

DATA-CENTRAL

BY DYNAMIC WORKFLOW SOLUTIONS



YOUR MIDDLEWARE HYBRID SOLUTION

ELIMINATE  **INTEGRATE**  **AUTOMATE**  **STORE**

Today, most Digital Evidence Management Systems (DEMS) support a limited list of proprietary files captured from third party devices and are largely only a DEMS for their first party devices (e.g., in-car, BWC). The use of video recordings and multimedia has grown exponentially in investigations and to review operational processes. This presents a need for new applications that can handle the increased size, complexity and variety of data that has disrupted traditional systems and workflows. As agencies continue to realize the immense demand of supporting proprietary files (such as video, 3D applications, cell phone content, documents, and more), requests for an easy way to ingest digital evidence from their third party systems, as well as manage all their evidence in one central system on a day-to-day ongoing basis, increases. Law enforcement, prosecutors, and county IT managers face the challenge of managing legacy and current digital content and the issue becomes more complicated and pressing as files and formats age, creating the risk of losing critical evidence.

Agencies have been further motivated to find solutions to migrate their existing historical evidence in an affordable way for long-term management. Evidence currently stored on secondary devices such as VHS/LTO tape, CD/DVD/Blue-ray, thumb drives, and obsolete hardware face the issue of dealing with end-of-life formats and the risk of physical damage from fires, floods, and earthquakes. Law enforcement agencies need to protect and house their evidence for many years as required by law. In addition, digital evidence becomes increasingly difficult to retrieve and play back each year as the devices used to play back the files are no longer supported, the vendor no longer provides the hardware or software, the physical media hits its shelf life, and/or are incurring physical damage.

HOW DOES DATA-CENTRAL WORK?

CUSTOMIZED WORKFLOW

Data-Central (DC) is a hybrid middleware tool composed of several micro-services running in both the cloud and on-premises that each implement a portion of the solution. In this approach there are no single API endpoints, but multiples depending on the type of services you are accessing. DC was built using the “API First” development principle, and Dynamic Workflow Solutions will publicly provide the APIs that may be used to integrate with other systems. Organizations may develop integrations with their Computer Aided Dispatch (CAD), Records Management Systems (RMS), surveillance system, BWC management Software, Incident management System, and their Digital Evidence Management System software to automatically push data between applications.

Data-Central is a logical software system that provides capabilities to other software applications to integrate via the Middleware Approach. It comes with defined capabilities such as communication protocols, data transformation, mapping, and connectivity. Standardizing end-point connectivity of Systems, Applications and Data Integrations are made easy with Data-Central’s APIs; effectively acting as an extension of the existing software.

As part of Data-Central's tools, the user also has a Digital Triage interface for selecting, reviewing, and manually tagging files. Users may determine if the file has any evidential value, or if the file needs to be forensically enhanced because it is too dark, blurry or has too much movement to see anything clearly. Through the Digital Triage, users are able to manually determine the desired workflow or automate the process via tagging (manually or automatically). Data-Central supports bidirectional communication with 3rd party systems to support automated tagging with several types of meta-data, i.e., descriptive, structural, administrative, and statistical.

One of Data-Central’s key features is the Rapid Review functionality. This feature enables the user to highlight the file (single click) and the asset (video, audio, photo) will automatically begin playing or be displayed. If the user would like to speed up the review process, they can use the keyboard to move down the list of files. As each file is highlighted, it will automatically be displayed; as fast as you can click the keyboard, the files will be launched for immediate review. If the file is a high priority, the user can click specific keys and apply a priority of “P1”, “P2”, or “P3”.





Based on the metadata applied to the files, any desired workflow will be achieved. Files are sent to hot, warm, or cold storage (cloud and/or on-premises) and a link will be sent to the customers’ RMS, DEMS, or any preferred backend software. Should the desired workflow be to send all files directly to their backend software, Data-Central may be configured to do so. Files, metadata, and audits will be synchronized or migrated for a seamless single user interface for all digital files.

Data-Central uses a Windows type interface to simplify user interaction and shorten the learning cycle. Users select files/folders from local sources or secondary devices and simply drag and drop them into DC, enter in metadata and begin the ingestion process. Metadata is automatically pulled from RMS or CAD systems. Data-Central is designed to facilitate the ingestion of key evidence types, from 3rd party systems and secondary devices, along with metadata and audits, to provide value to the customers’ existing DEMS. Changes to, and/or migration off those 3rd party systems is not required. Data-Central effectively acts as an extension of the existing DEMS.

DATA-CENTRAL'S CASE CREATOR FEATURE

CASE PAKS

Data-Central (DC) takes unstructured, disorganized data from multiple sources, including, but not limited to:

-  Cell Phones
-  Security Cameras
-  Body Cameras
-  Transportation Safety Solutions
-  Photos
-  Documents
-  Computer Forensic Dumps





... and puts it into a structured environment within a database along with its metadata. If there is proprietary video present, DC analyzes the files and converts them with a lossless process to MP4, retaining the originals, and securing all the video with a court accepted Hash Process. The unstructured data is then categorized with its metadata, file-based information, environmental metadata, CAD or RMS data, as well as user based custom tags. All this information is now available in one interface, instead of multiple silos requiring custom applications.

Now that DC has made the digital evidence and all its corresponding information easily accessible and efficiently organized, the next logical step is to be able to export the digital evidence, in an open format with all the metadata, so that the next user in the process, including, but not limited to:

-  LEAs
-  Prosecutor
-  Defense Counsel
-  Courts
-  Records Management

... has an equally easy task of retrieving that same evidence in the organized manner in which it needs to be presented. Therefore, we introduce you to DC Case-Paks.

The Case-Pak is an extension of the DC workflow. It empowers users to create an evidence package that includes the database and all its files, including proprietary first instance evidence, and MP4 video work product. The files can also be placed in a specific order regardless of their file name, allowing a synced copy with the report to display in court. The Case-Pak can then be transferred ANY way the user/s require, including, but not limited to:

-  Cloud
-  Automated Disk Burning with Labels via Rimage
-  USB Drives
-  On-Premise Servers

DATA-CENTRAL'S CASE CREATOR FEATURE

CASE PAKS

Case-Paks create a SHA-256 Hash and a unique ID for every file, while maintaining the original file folder structure and the parent/child relationship, between the original first instance and the newly created work product/s. Case-Paks are encrypted using AES256 encryption and can only be decrypted by DC and the password that the original creator used. When a user creates or decrypts a Case-Pak, they are given the option to include the Case #, Case information (i.e. meta-data), and the file notes, allowing specific information to be shared or kept private upon decrypting the Case-Pak.













Users pay per GB to ingest assets, convert proprietary video, and send files to any or all the following: DVD burning, enrichment/analytics, transcription. The user then may submit to any backend of choice.

Once the files have been processed, there are no further fees or costs to create Case-Paks. Data-Central with Case-Pak is by far the most affordable evidence management tool in the industry and will eliminate many hours of processing digital evidence and as well as the distribution of it.

The recipient of a Case-Pak has access to the FREE Case-Pak Viewer. Case-Paks can be decrypted and re-ingested by the FREE Viewer and the full Data-Central software. The FREE Viewer decrypts the Case-Pak, only when the proper password is entered. The Viewer maintains the folder structure, the metadata and provides full wildcard search functionality. The wildcard search will quickly search through all file names, file notes and extensions, highlighting each result and filtering out anything that doesn't have a match. For example, if you shared a Case-Pak with 40,000 files from various cell phones, HDD data dumps, videos, and photos from several locations, the recipient would be able to search and quickly find the assets that they need via the wildcard search function.

The FREE Case-Pak Viewer also includes an "Evidence List" that can be searched and sorted. The name of the file, file type, extension, and more are included in the "Evidence List." It also contains searchable file notes and a priority function for your case timeline. The FREE Viewer also includes the Rapid Review feature.

The Free Viewer, like Data-Central, supports complex nested filtering. Users can create filters to easily view the items of interest, based on the name, extension types (i.e. JPG, MP4, TXT), size and file notes. Analysts, Prosecutors, and Investigators can create complex sort functions based in the list below.

 Equals	Equals , expects an exact match of what you're looking for.
 Does not equal	Does not equal , will find everything not containing a match.
 Is greater than	Is greater than , will find items greater than the entered value.
 Is greater than or equal to	Is greater than or equal to , will find items equal to or greater.
 Is less than	Is less than , will find items less than the entered value.
 Is less than or equal to	Is less than or equal to , will find items equal or less than.
 Contains	Contains , will find the value if it exists in any part of the field.
 Does not contain	Does not contain , will find items that don't contain the value.
 Begins with	Begins with , finds values that begin with the exact match.
 Ends with	Ends with , finds values that end with the exact match.
 Is like	Is like , allows you to filter based on character location within a word. (i.e. M%S will find words starting with M and ending with S)
 Is not like	Is not like , allows you to find words that don't have characters in a specified location. (i.e. M%S will find words that do not start with M and end with S)

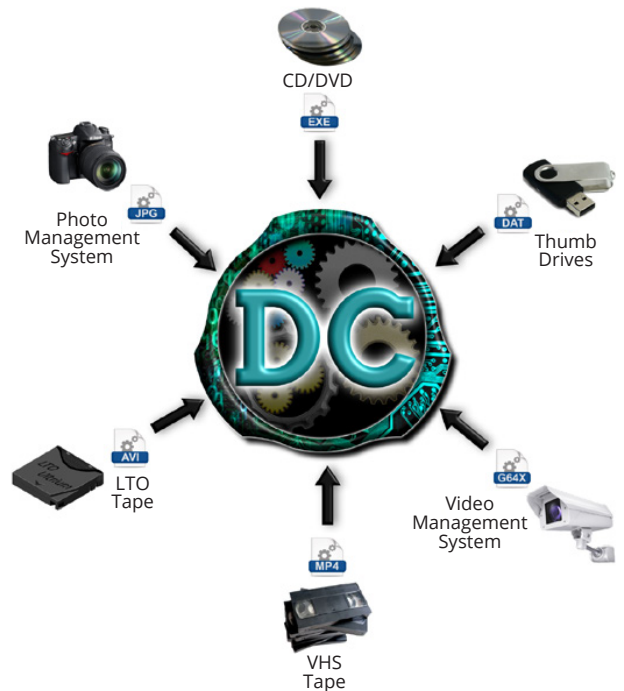
If easing the processing time and distribution pain points wasn't enough, remember, the Data-Central application is an open system that can push the original content or Case-Paks to your existing DEMs, Case Management System, or RMS for distribution or long-term storage...yes, DC can be used with ANY existing platform you or your users may already own/use.

DATA-CENTRAL FILE COLLECTION & MANAGEMENT

As expressed in the image to the right, secondary devices are ingested into Data-Central as a single migration process.

Third party software, Video Management Systems, Photo Management Systems, and more, may also be ingested ongoingly as an integration.

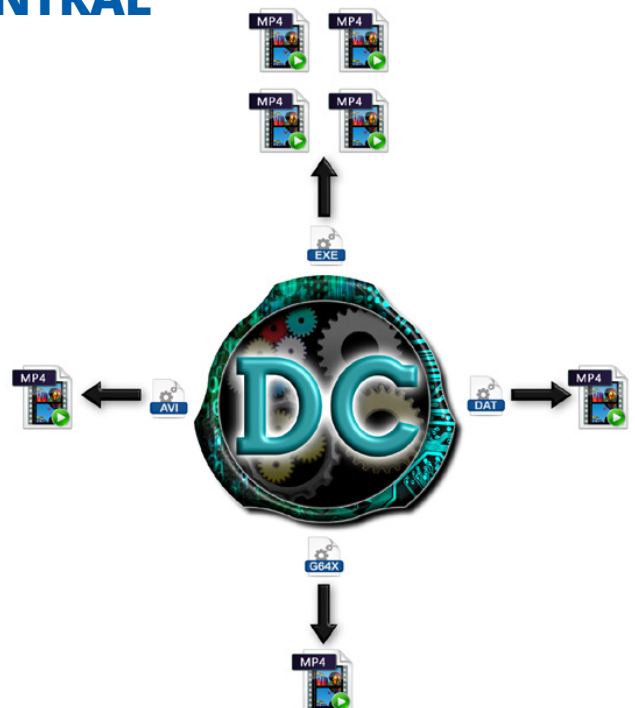
Data-Central ingests all digital files, standard and proprietary, as well as entire folder structures while its form is maintained. The files will have metadata added to them, both manually and automatically; EXIF data may be pulled from each file for additional key metadata.



CONVERT PROPRIETARY VIDEO TO MP4 FILES WITH DATA-CENTRAL

One workflow option for Data-Central is to rewrap proprietary video into standard MP4 files as expressed in the image to the right. The process is NOT transcoding and takes a third of the processing time required by the usual procedure. Once the files have been rewrapped, any standard media player will be able to play them.

Data-Central is able to handle executable (EXE) files or any other video files containing multiplexed video (i.e., 2 x 2, 3 x 3, 4 x 4) and will rewrap the video into individual MP4 files. For example, if an EXE file was sent to DataCentral and it contained a 4 x 4 multiplexed video with a proprietary player, the result would be 16 individual MP4 files.

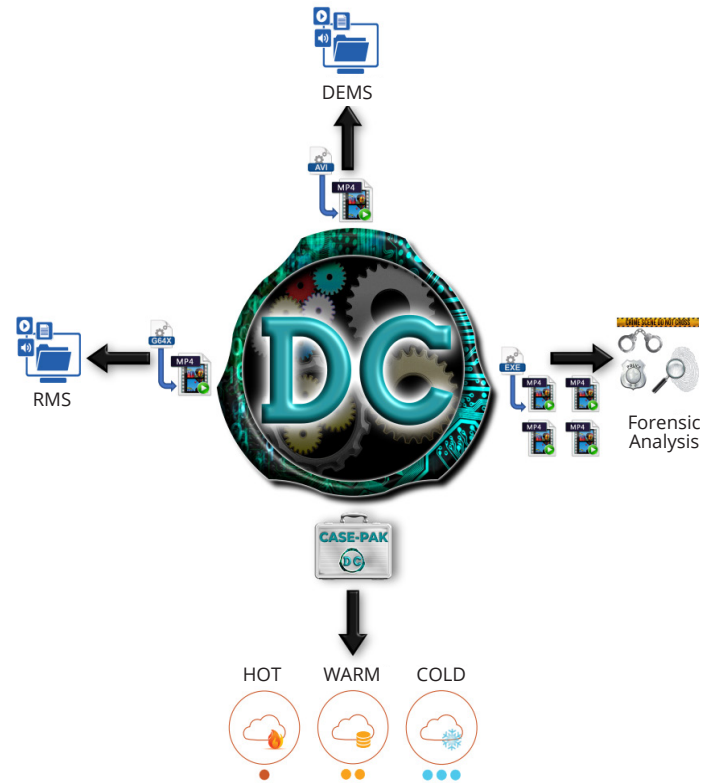


DATA-CENTRAL FILE MANAGEMENT & DISTRIBUTION

As expressed in the image to the right Data-Central will dynamically run files through different preferred workflows.

One workflow option for Data-Central is to send the files to other third party systems, such as a Digital Evidence Management System, Records Management System, and others. Some files may need to be sent to a forensic enhancement tool to be deblurred, lightened up, redacted, or edited as desired.

The files may also be sent to hot, warm, or cold storage (cloud or on-premises) for long term storage. Data-Central will also create a parent-child relationship between the original file and the newly created MP4, to be treated and moved as one unit.



KEY FEATURES & TAKEAWAYS

- Eliminates data silos
- Integrates with existing DEMS and other backend Software Asset Management Solutions
- Automated evidence/metadata extraction
- Move away from aging/obsolete secondary devices
- Migrate from old software systems
- Automated evidence extraction from third-party systems
- Support for proprietary video file formats
- Support for other proprietary file formats
- Support for direct client integration into VMS systems
- FREE Case-Pak Viewer for easy sharing
- Allows disparate systems to act as a single DEMS
- An affordable solution that does NOT require dropping existing deployed software
- Storage agnostic; Cloud, On-Premises, or Hybrid
- Use existing storage platforms and technology
- Support for third-party systems
- Support for proprietary files