DAMS

POWERED BY MEDIAFLUX

DAMS for Research

Transforming Research Asset Management and Collaboration

Forging New Frontiers for Research Data Management from Ingest to Archive

Generating high-quality research data is a major investment of time, expertise and resources, demanding institutions maximize their ROI. Making data seamlessly findable, accessible, and easily reusable increases visibility and citability, while accelerating reproducibility and amplifying research impact. Mediaflux DAMS for research enhances institutional efforts to make data FAIR and reduce internal friction between the data makers, managers, and archivists.

Current best practices to achieve good data hygiene require significant upfront effort for little immediate benefit – casting metadata as the love note to a future self most researchers cannot find time to write. Existing systems and processes cannot scale at the pace of data generation, nor are they sufficiently agile to track and respond to evolving governance requirements, leaving data managers drowning in manual handling.

Mediaflux DAMS for research takes the sting out of gathering honey.

With fully customizable extensible metadata schema applied upon ingest and editable down the track, institutions can tailor their system to mold desired outcomes. Roles and permissions are defined internally, not arbitrarily dictated by disembodied software developers. Data owners have the power to determine who can see what and how each actor can interact with assets in their collections.

Mediaflux DAMS is an elegant application layer atop the robust Mediaflux data operating system. The modern, metadata-driven solution enables researchers to manage, describe, and distribute their digital data at any scale. It ultimately empowers research institutions to meet their obligations to diverse stakeholders whilst improving productivity and public perceptions.

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Platform Foundation:

Infrastructure Below – Innovation Above

Built on the robust Mediaflux data fabric, Mediaflux DAMS allows researchers, data managers, curators, and collaborators to view and share data collections in whatever configuration suits their needs, regardless of where that data is stored, *without* duplication. Its capabilities are designed for the most demanding data environments:

- High-throughput data ingest and retrieval for efficient management of large, complex datasets
- Flexible metadata schema supporting versioning, relationships, and controlled vocabularies
- Automated workflow orchestration and lifecycle policy enforcement for streamlined data management
- Multi-protocol support including S3, NFS, WebDAV, and HTTP/S for broad interoperability
- Seamless integration across on-premises, cloud, and hybrid infrastructure
- Granular access controls and audit logging to ensure data governance, compliance, and security
- Storage-agnostic and virtualized – giving end users transparent and consistent access regardless of where data resides

These enterprise-grade features are delivered through a configurable, browser-based user interface, making advanced data management accessible and adaptable.

Metadata-Driven Intelligence

Metadata underpins Mediaflux DAMS, powering everything from discovery and automation to governance and curation. The system turns metadata into actionable intelligence, not just passive documentation.

Key capabilities include:

- **Schema flexibility –** define custom fields, types, vocabularies, and validation rules
- **Rich relational metadata –** link assets to roles, events, instruments, research projects, and other assets
- **Advanced search –** faceted filters, saved queries, and the ability to browse views across a global namespace
- **In-place editing and batch updates –** manage metadata at scale, without moving data
- **Automated metadata capture –** from file attributes, instrument operating conditions, workflows, and AI enrichment
- **Sidecar metadata model –** decouples metadata from files, enabling secure preview and discovery without exposing underlying content

Mediaflux DAMS is a powerful digital asset management solution designed for institutions managing complex, metadata-rich datasets.

It provides an intuitive, fully customizable interface for storing, describing, and accessing digital assets at scale – ideal for research infrastructures, cultural archives, and other data intensive environments.

Automated Processing and AI-Based Metadata Enrichment

Mediaflux DAMS can trigger automated workflows as data enters the system, allowing datasets to be processed and enriched without manual intervention. These workflows may include sending data to high-performance computing (HPC) environments for analysis or applying AI services to generate additional descriptive metadata.

AI-driven enrichment could include:

- Automated HPC workflow orchestration and processing analytics
- Optical Character Recognition (OCR): Extracts text from images or video frames
- Speech-to-Text: Transcribes spoken audio into text
- Audio Classification: Labels distinct sounds or events in audio recordings
- Pattern Recognition: Detects and tags areas of interest in visual assets

The enriched metadata is seamlessly incorporated into the DAMS, presented in structured, reviewable formats. Human-in-the-loop workflows allow users to validate, approve, or reject AI-generated metadata – bolstering accuracy, relevance, and oversight while accelerating content tagging and discovery.

Interface and Customization

The interface platform offers:

- Configurable ingest forms, metadata views, search components, and dashboards
- Visibility and layout are governed by user roles and context
- UI changes can be made without developer intervention or backend reconfiguration
- Interface elements can be aligned with institutional or discipline-specific vocabularies, branding, and workflows

Tools for Research Orchestration, Collaboration, and Curation

Workspaces

Structured, persistent environments for managing assets over time.

- Defined metadata schemas per workspace
- Custom filters and search interfaces
- Ingest pipelines with optional external contribution (via Content Courier)
- Permissions and roles embodied in the workspace
- Integration with workflows and audit history

Potential use cases include departmental/school repositories, graduate research incubation and development spaces, lab group interactions, interdisciplinary project breeding grounds, or institutional showcases.

Content Courier

Mediaflux DAMS enables institutions to securely expose selected collections to the public, external researchers, or partner organizations. The simple, API-driven, open platform, with its tight security and access controls, makes this unique function possible.

It furthermore provides controlled pathways for external contributors to upload data into the system via secure upload portals or API endpoints.

Collection Lists

Lightweight, researcher-driven collections enable rapid informal collaboration within the data store.

- Quick and easy to create without administrative intervention
- Assets are referenced, not duplicated
- Shared internally or with external users (via access-controlled platform accounts)
- Supports commenting, tagging, and chat

Lists can be:

- Promoted to workspaces
- Archived or deleted
- Exported via CSV or contact sheets
- Used to trigger workflows
- Shared via a link
- Built from pasted asset IDs or spreadsheets

Collection lists are ideal for asynchronous research discussions directly in line with selected data assets, driving iterations, interpretation, and insights without the need to move or duplicate data, provide incidental access to unrelated assets, or risk data corruption, loss, or destruction.

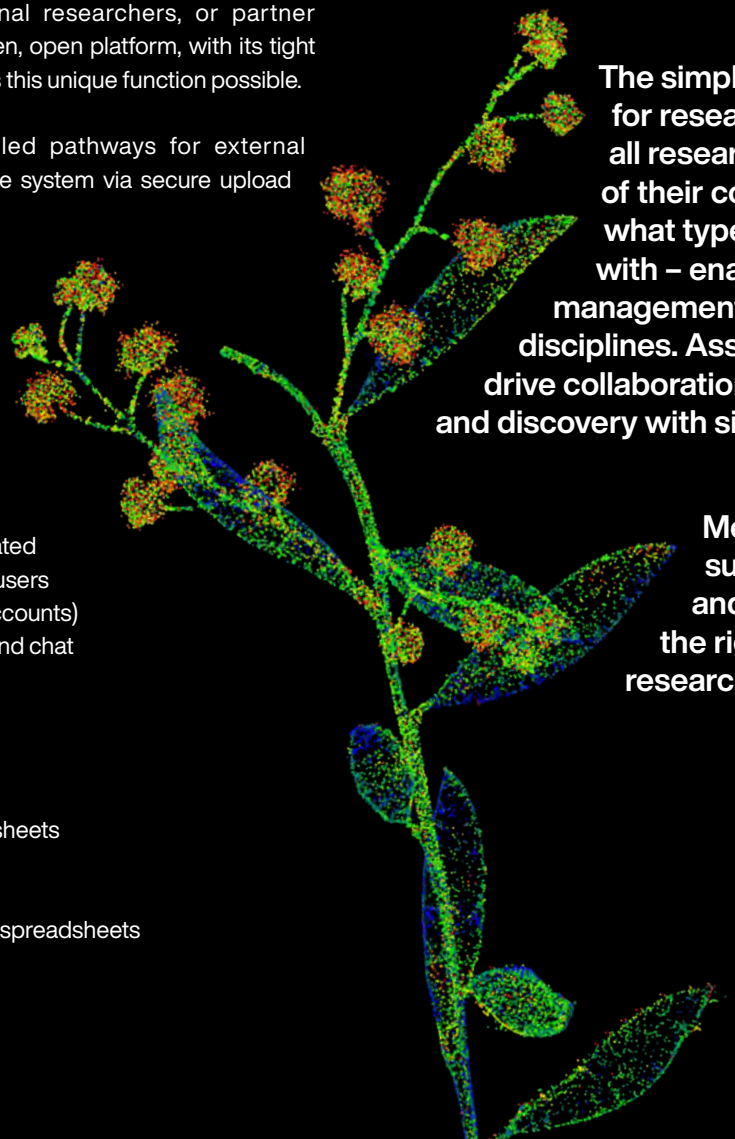
Cuts-Only Editing Room

A web-based, non-destructive editing tool designed for fast content preparation and export.

Researchers can:

- Select segments from video or audio assets (interviews, eco-acoustic feeds, performance recordings, seismograms, etc.) without altering originals
- Compile lists for downstream dissemination (lectures, publication, public engagement)
- Export approved edits to other platforms via API or download
- Operate entirely within a familiar browser space, eliminating the need for external software or specialized technical skills

Edits are stored as metadata instructions or sidecar files, maintaining source material integrity.



The simple elegance of DAMS for research is accessible to all researchers – regardless of their computing skills or what type of data they work with – enabling good data management practices across all disciplines. Asset collections can drive collaboration, relationship insights, and discovery with simple drag and drop.

Mediaflux enables and supports researchers and institutions to do the right thing – DAMS for research makes it simple.