Unite Content Production, Accelerate Delivery, and Monetize Your Asset Library

Content production operations get highly complex very quickly as the pace of production increases, delivery time expectations narrow, and the velocity of raw content increases. With team members increasingly on the move and remote, organizations need more flexibility and efficiency while producing non-stop content. Above all, these teams need to harness the latest AI and ML tools to boost efficiency and monetize content from growing content archives for ever-more delivery channels and markets.

CatDV is an asset management and workflow orchestration platform that solves these challenges with a proven platform architecture that can scale for a small team or for the largest global operations using the cloud. It powers some of the world’s most sophisticated media workflows across a range of industries, including broadcasters, production companies, professional sports leagues and teams, corporate media and training centers, educators, advertisers, marketers, healthcare providers, military, and government.

CatDV helps you organize content, deliver production projects as a team faster, and enhance content with powerful AI and ML tools. It not only indexes and tags content needed for production, it serves as a workflow automation hub as content moves from raw to finished state, delivery, archive, and automatic content processing and enhancement with intelligent AI and ML tools. CatDV can be quickly deployed on-premises, in the cloud, and for hybrid and remote environments.

CatDV Architecture and Features

CatDV architecture allows scaling and customization at every point and can be deployed on premises, in the cloud, or as a hybrid solution.

Quantum CatDV Solution Components and Levels

Enterprise
- 10s of users
- Mid-100Ks assets
- Asset API access
- Hierarchical security groups
- Admin APIs

Pegasus
- 100s of users
- High-100Ks assets
- Audit tools
- Extended DB support

Options
- Archive support via plugin including StorNext
- Custom UI, colors, logos and branding

Rich Client
- Security groups and permissions
- Production blog
- RED, AVID workflows and custom actions
- Custom UI, colors, logos and branding

Web Client
- Streamlined web interface
- Advanced web interface
- Custom UI, colors, logos and branding
CatDV Server
The CatDV Server is the heart of your solution and provides the core workflow intelligence in conjunction with a high-performance database to store and correlate all media attributes. It also manages all the solution administration settings, user management, and API services, and provides a web interface for user and admin access.

CatDV Workers
Workers are highly configurable and scalable workflow agents that watch for, transform or move content to automate workflow steps. New actions can be created easily using the CatDV Worker panel in a ‘drag and drop,’ no-code interface. Workers are highly flexible and can interact with cloud services, remote API, or the built-in API gateway as deployed in the Quantum AI/ML Content Enhancement Solution.

CatDV Clients
Users can access their shared CatDV solution from the web interface—ideal for web browsers and mobile devices, as native or proxy workflows with their editing tool of choice, with a local CatDV client on the desktop, and as panels or extensions within non-linear editing solutions such as Adobe Premiere Pro or Final Cut X.

Example CatDV Workflows
CatDV's flexibility and scale supports a wide variety of workflows across every industry where rich media is produced. Some of the most common examples of typical CatDV workflows include:

- **Central Production Workflow Coordination**: Enables collaboration between creative and editorial teams. Metadata is shared between Producers and Editors from and into leading creative tools including Premiere Pro, Final Cut Pro X, and Media Composer.

- **Shared Storage and Archiving Front End**: Integrates with shared storage, such as Quantum StorNext, SAN and NAS, archive and cloud storage to let users focus on the assets in a visual search interface, yet easily archive to and retrieve from connected storage. Even when finished projects are archived to other storage, such as tape or object storage, the proxy version of the asset is still searchable and active for tagging or AI/ML content enhancement.

- **Highly Configurable Logging Interface**: The user interface can be customized in minutes with custom tags, panels, and buttons to streamline specific content logging and content loggers, minimize logging errors.

- **Content Ingest Dashboard**: The dashboard monitors the progress of your system as new content arrives, then is automatically moved to the storage specified by your workflow, and is securely saved to your archive storage. Checksums are calculated and compared, and metadata is harvested from files including paths and names; media is transcoded, and all information is recorded in the CatDV database.

- **Review and Approval Coordination**: Multi-stage review and approve workflows can be set up using CatDV clients to share media links over the internet, comment on assets, notify team members of changes and actions needed, and track approval signoffs.

- **Production Planning and Tracking**: Metadata fields can be easily configured and added to reflect your workflow’s processes such as which department or person is responsible for content creation steps, project due dates, client information, and more.

- **Video, Photo, Audio Archive and Curation**: The database and powerful search tools make it an excellent choice as a media archive and curation tool for every kind of rich media, whether for reuse in house, as a historic record, research tool, or as a service to end user customers.

Comparing Quantum CatDV Offerings
CatDV can be deployed on a single system of your choice, as part of an integrated asset management and shared storage solution in the H4000 Essential, on dedicated servers and storage on-premises, or in the cloud. CatDV Professional Services can further customize your solution for any needs including integration with custom content applications or other production services.

- **H4000 Essential** is an all-in-one shared storage and content indexing solution powered by Quantum StorNext and CatDV and can be deployed in minutes. The H4000 Essential is for teams of up to 10 connected users and supports up to 100,000 assets.

- **CatDV Enterprise Server** is the standard deployment option and provides a great collaboration platform, adding configurable security (via CatDV production groups), simple logging of user activity, shared configurations between users, and powerful search options.
CatDV Asset Management Platform

- **CatDV Pegasus Server** adds more functionality and integration options to Enterprise Server, including AI media analysis, a custom search engine, optimized for Google style, text searches against very large databases with many millions of assets. Pegasus Server also has full audit capability, reporting, and analytics and sophisticated access control rules to set asset visibility based on metadata.

- **Custom Deployments** offer the ultimate in scale and flexibility. The Professional Services team can create tailored deployments from the toolsets that are completely customized to your specific needs.

**Large-Scale CatDV Deployments**

CatDV can be comfortably deployed in large, managed IT environments: insourced, outsourced, multi-site, including cloud, virtualized or in containers, or as a managed service in the cloud. Whether ingesting tens of thousands of assets per day, supporting large user communities, working with other best of breed tools and products, or delivering the most sophisticated distributed workflows, it can handle your growing and evolving workflow needs.

**Highly Resilient and Available:** CatDV Server and Worker can be deployed with failover, clustering, and load-balancing strategies to ensure continuous service and reliability. From warm stand-by and failover to clustered and fault tolerant models, CatDV fits with your IT strategy and directives.

**Multi-Site, Distributed Workflows and Cloud:** In addition to large, resilient, single server installations, CatDV can be deployed across multiple sites, with configurable policies and rules to determine how content and metadata is shared. The platform can be configured to support hub and spoke designs, peer to peer system collaboration, and remote harvesting from multiple locations. Cloud deployments are supported, as are distributed storage pools including cloud storage via S3 such as Amazon S3, Glacier, Azure, Wasabi, and Backblaze.

**Security and Permissions:** CatDV’s access control rules enable granular permissions down to the asset level and can be linked to corporate identity management tools, including Active Directory and Open Directory with LDAP, plus OKTA, ADFS, Workspace One, and Shibboleth using SAML2. A CatDV Publication Server can be used to share media outside an organization, adding another layer of protection. Media links that expire after a set time period can shared as proxy or full-res media with an optional watermark.

**Optimize Existing Investments and Prevent Lock In:** Today’s storage, archive, and restore landscapes often span a variety of storage platforms as customers seek to balance performance and cost of storage. CatDV enables fine-grained storage policies based on asset metadata beyond simple file names, dates, and sizes and can automatically archive projects when they are approved, or content has been delivered. With the storage front-end, you can enable self-service for your teams to archive or restore assets and projects on demand, minimizing administrator overhead.

**Centralize and Automate Powerful AI/ML Tools:** CatDV’s extensive range of APIs and worker flexibility are highlighted in the AI/ML Content Enhancement solution that boosts workflow efficiency and automates common AI and ML operations. By integrating with powerful server and GPU hardware, the solution can perform automatic or on-demand services such as transcription, translation, deep indexing with object, logo, and celebrity identification, trainable person recognition and tagging, and more.

**Quantum AI/ML Content Enhancement Solution:** Media and Asset Management, Workflow Orchestration, AI/ML Content Enhancement

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**Quantum CatDV Server**

- media catalog
- user management
- administration

**Quantum CatDV Workers**

- workflow orchestration
- worker actions

**Cloud AI Services**

- AWS
- Azure
- Google

**Quantum AI Services**

- NVIDIA
- open-source
- third-party

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Clients connect via web, Windows, macOS clients, or within panels from editing suites like Adobe Premiere Pro or Final Cut Pro X.

Deployed on-premises or cloud, in Windows, macOS, Docker, Kubernetes.
## Quantum CatDV Version Specifications

### Server Versions

<table>
<thead>
<tr>
<th>H4000 Essential</th>
<th>Enterprise</th>
<th>Pegasus</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-configured - out of the box</td>
<td>• Unlimited users and roles with Active Directory / LDAP integration</td>
<td>• SAML2 for SSO and 2FA with OKTA Shibboleth, ADFS and more</td>
</tr>
<tr>
<td>• Up to 10 named users</td>
<td>• MS SQL Server option</td>
<td>• MariaDB database option</td>
</tr>
<tr>
<td>• Two predefined roles: Administrator and User</td>
<td>• A few hundred thousand assets</td>
<td>• Fast, full text search index</td>
</tr>
<tr>
<td>• All users see the same metadata, views, and panels</td>
<td>• Advanced Review and Approve</td>
<td>• Millions of assets</td>
</tr>
<tr>
<td>• Custom metadata on media assets</td>
<td>• Flexible cloud, on-premise, multi-site and hybrid deployment</td>
<td>• Audit of all metadata changes</td>
</tr>
<tr>
<td>• Simple Review and Approve</td>
<td>• Different roles see different assets</td>
<td>• AI integrations</td>
</tr>
<tr>
<td>• Converged with StorNext for user management and administration</td>
<td>• Different users have custom UI: metadata, views and panels</td>
<td>• Metadata-based access control and permissions</td>
</tr>
<tr>
<td>• Archive options for Quantum ActiveScale™ object storage and other S3-compatible cloud services including AWS S3, Azure, Wasabi, and Backblaze B2</td>
<td>• Custom metadata on catalogs, users, group and markers</td>
<td>• Clustering and failover support</td>
</tr>
<tr>
<td></td>
<td>• Extendable API and UX toolkit</td>
<td>• Admin REST API option</td>
</tr>
<tr>
<td></td>
<td>• Archive integrations with Archiware, Quantum Storage Manager, Spectra Logic Black Pearl</td>
<td>• Text message collaboration with discussions around assets, markers, and catalogs</td>
</tr>
</tbody>
</table>

### Web Versions, and Creative Tool Integrations

**Creative Panels: Pr, Ae, Ai, Ps, FCPX**
- Runs inside NLE or software panel
- Preview media, fast keyboard navigation, update metadata directly inside creative tool
- Adobe Premiere project files check-in/ check-out in CatDV

**CatDV Browser Client**
- Browser-based interface with all core CatDV capabilities
- Responsive, mobile and tablet friendly
- UX refreshed in 2023

**Advanced Web Client**
- Condensed user experience – one screen version for power users that need to work with multiple assets at the same time

### Worker Versions

<table>
<thead>
<tr>
<th>H4000 Essential / CatDV Gateway</th>
<th>Enterprise</th>
<th>Pegasus</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-configured indexing</td>
<td>• Rich workflow automation</td>
<td>• Javascript custom actions</td>
</tr>
<tr>
<td>• Automated proxy creation including pro camera formats RED, ARRI, MXF</td>
<td>• Graphical Workflow builder</td>
<td>• Remote configuration</td>
</tr>
<tr>
<td>• Extraction of metadata from folder names</td>
<td>• Extendable with custom plugins</td>
<td>• Remote monitoring (including web)</td>
</tr>
<tr>
<td>• Not configurable</td>
<td>• Multiple processes per installation</td>
<td>• REST API</td>
</tr>
<tr>
<td></td>
<td>• Mac, Windows and Container deployment</td>
<td>• Load Balancing and resilience between Workers</td>
</tr>
<tr>
<td></td>
<td>• Policy-based archive automation</td>
<td>• AI workflow automations</td>
</tr>
</tbody>
</table>

### Desktop Client Versions

<table>
<thead>
<tr>
<th>H4000 Essential</th>
<th>Enterprise</th>
<th>Pegasus</th>
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</thead>
<tbody>
<tr>
<td>• Not Available</td>
<td>• Rich capabilities for indexing, logging and tagging, sub-clipping, markers,</td>
<td>• Custom Actions (client automations)</td>
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<tr>
<td></td>
<td>• Direct playback of most common media formats</td>
<td>• RED, BRAW and ARRI playback support</td>
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<tr>
<td></td>
<td>• Pro camera format media analysis</td>
<td>• Avid Media Composer AAF export and AVB bin reading</td>
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<tr>
<td></td>
<td>• Pro CODEC playback</td>
<td>• Encoding to Avid formats</td>
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<tr>
<td></td>
<td>• macOS and Windows</td>
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