News Production Solutions

LIVE
PRODUCTION

EDITING

CONTENT
DELIVERY

NEWS
PRODUCTION

SPORTS
ANALYSIS

OEM
DEVELOPER

• connecting
• creativity

PINNACLE SYSTEMS

www.pinnaclesys●com

News Production

From There...

Watery winter afternoon light was already dying when the reporter burst through the newsroom doors brandishing fresh tape from the field. A lone hiker, navigating slippery rocks in a north shore ravine, had been rescued from the creek bed after falling and breaking his leg.

Sliding into a proxy bay, she began logging the visuals while they were being captured into the newsroom's central storage. All she could think about was the need to get the story from out there - to air.

Taking a deep breath she activated the proxy audio controls and began to voiceover the afternoon's latest breaking news story. At her desktop edit station, she quickly arranged a series of fast cuts showing emergency responders, in rope rescue gear, strategizing about the best way to lower a skid, and pull it back up the steep bank, injured hiker in tow. She intercut sound up from the rescue team's communications with shots of the scene and an interview with the incident commander. Selecting a lower-third key template from her newsroom's standardized graphics, she typed in his name and rank.

Quickly she dropped in a clip from the witness who had put in the call, and added her on-the-scene stand-up, captured with what little light remained in the canyon.

With moments to spare, she inserted the studio intro text and uploaded the piece to playout, where the director was gratified to see it appear at the top of his run-down.

"Roll the opening; stand by Camera 2…"

"Good evening; a lone hiker had to be rescued from a north shore canyon late today. We have this late-breaking news."

...To Air

Vortex to Air

The nature of breaking news hasn't changed over the years…but everything about how it breaks, and how it is collected, edited and broadcast, has been altered by technology. Mastering that technology, rather than being mastered by it, is a daily challenge in the dynamic, demanding and competitive world of broadcast news. You need a system that's built to serve news and news people, not technology.

Vortex News solutions streamline the process of getting the story to air, providing a seamlessly integrated system of hardware and software that puts control in the hands of the journalists, allowing them to tell their stories powerfully and immediately.

Vortex News does away with time-consuming and expensive steps in the process, while strengthening the process itself. No more copying tapes; no more waiting for tapes to be digitized; no more relying on the graphics department to complete the piece; no more looking for an announce booth; no more begging the archive librarian to find file footage.

It's axiomatic a system that saves time will also save money.

Vortex News solutions are built around off-the shelf components and use standard I/T protocols you already use and understand. Vortex News simplifies and enhances digital news workflow.

From simple ingest applications that make content available within 10seconds, to Palladium central storage that allows multiple users to access the same content without copying, to user-friendly browsing, logging and editing solutions, Vortex News streamlines the challenge of telling the world what's happening right now. It works as fast as news happens.

Vortex News is incredibly reliable and stable, with built-in system redundancy through Palladium. We understand fail-over; we know things break; we know you must get to air anyway.

Vortex News is scalable for smaller-market operations to large-scale networks and it's highly price-competitive, allowing you to buy more and bigger, for less money. Our editing solutions put the edit controls in the hands of your reporters, allowing them the freedom to cut their own stories, add graphics, browse archival footage, and insert the piece into the rundown, all from any client station in your facility. As your operation grows, we grow with you, adding bigger and more sophisticated versions of our news products.

Vortex News includes Deko™ Graphics, an industry-leading graphic application for broadcast news. There's simply nothing else like it. Deko allows your chief graphics guru to create the station's brand overall, as well as look and feel templates for all your promos, programs and products. Using these templates, anyone can edit a consistent, professional product, even without graphics training or ability.

Liquid News and Promo Editing gives you the potential of a sophisticated post-production facility, so easy it can be put to the relentless test of daily news.

Faster, more powerful, smoother, intuitive news flow systems that won't break the budget. Vortex gives you tools to tell the story—then gets out of your way to do it.

Vortex Workflow Diagram
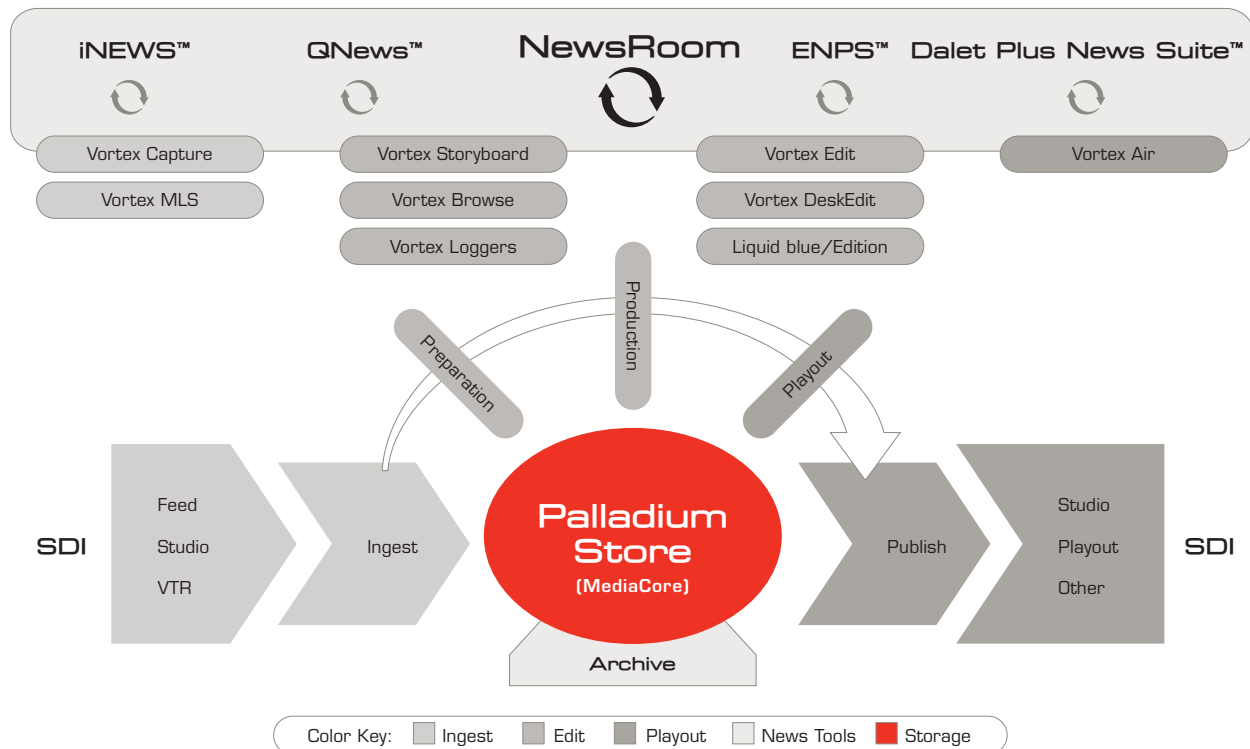
Vortex Workflow Diagram

■ **Ingest: Load, Log and Lock**
Getting raw material into a digital news flow has to be fast and efficient; no one can wait for an ingest to be completed before viewing and logging. Vortex Ingest Tools are based on simple capture application software with simultaneous high resolution and proxy capture.

■ **Edit: Cut, Paste, Design and Voice**
Fast, versatile, proxy integrated graphics and central storage that does away with tape and file copying. Vortex News editing solutions allow you to shuttle through a tape or source and record directly to the timeline, edit and preview at any proxy station in low resolution, and conform edits for high resolution playout. Add voice-overs, simple text interface to graphics templates, and your journalists take control of their own stories.
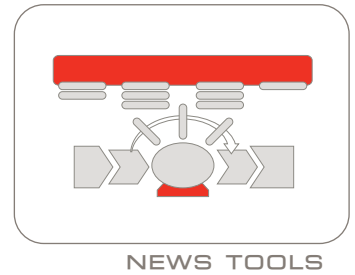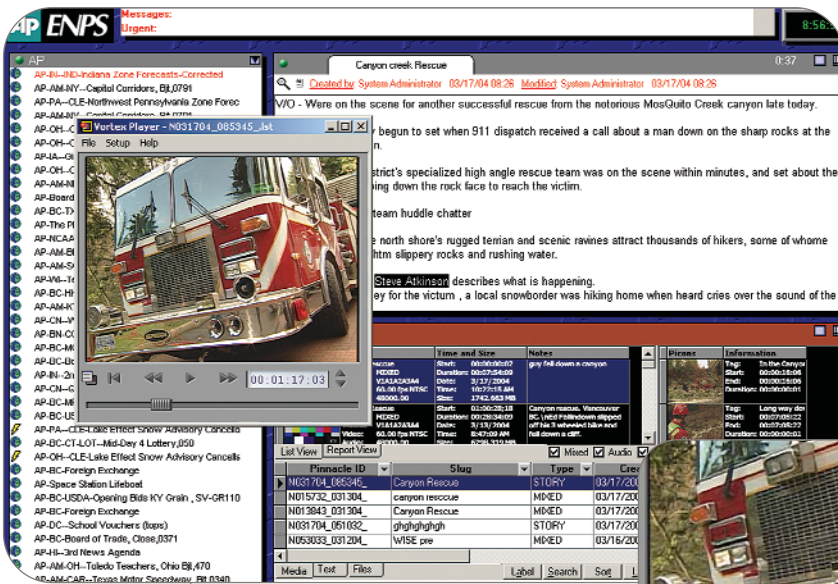
■ **Playout: Copyless Playout**
With all content, rundowns and graphics loaded into central storage, playout is the director's way of going to air. Unique to Vortex News solutions, there is no copying of files on playout. The same raw material is rendered at air time, conforming to your edit instructions.

■ **News Tools: Integrated Brain**
At the heart of the Vortex News solution is the actual hardware and software that allows you to do the things you need to do. News tools include the newsroom computer system which holds dear the rundown and any changes made to it for instant communication with the production team. The Archive Manager does all the mopping up when you're done for the day.

NEWS TOOLS

NRCS—Newsroom Computer System
PLAYS NICE WITH OTHERS

The Newsroom Computer System (NRCS) is the story heart of the newsroom. It's where you put your stories when they're edited and finalized, where the rundown is built and renovated, and the crucial tool for your director as the show goes to air. The Vortex NRCS is entirely compatible with ENPS, iNEWS, Dalet Plus News Suite and QNews, as well as many other technologies.

The Vortex NRCS ActiveX control provides powerful searching and browsing capabilities that are seamlessly integrated into the Newsroom Computer.

The Vortex ActiveX Plug-In is seamlessly integrated into the ENPS workstation. The Vortex Proxy editors enable the users to playback transitions and graphics in real-time. Users can drag a story from the Vortex media bin to the NRCS script window. The saved script automatically sends the clips' ID via the MOS gateway to the rundown list on the Vortex Air Rundown Manager. Clips are triggered for playout to air directly from the Palladium Store on the Vortex network.

The Vortex ActiveX Plug-In provides powerful searching and browsing capabilities that are seamlessly integrated into the Newsroom Computer System. The ActiveX Plug-In allows the NRCS full access to media stored on the Vortex MediaCore.
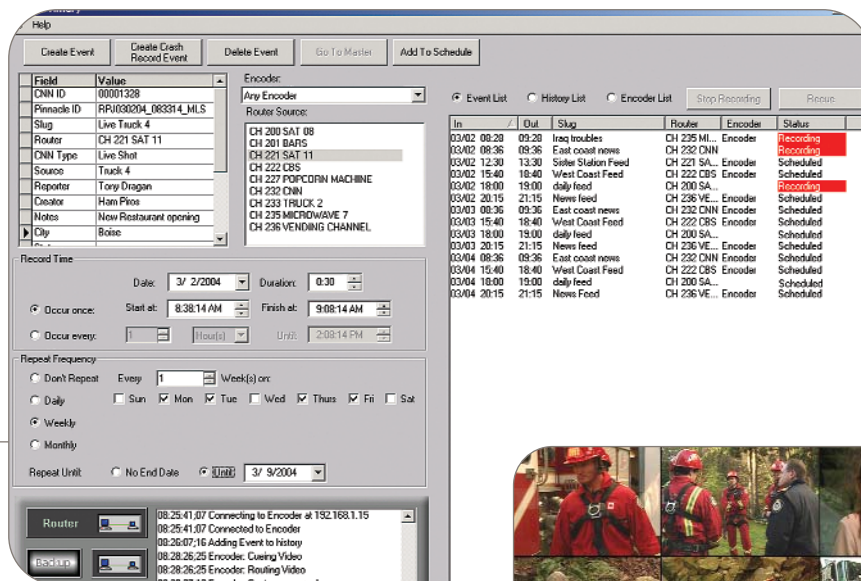
Features

- ActiveX Control
- Search and Browse Media on the Central Storage
- Drag and Drop Vortex Stories into the Rundown
- iNEWS Compatible
- ENPS Compatible
- Dalet Plus News Suite Compatible
- QNews Compatible

Vortex Media Loading System
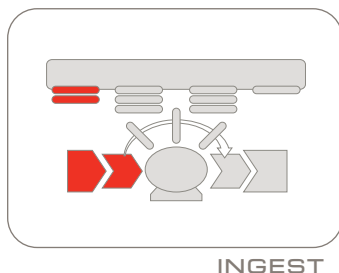
INGEST

MASP™
(Media Access
Server Protocol)

Pinnacle Systems' Emmy® award winning MASP™ (Media Access Server Protocol) technology enables the use of standard TCP/IP networking as a transport mechanism for broadcast quality video in real-time. This technology is fundamental to the success of the Vortex Networked News solution as it facilitates the use of standard IT technologies.

MASP enables a reliable throughput of 70 Mb/s across a standard 100BaseT Ethernet as well as 640 Mb/s across Gigabit Ethernet. This effectively doubles the performance normally expected from TCP/IP connections across Ethernet.

Vortex Media Loading System
MULTI-CHANNEL INGEST CONTROLLER

The Vortex Media Loading System (MLS) is a multi-channel ingest controller. It can manually crash record feeds from tape or satellite, or it can be programmed for scheduled ingest of incoming feeds from network, satellite, or microwave remote feeds from news crews in the field.

Features

- Control of Up to 20 Vortex I/O's from One Desktop
- Create and Schedule the Capture of Events
- Cue and Re-Cue of Ingest Events
- Schedule Automatic Captures
- Select Video Router Cross Points by Remote Control
- 'Crash Record' for Manually Starting Records at a Moment's Notice
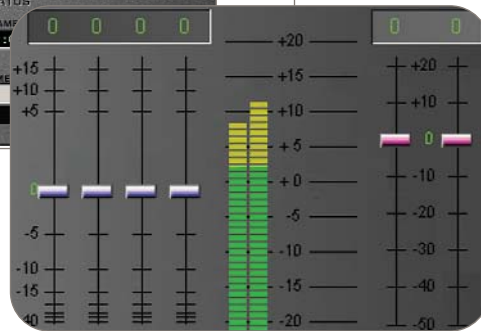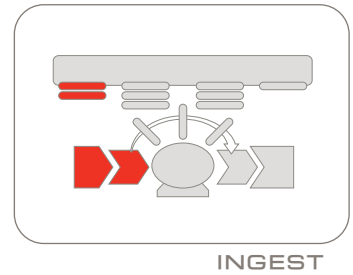
INGEST

Vortex I/O

MULTI-FORMAT CAPTURE CONTROLLER

Vortex I/O makes content available on the network within 10 seconds of the start of ingest and supports scheduled feed record requests from MLS and manual ingests of feeds and tape. Software onboard supports the selection and annotation of key frames, timecode marking, and free text entry. Feeds are labeled and registered in the database that keeps track of where they can be found in central storage.

The Vortex I/O is the industry's only ingest device that integrates both high-resolution and proxy media creation simultaneously with complete synchronization. Using Pinnacle's TARGA® 3200 Video Card and MASP technology, both media formats can be written to central Palladium Storage simultaneously. And the Vortex I/O is designed for the Vortex Dual MediaCore (DMC), with the ability to send the same streams of media to both halves concurrently. There's even dual power supplies for an added measure of robustness.

Features

- Simultaneous Creation of Both Hi-res and Proxy Media
- View What is Being Captured
- Audio Input Monitoring and Level Control
- Capture Directly to Central Storage and Start Editing within 10 Seconds
- Dual MediaCore Support for Robustness

Vortex Logger

INGEST
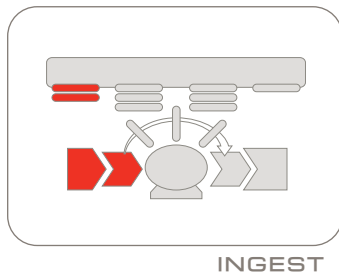
Features

- Customizable Logging Interfaces
- Annotate Footage on Plays and Actions
- Ideal for the Active Sports Department
- Can Be Installed on Any Newsroom Desktop
- Uses Both Hi-Res and Proxy Media (Based on Connection Quality)

Vortex Logger
RAPID SCENE CATALOG SYSTEM

The Vortex NewsLogger and SportsLogger are rapid, theme-based cataloguing systems that allow you to log your footage as it is captured, using decision-tree based button groups and plain text input to create metadata about the footage, enabling immediate, easy retrieval by producers and editors on the network. Unique to the Vortex NewsLogger and SportsLogger are customizable logging tools for news and sports, effectively shortcuts to phrases, events and descriptions you use frequently.

We've already made specific layouts for football, basketball, baseball, soccer, and hockey; you even can create your own layouts, customized to the logging workflow and data that meets your needs!
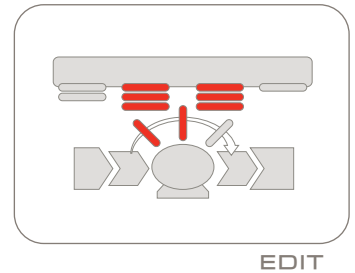
EDIT

Pinnacle Proxy Advantages

Simply put, Pinnacle Systems proxy support on Vortex is the best in the broadcast industry —by far. The Vortex proxy solution does more than mere browsing and cuts-only edits; it provides a powerful suite of desktop tools, found only on hardware-based editors.

When media is ingested into a Vortex system, a frame accurate proxy media file (MPEG-1 I-frame) is concurrently created, automatically. During the editing process, proxy versions of the source video, audio and graphics are accessible to the desktop editor.

Utilization of proxy media for browsing and desktop editing applications reduces the amount of bandwidth required per media stream by ~90 percent, while still delivering quality video.

This reduction in bandwidth required per stream/user also provides the following benefits.

- Reduced System Cost Due to Lower Server Bandwidth Requirements
- Reduced Impact on Network Infrastructure (Network Friendly)
- Minimizes Client/User System Requirements with the Ability to Browse Video Using Standard Desktop News Products

Vortex Browse
NEWSROOM DESKTOP MEDIA BROWSING SYSTEM

Everything you save to Palladium central storage is tagged in the Vortex Database with metadata attributes for easy search and retrieval. No more looking for old footage of the Governor. The entire archival bank can be browsed from any of your client stations, including the one on the table where you hold your editorial meetings.

Vortex Browse is a lightweight software application, easily installable on any desktop PC. While your reporter is editing breaking news, someone else can be pulling the historical footage to backend the piece for context.

Features

- Included in All Vortex Editing Systems
- Simple Interface
- Drag and Drop from the Browser into Your Editing Environment
- System-Wide Browser for All News Assets

- Software-Only Viewer— Browse from Any Desktop in the Newsroom
- Browse Proxy Media for Efficient Bandwidth Use
- View, Search and Catalog
- Search Content Using Metadata

Vortex Edit
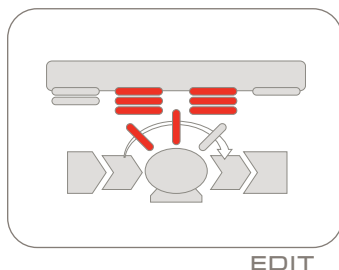
EDIT

Workstation Features

- Local Capture
- RS422 and IEEE1394 Deck Control
- Automatic Scene Detection
- Index Capture
- Tape to Timeline
- Digigram for Voice Overs

Software Features

- Software Only Editor to Upgrade Existing Newsroom Editing Stations
- Copyless Environment
- Simple and Intuitive
- Indexed Playback - Start Editing within 10 Seconds of Start of Capture
- Proxy Editing
- Add Metadata Locally
- Quickly Put Late Breaking Finished Stories to Air - No Copying
- Voice Over
- DekoVIA from the Timeline
- No Rendering of Transitions or Graphics
- Browse
- Network Bandwidth Management with MAS
- Speed Adjustments
- Frame Accurate Clip Trimming
- Keyframeable Audio Adjustments
- Source Trimmer with Three and Four Point Editing
- Preview Windows
- DV25 and MPEG1
- NRCS is Available at the Desktop as an ActiveX Control
- SyncLock to Link and Unlink Clips in the Timeline
- Keyboard Shortcuts for Quick Control of the Timeline
- Fit to Fill

Vortex Edit
POWERFUL NEWS EDITING FOR THE WORKSTATION AND DESKTOP

Vortex DeskEdit Software

Vortex DeskEdit is a software-based editing system that can install anywhere. DeskEdit has the added features of recording voiceover and manipulating graphics right at the reporter's station. It can be installed very inexpensively throughout your newsroom, giving everyone the ability to create news items and even feature stories.

Vortex Edit Workstation

With an external video monitor, this is tape to timeline editing at the workstation, allowing capture from tape through the Media Loading System or right from your camera through a firewire. Either way, your content is loaded to central storage and can be accessed within 10 seconds by anyone needing to edit and manipulate the images. Vortex Edit also allows for print to tape from the workstation.

DekoVIA
INDUSTRY LEADING ON-AIR GRAPHICS

Once your centralized graphics department creates a "brand", Deko Graphics steps in to ensure the look is carried consistently through everything that goes to air, regardless if the reporter or editor is on the west coast, in the southeast, or in the field. Graphics templates, consistent name keys, strong station I.D.'s, can be accessed by anyone, from central storage.

No more waiting for graphics to be purpose-built; achieving a consistent station look is effortless, with DekoVIA's standardized news and promo templates.

Let the reporter call for a lower third name super, type in the text, and save. Choose a map template, or a financial indicators chart, add the content and the look is consistent every time. And, they can preview the look at the Vortex Edit station before it goes to air, without rendering.

Features

- Browse Branded Centralized Templates without Going to the Graphics Department
- Change Data on the File at an Editing Station
- Re-Edit Data Information without Editing Story Again
- Change Template without Reentering Data (Anchor Name, OTS Text, Location)
- Power of Deko with Embedded Effects and Clips to Provide the Same Look as Your Live Graphics
- No Rendering—Conformed on Playout
- Preview without Rendering

Liquid News and Promo Editing
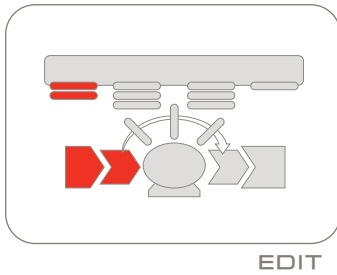
EDIT

Conform and Promo Editing for MediaStream Playout

Shared media between editing and playout with Liquid blue and MediaStream on the Palladium Store 1000. Capture and edit on Liquid blue before MediaStream playout, or create promos from MediaStream ingested material directly from common storage.

Craft Editing for Vortex Networked News

Add Liquid blue or Liquid Edition to a Vortex Network Solution. Edit material directly from the Vortex shared storage, import stories prepared in Vortex Edit for more refined editing and to add more complex effects. Export stories straight to the Vortex playout server for play to air.
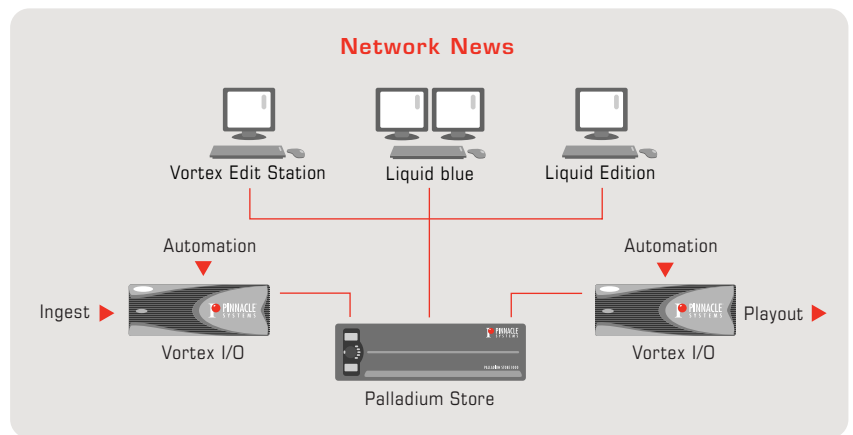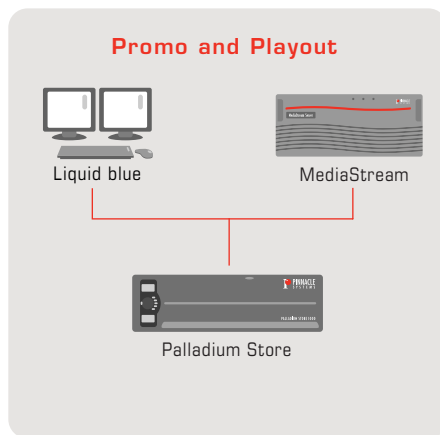
Liquid News and Promo Editing
EFFORTLESS AND SOPHISTICATED

The Pinnacle Liquid™ editing interface is a fully non-linear editing system designed for shared media storage. Liquid can ingest and edit with all the power of a post-production facility, at the speed you need for news production.

In the rapid-fire world of breaking news, field reporters can storyboard their items quickly, and at low-res., on Vortex edit systems; Liquid can step in to add effects, color correct and add graphics. The finished product is uploaded directly to the playout server and conformed on playout.

When it comes to editing, Liquid gives you creativity at lightning speed with an interface that learns your style every time you use it.

Liquid for Broadcast Production

Promo and Playout

Liquid blue   MediaStream

Palladium Store

Network News

Vortex Edit Station   Liquid blue   Liquid Edition

Automation   Automation

Ingest ▶   Vortex I/O   Palladium Store   Vortex I/O   Playout ▶

Pinnacle Liquid Software Key Features

- Fully Featured Broadcast Editor with Source Record Monitors, Multi-layer Timeline, Comprehensive Media Management, Extensive Effects, and Advanced Capture and Publishing Tools

- Editing, Effects, Compositing, Titling, Audio, DVD, Web and More in One Application

- Customizable User Interface and Programmable Keyboard Shortcuts

- Integrated, Timeline-based DVD Authoring with MPEG Encoder and More than 40 Templates Included

- Integrated TitleDeko™ CG for Broadcast Quality Titles

- Desktop Storyboarding

- Direct Timeline Trimming and Extensive Timeline Editing Features

- XSend to Other Applications for Seamless Integration to Compositing Web Authoring and Audio Applications; Servers and Asset Management Systems

- InstantSave™ Technology Means that You Never Lose Your Work

- Integrated Networked Media Management

- XFind™ Network Clip Browsing Option

- Unmatched Return on Investment with the Best Price/Performance on the Market

Pinnacle Liquid Software Effects

- Background Processing of Effects Means No Waiting for Rendering

- Non-Destructive Primary Color Correction on Capture With RGBL High, Mid and Low

- Color FX Including Brightness, Contrast, Hue, Luminance, Saturation, RGB Gain, Equalization and Gamma

- CX Color Correction Editor With Secondary Selective Color Correction and Auto White Balance, Histogram and Hue-Match, Legalizer, Tone-, Gray-, and Color-Balance

- 2D and 3D DVE with Inside and Outside Borders, Transparent Soft-Edged Drop Shadows and Page Turns

- Luma/Chroma Key, Blue/Green Key, RGB Difference Key, Lasso Key with Softness

- Freeze Frame

- TimeWarp Editor for Sophisticated Dynamic Slow/Fast Motion, Strobe and Trailing Effects

- Support for Greater-Than-Video-Sized Graphics with Pan and Scan

- Real-Time Playback of up to 16 Audio Tracks with Customizable Audio Output Routing; Real-Rime Parametric Three Band Equalizer, Echo and Maximizer; and Full Duplex Voiceover

Palladium Store
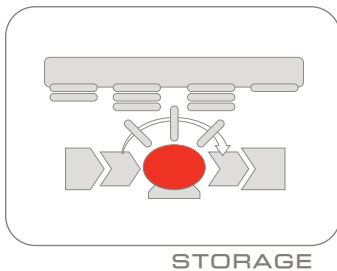
STORAGE

Vortex High Availability Features 7x24x365

Power
- Vortex Includes Redundant or N+1 Power Supplies to Ensure Continued Operation in the Event of a Power Supply Failure

Storage Subsystem Protection
- RAID-3 is Utilized for Protection to Ensure No Loss of Media or Degradation in Storage Performance in the Event of a Drive Failure
- Redundant File System Controller Failover
- Redundant File Managers in the Event of a File System Controller Failure

Media Access Server (MAS) - N+1 Failover
- Media Access Servers can be Configured in an N+1 Configuration for Additional Redundancy and Protection

Bandwidth Throttling Protection
- In the Event of a Component Failure such as a MAS Server, Pinnacle's Innovative Bandwidth Prioritization and Throttling Support Ensures that High Priority Applications, such as Play-to-Air or Video Ingest Get the Bandwidth They Require

Mirrored Palladium Store Support
- For Ultra High Availability Environments, the Mirrored Palladium Store Option Provides Support for Two Redundant, Fully Mirrored Storage Subsystems
- If One Palladium Store Should Ever Encounter an Unrecoverable Failure, the Other Palladium Store Continues to Operate Without Interruption or Loss of Media

Palladium Store 100:
NETWORKED ATTACHED STORAGE FOR SMALL MARKET NEWS

Designed by Pinnacle Systems to deliver the workflow benefits of shared storage to smaller workgroups, Palladium Store 100 provides 144 hours of RAID protected DV25 storage. A built-in Media Access Server provides enough bandwidth for access of up to 20 simultaneous full resolution streams. In the Vortex environment, Palladium Store 100 also provides real-time MPEG-1 proxy browsing for up to 100 stations. This compact, self contained NAS solution is expressly designed for the demanding needs of news production.

Palladium Store 1000:
SCALABLE STORAGE-AREA-NETWORK SYSTEMS

The Palladium Store 1000 system is the foundation for mainstream broadcasters and post production facilities who demand flawless performance in a 24x7 environment. Scalable from 1 TB to 22 TB with bandwidths up to 2400 Mb/s, Palladium Store 1000 can be configured to meet a majority of applications. With "No Single Point of Failure" (NSPOF) architecture, this system offers full redundancy on all active components (RAID controllers, power supplies, fan modules and fibre channel interfaces).

Palladium Store 5000:
MASSIVELY SCALABLE FAULT-TOLERANT SAN SOLUTION

The Palladium Store 5000 is reserved for applications where hundreds-or even thousands-of streams may be required. The Palladium Store 5000 is Pinnacle's most fault resilient architecture. It includes RAID-3, NSPOF, and disk mirroring standard. Palladium Store 5000 offers massive scalability to over 180 TB of online storage and up to 6000 Mb/s bandwidth to support the largest installations in the world. A unique fibre channel fabric switching architecture maximizes bandwidth and real-time access for unprecedented video performance. Cost effective for systems starting at 50 TB or larger, Palladium Store 5000 can support over 10,000 hours of DV25, or nearly 30,000 hours of MPEG-2 video at 10 Mb/s.
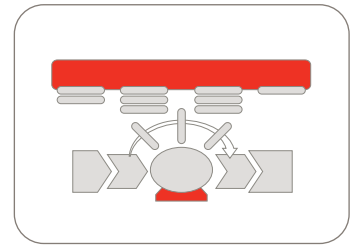
Vortex Media Gateway
CUTTING ROOM FLOOR

Archive Manager is your high-tech server janitor, who sweeps up the cuttings when you're done, moves files into archives, consolidates what you want to keep, and makes sure everything is neat and tidy for the next big push. No need to buy more servers that simply fill up with garbage; Archive Manager will take out the trash.

NEWS TOOLS

Vortex Media Gateway Features

- Gateway to Your Archive System
- Copy Media and Associated Files to and from Archive
- Copy and Consolidate Stories

- Consolidate Media for Archive with Only Clips that were Used
- Cleanup of Unused Material
- Conform Media for Broadcast by Creating Single Media Clip from Source Clips

- Delete Playlists and Media to Free-Up Storage Space Occupied by Source Material that is No Longer Used

Vortex Air
GOOF PROOF PLAYOUT

No more running the wrong tape on air, or rewinding while live. With Vortex Air, the centralized run-down, held on the Palladium server, is fool-proof. What is in the rundown is what goes to air - every time. No lost spots, packages, teasers; no dated promos. No more copies of tapes or files.
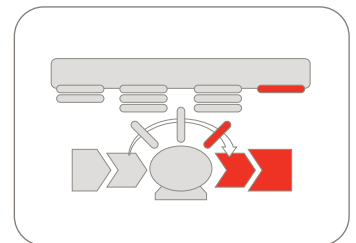
PLAYOUT

Vortex Air Features

- No Copying to Playout Server—Copyless Environment
- Conform Stories with Video, Audio and Graphics on Playout—No Rendering

- Reschedule Playout Items Quickly for Late Breaking Events
- Schedule Playout Events
- Multiple Decoders in One Playlist

- MOS compliant
- NRCS Compliant (Dalet Plus News Suite, iNEWS, ENPS, QNews)
- Mirrored Media Configurations

connecting
creativity

For More Information

Phone:
North America: 877-733-5846
Latin America & the Caribbean: 954-987-0475 (U.S.A.)
UK: + 44 1895 442003
South Europe: + 33 1 46 12 03 12
Middle East: + 961 1 751449
Central & Eastern Europe, Baltics: + 49 89 50 20 60
Asia, Pacific Rim: + 65 62 84 23 36 (Singapore)
China: + 86 10 6641 0053 (Beijing)
Korea: + 82-2 568 1644 (Seoul)
Japan: + 81-3-3518-8400

Email:
Americas: professionalmedia@pinnaclesys.com
Europe: pro@pinnaclesys.com
Middle East: infoME@pinnaclesys.com
Asia-Pac: asia-professional@pinnaclesys.com
China: china-professional@pinnaclesys.com
Korea: korea-professional@pinnaclesys.com
Japan: professional@pinnaclesys.co.jp