

# Gravity Deep

Client User Guide

Karthavya Technologies

## Contents

1. Introduction	3
1.1 Archive Workflow	3
1.2 Retrieve Workflow	4
2. Welcome to GravityDeep User Guide	7
2.1 Working Areas	7
2.2 File Ingest	8
2.3 Metadata Tag	9
2.4 Archive	10
2.4.1 Archive by Drag and Drop	10
2.4.2 Archive by Selection	11
2.4.3 Search	11
2.5 Retrieve	11
2.5.1 Retrieve by Drag and Drop	12
2.5.2 Retrieve by Selection	12
2.6 Archive To Container	13
2.7 Jobs	13
2.8 Manual Device Control	14
2.9 Library Device Control	14
2.10 Manage Metadata	15

# 1.Introduction

GravityDeep is an Archive and Storage management solution which ensures the availability and safety of your data with efficient backup.

GravityDeep supports the following storage devices:

- Disk Storage.
- Tape.
- ODA.
- DVD.

**Bin:** Bin is a storage space, which can be shared to access it from multiple locations.

**Watch-Folder:** It is a folder inside the source bin. Any files placed inside this folder will be detected and moved to an Archive-Ingest folder.

**Archive-Ingest:** It is another folder physically located inside the same source bin. Any files detected inside the Watch-Folder are moved to this folder.

**Cache:** In GravityDeep, Cache is used as a temporary and immediate-access storage. It has been introduced to remove the dependency of secondary storage device availability.

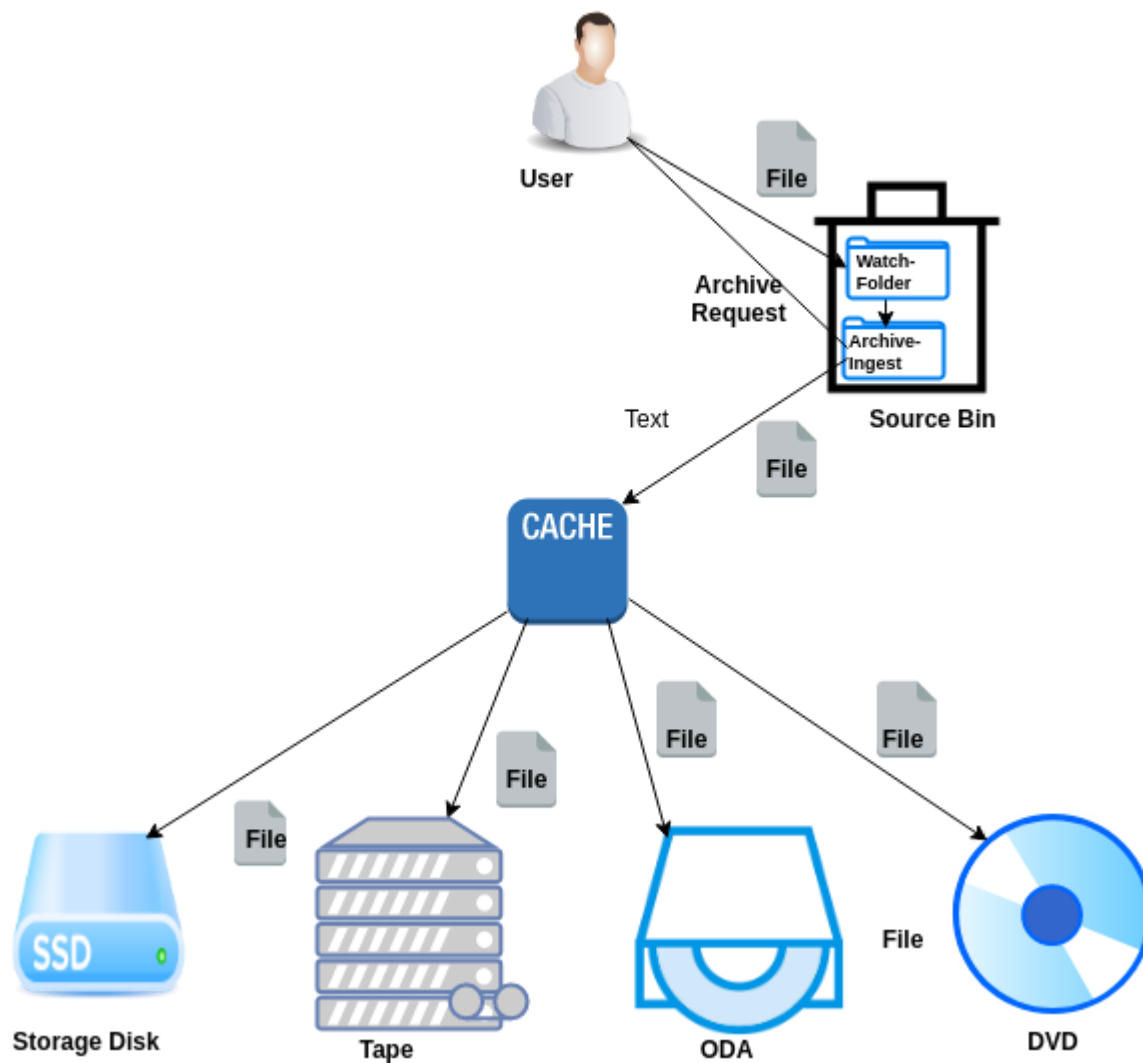
**Pool:** Pool is a logical group of storage components.

**Workflow:** Workflow defines a set of actions that need to be done, to complete the task.

## 1.1 Archive Workflow

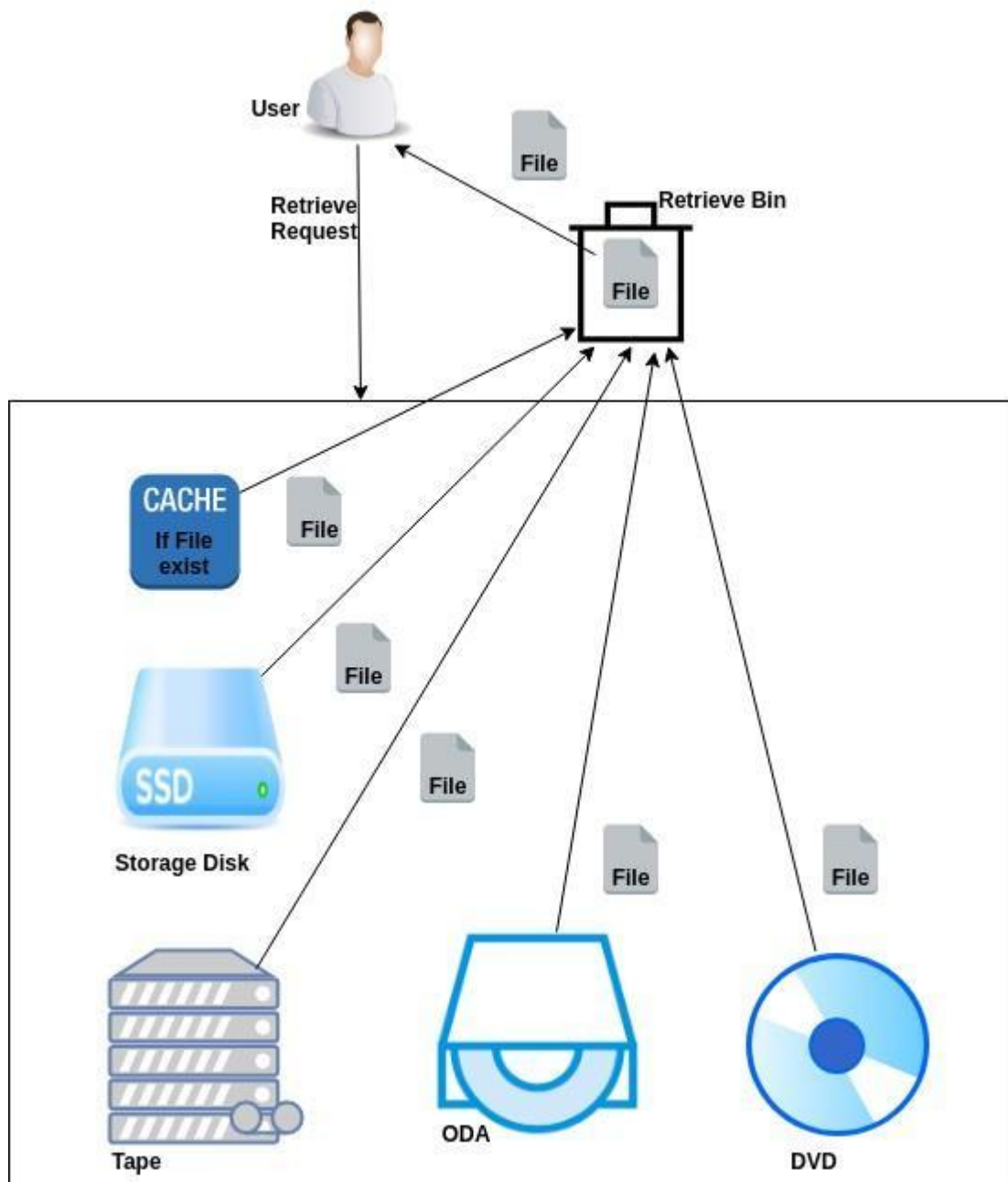
Once a user places asset inside the Watch-Folder of a source bin, the assets are detected and moved to an Archive-Ingest folder. The assets present in this Archive-Ingest folder are listed to the user in GravityDeep's Workspace-> Archive. User can select the files and archive them to any required pool. If Auto Archive is enabled for the source bin, all the assets present inside the source bin will be automatically archived by following the created Workflow.

By default, the assets will be archived to Cache. From Cache, they can be archived to any secondary storage device when it is available.



## 1.2 Retrieve Workflow

Once the assets are archived, user can retrieve the assets whenever required. While retrieving, by default Cache is checked first for the requested asset (since cache is a temporary storage, all files might not be present in Cache). If the assets are present in cache, retrieval happens from it else they the assets can be retrieved from any secondary storage. Also, User can change the retrieval device priority.



GRAVITY Deep

Workspace

Jobs

Inventory

Pools

Workflow

Reports

Settings

Inventory

Archived

Retrieved

Audit Trail

File Name

Username

Action

--select--

Objects

--select--

Date

Search

User Name	Action	File Name		Description	Objects
admin	Abort	Ashwin Reveals How Sehswag Mocked Him.mp4	Log-in Log-out Create Update Delete Reload Retry Retrieve MoveContainer LoadContainer UnloadContainer Device Addition Cache Cleanup AddToInventory ArchiveToCache ArchiveToDisk ArchiveToContainer	in Reveals How Sehswag Mocked Him.mp4 requested for assetAbort	Files
admin	Abort	ElonMusk_2017-480p.mp4		Musk_2017-480p.mp4 requested for assetAbort	Files
admin	ArchiveToCache	JavedAkhtar.mp4		t 'JavedAkhtar.mp4' requested 'ArchiveToCache'	Files
admin	ArchiveToCache	Ashwin Reveals How Sehswag Mocked Him.mp4		t 'Ashwin Reveals How Sehswag Mocked Him.mp4' requested iveToCache'	Files
admin	ArchiveToCache	ElonMusk_2017-480p.mp4		t 'ElonMusk_2017-480p.mp4' requested 'ArchiveToCache'	Files
admin	Abort	JavedAkhtar.mp4		dAkhtar.mp4 requested for assetAbort	Files
admin	Abort	Ashwin Reveals How Sehswag Mocked Him.mp4	11/03/2020	Ashwin Reveals How Sehswag Mocked Him.mp4 requested for assetAbort	Files
admin	Abort	ElonMusk_2017-480p.mp4	11/03/2020	ElonMusk_2017-480p.mp4 requested for assetAbort	Files
admin	Abort	04-CS50 2017 - Lecture_16012020.mp4	11/03/2020	04-CS50 2017 - Lecture_16012020.mp4 requested for assetAbort	Files
admin	ArchiveToCache	JavedAkhtar.mp4	11/03/2020	Asset 'JavedAkhtar.mp4' requested 'ArchiveToCache'	Files

1

2

...

5

6

...

1613

1614

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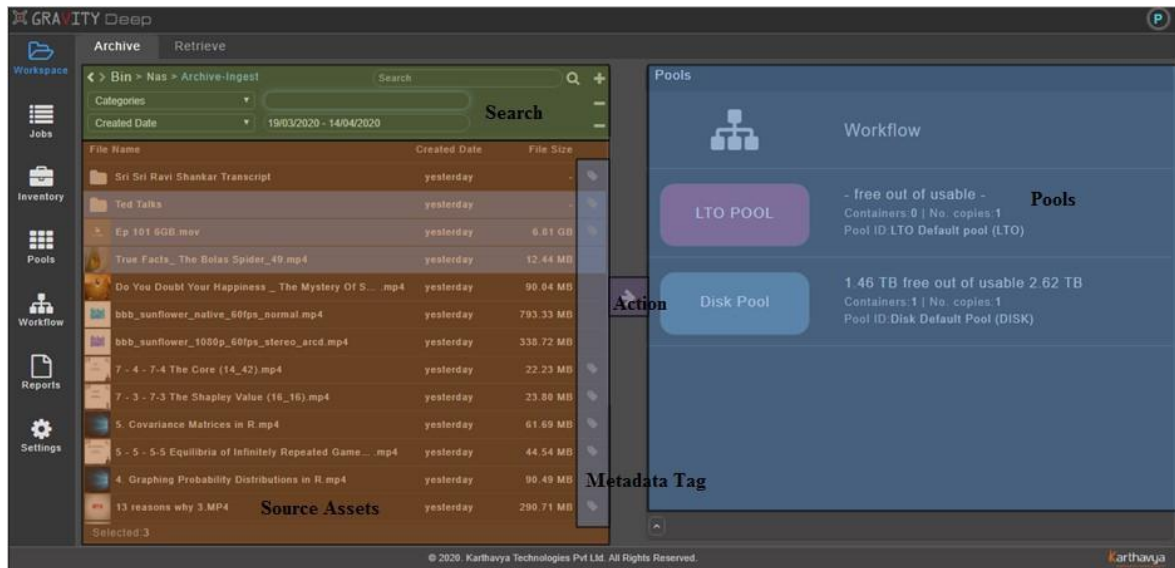
karthavya

## 2. Welcome to GravityDeep User Guide

### 2.1 Working Areas

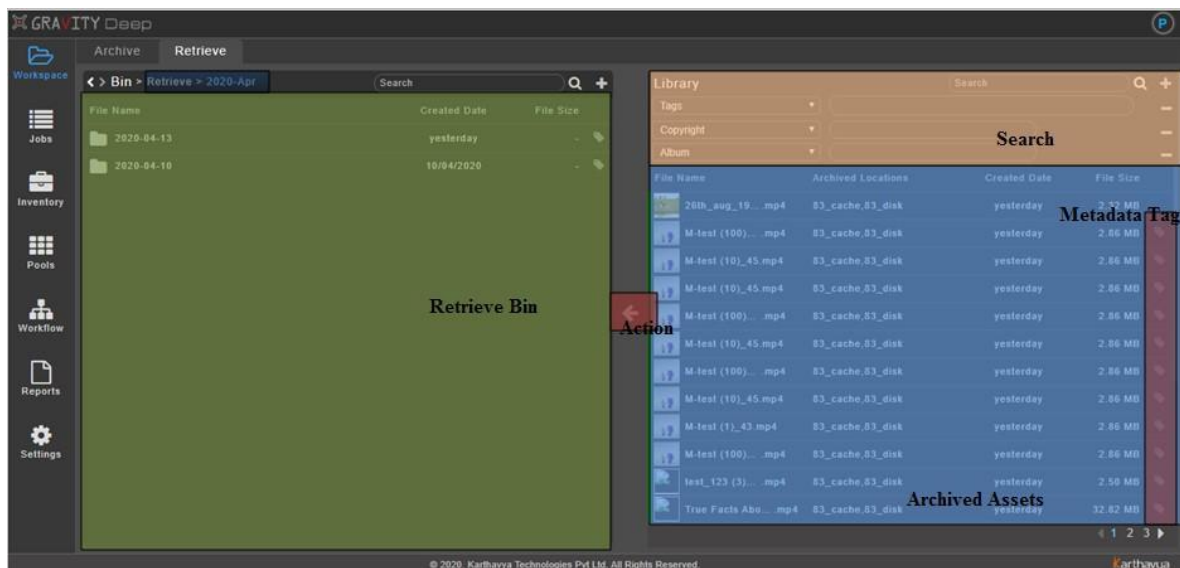
#### 2.1.1 Archive Space:

1. Source Assets: List of all files and folders that are accessible to the user.
2. Metadata Tag: To add metadata to assets.
3. Action: To Archive Assets
4. Search: To search assets.
5. Pools: Users can archive to pools.



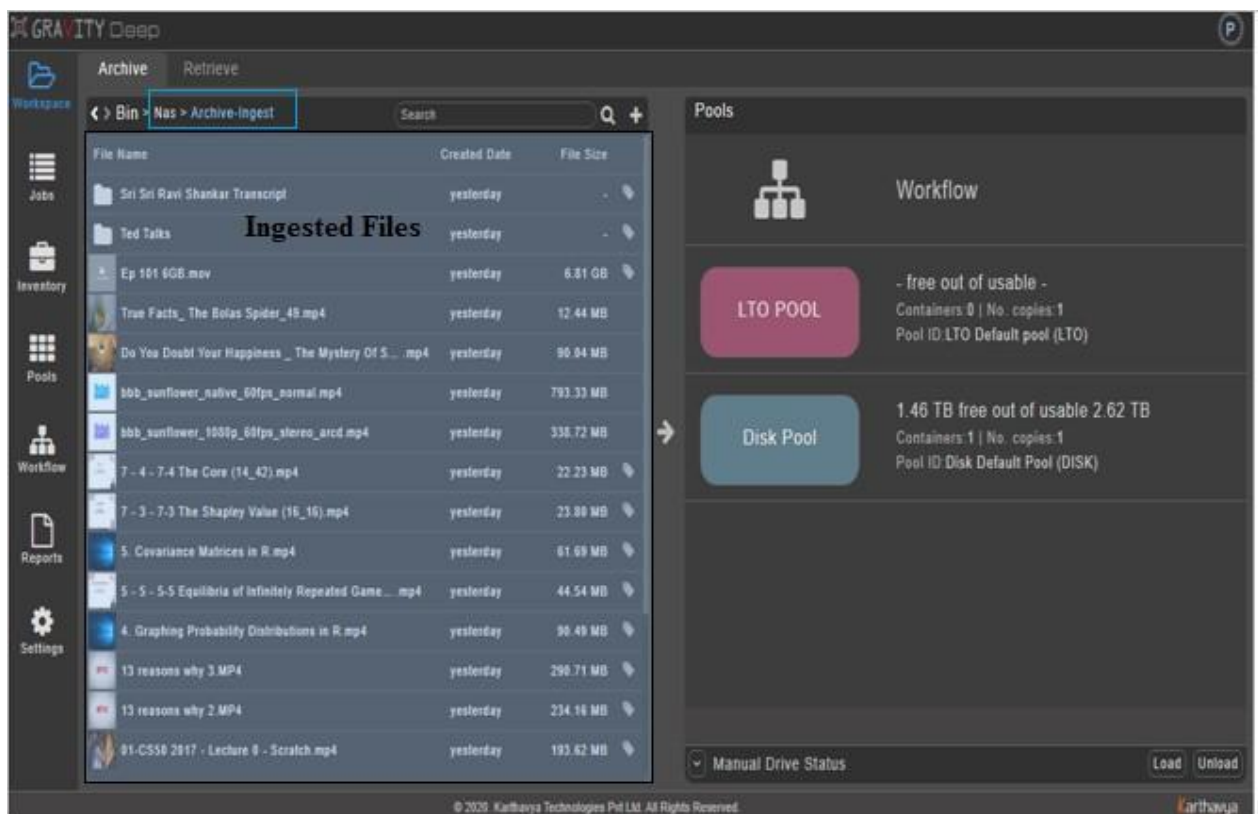
#### 2.1.2 Retrieve Space:

1. Archived Assets: All the archived assets are listed inside Library
2. Search: To search archived assets by its metadata.
3. Action: To Retrieve assets.
4. Retrieve Bin: To where assets will be retrieved
5. Metadata Tag: To update metadata to archived assets



## 2.2 File Ingest

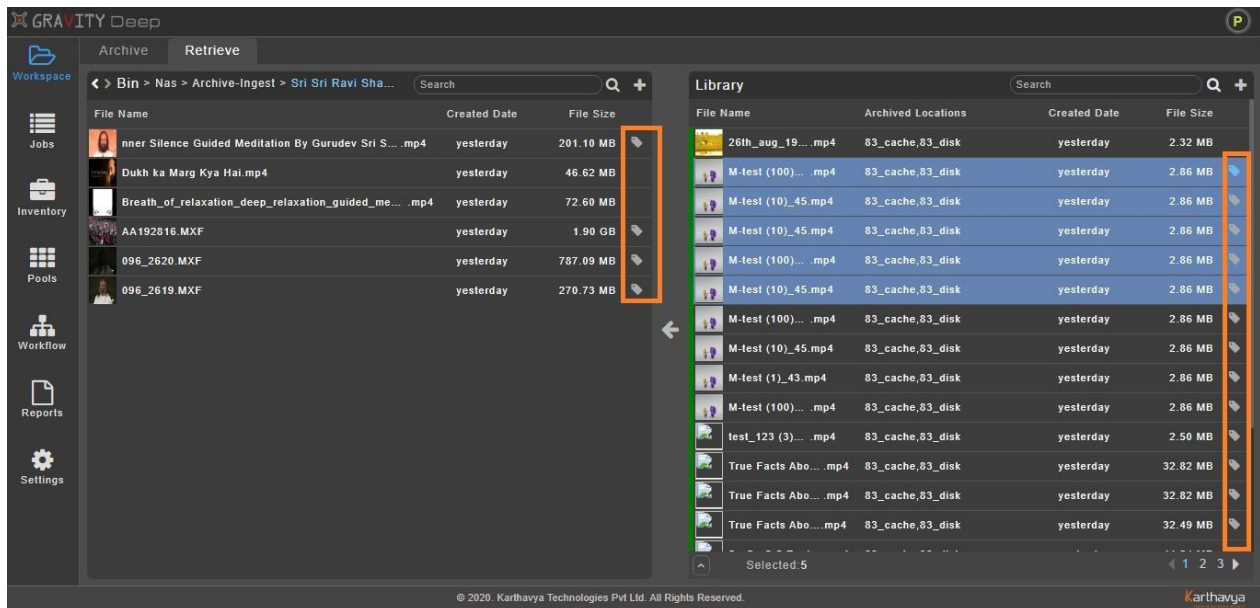
Ingest is the process of importing the data for further usage. In GravityDeep, assets are ingested by polling (by checking the state of a file). When the user places the assets inside Watch-Folder of the source bin, they will be detected and moved to the Archive-Ingest folder, after which the user can view the assets in GravityDeep's Workspace->Archive inside the respective bin.



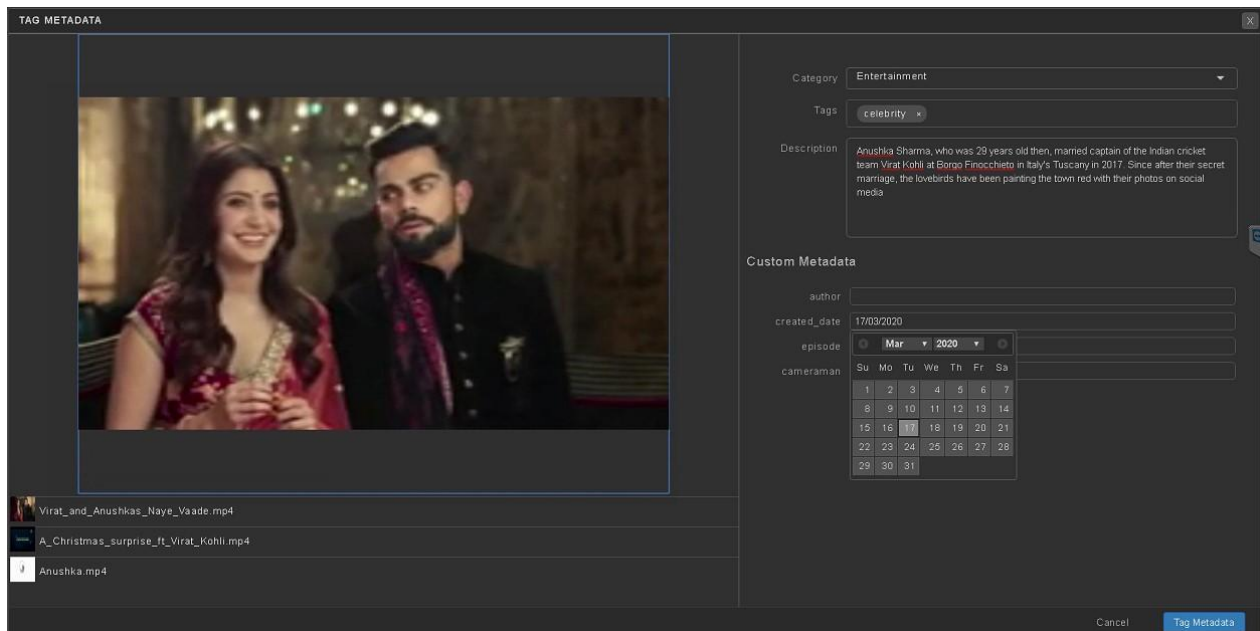


## 2.3 Metadata Tag

Users can tag metadata to source and archived assets. Go to Archive or Retrieve. Select a single OR multiple assets and click on the tag icon.



If metadata already exists confirmation will be asked before overriding the old metadata. After user's confirmation, Category, Tags, Description and Custom Metadata (new Categories and Tags can be created here directly as well) can be given. After the file is tagged with metadata, it can be searched using this metadata for quick access.



## 2.4 Archive

Data archiving is the process of moving data that is no longer actively used to a separate storage device for long-term retention. Archived data consists of older data that remains important to the organization or must be retained for future reference or regulatory compliance reasons.

To archive assets in GravityDeep, go to Workspace-> Archive.

In GravityDeep, the ingested files can be archived in 2 ways:

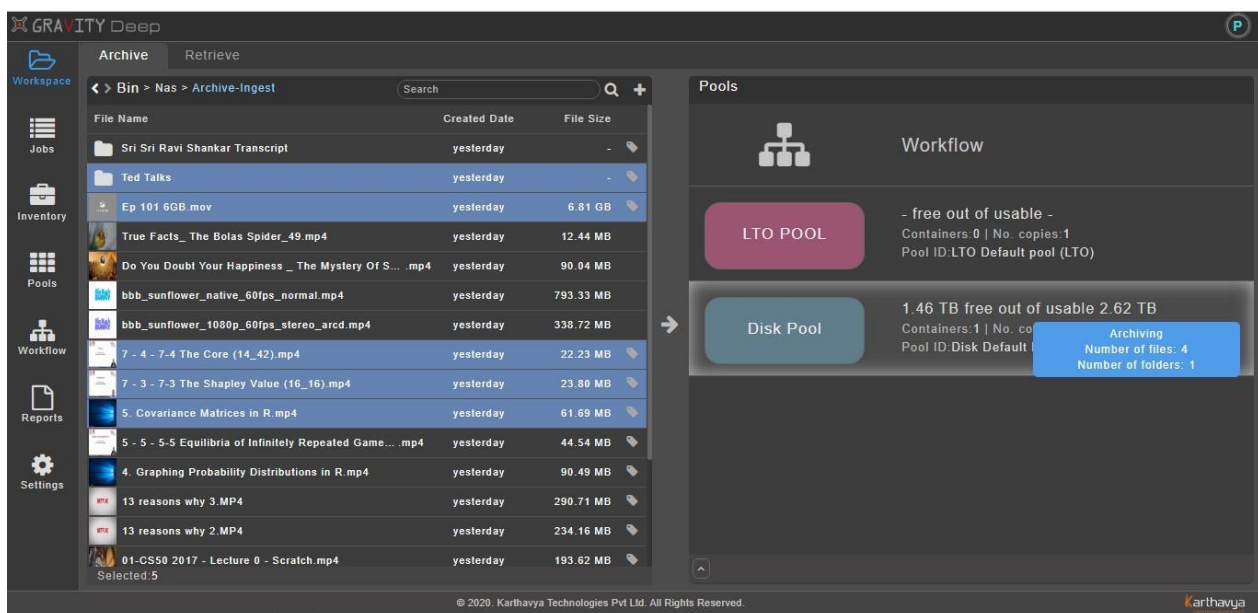
- By User

Users can go to Workspace-> Archive where all the source bins (bin type Asset) are listed in the Bin panel, the Pools and Workflow are listed in the Pools panel. Users can navigate inside the source bin and archive the asset(s) by 'drag and drop' or by selecting the destination manually.

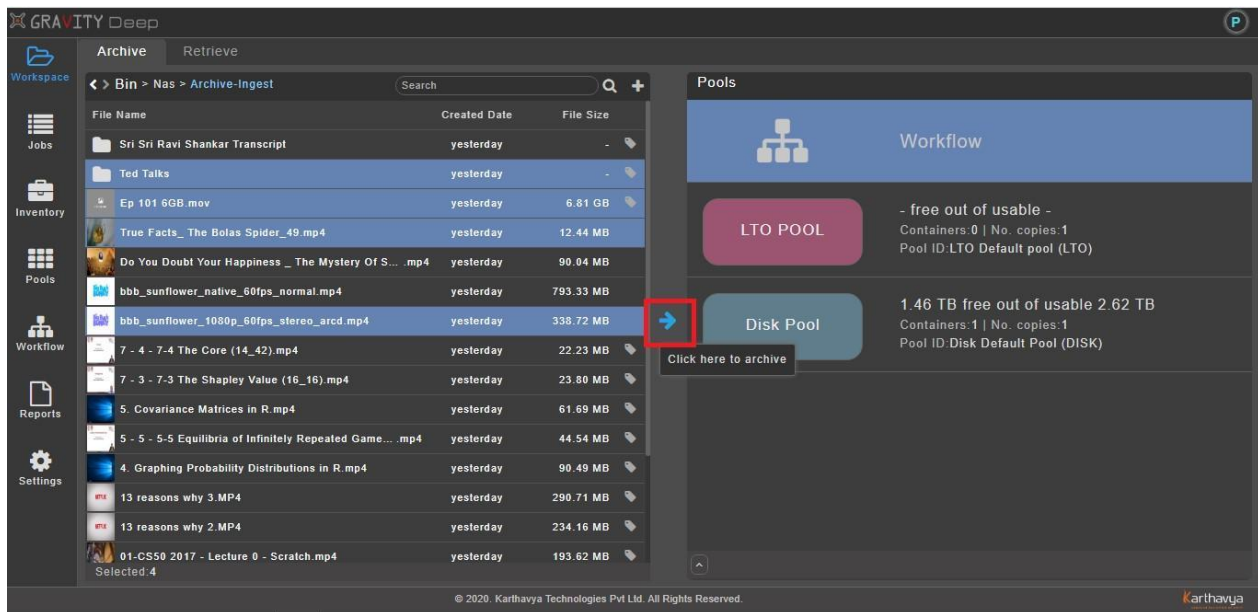
- By Auto Archive

If Auto Archive is enabled to any source bin (bin type Asset), once the file enters Archive-Ingest folder, it will be auto-archived to Workflow (i.e. it follows the Workflow). If you enable Auto Archive to any source bin (bin type Asset), once the file comes to Archive-Ingest it will be auto archived to Workflow (it follows Workflow).

### 2.4.1 Archive by Drag and Drop

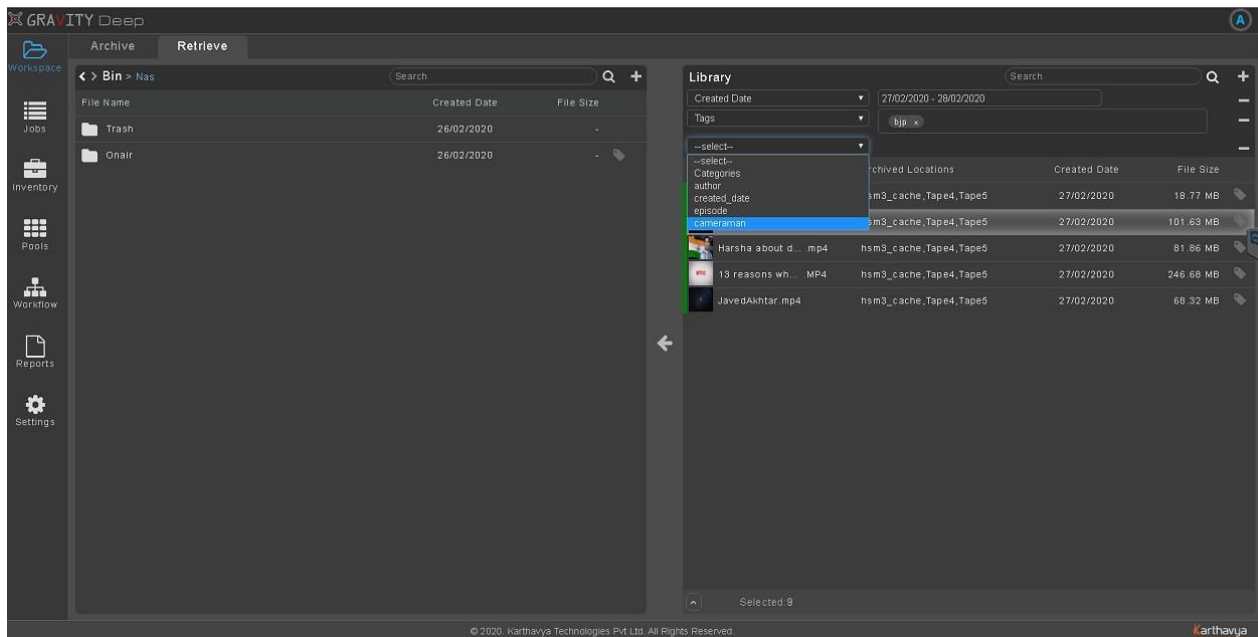


## 2.4.2 Archive by Selection



## 2.4.3 Search

In GravityDeep, an asset (source or archived asset) can be searched using its File Name, Created Date and Metadata (which includes category, tag, description, and custom metadata). To search the source assets, go to Workspace-> Archive, navigate to the required Bin, click + in the top right corner of the Bin panel and select the filter that needs to be searched. To search archived assets, go to Workspace-> Retrieve, click + in the top right corner of the Library panel and select the filter that needs to be searched.



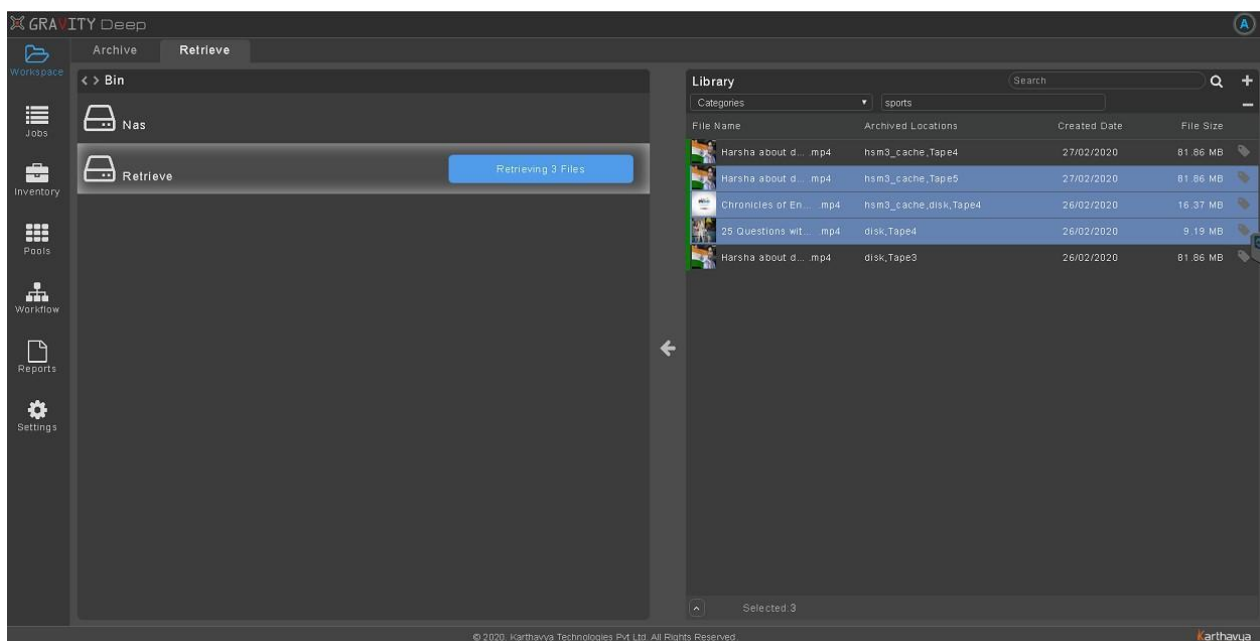
## 2.5 Retrieve

Retrieval is to get something back, or of accessing stored data and files in a computer. To retrieve the archived data, go to Workspace-> Retrieve, search and select the file to retrieve. Either drag the assets and drop in the source location or select the source location and click <-.

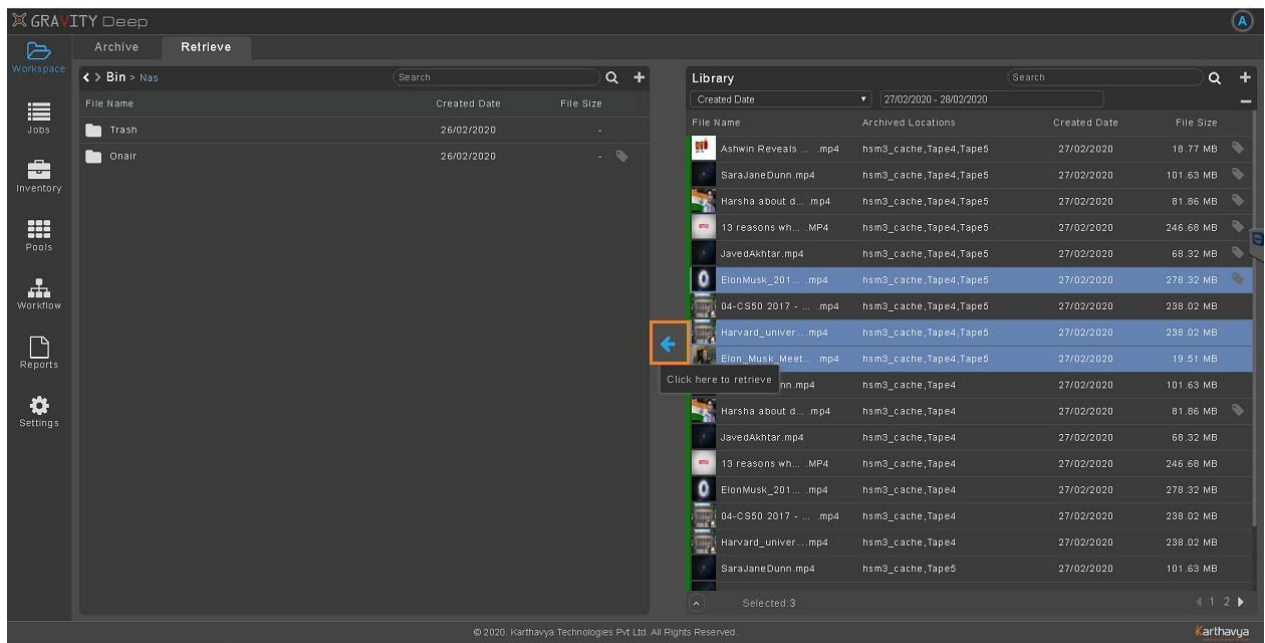
### Color significance on archived assets:

- **Green** indicates the asset is in Disk, and can be retrieved immediately.
- **Yellow** indicates asset in Tape, can be retrieved without manual-intervention.
- **No-color** indicates asset in Tape, Tape is not present in Drive or Device-inventory. Manual intervention is required.

### 2.5.1 Retrieve by Drag and Drop

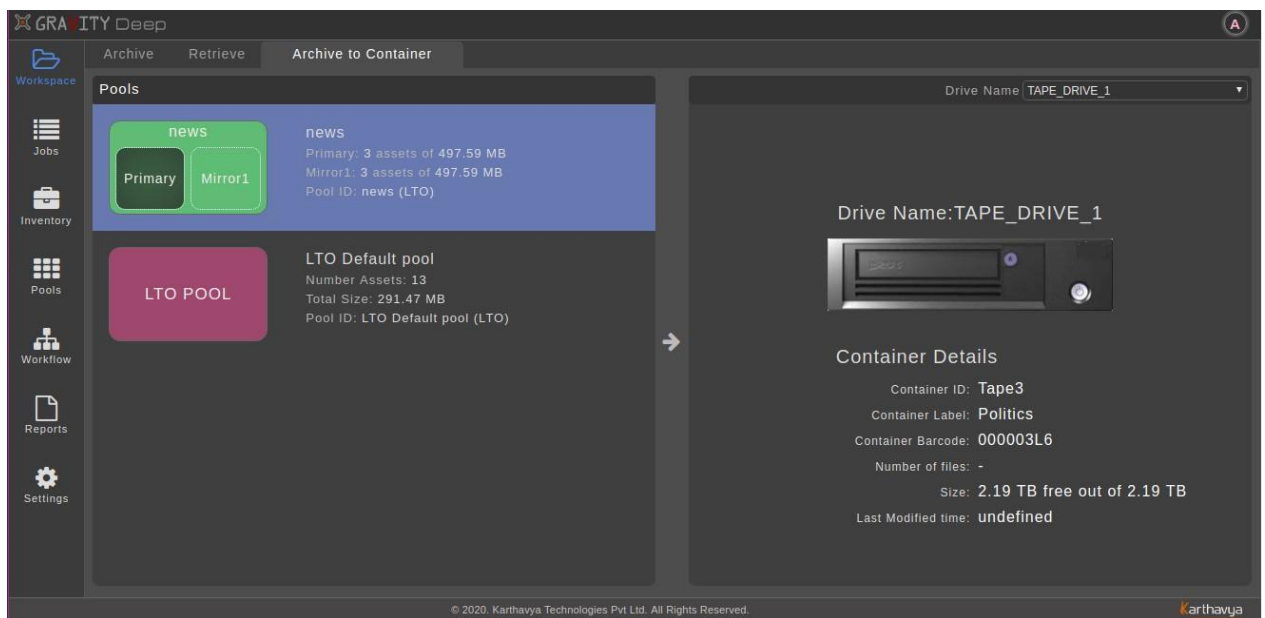


### 2.5.2 Retrieve by Selection



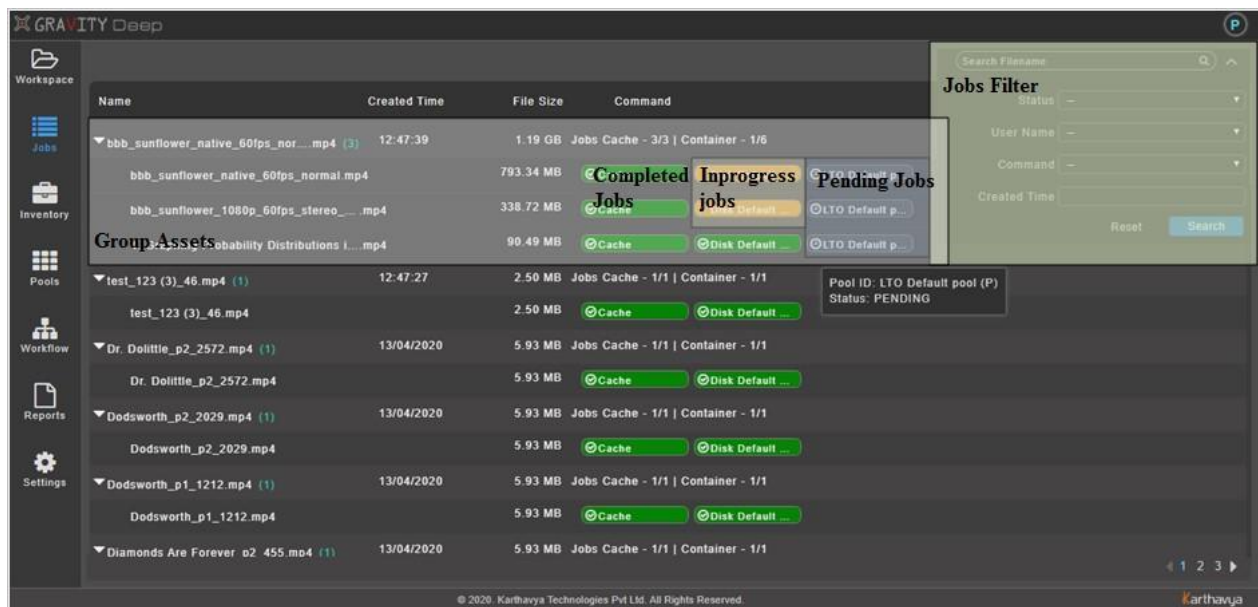
## 2.6 Archive To Container

For manual devices, users must first load the tape into the drive from Workspace->Archive and then archive the files to the container (i.e. the tape). Users can select an entire pool or an individual asset inside the pool from Pools in Workspace->Archive To Container panel, choose the appropriate drive from the dropdown at the top right corner of the drives panel and click -> to archive the assets.

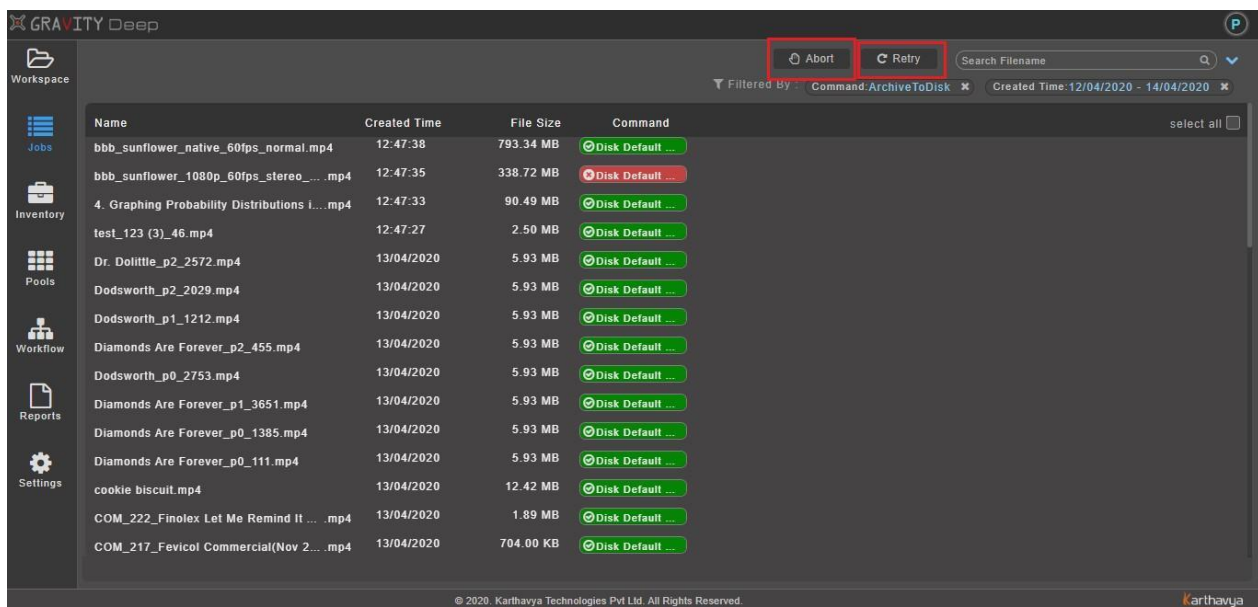


## 2.7 Jobs

Users can see all the jobs in Jobs page and user can filter the jobs based on requirement.



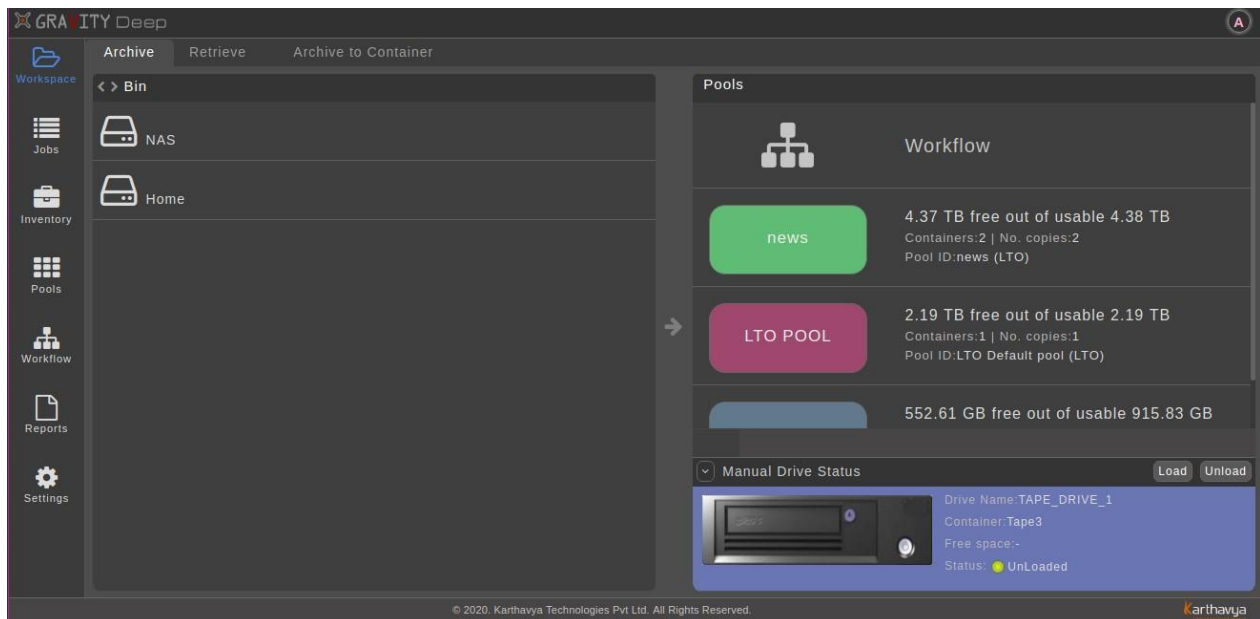
Users can Retry failed jobs and Abort ArchiveToCache and Retrieve jobs.



## 2.8 Manual Device Control

To control the Manual Device, go to Workspace-> Archive where all the added manual devices will be listed. Select the drive and perform Load or Unload actions.

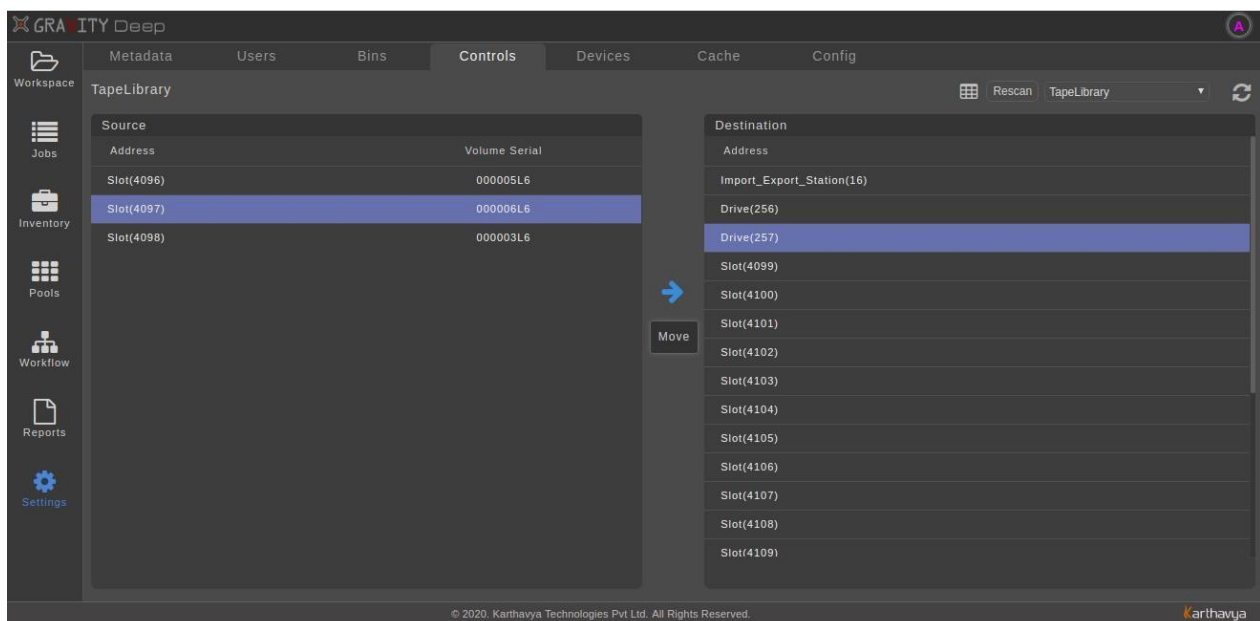




## 2.9 Library Device Control

To control library devices, go to Settings-> Controls, where two views i.e. Classic view and Advanced view are present. By default, Classic view is seen, but it can be changed to Advanced view by selecting Advanced view in the top right corner. Whenever the container is added or removed from the Library, rescan of the device inventory needs to be performed by clicking Rescan

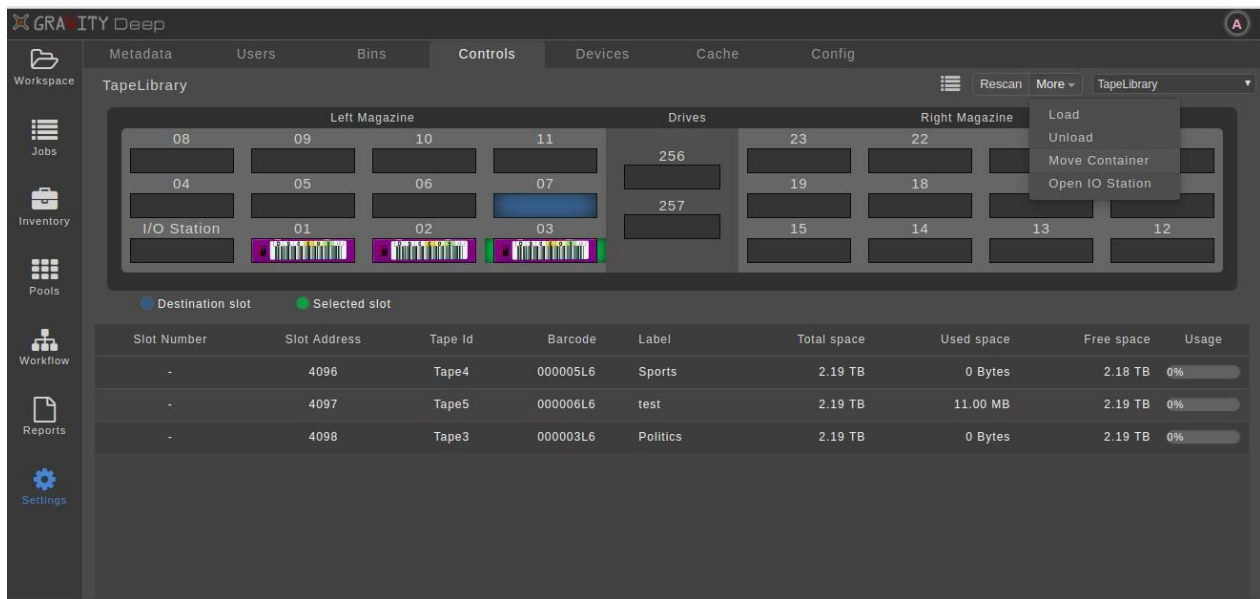
**Classic View:** In Classic view, all the slots that have a container will be listed in the Source panel, whereas the remaining will be listed in the Destination panel. To move the container from Source to Destination, select the Source slot, Destination slot and click -> Move



**Advanced View:** In advanced view, the slot can be moved from Source to Destination by drag and drop of the container or by selecting Source and Destination slot and clicking Move Container in Actions. To unload the drive,

select the drive and give Unload in Actions. To load the container into the drive, select the container and give Load in Actions.

Below the Advanced View, containers present in the device library will be listed.



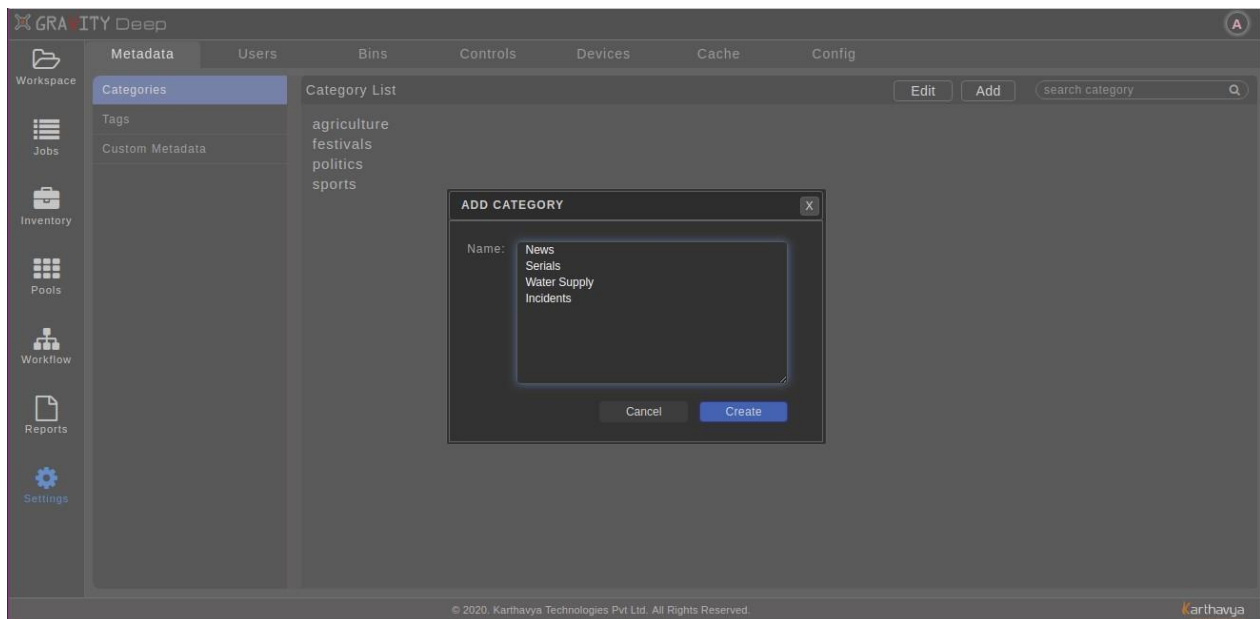
## 2.10 Manage Metadata

Metadata is a set of data that describes and gives information about the assets. It helps users to find the assets by using its relevant data.

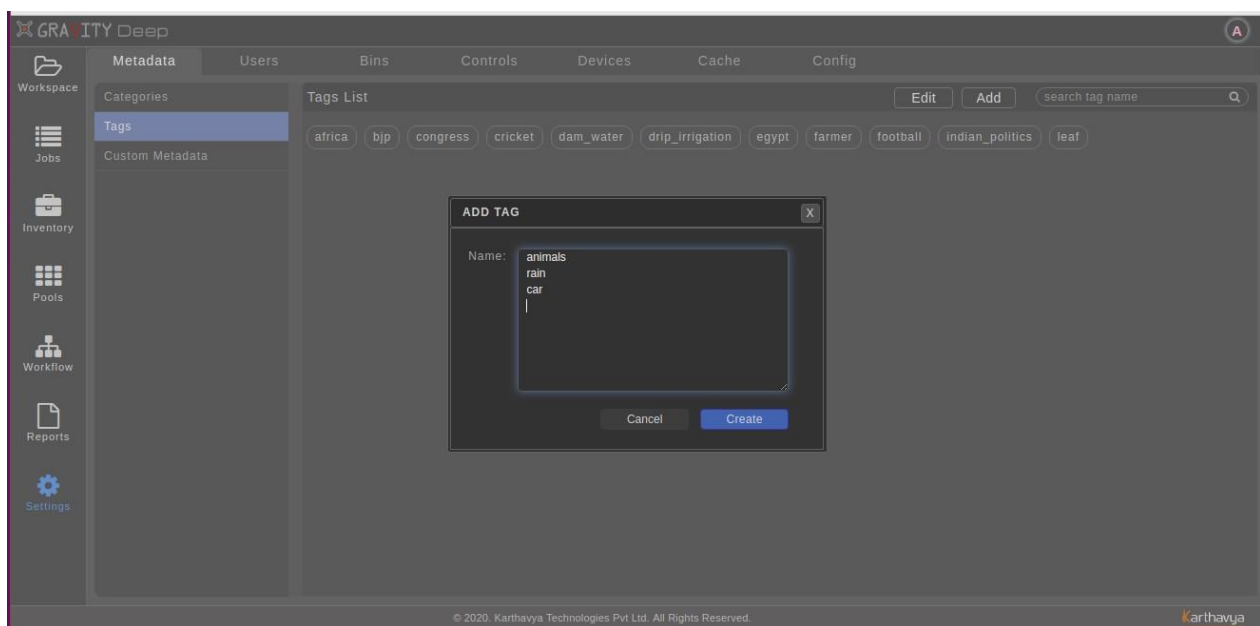
In GravityDeep, we can have Categories, Tags, Description and Custom Metadata as Metadata for an asset. To create these metadata, go to Settings-> Metadata. Editing a metadata name is possible only if that metadata is not assigned to any asset.

**Category Creation:** In the metadata page, select Categories. All the existing categories will be listed. Category search is supported to find and edit the selected category name. To add a new category, click Add at the top right corner. An Add Category panel will appear. Enter the category name (multiple categories can be created at a time where each category is separated by Enter) and click Create.





**Tag Creation:** In the metadata page, select Tags. All the existing tags will be listed. Tag search is supported to find and edit the Tag name. To add a new tag, click Add at the top right corner. An Add Tag panel appears. Enter the tag name (multiple tags can be created at a time where each tag is separated by Enter) and click Create.



**Custom Metadata Creation:** In the metadata page, select Custom Metadata. All the existing custom metadata fields will be listed in Custom Metadata List. To add a new custom metadata field, click Add in Custom Metadata List panel. Create custom metadata with Name and Type. Date and Integer type custom metadata fields have Range Based Search support. Range Based Search can be enabled to search starting from one value/date to another. After giving appropriate values, click Create. To edit existing custom metadata, select the custom metadata required to edit, click edit icon and update the name (Note: 'type' edit is not supported).

GRA ITY Deep

Workspace

Jobs

Inventory

Pools

Workflow

Reports

Settings

Metadata

Users

Bins

Controls

Devices

Cache

Config

Categories

Tags

Custom Metadata

Custom Metadata List

Add

Name	Type
author	Text
created_date	Date
episode	Integer
cameraman	Text

Add Custom Metadata

Name

Dae of Telecast

Type

Date

☒ Range Based Search

Cancel

Create

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