubbed the "every in/any out" editor, blue freely captures and mixes uncompressed serial digital 601 video, MPEG-2-compressed IMX, DVCPRO50, and DV25 formats. silver lets you work with either compressed (using MPEG-2, all I-frame at 5 to 50 Mbps) or uncompressed media, while purple is DV-native. blue, silver, and purple are sold as turnkey systems, while Field is a software bundle intended to run on laptop systems for news editing. FastStudioDV, the former shrink-wrapped version of the software, will be re-launched as Edition and sold through Pinnacle's consumer channels along with products like Pro One.

The blue, silver, and purple turnkey systems include the CPU configured with Windows 2000 and the Liquid software, an audio/video breakout box, a jog/shuttle controller, and two InTime units. The InTime cards are accelerators, which incorporate several Trimedia chips for high-speed back-

ground rendering. The workstations are typically equipped with dual Pentium III, 1 GHz CPUs, a Matrox dual-head video card, and 512 MB RAM. In the past, Fast built their own hardware systems, but in upcoming systems, Pinnacle will be using the Compaq W8000 workstation. purple is priced at \$13,995 (with dual InTimes and the jog/shuttle controller); silver at \$20,000; and the flagship blue system is \$35,000. DVCPRO50 and IMX format-support is an option, which adds \$4,000 and \$2,000 respectively for customers who need that. This is because of the licensing costs involved. Field, which is software-only, is \$2,995. Add media drives and monitors and the system is complete.

I had looked at the Fast systems last year, but this was my first extended time with the newest version of Liquid.blue (version 4.02 is scheduled to ship either this month or June), shipped straight from the NAB floor to my friends at system integrator Profile East. Pinnacle's Brad Swenson, who's "lived and

HANDS ON review

PINNACLE SYSTEMS LIQUID BLUE

In Brief: After Pinnacle Systems' acquisition of Fast Multimedia's editing products last year, many in the industry waited to see just how the "color" products would fit into Pinnacle's already-established product lines. At this year's NAB, Pinnacle revealed to the public that the former Fast product line have been streamlined. It now includes blue, silver, purple, and Field. blue is an innovative product, which takes different digital media formats and allows the user to work with them and mix them on a timeline in their native form. The Liquid products have been successfully incorporated into the "bigger picture" of the broadcast world. Not only do blue, silver, and purple work with Pinnacle's own Vortex networked environment, but also those from Omneon, SGI, and Rorke Data, among others. Blue—or even silver or purple—is certainly no NLE slouch, offering one of the strongest price/performance ratios of any system on the market today.

Price: \$35,000

Info: www.pinnaclesys.com



breathed” Fast products for the last few years in both Germany and stateside, took me through blue’s paces. With the 4.02 release, blue, silver, and purple customers will see some new features, including analog and digital audio scrub in the trim mode and “shear” (skew) functions on the 3D DVE.

Four Key Ingredients

Right off the bat, let me point out four key features that in my mind differentiate the Liquid line from all other NLEs, regardless of platform. First, the system’s architecture is not based on real-time, dual-stream hardware. Rather, it is designed around fast manipulation of software-based effects that are rendered in the background. The software is multi-threaded, meaning you can render while continuing to work on refining the edit.

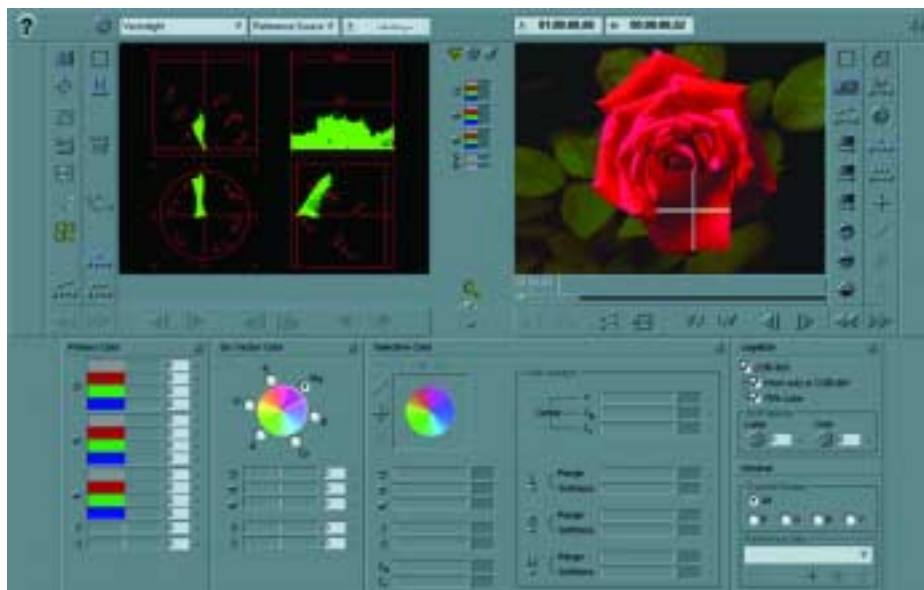
Second, the system includes the InTime boards designed specifically for rendering, which means that the processing time for complex effects is very fast.

Third, the software is written to work very tightly with Windows. This means that the applications are optimized for dual-processor machines, but also perform similarly on single-CPU computers, like laptops. This is achieved by controlling the Windows kernel, which in layman’s terms means that foreground functions, like active editing, take precedence over background functions like rendering. In a single processor machine the editor isn’t slowed down while working, but the rendering might take a bit longer. In addition, on laptop systems, power management is controlled, so that normal power-saving functions don’t interrupt editing efficiency.

Fourth, Liquid products include InstantSave, which means that a system like blue is constantly saving the project every point-three milliseconds. In fact, there is no actual “save” function in the menus. Pull the power plug mid-stream and no edits are lost!

The Interface Design

When you launch one of the Liquid applications, like blue, the interface fills the screen and hides the normal Windows desktop, creating a very subdued color scheme and design with embossed-style icons. There is a Windows-style start menu, but in reality this is the Liquid start menu. In general, the set-up functions, like user, site, and project set-



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tings are laid out in places that would be similar to Windows set-up locations, such as the Control Panel. In this way, editors who are familiar with the Windows environment can look in familiar areas where it would be logical for them to find certain items. Interface items are very contextual, so that right-button mouse functions change depending on which part of the interface you are dealing with. For instance, right-button options will be different for a clip on the timeline than for a clip in a folder.

The Liquid desktop serves several functions besides just hiding a messy Windows desktop screen. First, when you click outside of any application folder like a bin, you are still inside the application, so you aren’t accidentally causing the computer to switch away from the application itself. Second, this is an active working area. You can drag temporary clips and effects out of a folder/bin and onto the desktop workspace so that you can easily find frequently used clips. This is the same way that discreet’s **smoke** works. The interface is totally customizable. You can add or delete function icons all over the interface. The timeline window (with tracks) and source/record windows can be moved into either the left or right screen. Clips can be played from their picon view in the bin as well as in the source monitors. You can scrub video from the timeline, but also with the cursor just posi-

tioned in the video area itself. This would typically be referred to as “gestural” editing.

Color-Correction And Containers

Although these products have received the rap of just copying a popular interface design, I found many things that were great new twists on how an NLE should work. For instance, in the Digitize mode you have control of audio levels/panning and color-correction. blue includes real-time, primary color-correction, permitting adjustment of YUV and RGB levels for blacks, mids, and highs, as well as a “legalizer” for proper 601 color levels. The “legalizer” even includes soft clips. Although you can adjust input levels, it is important to note that this is non-destructive. In other words, the audio and video media is actually captured without these adjustments; however, the clip is “tagged” with the altered values that you applied during capture and that is how it is edited to the timeline. At any point, you can alter or delete the audio and video level adjustments you have made.

Timeline tracks are not simply audio or video. An audio track can be a single mono channel or a stereo pair and video tracks can be set to include embedded audio, such as sync dialogue. The tracks can be arranged in the timeline window with different hierarchies, so that you don’t have to have video on top and audio below. You can have an unlimited number of tracks. These tracks can be combined in-



blue offers extensive effects capabilities. Though there isn't a real-time, hardware DVE, the software 3D DVE is very responsive and includes such features as x, y, z-axis indicator arrows, source space, and camera view parameters. The application is resolution-independent, so you can import bigger-than-video-size graphics files and manipulate them in the DVE.

to a “container.” This is similar to Media Composer’s “nesting” or “collapsing” functions. Once tracks are combined into a container, a global effect can be applied to the whole container. Up to ten containers can be combined into another container.

In addition to real-time, primary color-correction, blue also includes non-real-time, secondary color-correction. Developers worked with a daVinci colorist in its design and, therefore, it borrows a lot from that workflow. The secondary color-corrector offers the editor various on-screen scopes—including a really cool 3D view of color space—plus histograms and automatic color-balancing routines. There is also six-vector correction and selective color-correction. In the six-vector mode, you can change the saturation and hue of one of the colors from the “pie” of the vectorscope, like reds, for instance. Selective correction lets you isolate colors with an “eye dropper” tool and adjust those to be something else. All of these functions combine to create an extremely powerful corrector rivaling those available in systems that are many times the cost. Though you can compare correction with a reference frame, the missing ingredient is a previous/current/next scene view, which would make scene-to-scene correction really easy.

More Effects

blue features good trim functions and extensive drag-and-drop functionality, but I was surprised at how extensive the effects capabil-

ities were. Though there isn't a real-time, hardware DVE, the software 3D DVE is very responsive and includes such features as x, y, z-axis indicator arrows, source space and camera view parameters. The application is resolution-independent, so you can import bigger-than-video-size graphics files and manipulate them in the DVE.

Speed effects for motion clips, called Time Warps, can be linear or dynamic (graph-based) and have various field, frame, and mixed-field rendering options. Dynamic Time Warps permit ramped speed changes over time in both the forward and reverse directions.

The way in which filters and DVE effects are applied to clips that are on higher timeline tracks is also improved over other systems I've used. On some other NLEs, an effect on a higher track frequently effects the whole composite, not just the clips on that one track. With blue, it is only applied to the clip itself, which is what I would expect to see, based on how DVEs and switchers used to work in a linear bay.

There is a rich set of filters and other effects, including a versatile color effect tool, chromakeying, as well as auto-blue-screen and auto-green-screen keying. You can add Boris, Ultimatte, and other Adobe Premiere-style plug-ins. There is also X-Send, a feature for sending media to other applications, such as After Effects, where even the timeline track structure is retained. The audio mixer permits

real-time mixing of 16 mono or 8 stereo tracks and includes automation (with ganged faders) and extensive track routing. There are three built-in audio filters: equalization (with up to three EQs per clip), echo, and a maximizer.

The Bigger Picture

With the acquisition by Pinnacle, the Liquid products have been incorporated into the “bigger picture” of the broadcast world. Not only do blue, silver, and purple work with Pinnacle’s own Vortex networked environment, but also those from Omneon, SGI, and Rorke Data, among others. This, along with the rich feature set, makes these products attractive to folks like the BBC.

Future feature development is hard to gauge, of course. Swenson told me the top questions he gets are for 24fps and HDTV support. Even though that is an extremely small slice of the market, 24fps support helps to give a system credibility in the lucrative Hollywood market and having an HD plan creates the perception of being on the “cutting edge.”

Whether or not Pinnacle succeeds in becoming the “number two company that tries harder” has everything to do with marketing. Blue—or even silver or purple—is certainly no NLE slouch, offering one of the strongest price/performance ratios of any system on the market today. ■

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