



# Vision for Workflow

## Solutions for Post & Broadcast



Live  
Production



Editing



Content  
Delivery



News  
Production



Sports  
Analysis



OEM/  
Developer

## Workflow Solutions for Networked Graphics

For ultimate control over the creative graphic process, Pinnacle's Deko™, DekoCast™ and Thunder™ allow you to transform the traditional work flow from transfers of material on traditional media to an environment where you share, distribute, and repurpose graphics content over a local or wide area network as image and content in a file-based environment.

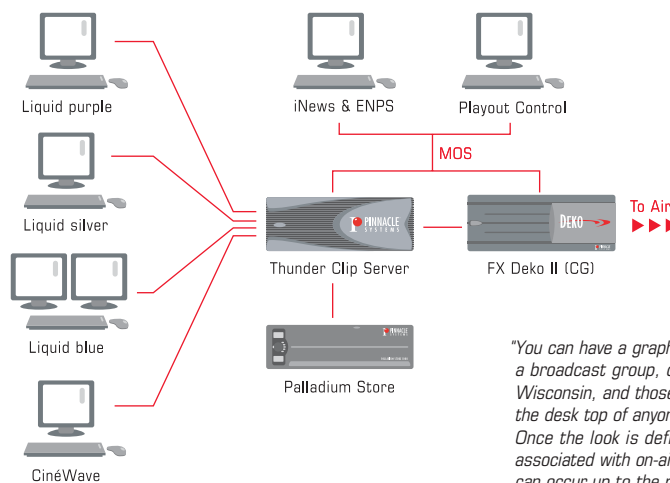
It is a contemporary style of collaborative environment, combining multiple inputs rather than multiple people. One graphic artist can take elements from the stills-stores, paint systems, and editors, in various locations throughout the network, create a product and bring it to air, seamlessly, with no loss of quality through traditional tape transfers, and no delays.

In a traditional environment, graphic elements are stored on disc and shipped from place to place. Changes often required complex coordination of content creation, delivery and image sharing, generally utilizing the ever-popular "sneaker-net".

Pinnacle's networked graphics solutions allow your graphic artists to view any content that resides within the network, access and update the images and information at any remote facility, or manage the assets from a central location. Centralized graphics embodies all the elements that make up a station's brand and identity on air, within a newscast, within station IDs and promos, within daily news, and news promos.

With Pinnacle's workflow solutions for networked graphics you can save time, eliminate duplicate processes, and create a higher level of repeatability. The quality of your on-air look, the location and display of graphics and logos is consistent over the network, and you have control over what is displayed without constantly modifying graphics. Pinnacle templates can handle that for you, allowing you to share generic graphics with the group while still leaving room to define the local presence that is so crucial to broadcasters.

The Pinnacle platforms are compatible with a variety of applications, making Macintosh®, NT, SGI®, and other general-purpose hardware interface seamlessly with the Pinnacle line of networked graphics solutions. Pinnacle has a strong relationship with many of the large groups in the broadcast industry and is working with an industry leader to develop software that fully exploits the Pinnacle product line.



*"You can have a graphics artist in New Jersey create a baseline look for a broadcast group, deliver that to a small server within a TV station in Wisconsin, and those images can be browsed, approved and viewed at the desk top of anyone in the facility that's given access to that server. Once the look is defined, it can be published to Deko™ or Thunder™, associated with on-air templates and immediately updated. This process can occur up to the minute before those graphics are brought to air."*

*-- Bill Reinhardt, Business Development Manager for Graphics*



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## Workflow Solutions for Networked Editing

Pinnacle offers a range of networked editing products to suit the needs of different markets, and the inherent flexibility and interoperability of the Pinnacle Liquid™ editor make it possible to integrate into a wide variety of broadcast workflows.

All of the Liquid editors are built for media networks from the start. Liquid editors can reside on a shared storage solution such as Pinnacle's Palladium™, or other 3rd party shared storage products.

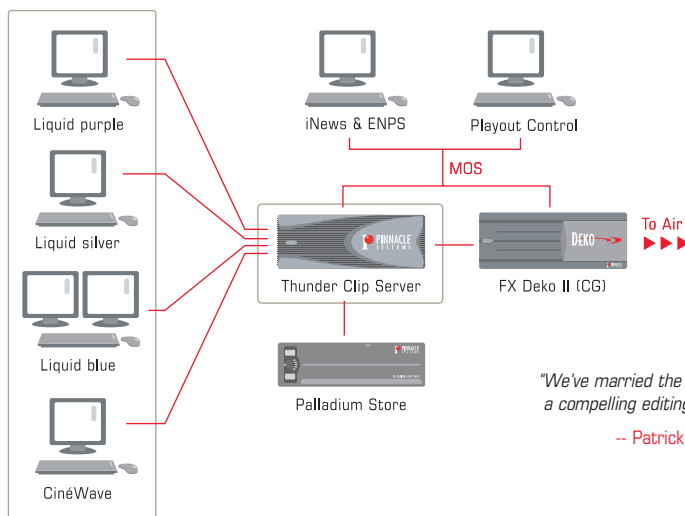
The flexibility of this approach can be seen in several scenarios. A broadcaster using Pinnacle's MediaStream™ server for mission critical on-air playout can use a Liquid blue™ to ingest and edit the material prior to publishing it directly onto the server. The editor can also take material off the server and re-purpose for a promo or other similar re-editing.

A small broadcast station can combine Liquid editors for craft editing on their network with Vortex™ editing clients that are used by journalists and producers. The material is browsed and storyboarded by the journalist on Vortex, and then the EDL is subsequently given to the Liquid product for craft editing purposes such as adding effects, color correction and graphics. Once finished it is published back to the media manager to be ready for direct on-air playout from the Vortex playout server.

A broadcaster using Pinnacle's DekoCast™ or Thunder™ clip and graphics playout servers can use Liquid to edit clips which then get published in one-click directly to these servers. No tape is needed, no manual instructions on what to take where. All media is exchanged directly over the storage and network infrastructure.

Examples of such workflow can be found at many broadcasters and production companies today. The Pennsylvania State Senate uses a network of Liquid silvers on shared storage to perform daily production of political material. NBA® entertainment uses a network of Liquid silvers on shared storage to perform 24/7 ingest of game material and then preparation of highlights, promos, commercials and other repurposing. European broadcasters such as ORF, RTL and SWR use large networks of Liquid blue workstations to produce news and magazine material for daily programming. Liquid blue editing stations are in daily use at CNN®, and ready to be hooked up to Pinnacle's Vortex news system.

Pinnacle's Liquid editing solutions allow you to save time and are priced to match today's aggressive market.



*"We've married the best hardware with the best software to create a compelling editing product which is extremely powerful."*

*-- Patrick McLean, Sr. Product Manager, Editing Solutions*





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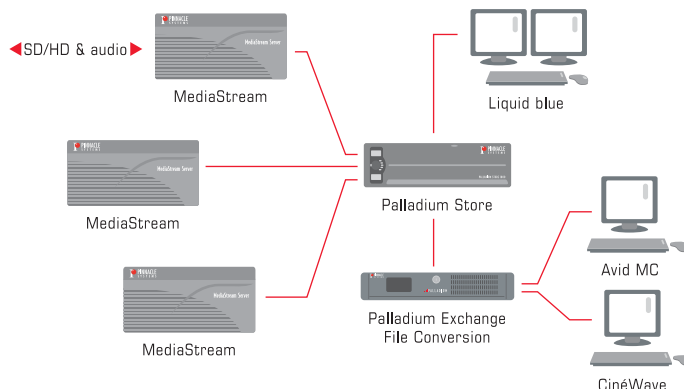
## Workflow Solutions for Ingest and Playout

At each end of the production process are the tools that launch and complete the flow. Ingest and playout solutions from Pinnacle build on the strengths of an integrated product line, giving you access to cost-effective, scalable, best-of-class products.

It's all about making it easier to ingest, edit and playback in a seamless way without having to go back to video or file transfer. Let's say you just built a promo for tonight's news, using Liquid blue™ to edit, and you need to play it out to air quickly. As soon as you edit, it's ready to be played out on MediaStream™.

Building on the existing line of mission-critical servers, Pinnacle is proud to say that MediaStream can now handle native IMX/MXF for compressed video and audio. Also new is a dual MPEG encoder card providing two input channels on one card instead of two, and the new MediaStream 900*si* with independent storage. The MediaStream 900*si* can be easily upgraded to attach to the Palladium™ shared storage system.

Pinnacle is already the world leader for mission critical playout and now, with the combination of editing and compositing, and graphic workflow solutions, Pinnacle is poised to provide the tools for every step in the production and broadcast process, at a cost-competitive price.



*"We're the playout kings! It's not just about workflow, it's about smooth, resourced and time-efficient workflow that uses fewer resources and does the job quickly. What more can anyone ask for?"*

-- Chief Technology Officer Al Kovalick



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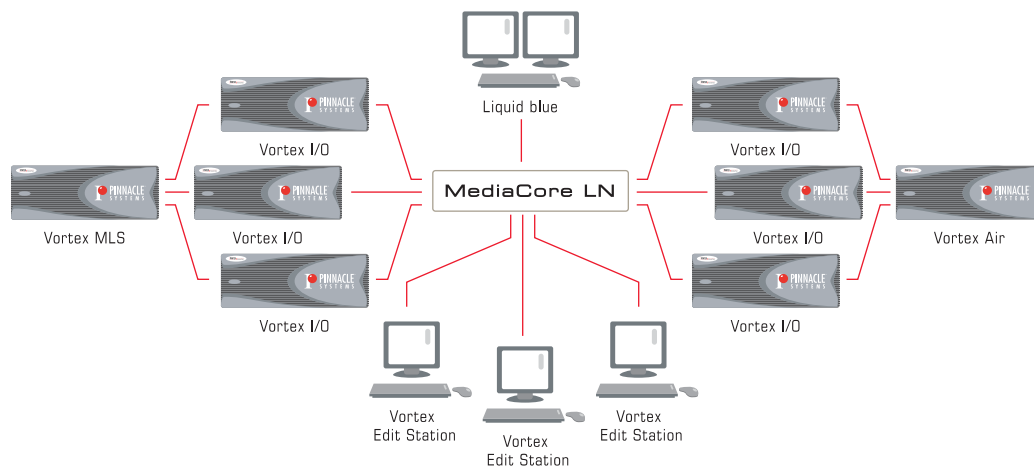
## Workflow Solutions for News and Sports

The gathering and broadcasting of news and sports has been evolving almost as quickly as the news itself. Economic pressures, coupled with a need to preserve journalistic integrity in the face of technology, have prompted the move to the multi-talented, multi-tasking reporter/producer.

Thanks to Pinnacle's integrated workflow solutions, today's broadcast news journalists can exercise far more control over the process of news gathering and dissemination, from ingest to editing, graphic elements and playout.

The centerpiece of this process is Vortex™, a very cost-effective network architecture that provides a workflow solution for the news environment. It incorporates the strength of the Pinnacle Liquid™ line of editing products that are best-in-class solutions, with multiple levels for cost-effective and powerful editing options. Vortex has a very strong proxy editing component to the workflow which also makes it cost effective and scalable. Vortex includes a central database that offers the power of maintaining central metadata for the identification and management of your media assets and provides tools by which you can log and edit metadata for real-time sports and news production.

Today's television journalist at their desktop can bring in a story that's been shot and give it to a central ingest room. As they begin to type the copy they can also begin to view and edit the piece on the desktop; no need to wait until the visuals are finished loading before accessing. The reporter/producer can type the copy, edit and review the visuals, even record the voiceover at the desktop, then put the story into the rundown and save the package in the MOS environment.



*"What people are seeking, both in our news workflow solutions and in our sports solutions, is to be able to do more, better and faster. That's why they're willing to invest in networking technology. Within sports we have built a process where sports organizations can perform the entire workflow of capturing media, annotating, creating new media, distributing the media and using it in a completely tapeless environment. We call it the Pinnacle Process."*

-- Dave Glover, Vice-President of News and Sports