

# Content Manager

Help

CTM-1

# Overview

This section describes the functions and operational flow of this software.

- Features
- Operation Flow
- System Requirements
- Network Precautions
- Installation and Startup
- Firewall Settings
- HTTPS Communications Settings
- Setting Full Disk Access

## Features

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Content Manager is a content management application for Optical Disc Archive System users.

The main functions of this software are listed below.

- Archives video and audio files onto cartridges. Manages archived files efficiently using metadata extracted and recorded in a database when files are archived. It can also manage shelf cartridges (offline cartridges), in addition to cartridges inserted in drives in an Optical Disc Archive System (online cartridges).
- Displays a list of archived files, thumbnail images, and proxy video for previewing archived files.
- Searches archived files using metadata. It can also search for text transcriptions using speech recognition and for people using face recognition.
- Retrieves archived files on cartridges to a computer.

For details about the file formats that each function of this software supports, see “Supported File Formats.”

## Operation Flow

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### Archiving

Archiving stores video data and other material created and/or edited using camcorders on cartridges. When storing, metadata can be extracted from the video data and edited to make content easy to search for and use at a later date.

#### Step 1: Archive files

Select files/folders on media or the computer to store on cartridges.



#### Step 2: Extract metadata

Extract information from files when they are archived and save the information as metadata. You can extract voice audio as text and people shown in images.



### **Step 3: Edit metadata**

Edit metadata after files have been archived.

- **Editing Cartridge Metadata**
- **Editing File Metadata**



### **Step 4: Print cartridge labels**

Print labels to aid sorting and organization of cartridges.



### **Step 5: Export a list of files**

Export a list of files archived on the cartridge.

## **Retrieving**

Retrieving copies files archived on a cartridge to the computer. You can search for the files to retrieve using metadata.

### **Step 1: Search for files to retrieve**

- **Searching on the Search screen**  
Search for files you want to retrieve from among the archived data. You can search using text, dates, and people as the search key criteria.
- **Searching on the Archive screen**
- **Searching on the Browse screen**



### **Step 2: Retrieve files**

Specify the retrieve destination folder.

- **Retrieving on the Archive screen**  
Drag and drop files directly to retrieve them.
- **Retrieving on the Browse screen or Search screen**  
Specify the retrieve destination folder to retrieve files.

# System Requirements

Item	Requirement
Processor	Intel Core i5 3 GHz or higher
Memory	8 GB or more  <b>Note</b> The value does not include the space required for Optical Disc Archive Software.
HDD available capacity	<ul style="list-style-type: none"><li>• 500 MB or more HDD free space is required for installation.</li><li>• About 300 GB of HDD free space is required to archive 1,000 hours of data (the required free space depends on the number and format of files to manage).</li><li>• When extracting metadata from files on a cartridge, a hard disk drive with free space greater than the total size of the files from which metadata is being extracted is required. Therefore, the maximum free space required is equivalent to the capacity of the cartridge.</li></ul> <b>Note</b> The value does not include the space required for Optical Disc Archive Software.
OS	<b>Windows</b> Microsoft Windows 10, 64-bit version Microsoft Windows 11, 64-bit version <b>macOS</b> macOS 11.7 Big Sur macOS 12.6 Monterey macOS 13.5 Ventura
Web browser	<b>Windows</b> Microsoft Internet Explorer 11, Microsoft Edge, or Google Chrome <b>macOS</b> Safari 14/15/16 or Google Chrome
Display resolution	1280 × 960 pixels or more
Driver	Optical Disc Archive Software Download and use the latest version of Optical Disc Archive Software. Also, update the drive firmware to the latest version.  <b>Note</b> Optical Disc Archive Filer cannot be started when using Content Manager. To use Optical Disc Archive Filer, first terminate the Content Manager service and then start Optical Disc Archive Filer. (Optical Disc Archive Filer is included with Optical Disc Archive Software.)

## Network Precautions

This application could be accessed by any unintended third party on the network, depending on the usage environment. Please connect to a secure network.

# Installation and Startup

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## Installing and Activation

Software activation is required in order to use Content Manager. The activation process is run when you start Content Manager for the first time after installation.

1. Follow the on-screen instructions to install the software.
2. Launch a web browser and access the following URL.

`http://localhost:8080/`

3. Follow the on-screen instructions to activate the software.

You must enter the serial number during activation. The Content Manager serial number is supplied with the Optical Disc Archive System.<sup>a)</sup>

After successful activation, the Login screen appears for initial log in.

4. Register an administrator user.

Specify the user ID and password on the Login screen. After the information is entered, the Archive screen appears.

a) The serial number is valid for use on only one computer. If using the software on a second or subsequent computers, purchase additional serial numbers from the Sony Professional products web site.

## Starting

After the software is installed and activated, you start the software by launching a web browser and accessing the software URL (`http://localhost:8080/`).

Enter the registered user ID and password on the Login screen.

### Note

If you forget your password, the password can be reissued to the e-mail address registered in the mail notification settings. Click [Forget your Password? Click here.] on the Login screen.

If mail notification is not enabled, a password cannot be reissued.

## Using Content Manager from another computer

Allow inbound access on port 8080 in the firewall settings of the computer on which Content Manager is installed to enable others to access Content Manager from another computer over a network.

Launch a web browser on the remote computer and access the following URL.

`http://(IP address of Content Manager computer):8080/`

There are some limitations on the operations that are available when using Content Manager from another computer.

### Note

If anti-virus software or security software is installed on the PC on which Content Manager is installed, inbound access on port 8080 from other computers may be blocked. In this case, configure your security software to allow inbound access on port 8080. For details about configuration, refer to the operating instructions for your security software.

## Exiting

Use one of the following methods.

- Click the Logout icon in the global menu.
- Exit (quit) the web browser.

## Uninstalling

### Windows

Use the uninstallation procedure for the OS you are running.

### macOS

Double-click the uninstaller bundled with the installer, and follow the on-screen instructions.

## Firewall Settings

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The following firewall settings are recommended in order to block connections to MariaDB from an external source.

### On Windows

1. Select [Control Panel] > [System and Security] > [Windows Firewall] > [Advanced settings] > [Inbound Rules] > [New Rule...].
2. Configure the following in the New Inbound Rule Wizard.
  - Rule Type: Select [Port].
  - Protocol and Ports: Select [TCP] and [Specific local ports] (enter port “3306”).
  - Action: Select [Block the connection].
  - Profile: Select all.
  - Name: Enter “MariaDBPort”.
3. Click [Finish].
4. Select [New Rule...] again to display the New Inbound Rule Wizard, and configure the following.
  - Rule Type: Select [Port].
  - Protocol and Ports: Select [UDP] and [Specific local ports] (enter port “3306”).
  - Action: Select [Block the connection].
  - Profile: Select all.
  - Name: Enter “MariaDBPort”.
5. Click [Finish].

### On macOS

1. Select [System Preferences] > [Security & Privacy] > [Firewall].
2. Click the lock icon to make changes, and select [Turn On Firewall].
3. Click the [Deny] button in the “mysqld” accept incoming network connections message dialog.

## HTTPS Communications Settings

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Communications can be encrypted by setting HTTPS communication.

## Generating a keystore file

1. Launch [Command Prompt].
2. Enter the following command.

### Windows

```
cd C:\Program Files\Zulu\zulu-8-jre\bin  
keytool -genkey -alias tomcat -keyalg RSA -keysize 2048 -keystore <keystore_filename>
```

Example keystore file name: filemanager2.keystore

### macOS

```
keytool -genkey -alias tomcat -keyalg RSA -keysize 2048 -keystore <keystore_filename>
```

Example keystore file name: filemanager2.keystore

3. Enter a password when prompted to set a keystore password.

```
Enter keystore password: *****
```

(Password is not displayed)

4. Enter the same password again when prompted to do so.

```
Re-enter new password: *****
```

(Password is not displayed)

5. Enter information for the certificate signing request (CSR).

Input example:

```
What is your first and last name?  
[Unknown]: www.sony.jp  
What is the name of your organizational unit?  
[Unknown]: Content Manager  
What is the name of your organization?  
[Unknown]: Sony Corporation  
What is the name of your City or Locality?  
[Unknown]: Minato-ku  
What is the name of your State or Province?  
[Unknown]: Tokyo  
What is the two-letter country code for this unit?  
[Unknown]: JP
```

6. Check the displayed contents of the entered information, and then enter "y".

```
Is CN=www.sony.jp, OU=Content Manager, O=Sony Corporation, L=Minato-ku, ST=Tokyo, C=JP  
correct?  
[no]: y
```

7. Press the Return (Enter) key without entering anything when the following prompt appears.

```
Enter key password for (RETURN if same as keystore password):
```

A keystore file with the name specified in step 2 is generated in the work directory.

## Generating a CSR

1. Launch [Command Prompt].
2. Enter the following command.

### Windows

```
cd C:\Program Files\Zulu\zulu-8-jre\bin  
keytool -certreq -sigalg SHA1withRSA -alias tomcat -file <CSR_filename> -keystore <keystore_  
filename>
```

Example CSR file name: filemanager2.csr

### macOS

```
keytool -certreq -sigalg SHA1withRSA -alias tomcat -file <CSR_filename> -keystore <keystore_  
filename>
```

Example CSR file name: filemanager2.csr

3. Enter the password specified when generating the keystore file when prompted.

```
Enter keystore password: *****
```

A CSR file with the name specified in step 2 is generated.

## Issuing a server certificate

Pass the generated CSR to a certificate authority to have a signed server certificate issued.

## Generating a server certificate used by applications

1. Place the signed server certificate and intermediate certificate in an arbitrary directory.
2. Launch [Command Prompt].
3. Merge the signed server certificate and intermediate certificate into a single file.

### Windows

```
copy <signed_server_certificate_filename> + <Intermediate_certificate_filename> <server_certificate_  
filename_used_by_applications>
```

Example server certificate file name used by applications: contentmanager.cer

### macOS

```
cat <signed_server_certificate_filename> + <Intermediate_certificate_filename> <server_certificate_  
filename_used_by_applications>
```

Example server certificate file name used by applications: contentmanager.cer

## Installing a certificate

1. Enter the following command.

### Windows/macOS

```
keytool -import -alias tomcat -keystore <keystore_filename> -file <filename_generated_in_step3_  
previous section>
```

2. Enter the password specified when generating the keystore file when prompted.

```
Enter keystore password: *****
```

3. Enter "y" if the following prompt appears.



Top-level certificate in reply:

Owner: CN=\*\*\*\*\* , O=\*\*\*\*\* , C=\*\*

Issuer: OU=\*\*\*\*\* , O=\*\*\*\*\* , C=\*\*

Serial number: \*\*\*\*\*

Valid from: \*\*\*\*\* until: \*\*\*\*\*

Certificate fingerprints:

MD5: \*\*\*\*\*

... is not trusted. Install reply anyway? [no]: y

Asterisks indicate the display of registered information.

## Enabling HTTPS

### On Windows

1. Stop the Tomcat service.
  - i. From the [Start] menu, click [Windows Administrative Tools] > [Services].
  - ii. Search for and click the "Apache Tomcat" services in the list of services.
  - iii. Click [Stop the service] on the left side of the list of services.
2. Edit the Tomcat configuration file (server.xml).
  - i. Open C:\Program Files\Apache Software Foundation\Tomcat 7.0\conf\server.xml.
  - ii. Enter the actual domain name at line 104.

#### Before editing

```
<Engine name="Catalina" defaultHost="localhost">
```

#### After editing

```
<Engine name="Catalina" defaultHost="<domain_name>">
```

- iii. Enter the actual domain name at line 124.

#### Before editing

```
<Host name="localhost" appBase="webapps"
    unpackWARs="true" autoDeploy="true">
```

#### After editing

```
<Host name="<domain_name>" appBase="webapps"
    unpackWARs="true" autoDeploy="true">
```

- iv. Uncomment the block at line 85.
- v. Copy the content shown below in "After editing."
- vi. Enter the full path of the actual keystore file in *<keystore\_filename>*, and enter the password specified when generating the keystore file in *<keystore\_password>*.

#### Before editing

```
<!--
<Connector port="8443" protocol="HTTP/1.1" SSLEnabled="true"
    maxThreads="150" scheme="https" secure="true"
    clientAuth="false" sslProtocol="TLS" />
-->
```

### After editing

```
<Connector port="8443"
protocol="org.apache.coyote.http11.Http11Protocol"
SSLEnabled="true"
maxThreads="150"
scheme="https"
secure="true"
keystoreFile="<keystore_filename>"
keystorePass="<keystore_password>"
clientAuth="false"
sslProtocol="TLSv1.2"
sslEnabledProtocols="TLSv1.1,TLSv1.2"
ciphers="TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384,
TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384,
TLS_ECDH_RSA_WITH_AES_256_GCM_SHA384,
TLS_ECDH_ECDSA_WITH_AES_256_GCM_SHA384,
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256,
TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256,
TLS_ECDH_RSA_WITH_AES_128_GCM_SHA256,
TLS_ECDH_ECDSA_WITH_AES_128_GCM_SHA256,
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384,
TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA384,
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA,
TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA,
TLS_ECDH_RSA_WITH_AES_256_CBC_SHA384,
TLS_ECDH_ECDSA_WITH_AES_256_CBC_SHA384,
TLS_ECDH_RSA_WITH_AES_256_CBC_SHA,
TLS_ECDH_ECDSA_WITH_AES_256_CBC_SHA,
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256,
TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256,
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA,
TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA,
TLS_ECDH_RSA_WITH_AES_128_CBC_SHA256,
TLS_ECDH_ECDSA_WITH_AES_128_CBC_SHA256,
TLS_ECDH_RSA_WITH_AES_128_CBC_SHA,
TLS_ECDH_ECDSA_WITH_AES_128_CBC_SHA"
/>
```

To prevent HTTP communications, comment out the block at line 70 as follows.

**Before editing**

```
<Connector port="8080" protocol="HTTP/1.1"
connectionTimeout="20000"
redirectPort="8443"
useBodyEncodingForURI="true" />
```

**After editing**

```
<!--
<Connector port="8080" protocol="HTTP/1.1"
connectionTimeout="20000"
redirectPort="8443"
useBodyEncodingForURI="true" />
-->
```

3. Start the Tomcat service.
  - i. From the [Start] menu, click [Windows Administrative Tools] > [Services].
  - ii. Search for and click the "Apache Tomcat" services in the list of services.
  - iii. Click [Start the service] on the left side of the list of services.

4. Check the HTTPS communication.

Launch a browser and access "https://<domain\_name>:8443" and check that the login screen is displayed.

**On macOS**

1. Stop the Tomcat service.

Execute the following command at a command prompt.

```
sudo launchctl unload /Library/LaunchDaemons/org.apache.tomcat.plist
```

2. Copy and then edit the Tomcat configuration file (server.xml).
  - i. Copy /usr/local/tomcat7/conf/server.xml to your home directory or other location, and then open the file in that directory.  
The original file cannot be edited directly due to permission limitations.
  - ii. Enter the actual domain name at line 104.

**Before editing**

```
<Engine name="Catalina" defaultHost="localhost">
```

**After editing**

```
<Engine name="Catalina" defaultHost="<domain_name>">
```

- iii. Enter the actual domain name at line 124.

**Before editing**

```
<Host name="localhost" appBase="webapps"
unpackWARs="true" autoDeploy="true">
```

**After editing**

```
<Host name="<domain_name>" appBase="webapps"
unpackWARs="true" autoDeploy="true">
```

- iv. Uncomment the block at line 85.
- v. Copy the content shown below in "After editing."
- vi. Enter the full path of the actual keystore file in `<keystore_filename>`, and enter the password specified when generating the keystore file in `<keystore_password>`.
- vii. Copy the edited file, overwriting `/usr/local/tomcat7/conf/server.xml`.

**Before editing**

```
<!--  
<Connector port="8443" protocol="HTTP/1.1" SSLEnabled="true"  
maxThreads="150" scheme="https" secure="true"  
clientAuth="false" sslProtocol="TLS" />  
-->
```

### After editing

```
<Connector port="8443"
protocol="org.apache.coyote.http11.Http11Protocol"
SSLEnabled="true"
maxThreads="150"
scheme="https"
secure="true"
keystoreFile="<keystore_filename>"
keystorePass="<keystore_password>"
clientAuth="false"
sslProtocol="TLSv1.2"
sslEnabledProtocols="TLSv1.1,TLSv1.2"
ciphers="TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384,
TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384,
TLS_ECDH_RSA_WITH_AES_256_GCM_SHA384,
TLS_ECDH_ECDSA_WITH_AES_256_GCM_SHA384,
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256,
TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256,
TLS_ECDH_RSA_WITH_AES_128_GCM_SHA256,
TLS_ECDH_ECDSA_WITH_AES_128_GCM_SHA256,
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384,
TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA384,
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA,
TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA,
TLS_ECDH_RSA_WITH_AES_256_CBC_SHA384,
TLS_ECDH_ECDSA_WITH_AES_256_CBC_SHA384,
TLS_ECDH_RSA_WITH_AES_256_CBC_SHA,
TLS_ECDH_ECDSA_WITH_AES_256_CBC_SHA,
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256,
TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256,
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA,
TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA,
TLS_ECDH_RSA_WITH_AES_128_CBC_SHA256,
TLS_ECDH_ECDSA_WITH_AES_128_CBC_SHA256,
TLS_ECDH_RSA_WITH_AES_128_CBC_SHA,
TLS_ECDH_ECDSA_WITH_AES_128_CBC_SHA"
/>
```

To prevent HTTP communications, comment out the block at line 70 as follows.

### Before editing

```
<Connector port="8080" protocol="HTTP/1.1"
connectionTimeout="20000"
redirectPort="8443"
useBodyEncodingForURI="true" />
```

### After editing

```
<!--
<Connector port="8080" protocol="HTTP/1.1"
connectionTimeout="20000"
redirectPort="8443"
useBodyEncodingForURI="true" />
-->
```

3. Start the Tomcat service.

Execute the following command at a command prompt.

```
sudo launchctl load /Library/LaunchDaemons/org.apache.tomcat.plist
```

4. Check the HTTPS communication.

Launch a browser and access "https://<domain\_name>:8443" and check that the login screen is displayed.

## Setting Full Disk Access

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If using Content Manager in systems running macOS, "Full Disk Access" permission must be granted.

Configure using the following procedure.

1. Select [System Preferences] > [Security & Privacy] from the Apple menu.
2. Select the [Privacy] tab, and select [Full Disk Access].
3. Click the lock icon at the bottom left.
4. Enter the user name and password, and click [Unlock].
5. Click the [+] button.
6. Select [Macintosh HD] > [Applications] > [Content Manager.app], and click the [Open] button.
7. Check that [Content Manager.app] is registered and that the checkbox is in the selected state.
8. Select [Macintosh HD] > [Applications] > [Content Manager.app], and right-click it.
9. Select [Show Package Contents].
10. Select [Contents] > [SharedSupport] > [FileManagerService], and click the [Open] button.
11. Check that [FileManagerService] is registered and that the checkbox is in the selected state.

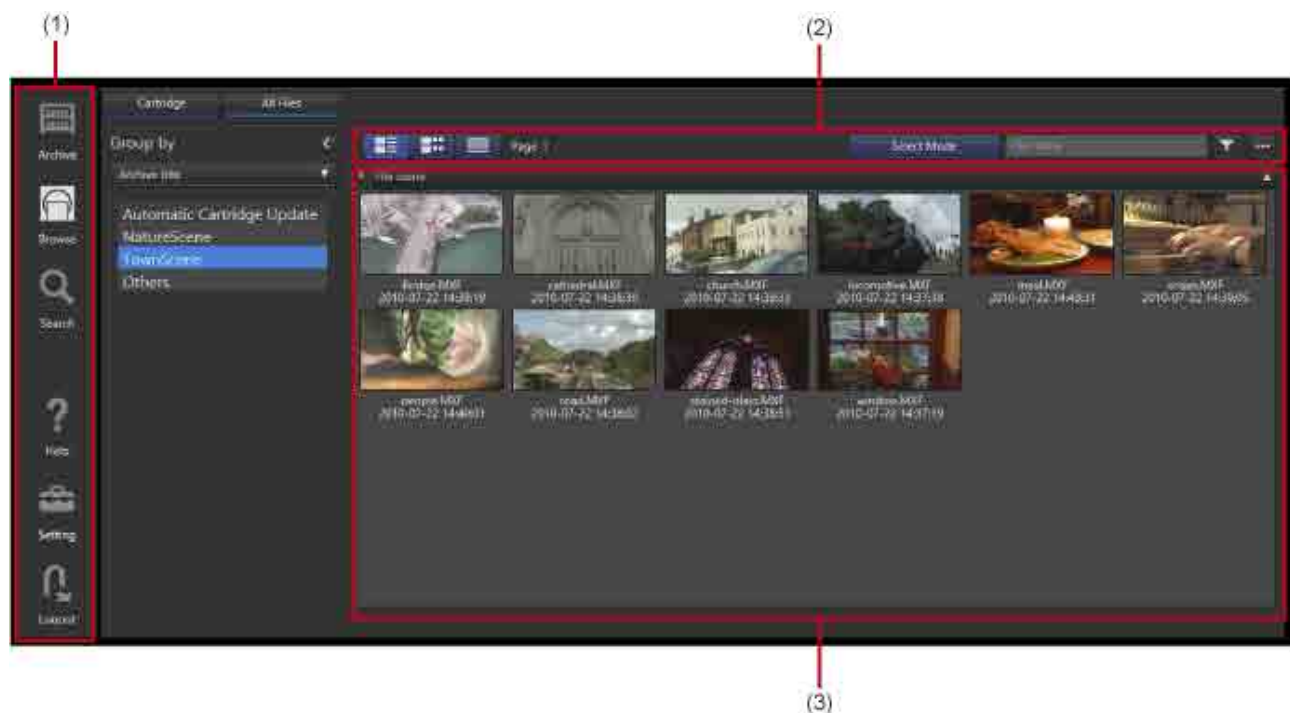
# Operation Screens

This section describes the names and functions of the software screens.

- Items Common to Each Screen
- File Details Dialog
- Archive Screen
- Browse Screen
- Search Screen
- Settings Screen
  - My Settings Page
  - Metadata Page
  - Users and Groups Page
  - Archive Page
  - Maintenance Page
  - Notification Page



## Items Common to Each Screen





This section describes the screen items that are common to each screen of this software.




### (1) Global menu

Click the icons to move between screens.

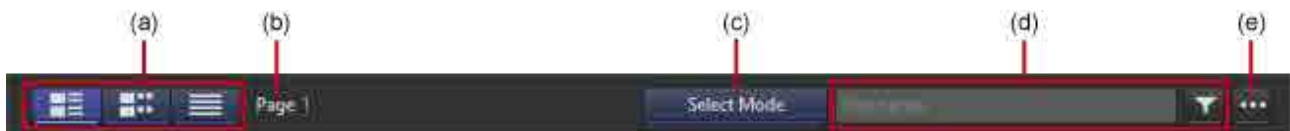
-  (Archive): Displays the Archive screen to perform archive/retrieve operations.
-  (Browse): Displays the Browse screen for browsing archived data.

-  (Search): Displays the Search screen for searching archived data.
-  (Help): Displays the Help and version information.
-  (Settings): Displays the Settings screen.
-  (Logout): Logs the user out.

A message is flagged if  is displayed on an icon. Hold the cursor over the icon to display the message.




## (2) Toolbar

Displays buttons for operating on the file list. It is displayed on the Browse screen and Search screen.



### (a) File view switching

Switches the display view of the file list.

-  (Tile view): Displays the representative image thumbnail and metadata.
-  (Thumbnail view): Displays the representative image thumbnail, metadata, and scene thumbnails.
-  (Flat view): Displays the file name and metadata.

For details about each display view, see "(3) File list."

### (b) Page switching

Switches the displayed page of the file list.

### (c) [Select Mode] button

Sets whether to select a file or display the file in [File Details] dialog when the file is clicked in the file list. When the button is on, checkboxes are displayed in the file list. Clicking a file selects the file. When the button is off, clicking a file displays the file in the [File Details] dialog.

### (d) File name search

Enter the search text and click the button to display a list of files that contain the specified text in the file name.

### (e) Pull-down menu

Contains the following menu items.

- Edit Metadata: Displays the [Edit Metadata] dialog for viewing and editing metadata for the selected file or folder.
- Extract Metadata: Displays the [Extract Metadata] dialog for extracting (or re-extracting) metadata for the selected file or folder.
- Retrieve: Retrieves the selected files.




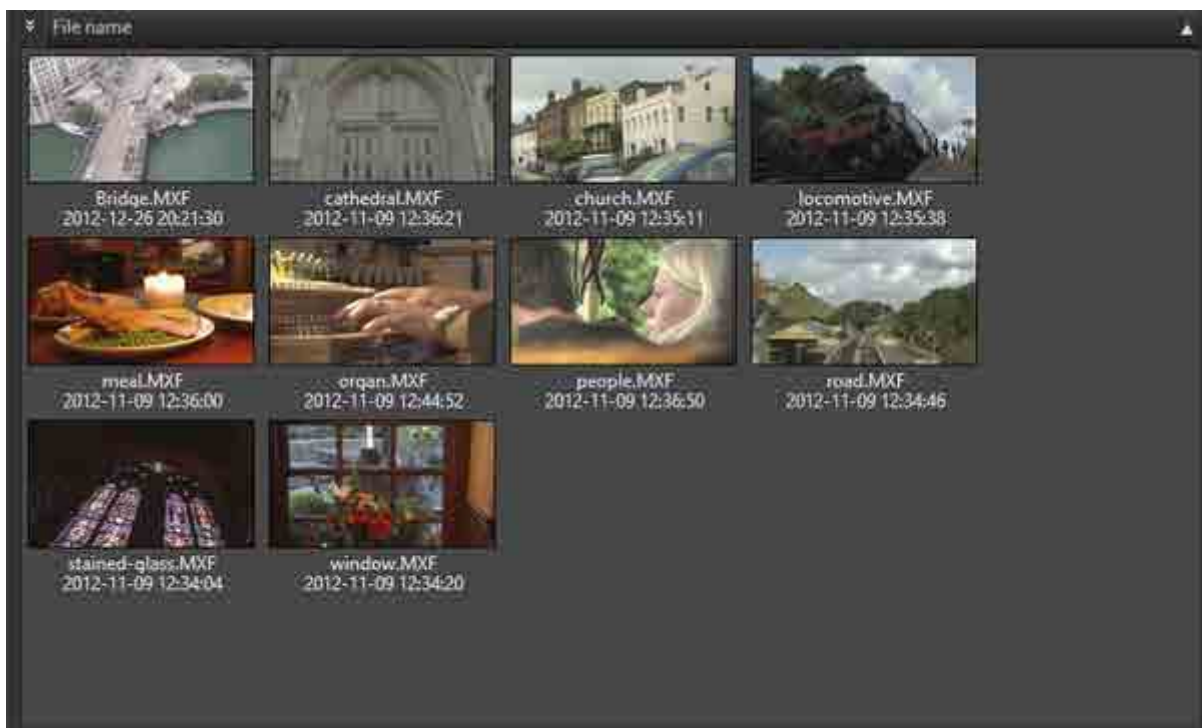
- Select all/Select none: Selects/Deselects all files in the file list.
- Delete: Deletes the selected files or folders. Offline files and folders cannot be deleted.
- Columns to display: Selects the columns to display in the file list.

### (3) File list


Displays a list of the files on a cartridge or in a folder. It is displayed on the Browse screen and Search screen. The file list can be displayed in the following view modes.

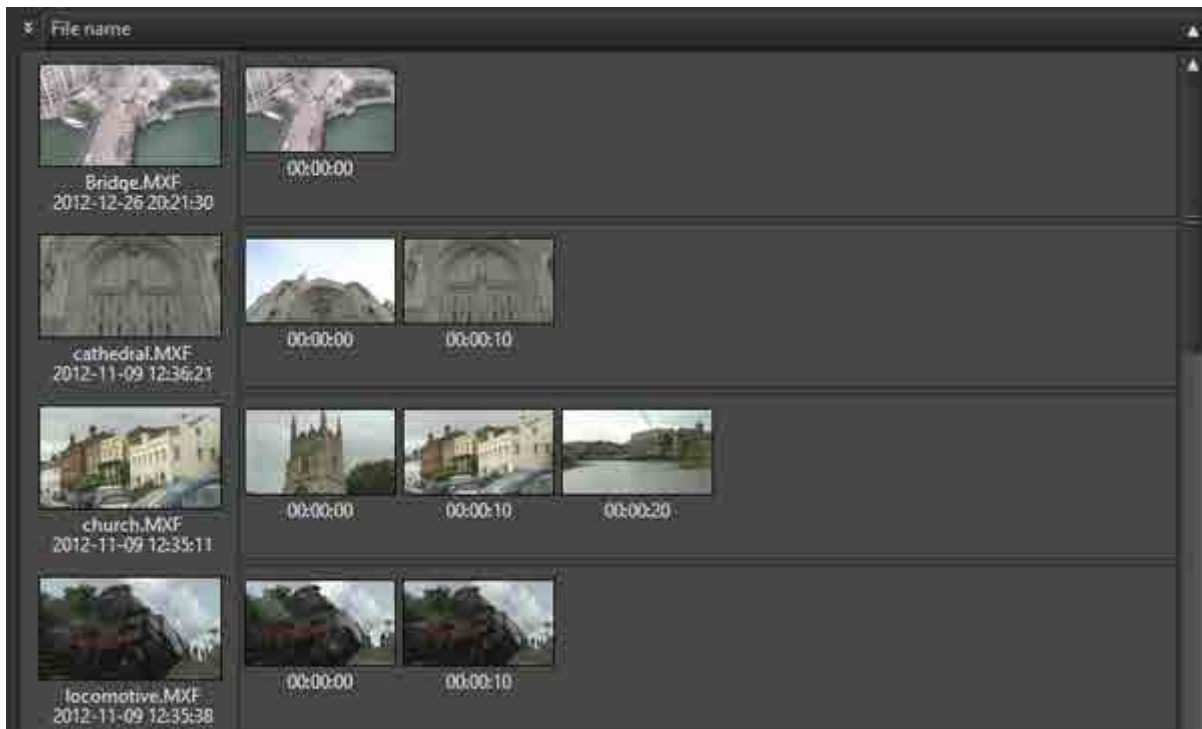
#### Tile view

Displays the representative image thumbnail and metadata. If a file is recorded spanning more than one disc, a  mark is displayed in the representative image thumbnail.




## Thumbnail view

Displays the representative image thumbnail, metadata, and scene thumbnails. If a file is recorded spanning more than one disc, a  mark is displayed in the representative image thumbnail.



## Flat view

Displays file name and metadata. If a file is recorded spanning more than one disc, a  mark is displayed in the icon.

File name	Alias	Content ID	Date created	Date registered
Bridge.MXF		584	2010-07-22 14:39:14	2014-05-14 21:32:27
cathedral.MXF		585	2010-07-22 14:38:30	2014-05-14 21:32:27
church.MXF	Church	586	2010-07-22 14:39:33	2014-05-14 21:32:28
locomotive.MXF		587	2010-07-22 14:37:58	2014-05-14 21:32:28
meal.MXF	Church	588	2010-07-22 14:40:31	2014-05-14 21:32:28
organ.MXF		589	2010-07-22 14:39:05	2014-05-14 21:32:28
people.MXF	Church	590	2010-07-22 14:40:01	2014-05-14 21:32:28
road.MXF		591	2010-07-22 14:38:02	2014-05-14 21:32:28
stained-glass.MXF		592	2010-07-22 14:38:51	2014-05-14 21:32:28
window.MXF		593	2010-07-22 14:37:19	2014-05-14 21:32:28



### (3) [Retrieve] button

Retrieves the file. The [Retrieve] dialog appears, where you specify the save destination of the file to retrieve.

### (4) Proxy viewer

Displays the proxy video of the selected file.

### (5) Slider

Moves the playback position. When searching the file for voice audio transcription or face image, a metadata mark is displayed at the detection location.

### (6) Control area

Controls the proxy viewer. You can play the proxy, move to the previous/next metadata mark, and adjust the volume.

### (7) Thumbnails

Displays thumbnail images extracted at regular intervals from the video. Click the [Set Poster Frame] button to set the selected thumbnail as the representative image.





### (8) File metadata area

Displays the file metadata. Click the [Edit] button to enable editing of a subset of metadata items. The [Edit] button changes to a [Save] button. When finished editing, click the [Save] button.

The file metadata area contains the following tabs. You set whether metadata is displayed in the [Primary] tab or the [Secondary] tab on the [Metadata] page of the Settings screen.

- Primary
- Secondary
- Related Files: Displays a list of the files related to the currently displayed file.

The following icons and extracted metadata settings are displayed in [Metadata] when the corresponding metadata has been extracted.

- : Thumbnail
- : Proxy video
- : Speech recognition data for voice search
- : Face recognition data for people search

#### Canceling relationships with related files

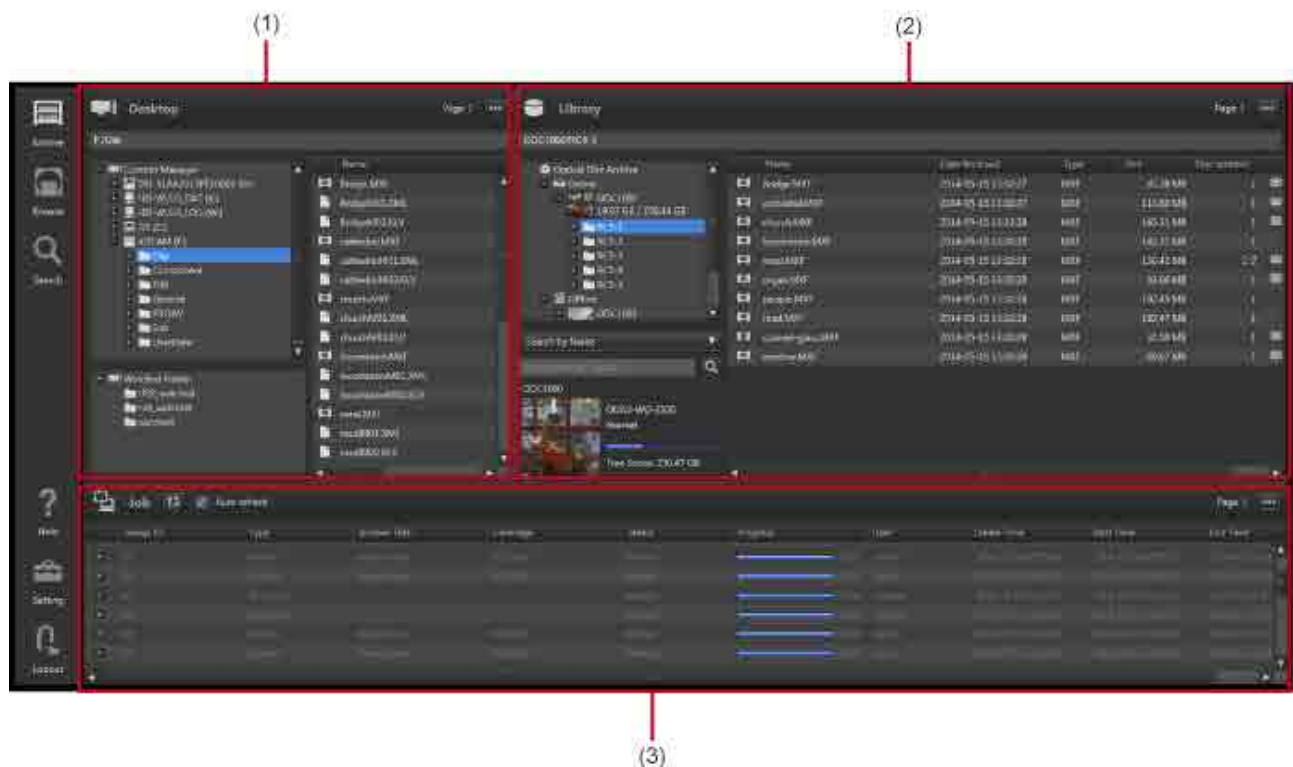
Use the following procedure to cancel the relationship of related files.

1. Open the [Related Files] tab, and click the [Edit] button.  
A checkbox is displayed before the name of the related files.
2. Place a check mark in the checkboxes for the files whose relationship you want to cancel.
3. Click the [Remove] button.  
The selected files are removed from the display.
4. Click the [Save] button.

# Archive Screen

Archive and retrieve operations are performed from this screen.

The Archive screen is made up of the following sections.



## Common operations

### Tree area (left side of Desktop/Library area)

- Multiple selections are not supported.

### List area (right side of Desktop/Library area, Job area, [Placeholder] dialog)

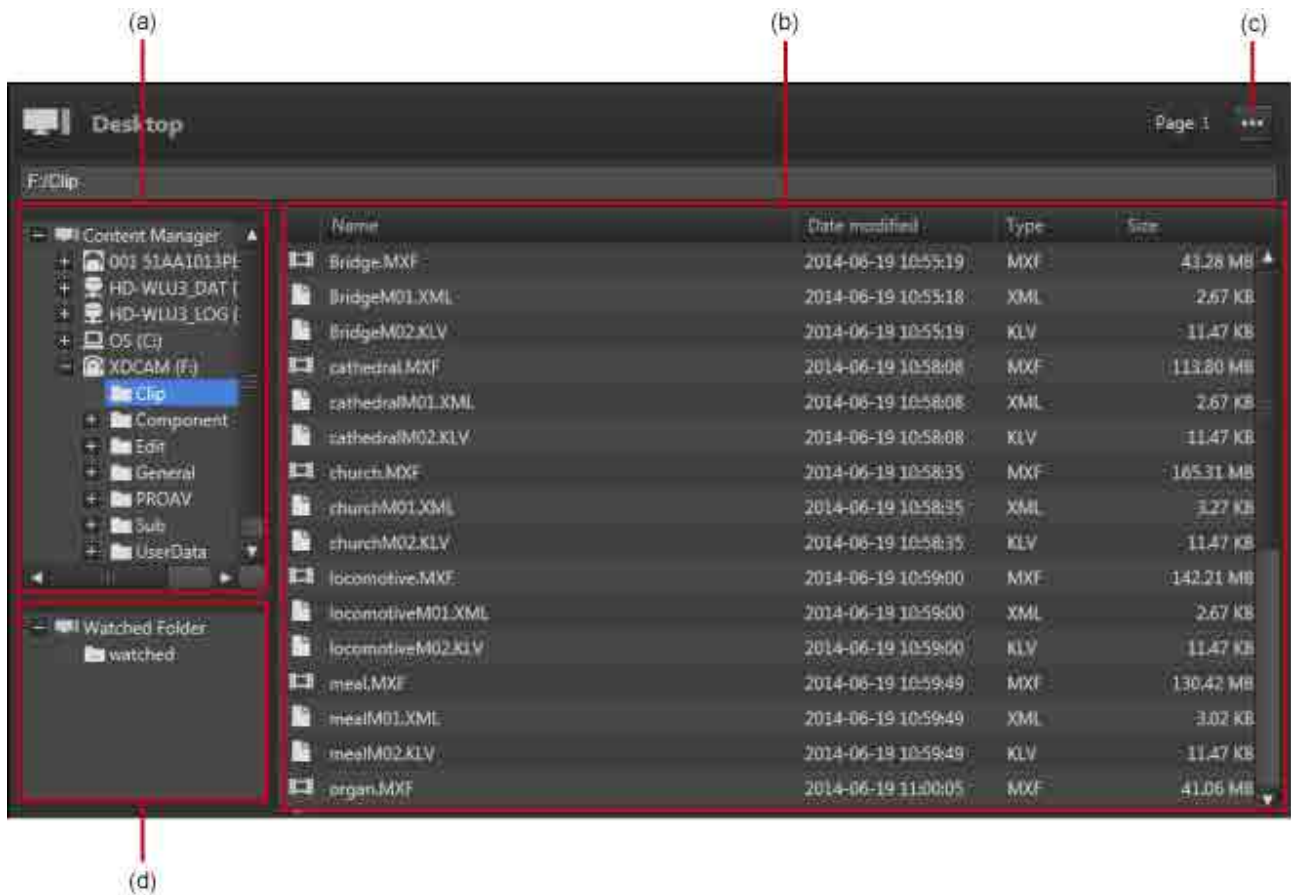
The operating method is analogous to both Explorer (Windows) and the Finder (macOS).

- Select multiple files using the Shift key, Ctrl key (Windows), and Command key (macOS).
- Select all files using Ctrl+A (Windows) or Command+A (macOS).

### (1) Desktop area

Displays the folders and files on the local computer.

When archiving, select the files to archive. When retrieving, select the save destination of the files to retrieve.



#### (a) Tree area

Displays the drives and folders on the local computer.


Clicking a folder in the tree refreshes the display of that folder and subfolders with the latest status.

#### (b) List area

The following information is displayed in the file/folder list.

- Name: File/folder name
- Date modified: Date of last modification
- Type: File extension
- Size: File size

#### (c) Pull-down menu

Clicking  displays a pull-down menu. The pull-down menu contains the following menu items.

- Open Placeholder: Opens the [Placeholder] dialog. The Placeholder is a virtual folder for temporarily storing files/folders when archiving files and folders from different folders at the same time.
- Stop Monitoring: Stops watching folders when archiving using watched folders.
- Create Folder: Creates a new folder in the folder or drive selected in the tree area.
- Up: Moves up one level in the folder hierarchy.
- Open Folder: Opens the folder selected in the list area.

#### (d) Watched Folder

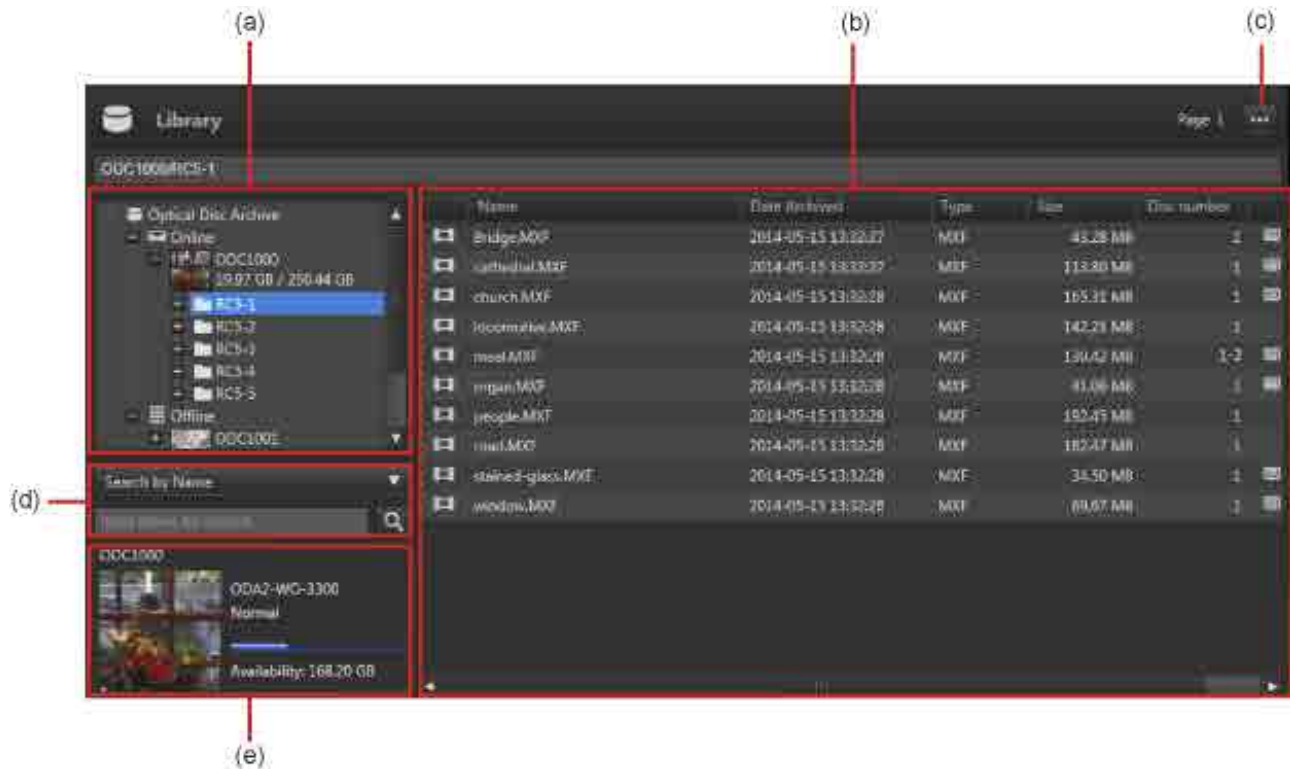
Displays a list of folders designated as watched folders. Select a folder and drag and drop it into the

Library area to start watching the folder. Folder icons change to  while the folder is being watched.

## (2) Library area

Displays a list of the files archived on cartridges.

When archiving, select the destination of the file to be stored. When retrieving, select the files to retrieve. In addition to cartridges inserted in the drives, all cartridges registered in the database are displayed in the Library area.



### (a) Tree area

Displays cartridges registered in the database and the folders on the cartridges in tree view. An Online folder and an Offline folder are displayed, with the cartridges displayed below them.

Cartridges inserted in a drive are displayed in the Online folder.

Cartridges stored on a management shelf and cartridges not inserted in a drive are displayed in the Offline folder.

Clicking a folder in the tree refreshes the display of that folder and subfolders with the latest status.

### (b) List area

Displays a list of files/folders on a cartridge. The following items are displayed.

- Online/Offline icon (After search only. The file online/offline status is displayed using icons.)
- File type icon
- Name: File name
- Date Archived: Date and time the file was archived
- Type: File extension
- Size: File size
- Disc number: Number of the disc where the file is written
- Metadata icon: Metadata indicator



: Has metadata

No icon: No metadata



- Archive icon: Archive status  
No icon: Archived (can be retrieved in this state only)



: Archiving




: Error occurred during archiving



: Checking file status

### (c) Pull-down menu

Clicking  displays a pull-down menu. The pull-down menu contains the following menu items.

- Edit Metadata: Displays the [Edit Metadata] dialog for viewing and editing metadata for the selected file or folder.
- Extract Metadata: Displays the [Extract Metadata] dialog for extracting (or re-extracting) the metadata for the selected file or folder.
- Export Catalog Data: Exports a list of files on the cartridge selected in the tree area or cartridge area in CSV format.
- Export Metadata JSON: Exports metadata for all files on the cartridge selected in the tree area or cartridge area as JSON data.

#### Note

Use the following procedure.

1. Terminate the Content Manager service.
  2. Copy all data on the cartridge using Optical Disc Archive Filer.
  3. Start the Content Manager service.
  4. Run [Export Metadata JSON] and select the folder to which all data was copied during step 2 in [Export destination folder].
- Delete: If an offline cartridge is selected, deletes the cartridge information in the database for the selected cartridge. If a file or folder on an online cartridge is selected, deletes the selected file or folder. Offline files cannot be deleted.
  - Create Folder: Creates a new folder in the folder or cartridge selected in the tree area.
  - Up: Moves up one level in the folder hierarchy.
  - Open Folder: Opens the folder selected in the list area.
  - Open File Location: Opens the folder containing the selected file when search results are displayed in the list area.

### (d) Search area

Searches the target cartridges.

1. Select the cartridge or folder to be searched in the tree area.
2. Specify the search type in the list box.
  - Search by Name: Search for files and folders with a name containing the entered keyword.
  - Search by File Name: Search for files with a name containing the entered keyword.
  - Search by Folder Name: Search for folders with a name containing the entered keyword.
  - (Metadata title): Search for files and folders containing the entered keyword in the value for the selected metadata.



3. Enter the search keyword.

If "Search by Name," "Search by File Name," or "Search by Folder Name" is selected, enter part of the file or folder name.

If a metadata title is selected, enter the metadata value.

4. Click the  button.

The search results are displayed in the list area.

### (e) Cartridge display

Displays the cartridge information for the selected cartridge. The following items are displayed.

- Cartridge name
- Cartridge type
  - ODC1-RE-300
  - ODC1-RE-600
  - ODC1-RE-1200
  - ODC1-WO-300
  - ODC1-WO-600
  - ODC1-WO-1500
  - ODC2-WO-3300
  - ODC3-WO-5500
- Cartridge status (Normal, Read only, Error, Checking)
- Cartridge free space (with bar display)

#### Note

Depending on the cartridge status, there may be a difference between the capacity displayed and the capacity that can actually be used.

### (3) Job area

Displays a list of archive, retrieve, and other jobs.

Multiple files and folders to be archived/retrieved in a single operation form a single job group.


Processing a single file in a job group counts as a single job. Job groups are displayed in the Job area.

Clicking the "+" mark for a job group displays each job in the group.

Registered jobs are processed in the background. The order of job execution may differ from the order of registration.

If a job is waiting for a cartridge exchange or the job has failed, the job is displayed highlighted.


Jobs in the Job list can be canceled, but the order of execution cannot be changed.

Clicking the  button refreshes the display with the latest status.



Job ID	Type	Archive Type	Cartridge	Status	Progress	Time
101	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
102	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
103	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
104	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
105	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
106	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
107	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
108	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
109	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00
110	Archive	Backup/Archive	ODC1000	Completed	100%	2014-07-11 14:00:00


### Pull-down menu

Clicking  displays a pull-down menu. The pull-down menu contains the following menu items.

- Pause: Temporarily stops processing of the selected job or job group.
- Resume: Resumes processing of the selected job or job group.
- Stop: Stops processing of the selected job or job group.
- Reregister: Reregisters failed jobs or canceled jobs within the selected job group.
- Change condition and reregister: Allows you to modify conditions and then reregister a job. You can reregister all jobs or only those jobs that failed. You can change the archive destination or retrieve destination.
- Display Job Report: Displays a report for jobs in the selected job group when a job fails, is stopped, or is paused.
- Export Job Report: Exports a report for jobs in the selected job group in CSV format.
- Columns to display: Selects the columns to display in the job list.



#### Note

Jobs cannot be stopped in the following cases.

- If a user with general user privileges tries to stop a job registered by a user with administrator privileges
- Jobs for which a cancel request has already been received ( is displayed)

#### Job list

Displays the following job list items. The columns displayed can be changed using [Columns to display] in the pull-down menu.

- Group ID: Job group ID
- ID: Job ID
- : Jobs for which a pause request has been received
- : Jobs for which a stop request has been received
- Type: Job type
  - Archive: Archive
  - Retrieve: Retrieve (an asterisk is displayed for the retrieve job specified for priority execution)
  - Monitor: Watched folder archive
  - Delete: Delete files on a cartridge
  - Delete Cartridge: Delete cartridge information from the database
  - DB Update: Read cartridge content and update file information on the cartridge
  - DB Backup: Back up the database
  - Extract Metadata: Re-extract metadata after archiving
  - Metadata Update: Extract metadata when the cartridge is automatically updated
  - Export JSON File: Export metadata for all files on cartridges as JSON data.
- Archive Title: Archive title
- Name: File name
- Cartridge: Cartridge name

- Status: Job status

### **Jobs**

- Registered: Job is registered, waiting for start of processing.
- Caching: Job has started and data is transferring to cache.
- Processing: Reading and writing cartridge in the drive. Progress status is displayed under [Progress].
- Finished: Job has finished successfully.
- Failed: Job was aborted.
- Canceled: Job was canceled at the request of the user.
- Waiting for cartridge: Waiting for cartridge insertion.
- Suspended: Processing paused.

### **Job groups**

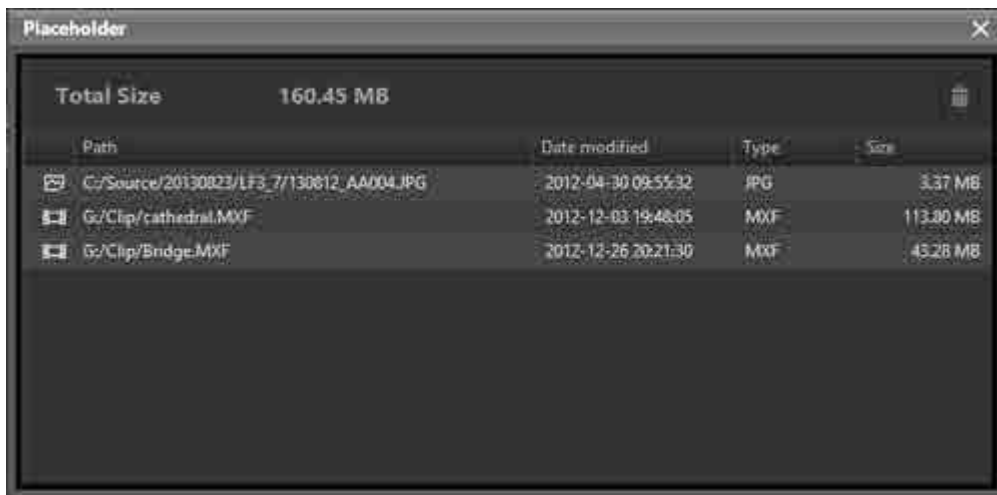
- Waiting: Interval between request received and job insertion.
- Waiting for cartridge: All jobs within the group with Waiting for Cartridge status.
- Processing: Includes jobs within the group with Registered, Standby, Processing, Caching, and Waiting for Cartridge status.
- Partially finished: Mix of jobs within the group with Finished, Failed, and Canceled status.
- Finished: All jobs within the group with Finished status.
- Failed: All jobs within the group with Canceled or Failed status.
- Canceled: All jobs within the group with Canceled status.
- Suspended: Includes jobs with Finished, Canceled, Failed, and Suspended status.
- Monitoring: Watching a folder.
- Progress: Archive or retrieve progress status
- User: Name of user who registered the job
- Create Time: Time job was created (requested)
- Start Time: Job start time
- End Time: Job end time

## **Placeholder dialog**

The Placeholder is a virtual folder for temporarily storing files/folders ready to be archived. Using the Placeholder enables folders or files located in different folders to be archived at the same time.

To insert files in the Placeholder, drag and drop them from the Desktop area.

To archive a file placed in the Placeholder, select the file in the Placeholder and use drag and drop.



### Total Size

Displays the total size of the files in the Placeholder.



### button

Removes the selected file or folder from the Placeholder.

### File list

Displays a list of the files in the Placeholder. The following items are displayed in the list.

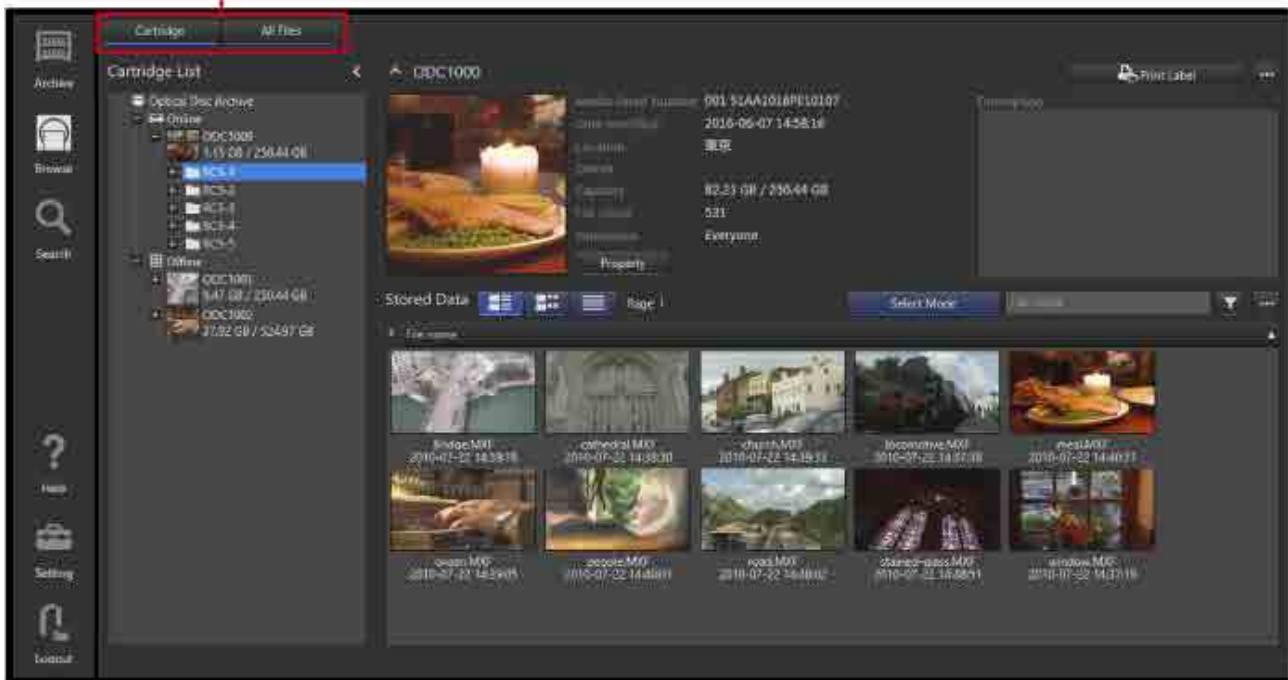
- Path: Full path to the file/folder
- Date modified: Date of last modification
- Type: File extension
- Size: File size

## Browse Screen

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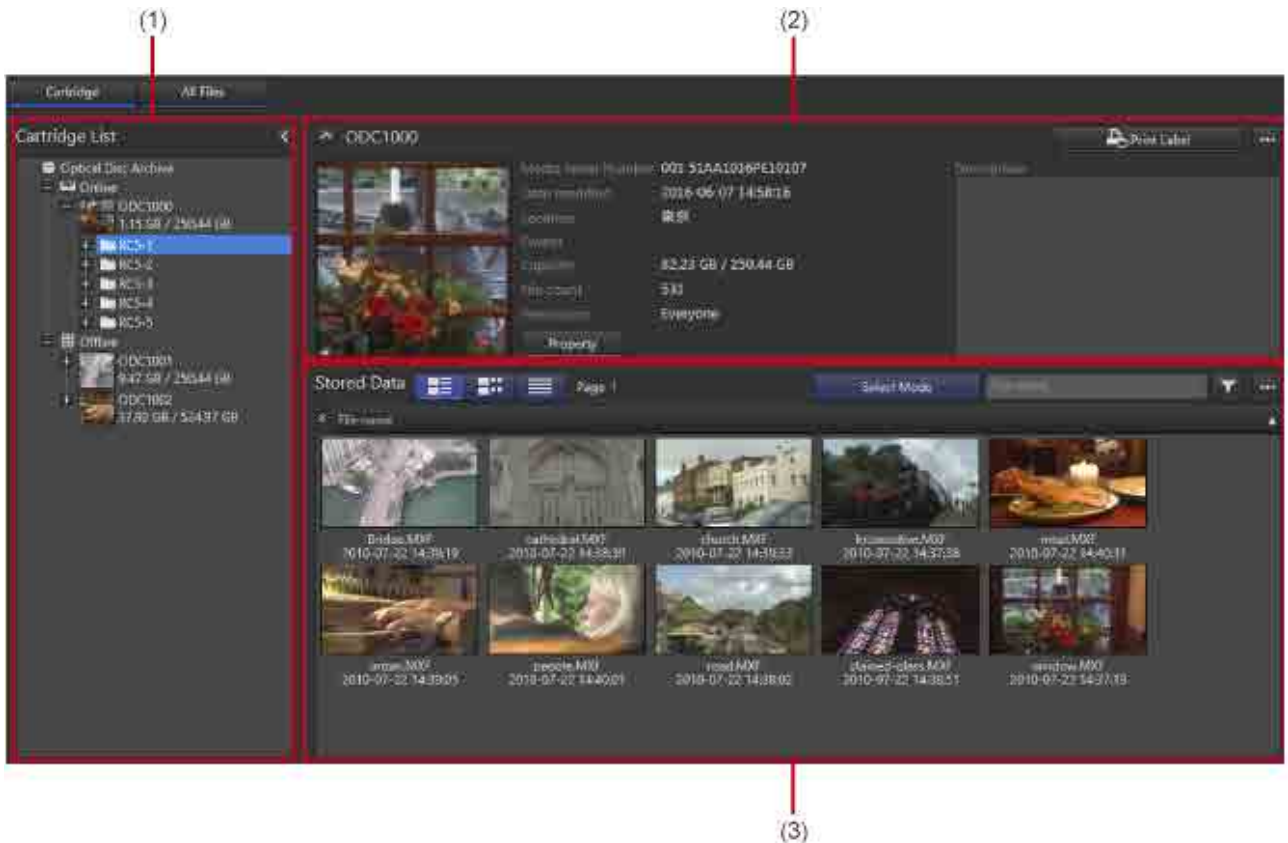
Displays a list of the archived files. The Browse screen displays files that are stored on each cartridge (**Cartridge view**) or a list of all the files registered in the database (**All files view**). The display mode is switched using the [Cartridge] and [All Files] buttons.

Cartridge / All Files button



## Cartridge view

When the [Cartridge] button is selected, cartridges and folders on cartridges are displayed on the left, information (representative image, metadata) for the selected cartridge is displayed on the top right, and a list of files on the selected cartridge is displayed on the bottom right.



## (1) Tree area

Displays cartridges registered in the database and the folders on the cartridges in tree view. An Online folder and an Offline folder are displayed, with the cartridges displayed below them.


Cartridges inserted in a drive are displayed in the Online folder.

Cartridges stored on a management shelf and cartridges not inserted in a drive are displayed in the Offline folder.

Clicking a folder in the tree refreshes the display of that folder and subfolders with the latest status.

## (2) Cartridge information area

Displays the cartridge representative image and metadata for the cartridge selected in the tree area.

- Clicking the [Property] button displays the [Cartridge Information] dialog to view details about the cartridge. The cartridge name can be edited from this dialog.
- Clicking the [Print label] button displays the [Print Label] dialog for printing cartridge labels.
- Clicking  displays a pull-down menu. The pull-down menu contains the following menu items.
  - Edit Metadata: Edit metadata for the selected cartridge.
  - Export File List: Export a list of the files on the selected cartridge.
  - Export Metadata: Export metadata for files/folders on the selected cartridge to the cartridge.
  - Export Metadata JSON: Exports metadata for all files on the cartridge selected in the tree area or cartridge area as JSON data.

### Note

Use the following procedure.

1. Terminate the Content Manager service.
  2. Copy all data on the cartridge using Optical Disc Archive Filer.
  3. Start the Content Manager service.
  4. Run [Export Metadata JSON] and select the folder to which all data was copied during step 2 in [Export destination folder].
- Delete: Delete cartridge information for the selected cartridge.

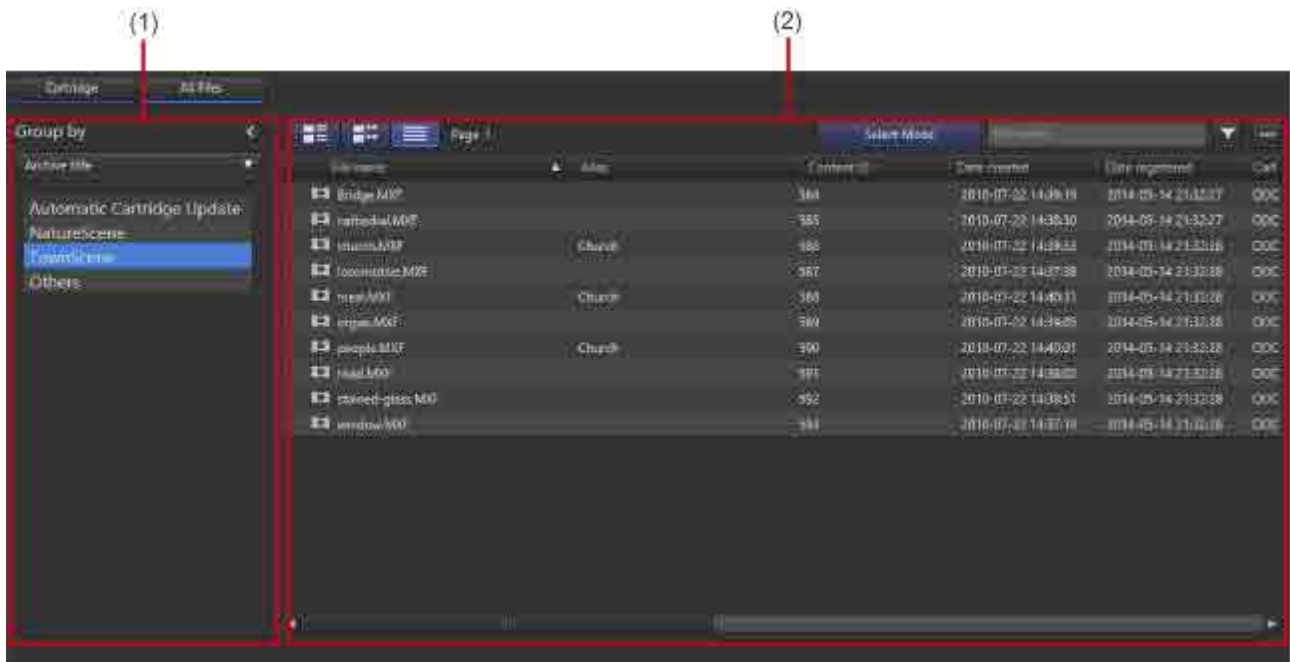
## (3) File display area

Displays a list of the files stored in the selected cartridge or folder.

For details about the toolbar and file list in the file display area, see "Items Common to Each Screen."

## All Files view

When the [All Files] button is selected, a list of all files stored on the registered cartridges is displayed. Selecting a metadata item in [Group by], on the left of the screen, groups the files according to metadata value, making searching for files easier.



### (1) Group by

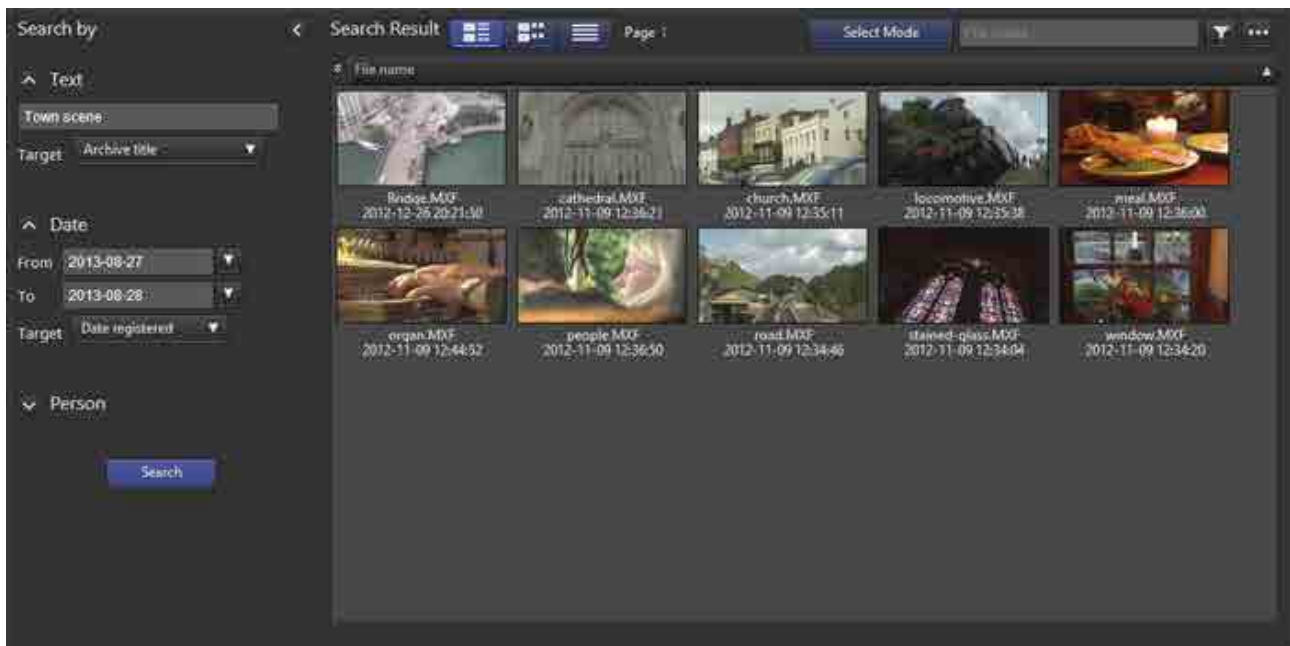
Select a metadata item in the pull-down list. The files are grouped according to the selected category. Clicking a group name below the pull-down list displays the corresponding files in the file list. The list box displays metadata items registered in [Primary] on the [Metadata] page of the Settings screen, in addition to standard metadata items, such as file name and creation date.

### (2) File display area

Displays registered files. Using [Group by] displays the files by group category. For details about the toolbar and file list in the file display area, see "Items Common to Each Screen."

# Search Screen

Searches for files by metadata text, date, registered facial images, and other information.



## Search by

Specifies the search key criteria. You can specify multiple search key criteria.

- **Text**

Searches by text in file names, metadata, speech recognition text, or all of them together. Enter the search text and select the search target from the drop-down list.

To search for speech recognition text, the [Use speech recognition] checkbox must be enabled when files are archived.

- **Date**

Searches a specified interval by date created or date registered.

- **Person**

Searches frames showing people for registered facial images using face recognition. To search for a person, the [Use face recognition] checkbox must be enabled when files are archived.

Facial images of people to search for are registered in the [Register Face] dialog.

### Note

When searching for speech recognition text or a person, the search accuracy may vary depending on the data quality and recording conditions.

## Search Result

Displays the search results. When searching for a person, the results are displayed in order of “best fit.”

If the [File Details] dialog is set to open when a displayed file is clicked, a metadata mark appears on the slider at the detection position when searching for speech recognition text or a person.

For details about the toolbar and file list, see “Items Common to Each Screen.”



- My Settings Page
- Metadata Page
- Users and Groups Page
- Archive Page
- Maintenance Page
- Notification Page

## My Settings Page

Makes settings related to the software display and login user accounts.

When finished changing the settings, click the [Save] button.

The preferences on this page are saved independently for each user.

## My Settings

This page allows you to edit your account information.

---

### Language

English ▼

Save

### File types to display

All types ▼

*.AIF	<input checked="" type="checkbox"/>
*.AIFF	<input checked="" type="checkbox"/>
*.AVI	<input checked="" type="checkbox"/>
*.BMP	<input checked="" type="checkbox"/>
*.DIB	<input checked="" type="checkbox"/>
*.IMA	<input checked="" type="checkbox"/>
*.MID	<input checked="" type="checkbox"/>
*.MOV	<input checked="" type="checkbox"/>
*.MP4	<input checked="" type="checkbox"/>
*.PDF	<input checked="" type="checkbox"/>
*.PNG	<input checked="" type="checkbox"/>
*.RAR	<input checked="" type="checkbox"/>
*.RTF	<input checked="" type="checkbox"/>
*.TIF	<input checked="" type="checkbox"/>
*.WMV	<input checked="" type="checkbox"/>
*.XLS	<input checked="" type="checkbox"/>
*.ZIP	<input checked="" type="checkbox"/>

Save

☒ **Change password**

Current password:

New password:

Confirm password:

Save

☒ **Change e-mail settings**

E-Mail:

Confirm:

☐ Receive messages by e-mail

Save

## Language

Selects the software display interface language.

## File types to display

Selects the type of files to display in the file list on the Browse screen and Search screen. If [Selected types] is selected, place a check mark for the types of files to display in the file type list.

## Change password

Changes the login user password.

## Change e-mail settings

Place a check mark in the [Receive messages by e-mail] checkbox and enter an e-mail address to receive notifications after archive/retrieve has finished or failed, and when the administrator changes the password.

In order to use mail notifications, e-mail settings must be configured on the [Notification] page.

# Metadata Page

Sets whether to display metadata on either the [Primary] or [Secondary] tab under [File Metadata] in the [File Details] dialog. User metadata items registered in [Primary] can be selected as a "Group by" item when All Files view is displayed on the Browse screen.

This page is displayed for users having Administrator authority only.

**Metadata** This page allows you to edit the setting about displaying metadata on file details.

**Primary**





- File name
- Alias
- Content ID
- Date created
- Date registered
- Cartridge name
- Archive title
- Creator
- Place
- Size
- Type
- Video
- Audio
- Length

**Secondary**

- MD5
- Production date
- Category

☒ System metadata  
☐ User metadata

Save

You can change the display settings for predefined system metadata and user-defined metadata. Select the metadata item whose position you want to change in the [Primary] or [Secondary] list box and click the  or  button to move it to the other list box. You can also select a metadata item in the [Primary] tab and click the  or  button to change the metadata display order. The metadata display order in the [Secondary] tab cannot be changed. When finished, click the [Save] button. Metadata items cannot be added using this page.

# Users and Groups Page

Sets the users and groups permitted to use the software.

This page is displayed for users having Administrator authority only.

Users and Groups

This page allows you to edit the settings about user accounts and user groups.

User List

User ID	Authority	Full Name	Last login date
Admin	Administrator		2013-08-29 10:40:50

Add

Edit

Delete

Group List

Group Name	Group members
ABgroup	Admin,Administrator
administrators	

Add

Edit

Delete

## User List

Displays the list of users. The user ID, authority, full name, and last login date are displayed.

### To add a user

1. Click the [Add] button.
2. In the [New Account] dialog, specify the user ID and user privileges (Administrator/General User) for the new user. To receive mail notifications, select the checkbox and enter a mail address.  
If mail notification is enabled, e-mail is sent when archive/retrieve has finished or failed, and when the password is changed.
3. Click the [OK] button.  
A user password is generated automatically when adding a new account. The generated password is sent by mail if mail notification is enabled. The generated password is displayed in the confirmation dialog if mail notification is not enabled.

### To edit user information

1. Select the user, then click the [Edit] button.
2. In the [Edit Account] dialog, select the desired user privileges (Administrator/General User).
3. To change the password, place a check mark in the [Issue new password] checkbox.
4. Click the [OK] button.  
The updated information is registered. If [Issue new password] is selected, a new login password is generated automatically. The generated password is sent by mail to the specified e-mail address if mail notification is enabled. The generated password is displayed in the confirmation dialog if mail notification is not enabled.

#### Note

User information cannot be modified while that user is logged in.

### To delete a user

Select the user, then click the [Delete] button.

## Group List

Displays a list of groups and the users belonging to each group.

### To add a group

1. Click the [Add] button.
2. In the [New Group] dialog, enter a group name and then use the ← and → buttons to move users belonging to the group to [Group members].
3. Click the [OK] button.  
The new group is created.

### To change the users registered in a group

1. Select the group, then click the [Edit] button.
2. In the [Change Group Settings] dialog, use the ← and → buttons to change the registered users in the group.
3. Click the [OK] button.  
The updated information is registered.

## To delete a group

Select the group, then click the [Delete] button.

# Archive Page

Makes settings related to archiving.

This page is displayed for users having Administrator authority only.

### Note

Settings other than the [Watched Folder] and [Cartridge name] settings cannot be changed while running an archive or retrieve job.

The screenshot shows the 'Archive' settings page. At the top, it says 'This page allows you to edit the setting about information for archive.' Below this are three sections: 'Archive', 'Cache', and 'Metadata'. The 'Archive' section has three checkboxes: 'Enable MD5 checksum' (unchecked), 'Restrict disc spanning' (checked), and 'Enable strict file compare when retrieving' (checked). Each checkbox has a 'Save' button next to it. The 'Cache' section has a 'Cache folder' field with the value 'C:\Windows\Temp' and a 'Browse' button, and a checkbox 'Use cache during archive for a quick release of the source media' (unchecked) with a 'Save' button. The 'Metadata' section has a 'Metadata folder' field with the value 'C:\ProgramData\Sony\Content Manager\metadata' and a 'Browse' button, with a 'Save' button. Below these is a 'Watched Folder' table with two columns: 'Name' and 'Path'. It contains one row: 'Watched Folder 1' with path 'F:\WatchedFolder'. At the bottom right of the table are 'Add', 'Edit', and 'Delete' buttons. At the very bottom is the 'Cartridge name' section with a 'Prefix' field containing 'ODC' and a 'Save' button.

**Archive** This page allows you to edit the setting about information for archive.

☐ **Enable MD5 checksum** Save  
Place a check mark in the checkbox to check data using an MD5 checksum when archiving.

☒ **Restrict disc spanning** Save  
Place a check mark in the checkbox to restrict saving of files across disc boundaries within a cartridge to a minimum when archiving.

☒ **Enable strict file compare when retrieving.** Save  
Place a check mark in the checkbox to compare filesizes when retrieving. Checksum comparison will also be carried out if the MD5 checksum was calculated when archived.

**Cache**

Cache folder: C:\Windows\Temp Browse

☐ Use cache during archive for a quick release of the source media Save

**Metadata**

Metadata folder: C:\ProgramData\Sony\Content Manager\metadata Browse Save

**Watched Folder**

Name	Path
Watched Folder 1	F:\WatchedFolder

Add Edit Delete

**Cartridge name**

Prefix: ODC Save

## Enable MD5 checksum

Place a check mark in the checkbox to check data using an MD5 checksum.

### Note

If verification is enabled using the Optical Disc Archive Utility, enabling MD5 checksum here will run a duplicate check when archiving, increasing the archive time. A confirmation message appears if verification is enabled in the Optical Disc Archive Utility and MD5 checksum is enabled in this software, or if both are disabled. If this occurs, change the settings of one or the other as required.

## Restrict disc spanning

Place a check mark in the checkbox to restrict saving of files across disc boundaries within a cartridge to a minimum when archiving.

## Enable strict file compare when retrieving

Place a check mark in the checkbox to perform a file size and MD5 checksum (if [Enable MD5 checksum] is selected when archiving) comparison of the retrieved file with the archived file to check that they match.

### Note

Uncheck the checkbox if automatically converting the format of the file when retrieving.

## Cache

Configures the cache used when archiving and when extracting metadata.

### Cache folder

Sets the folder used as cache memory. Select a folder on the local computer.

### Use cache during archive for a quick release of the source media

Sets whether to use the cache when archiving.

### Notes

- Place a check mark in this checkbox if extracting metadata when archiving files from a Professional Disc or network drive.
- When extracting metadata from files on a cartridge, a hard disk drive with free space greater than the total size of the files from which metadata is being extracted is required.

## Metadata

Specifies the folder in which to save metadata.

## Watched Folder

Specifies watched folders that trigger file archiving automatically when a file is created in the folder.

For details, see "Archiving using Watched Folders."

### Notes

- Files saved in watched folders are automatically deleted after they are archived. However, folders created in watched folders are not deleted automatically. To delete folders, use Explorer (Windows) or Finder (macOS) as required.
- Read-only files are not archived by the Watched Folder function.
- If the total size of the files to write exceeds the capacity of a cartridge, archiving automatically stops.

## Cartridge name

Specifies a character string prefix for the cartridge name when registering a new cartridge. The cartridge name format is "Prefix + consecutive number."

# Maintenance Page

Makes settings related to software maintenance.

This page is displayed for users having Administrator authority only.

Maintenance

This page is used to perform required system maintenance tasks.

Service Termination & Start

Terminate

Cancel

Status

Service Request Status

System Status

Waiting & Running Jobs

Running Jobs

No Requests

Working

0

0

Auto refresh

Backup/Restore of the database

DB Backup Schedule

Start Time

Day of Week

Output Folder

Max Preserved Files

00:00:00

Mon, Tue, Wed, Thu, Fri

C:/ProgramData/Sony/Content Manager/DBBackup

2

Set

Delete

Last Backup Date & Time

Output File

Message

2019-11-15 14:05:38

The database has not been backed up at a se...

Manual Backup

DB Restore

Backup File

Message

Restore

Import/Export of the database

Import

Export

DB Cleanup

DB Cleanup

Start Time (Daily)

DB Cleanup (Days before)

Last Cleanup Date & Time

00:00:00

5

2019-11-15 14:05:37

Set

Delete

Log Collection

Date Period From \*

Date Period To \*

Output

## Service Termination & Start

Terminates or starts the software service.

### [Terminate] ([Start]) button

When service terminates, the button changes to a [Start] button.

When terminating service, check that “Working” is displayed in the [System Status] column of [Status], then click the [Terminate] button.

When starting service, check that “Standby” is displayed in the [System Status] column of [Status], then click the [Start] button.

To cancel service terminate/start operation, click the [Cancel] button.



### Note

The software service cannot be started if Optical Disc Archive Filer is running.

### Status

Displays the service status.

- Service Request Status: Displays the service request status.
- System Status: Displays the system processing status.
  - Working: Operating normally
  - Standby: In standby mode
  - Failed: An error occurred, and service is not working
  - Not Ready: Not running
- Waiting & Running Jobs: Displays the number of jobs registered in the cue or being processed.
- Running Jobs: Displays the number of jobs being processed or are waiting.

### Backup/Restore of the database

Backs up and restores the database.

Regular backup, using a specified schedule, and immediate backup methods, using the [Manual Backup] button, are supported.

Restoring restores the database to the status it had when it was backed up.

### DB Backup Schedule

Displays the specified backup schedule.

#### To set the backup schedule

1. Click the [Set] button.  
The [Set DB Backup Schedule] dialog appears.
2. Set the schedule in the dialog, then click the [OK] button.
  - Start Time: Specifies the time to start backup.
  - Day Of Week: Specifies the day(s) to perform backup (multiple selection supported).
  - Output Folder: Selects the output folder.
  - Max Preserved Files: Specifies the maximum number of previous backup files to be preserved.

To delete the schedule, click the [Delete] button.

### Note

When setting the backup schedule, a shared volume or network drive cannot be selected for the output folder.

### Backup status display

Displays information about the last database backup.

- Last Backup Date & Time
- Output File
- Message

### [Manual Backup] button

Immediately executes backup.

When the button is clicked, a dialog appears prompting for the backup destination folder. If a different

folder than the one for backing up files using the backup schedule is specified, the backup will not be automatically deleted.

### **DB Restore**

- Backup File
- Message

### **[Restore] button**

Starts restoring the database. Select a backup file in the [Restore] dialog.

### **Import/Export of the database**

Imports a database or exports the database. You can consolidate databases by importing an exported database into another instance of Content Manager.

You can export the database of all cartridges or the database of only one cartridge.

### **DB Cleanup**

Deletes finished jobs automatically at regular intervals.

- Start Time (Daily): Displays the date and time to delete finished jobs.
- DB Cleanup (Days before): Displays the number of days to retain finished jobs before deletion.
- Last Cleanup Date & Time: Displays the date and time when finished jobs were last deleted.

To set the schedule for deleting finished jobs, click the [Set] button to display the configuration dialog.

### **Log Collection**

Saves Content Manager logs to the computer.

Specify the start and end dates of the logs to save, then click the [Output] button.

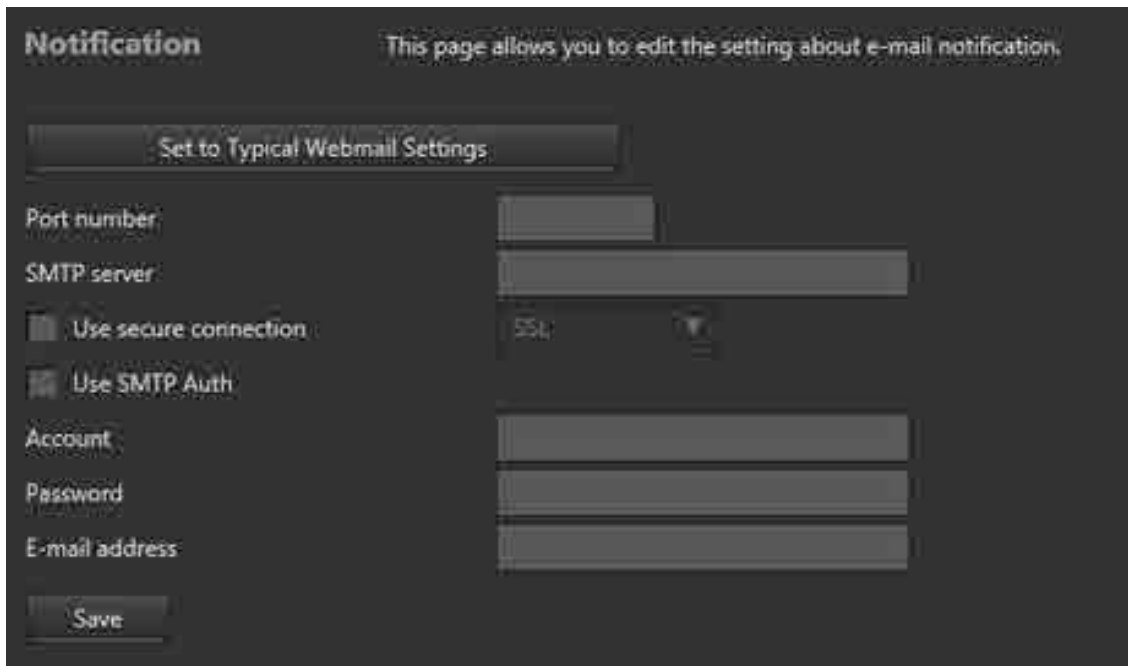
## Notification Page

Makes settings related to sending e-mail notifications.

This page is displayed for users having Administrator authority only.

Mail notification is sent to users on the [My Settings] page and [Users and Groups] page who have mail notification enabled in the following cases.

- When archive/retrieve has finished
- When archive/retrieve failed
- When a new account is added or the password is changed
- When reissuing a password



Specify the following items.

- Port number
- SMTP server
- Use secure connection: Place a check mark in the checkbox, and select a connection type.
- Use SMTP Auth
- Account: Enter the mail server account.
- Password: Enter the mail server password.
- E-mail address: Enter the e-mail address from which to send mail notifications.

Click the [Set to Typical Webmail Settings] button to enter values (in this example, Gmail settings) in each field. Modify settings as required.

# Operating Procedures

This section describes the operating procedures for each software function.

- Archiving
  - Archiving using Drag-and-Drop
  - Archiving using Watched Folders
  - Archiving from Content Browser
- Editing Metadata
  - Displaying/Editing Cartridge Metadata
  - Displaying/Editing File Metadata
  - Extracting Metadata from Archived Files
- Retrieving
  - Retrieving using Drag-and-Drop
  - Retrieving from the Search Screen, Browse Screen, or File Details Dialog
- Searching Files
- Registering Facial Image Data
- Printing Labels
- Exporting a File List
- Exporting Metadata to a Cartridge
- Deleting Cartridge Information
- Deleting Files/Folders on Cartridges
- Updating the Database

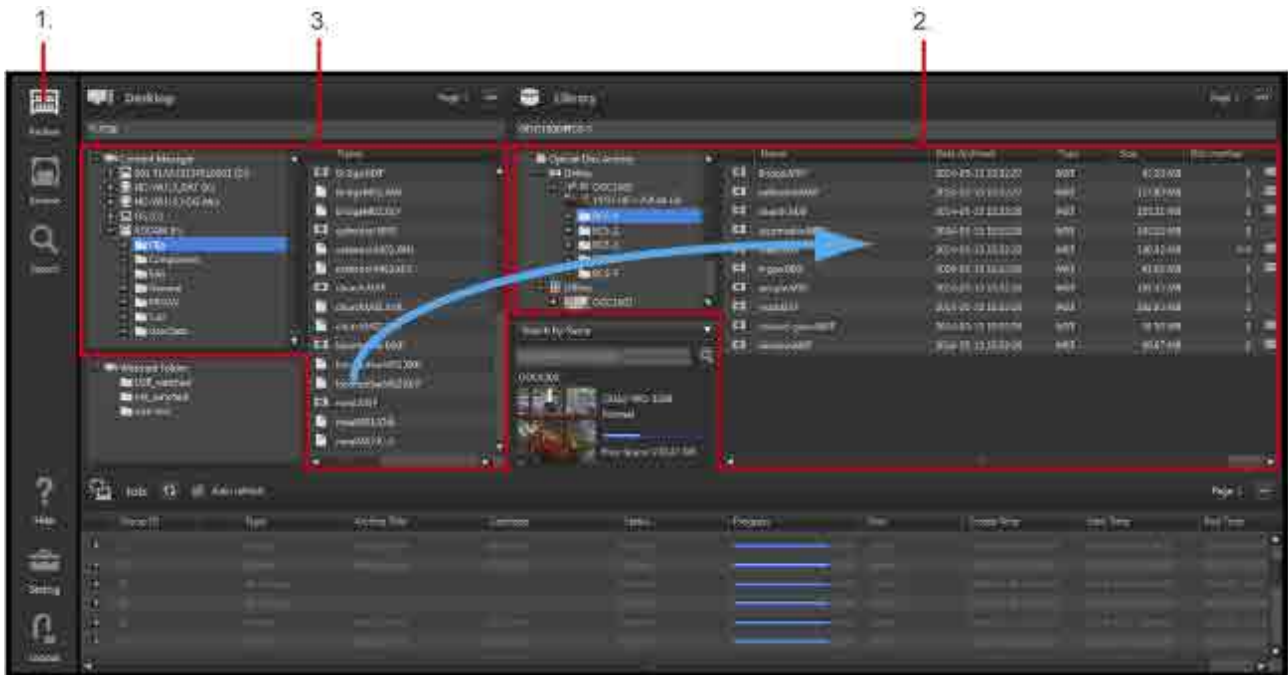
## Archiving

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- Archiving using Drag-and-Drop
- Archiving using Watched Folders
- Archiving from Content Browser

# Archiving using Drag-and-Drop


## Archiving media or a folder



1. Click the [Archive] icon in the global menu.

2. Display cartridges for storing files/folders in the Library area on the Archive screen. Subfolders are displayed if files/folders are stored in subfolders on cartridges.

You can also request archive to offline cartridges. If the cartridge is offline when archiving is started,

a  mark appears in the global menu. Holding the mouse over the mark displays a tooltip notifying you that the cartridge is not inserted. Insert the cartridge to continue.

The files/folders to archive can be dragged and dropped to the following locations in the Library area.

- Cartridges or folders in the tree area
- List area

### Note

Archiving is not supported in the following cases. If one of the following states occur during an archive request, a warning message appears and the job is not registered.

- When the cartridge status is not "Normal"
- When archiving data may exceed the total capacity of the cartridge
- When the number of files/folders to archive at the same time exceeds the maximum number of files for the cartridge<sup>1)</sup>
- When the total number of files/folders on the cartridge may exceed the maximum number of files<sup>1)</sup>
- When the use of cache is enabled and files copied to the cache folder may exceed the total capacity of the drive.

- When a check mark is placed in the [Copy to local disk] checkbox and files copied to the local disk may exceed the total capacity of the copy destination drive.

1) For details about the maximum number of files, refer to the Help of the Optical Disc Archive Utility.

### 3. Select the file or folder to archive in the Desktop area.

You can select the following in the Desktop area.

- Professional Discs, SxS memory cards, and folders in the tree area
- Files or folders in the list area

If archiving files/folders from different folders or media at the same time, see “Archiving files from different media or folders” below.

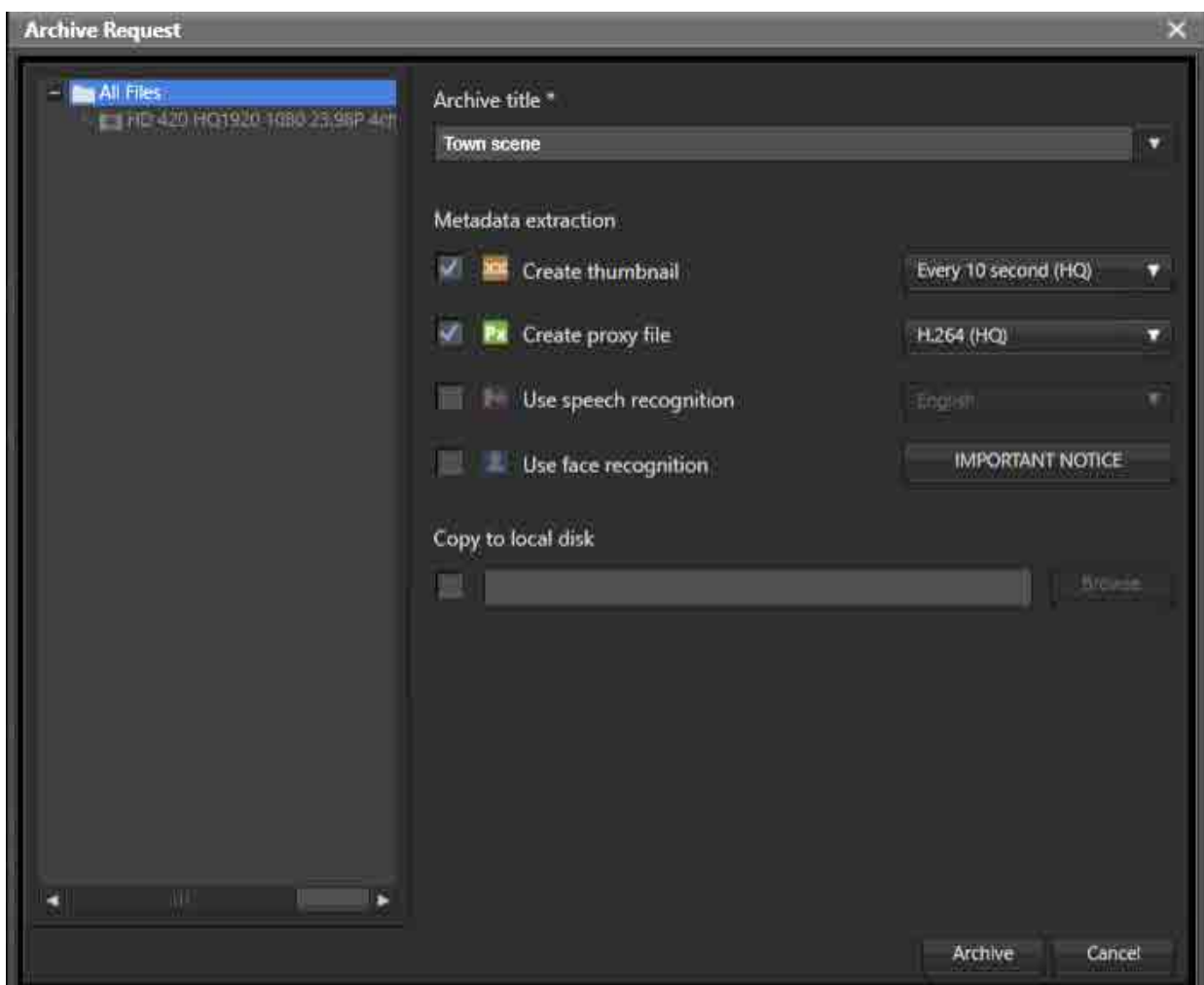
#### Note

Archiving is not supported if a cartridge or HDD is selected in the tree area or list area. Archiving is supported for Professional Discs and SxS memory cards.

### 4. Drag and drop the selected files or folders onto the destination cartridge or folder.

The [Archive Request] dialog appears. The files/folders that you drag and drop are displayed in the tree area on the left side of the dialog.

When archiving from Professional Discs or network drive, a confirmation message appears asking whether or not to use the cache, if the use of cache is currently disabled on the Archive page of the Settings screen. Select [Yes] if you want to extract metadata while archiving.



5. Enter an archive title, and select the metadata to extract in [Metadata extraction].

Metadata cannot be selected if archiving from Professional Disc or network drive with the use of the cache disabled.

- Create thumbnail:

Creates thumbnails at regular intervals. You can select the interval at which to create thumbnails and the image quality from the drop-down list.

- Create proxy file:

Creates a proxy file for preview. You can select the proxy file format and the image quality from the drop-down list.

- Use speech recognition:

Transcribes voice data in the file as text information. You can include transcribed text information in a search character string when searching files. You can select the language from the drop-down list. This item is not displayed in the macOS version.

- Use face recognition:

Extracts the locations where a person's face appears in the video file using face recognition.

Facial image data can be registered and used when searching for a person.

Before using face recognition, check the important notice. Click the [IMPORTANT NOTICE] button in the [Archive Request] dialog to display the important notice.

6. To simultaneously copy folders/files to the local computer when archiving, place a check mark in the [Copy to local disk] checkbox and specify the copy destination.

7. Click the [Archive] button.

The archive job is registered in the Job area and then processed.

If a file with the same name exists in the archive destination folder, a confirmation dialog appears.

Select whether to archive, appending a number suffix to the file name, or to cancel.

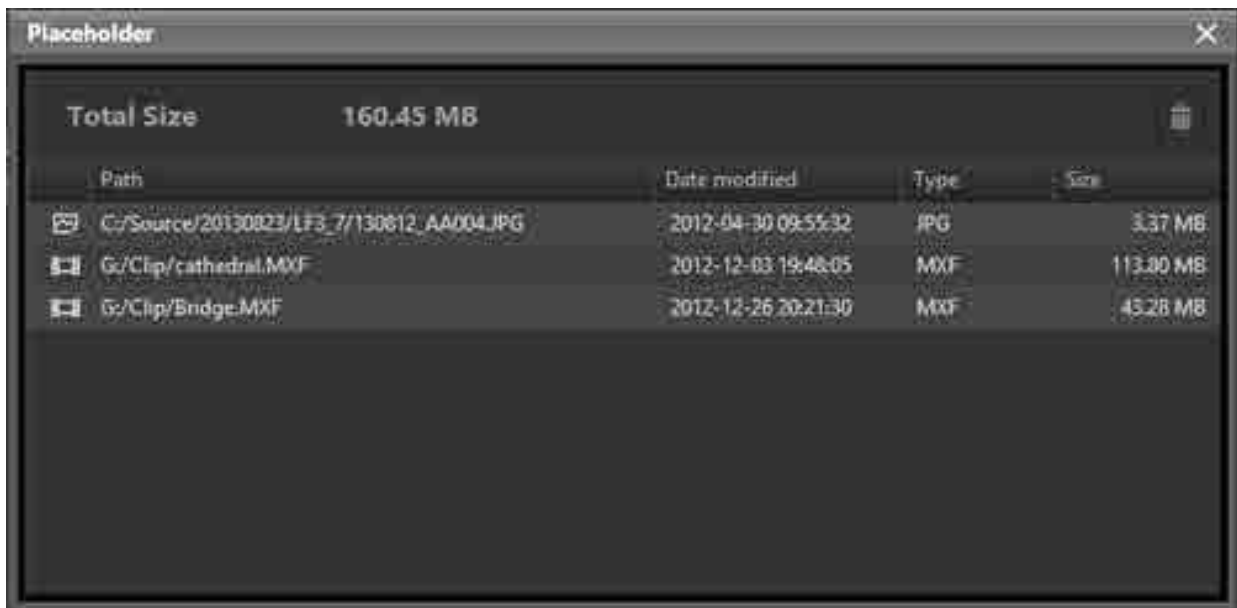
## Archiving files from different media or folders

Use the [Placeholder] dialog if you want to archive files from multiple media or folders.

1. Click the [Archive] icon in the global menu.
2. Display cartridges for storing files/folders in the Library area on the Archive screen. Subfolders are displayed if files/folders are stored in subfolders on cartridges.

3. Select [Open Placeholder] from the Desktop area pull-down menu.

The [Placeholder] dialog appears.



4. Drag and drop the files/folders you want to archive from the Desktop area into the [Placeholder] dialog.
5. Select a file or folder in the [Placeholder] dialog, then drag and drop it into the Library area.  
If some files or folders only are selected and dragged to the Library area, then only the selected files/folders will be archived.
6. In the [Archive Request] dialog, specify the metadata as required in steps 5 to 7 above and then start archiving.

## Archiving using Watched Folders

This function archives files automatically when they are created in specified folders. With this function, you can capture material from tape media using a capture application, and then archive the captured file automatically.

### Notes

- Files created in watched folders are deleted automatically after they are archived. However, folders created in watched folders are not deleted automatically. To delete folders, use Explorer (Windows) or Finder (macOS) as required.
  - Read-only files are not archived by the Watched Folder function.
1. Click the [Setting] icon in the global menu.
  2. Click the [Archive] button.
  3. Click the [Add] button for [Watched Folder].  
The [Add Watched Folder] dialog appears.





4. Enter a folder name.

The folder name is the name that is displayed in the Watched Folder display area on the Archive screen.


5. Click the [Browse] button for [Path], and specify the path of the folder to watch.
6. Click the [Archive] icon in the global menu.
7. Select the folder you want to watch in the Watched Folder display area, and drag and drop it onto the archive destination folder in the Library area.

The [Watched Archive Request] dialog appears.

8. Specify an archive title, the metadata to extract, and other options.

For details, see “Archiving using Drag-and-Drop.”

9. Click the [Start] button in the [Watched Archive Request] dialog.

The system starts watching the folder. Folder icons in the Watched Folder area change to  while the folder is being watched.

10. To stop watching a folder, select [Watched Folder] in the tree area of the watched folder display area, select the watched folder you want to stop watching in the list area, and then select [Stop Monitoring] from the pull-down menu.

## Archiving from Content Browser

This function archives requested files from Sony Content Browser.

Content Browser is a software application for operating on clips and clip lists used in XDCAM EX, XDCAM, and NXCAM devices.

1. In Content Browser, request an archive operation via Content Manager.

Content Manager opens a new web browser tab, and the [Placeholder] dialog appears. The folder selected in Content Browser is added to the [Placeholder] dialog.

2. Drag and drop the folder to archive it.

For details, see “Archiving using Drag-and Drop.”

### Note

The Login screen is displayed if not currently logged in to Content Manager.

The [Placeholder] dialog appears after successful login.

# Editing Metadata

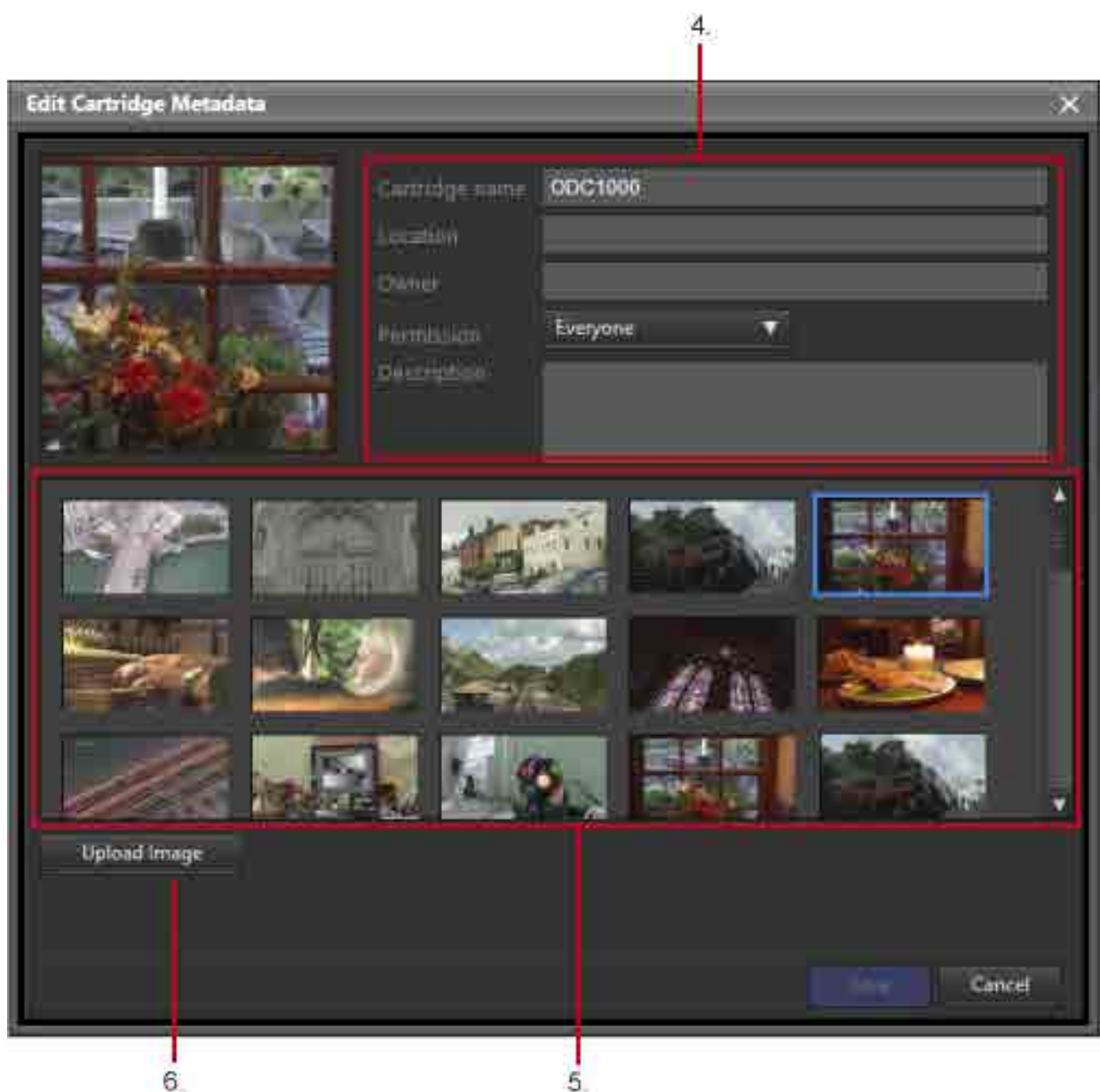
- Displaying/Editing Cartridge Metadata
- Displaying/Editing File Metadata
- Extracting Metadata from Archived Files

## Displaying/Editing Cartridge Metadata

You can display/edit cartridge metadata.

1. Click the [Browse] icon in the global menu.
2. Set the Browse screen to Cartridge view, and select the cartridge whose metadata you want to edit.
3. Select [Edit Metadata] from the pull-down menu in the Cartridge Information area.

The [Edit Cartridge Metadata] dialog appears.



4. Edit the metadata.

5. Click the image you want to set as the representative image for the cartridge from the displayed thumbnails.

The selected image becomes the representative image.

6. To set an image on the local computer as the representative image, click the [Upload Image] button and select the image file to add the image to the thumbnails. Then select the added thumbnail to set it as the representative image.

7. Click the [Save] button.

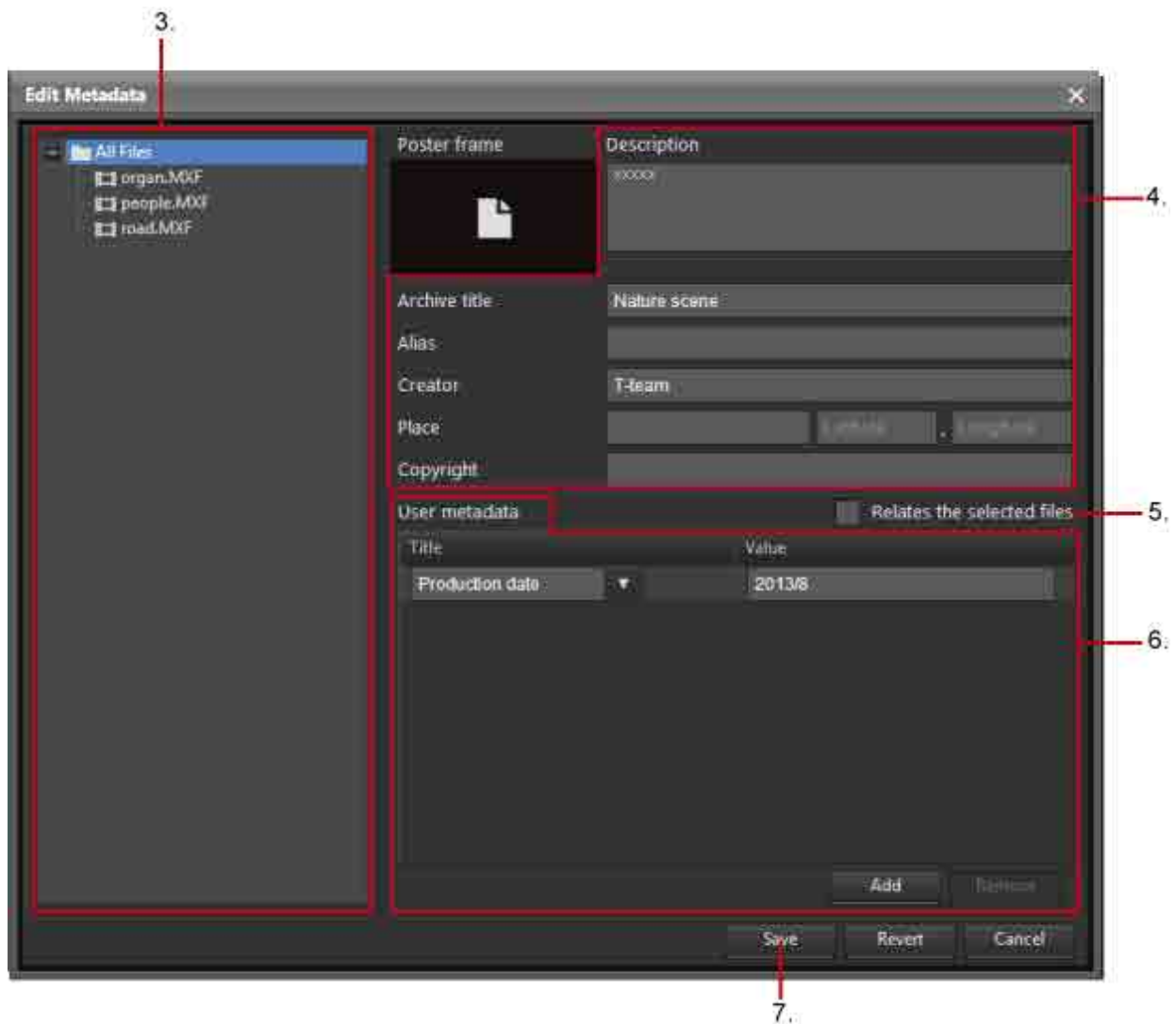
The information is saved.

## Displaying/Editing File Metadata

You can display metadata for archived files selected on the Browse screen, Search screen, or Archive screen. You can also edit metadata for multiple files simultaneously.

1. Select the file whose metadata you want to edit from the file list in the Library area on the Archive screen, Browse screen, or Search screen.
2. Select [Edit Metadata] from the pull-down menu.

The [Edit Metadata] dialog appears.



3. To edit the metadata of all files at the same time, select [All Files].

To edit the metadata for specific files/folders only, select the files and folders under [All Files].

4. Edit the metadata.

You can edit the description, archive title, alias, creator, place, and copyright.

5. To relate the selected files with each other, place a check mark in the [Relates the selected files] checkbox.

6. To add a metadata item, click the [Add] button and enter a title and value for the metadata.

7. Click the [Save] button.

The edited metadata is saved.

## Extracting Metadata from Archived Files

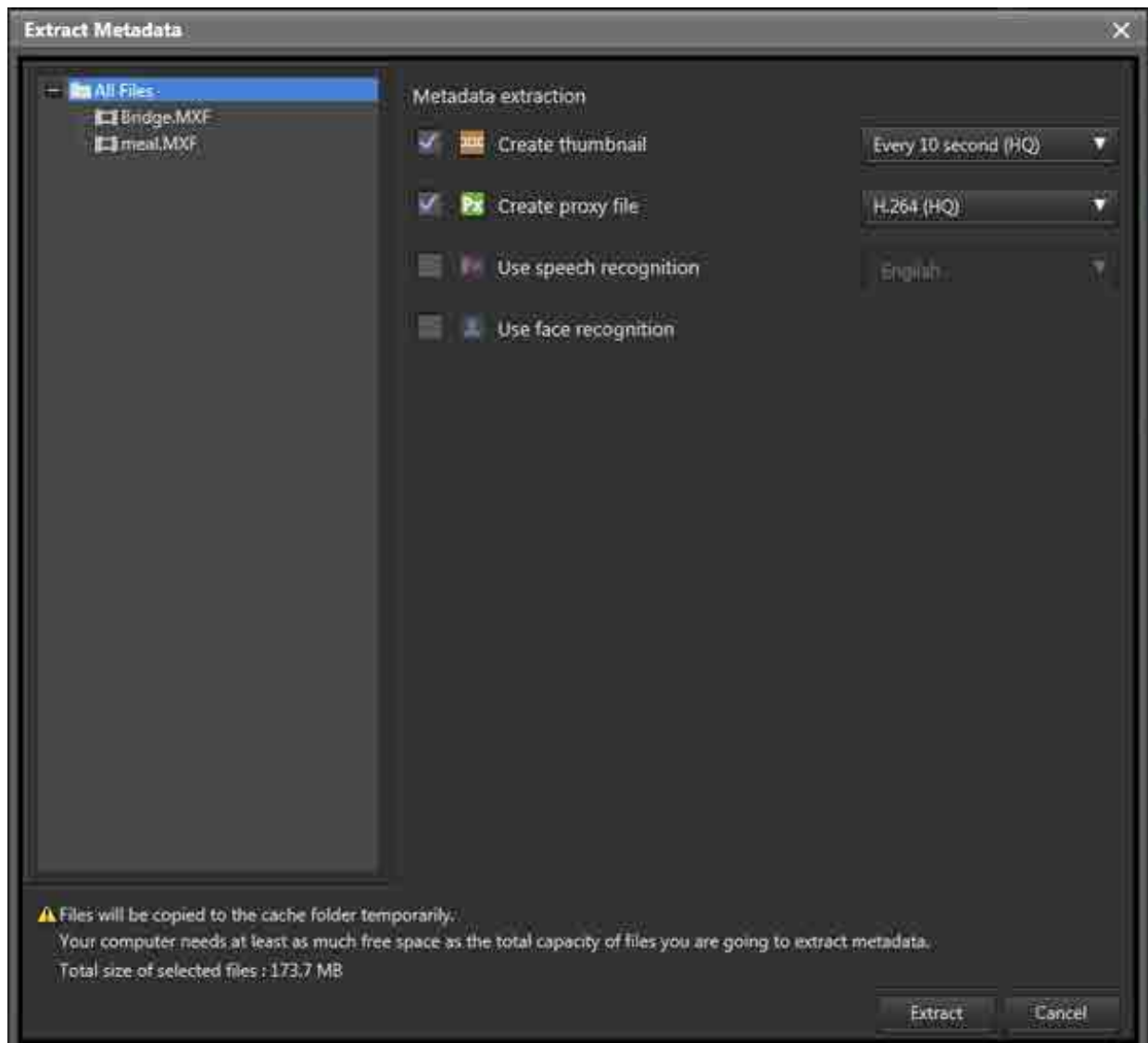
You can extract metadata from files if metadata was not extracted when archiving or if you want to re-extract the metadata.

1. Click the [Archive] icon in the global menu.

2. Select the file whose metadata you want to extract in the Library area on the Archive screen.

3. Select [Extract Metadata] from the pull-down menu.

The [Extract Metadata] dialog appears.



4. Select the metadata to extract.

- Create thumbnail:  
Creates thumbnails at regular intervals. You can select the interval at which to create thumbnails and the image quality from the drop-down list.
- Create proxy file:  
Creates a proxy file for preview. You can select the proxy file format and the image quality from the drop-down list.
- Use speech recognition:  
Transcribes voice data in the file as text information. You can include transcribed text information in a search character string when searching files. You can select the language from the drop-down list. This item is not displayed in the macOS version.
- Use face recognition:  
Extracts the locations where a person's face appears in the video file using face recognition. Facial image data can be registered and used when searching for a person.

5. Click the [Extract] button.

The metadata is extracted and registered in the Content Manager database.

**Note**

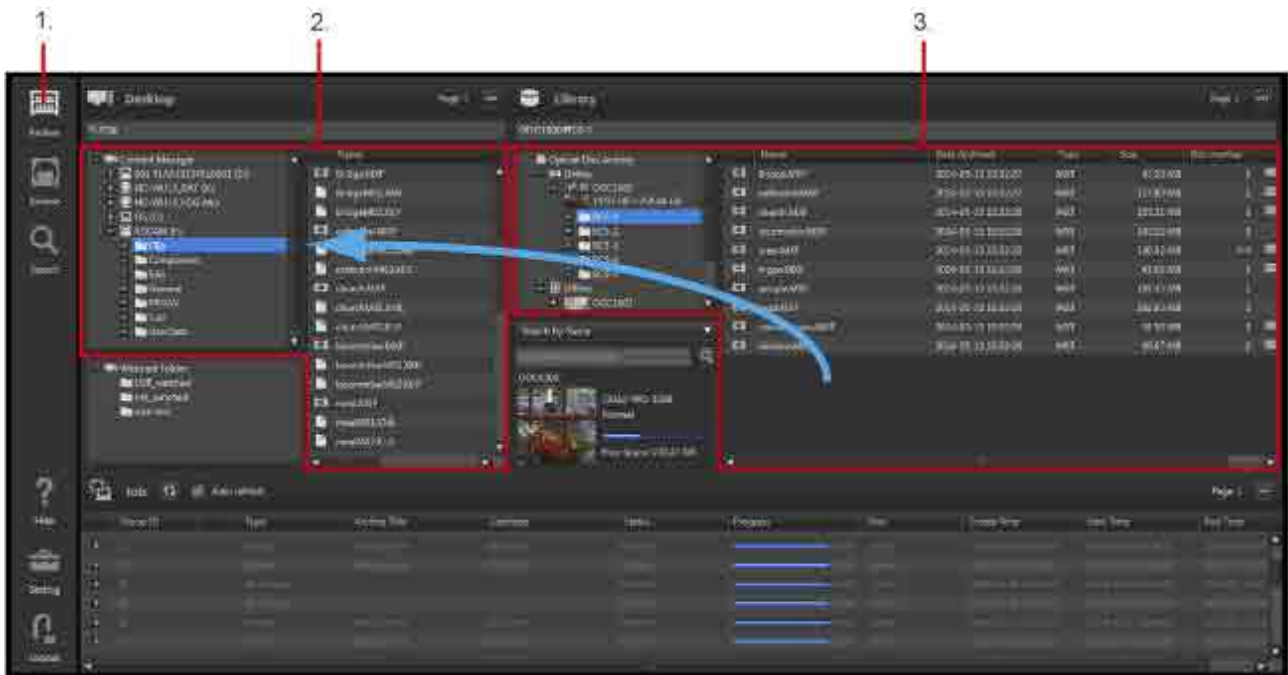
When extracting metadata, the cache folder specified on the [Archive] page of the Settings screen is used. Accordingly, the free space on the drive with the cache folder must be greater than the total size of the files from which to extract metadata. If an error message appears indicating that there is insufficient free space in the cache destination storage, delete unnecessary data on the drive containing the cache folder or set a folder on another drive with sufficient free space in [Cache folder] on the [Archive] page.

## Retrieving

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- Retrieving using Drag-and-Drop
- Retrieving from the Search Screen, Browse Screen, or File Details Dialog

# Retrieving using Drag-and-Drop



1. Click the [Archive] icon in the global menu.

2. Display the folder in which to save retrieved files in the Desktop area.


The file to retrieve can be dragged and dropped to the following locations in the Desktop area.

- Media or folders in the tree area
- List area

3. In the Library area, select the cartridge, or file stored on the cartridge, to retrieve.

Only one cartridge can be selected.

You can also request retrieve from offline cartridges. If the cartridge is offline when retrieving is

started, a  mark appears in the global menu. Holding the mouse over the mark displays a tooltip notifying you that the cartridge is not inserted. Insert the cartridge to continue.

You can select the following in the Library area.

- Cartridges or folders in the tree area
- Files or folders in the list area

## Note

When the cartridge status is not "Normal" or "Read only," retrieving is not possible.

4. Drag and drop the selected cartridge or file onto the save destination folder.

If a file with the same name exists in the retrieve destination folder, a confirmation dialog appears.

Select whether to retrieve, appending a number suffix to the file name, or to cancel.

5. To set the priority for retrieve processing over other jobs, place a check mark in [Set the job priority high] of the [Confirmation] dialog.

Enabling the checkbox will process the retrieve job ahead of other currently processing and waiting jobs.

6. Click [Yes].

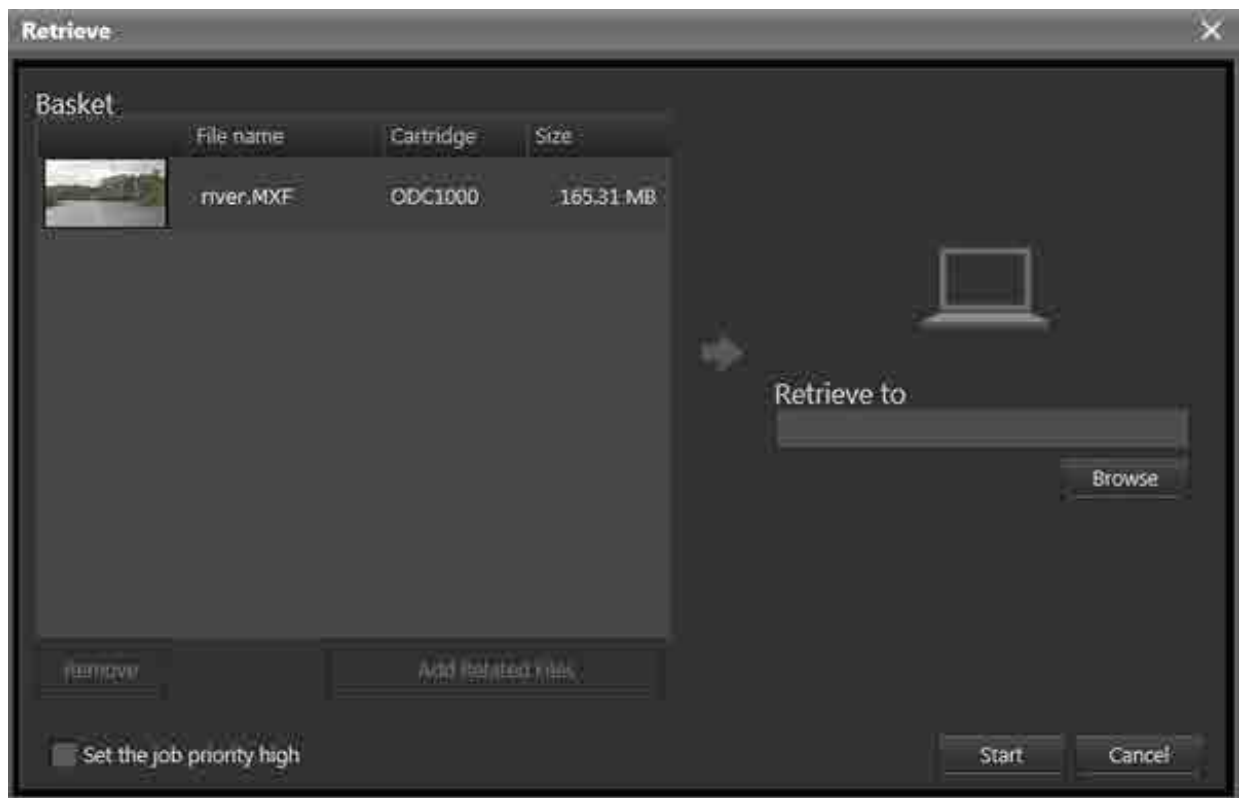
The retrieve job is registered in the Job area and then processed.

## Retrieving from the Search Screen, Browse Screen, or File Details Dialog

1. Place a check mark against the file or folder to retrieve on the Search screen or Browse screen, and select [Retrieve] from the pull-down menu.

Alternatively, select the file to retrieve to display it in the [File Details] dialog and click the [Retrieve] button.

The [Retrieve] dialog appears. The selected file is displayed in the Basket.



2. Click the [Browse] button for [Retrieve to], and specify the location to save data after it is retrieved.
3. To also retrieve files related to the selected file, select the files in the Basket and click the [Add Related Files] button.

The related files must be set up beforehand using the Edit Metadata dialog.

To delete a file from the Basket, select the file and click the [Delete] button.

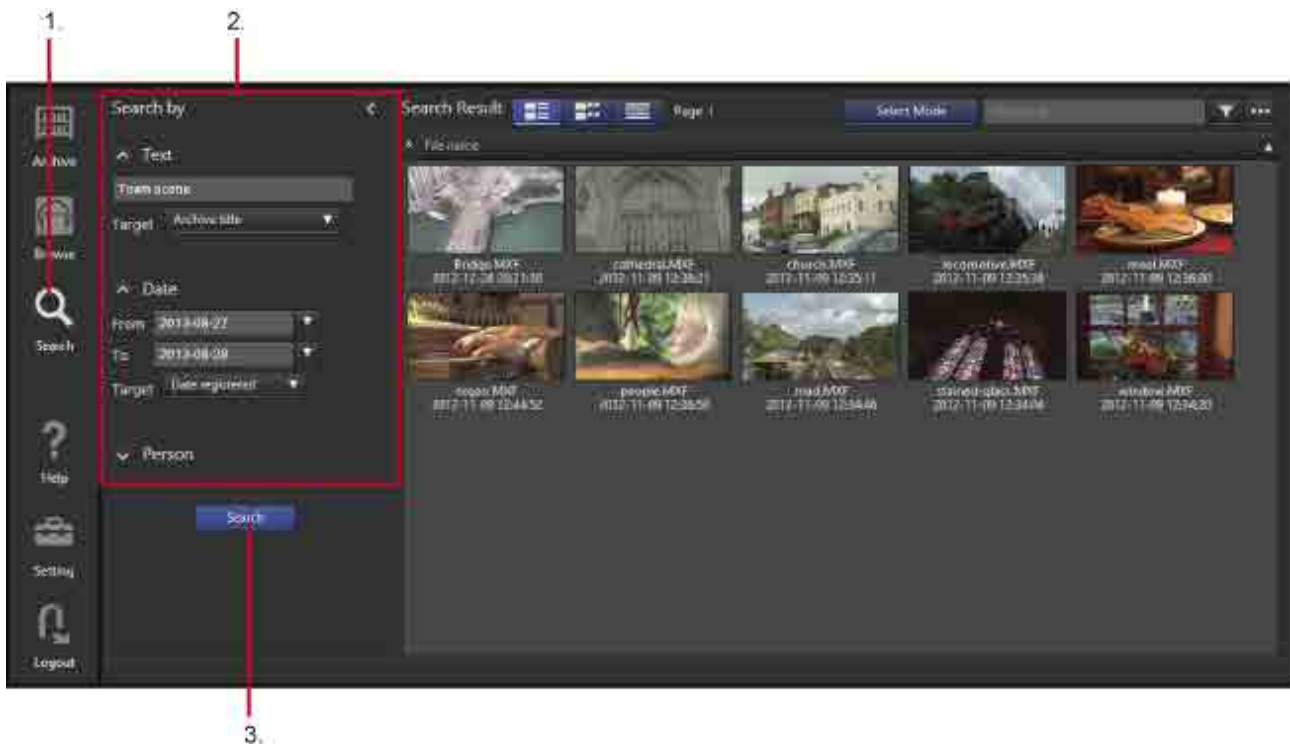
4. To set the priority for retrieve processing over other jobs, place a check mark in [Set the job priority high].

Enabling the checkbox will process the retrieve job ahead of other currently processing and waiting jobs.

5. Click the [Start] button to start retrieving the file.

## Searching Files

You can search for files by metadata text, date, and facial images of people.



1. Click the [Search] icon in the global menu.
2. Specify the search key criteria in the [Search by] area.

You can specify the following search key criteria.

- **Text**

Enter the search text and select the search target from the drop-down list. In addition to metadata values, you can search text transcribed using speech recognition.

- **Date**

Searches a specified interval by date created or date registered.

- **Person**

Select a person to search for registered facial images of people using face recognition. To search for a person, you must first register facial images for that person.

3. Click the [Search] button.

The search is conducted and the search results are displayed.

### Notes

- When searching for speech recognition text or a person, the search accuracy may vary depending on the data quality and recording conditions.
- The search accuracy when searching for a person is different when multiple people are selected and when a single person is selected.

## Registering Facial Image Data

Facial images for people must be registered beforehand in order to use the facial image search function. Five different facial images must be registered for each person.

1. Click the [Search] icon in the global menu.
2. Click [Person] in the [Search by] area to open the list of people.



3. Click the  button.

The [Register Face] dialog appears.

4. Click the [Upload Image] button to upload facial images of people.

A facial image is displayed in the dialog when a face is detected.


5. Select five facial images.

Facial images cannot be registered if there are less than five or more than five selected.

6. Enter a name in [Name].

7. Click the [Register] button.

The facial image data is registered.

To delete registered facial image data, place a check mark in the checkbox for the image to delete in the list of people and click the  button.

## Printing Labels

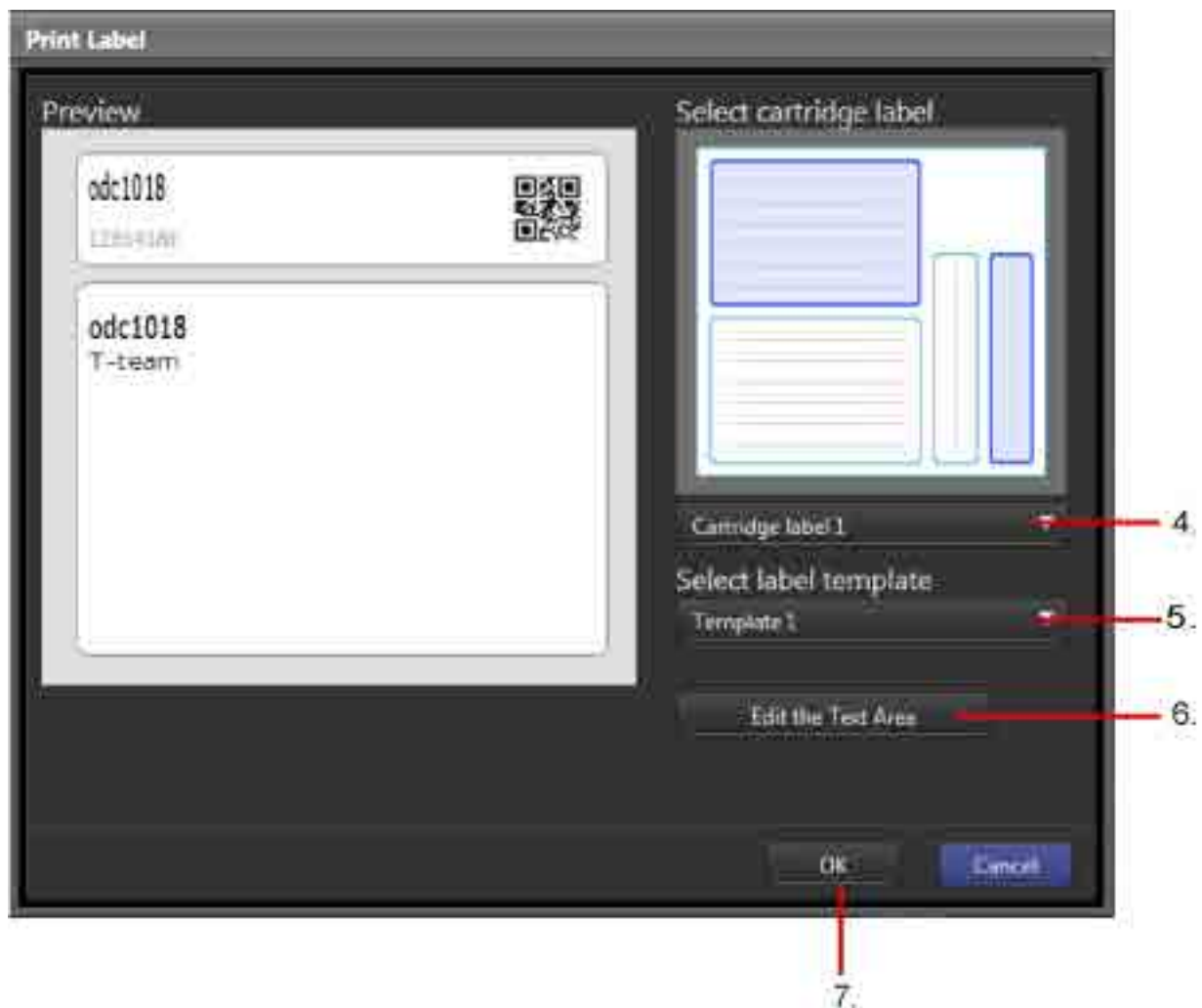
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You can print metadata for the selected cartridge on labels.

1. Click the [Browse] icon in the global menu.
2. Set the screen to Cartridge view, and select the cartridge in the tree area.

3. Click the [Print label] button.

The [Print Label] dialog appears.



4. Select the type of label to print in the [Select cartridge label] drop-down list.

- Cartridge label 1: Print the first label set supplied with the cartridge.
- Cartridge label 2: Print the second label set supplied with the cartridge.
- Blank sheet: Print on an arbitrary label.

5. Select a label template in the [Select label template] drop-down list.

A preview of the label is displayed in the [Preview] area.

6. Click the [Edit the Text Area] button, as required, to change the description printed on the label.

7. Click the [OK] button.

A print preview appears.

8. Print the label using the browser's Print function.

The following settings are recommended when printing.

- Margins: 0 (none)
- Header/Footer: Off

# Exporting a File List

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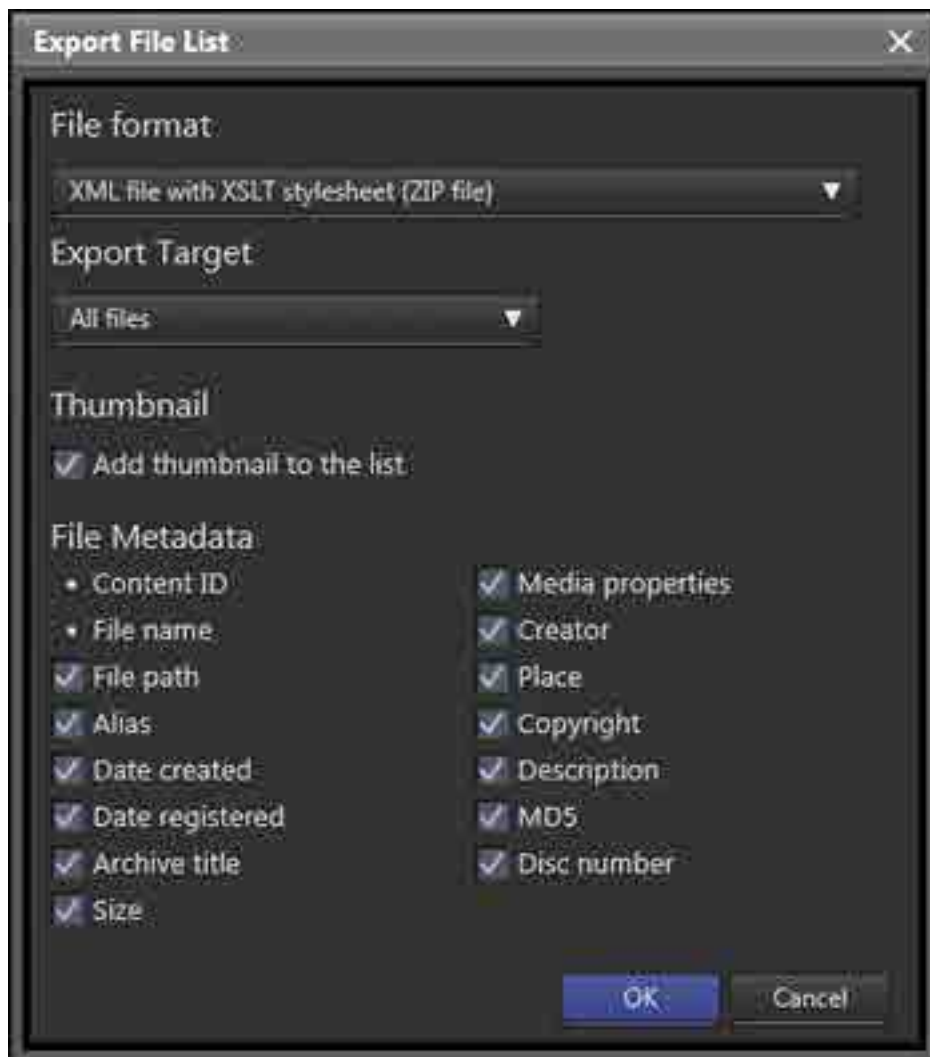
You can export a list of the files archived on a cartridge. The files list can be exported in XML or CSV format.

For XML, cartridge and file information is exported to a ZIP file. The cartridge representative image can also be exported.

For CSV, file information is exported.

1. Click the [Browse] icon in the global menu.
2. Set the screen to Cartridge view, and select the cartridge in the tree area.
3. Select [Export file list] from the pull-down menu.

The [Export File List] dialog appears.



4. Select XML or CSV in [File format].
5. Select whether to export all files or only those files with check marks in the file list under [Export Target].
6. If XML is selected, select the items to export.
  - Thumbnail: Select whether to export the cartridge and file poster frames.
  - File Metadata: Select the file metadata items to export (video information, audio information, and length are exported when [Media properties] is selected).
7. Click the [OK] button.

8. Save the file according to the web browser settings and display.

If XML format is selected, uncompress the zip file to display the XML file.

#### Note

You can browse the XML file in Internet Explorer and Safari.

## Exporting Metadata to a Cartridge

---

You can export metadata for files on a cartridge from the database to the cartridge using Content Manager, and then import the metadata from the cartridge using another instance of Content Manager.

### To export metadata

1. Select an online cartridge in the Library area on the Browse screen.
2. Select [Export metadata] from the pull-down menu.

The metadata is exported from the database to the cartridge.

### To import metadata

1. Using Content Manager on the import destination computer, insert the cartridge into the drive.  
A confirmation dialog appears prompting you to update the database.
2. Select [Import database] and click [OK].

The metadata is imported into the database, and the cartridge is displayed in the Library area on the Archive screen.

## Deleting Cartridge Information

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You can delete the cartridge information for offline cartridges. This function does not delete the original video files on the cartridges. To completely delete files, use the Optical Disc Archive Utility.

1. Set the Browse screen to Cartridge view, and select the cartridge to delete.  
Alternatively, select [Offline] in the tree area in the Library area on the Archive screen, and select the cartridge you want to delete in the list area.
2. Select [Delete] from the pull-down menu.
3. Click the [Yes] button when the confirmation dialog box appears.

The cartridge information is deleted.

## Deleting Files/Folders on Cartridges

---

You can delete files and folders stored on online cartridges.

1. Select the file/folder you want to delete from the Library area on the Archive screen or the file list on the Browse screen or Search screen.
2. Select [Delete] from the pull-down menu.
3. Click the [Yes] button when the confirmation dialog box appears.

The file/folder and corresponding information is deleted from the cartridge.

# Updating the Database

---

A confirmation dialog appears prompting you whether to update the database whenever a cartridge on which files have been created, updated, or copied using another application is inserted in a drive. This indicates that the information for files on the cartridge does not match the contents in the Content Manager database, and that files cannot be archived to the cartridge or retrieved from the cartridge unless the database is updated. Updating the database is not required if only archiving files on the cartridge to another cartridge.

Select one of the following options in the confirmation dialog, then click [OK].

- **Import database:**  
Select this option to export metadata to a cartridge. Imports metadata saved on the cartridge and updates the database.
- **Register in database and extract metadata:**  
Registers the file information for the cartridge in the database, and simultaneously extracts thumbnails, proxy video, and other metadata.  
When this option is selected and [OK] is clicked, a dialog appears prompting you to select the types of metadata to extract. For details about the types of metadata to extract, see "Extracting Metadata from Archived Files."  
When this option is selected, a certain amount of time is required to extract the metadata and finish updating the database.
- **Register in database only:**  
Registers file information in the database, without extracting metadata.  
You can always extract metadata later. For details, see "Extracting Metadata from Archived Files."
- **Do not update:**  
Nothing is registered in the database. You can use the cartridge as an archive destination or a retrieve source without displaying the cartridge in the Library area on the Archive screen. The cartridge is displayed in the Desktop area on the Archive screen, and you can archive files on the cartridge on another cartridge.

## Note

When extracting metadata, the cache folder specified on the [Archive] page of the Settings screen is used. Accordingly, the free space on the drive with the cache folder must be greater than the total size of the files from which to extract metadata. Therefore, the maximum free space required is equivalent to the used capacity of the cartridge.

# Appendix

The appendix comprises the following topics.

- Supported File Formats
- Notice to Users
- Trademarks

## Supported File Formats

This topic shows the file formats supported for each software function.

### Thumbnail creation, proxy video creation, search using speech recognition, search using face recognition

Only the following file formats support creation of thumbnail images and proxy video, searching of audio transcriptions using speech recognition, and searching using face recognition.

#### Notes

- Operation is guaranteed for files generated using Sony devices.
- Operation is not guaranteed for ProRes and DNxHD formats.

### XDCAM

Container: MXF

Audio codec: PCM

#### SD format

Format	Frame size	Frame rate	Video codec	Bit rate
DV (SD)	720×480	59.94i	DV	25 Mbps CBR
DV (SD)	720×576	50i	DV	25 Mbps CBR
MPEG IMX (SD)	720×512	59.94i	MPEG-2 Intra	30, 40, 50 Mbps CBR
MPEG IMX (SD)	720×608	50i	MPEG-2 Intra	30, 40, 50 Mbps CBR

#### HD format

Format	Frame size	Frame rate	Video codec	Bit rate
MPEG HD	1280×720	50p, 59.94p	MPEG-2 Long GOP	25 Mbps CBR
MPEG HD	1280×720	50p, 59.94p	MPEG-2 Long GOP	35 Mbps VBR
MPEG HD	1280×720	50p, 59.94p	MPEG-2 Long GOP	50 Mbps CBR
MPEG HD	1440×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	17.5 Mbps VBR
MPEG HD	1440×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	25 Mbps CBR
MPEG HD	1440×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	35 Mbps VBR
MPEG HD422	1920×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	35 Mbps CBR

Format	Frame size	Frame rate	Video codec	Bit rate
MPEG HD422	1920×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	50 Mbps CBR

## XDCAM EX

Container: AVI for DV, MP4 for MPEG HD

Audio codec: PCM, 48 kHz, 16-bit

Format	Frame size	Frame rate	Video codec	Bit rate
DV	720×480	59.94i	DV	25 Mbps CBR
DV	720×576	50i	DV	25 Mbps CBR
MPEG HD	1280×720	23.98p, 25p, 29.97p, 50p, 59.94p	MPEG-2 Long GOP	35 Mbps VBR
MPEG HD	1440×1080	50i, 59.94i	MPEG-2 Long GOP	25 Mbps CBR
MPEG HD	1440×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	35 Mbps VBR
MPEG HD422	1920×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-2 Long GOP	35 Mbps VBR

## XAVC

Container: MXF

Audio codec: PCM, 48 kHz, 24-bit, 8-channel or 16-channel

Format	Frame size	Frame rate	Video codec	Bit rate
XAVC Intra	1440×1080	23.98p, 25p, 29.97p, 50i, 59.94i	MPEG-4 AVC Intra	CBG Class 50
XAVC Intra	1920×1080	23.98p, 25p, 29.97p, 50i, 50p, 59.94i, 59.94p	MPEG-4 AVC Intra	CBG Class 100
XAVC Intra	2048×1080	23.98p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	VBR Class 100
XAVC Intra	2048×1080	23.98p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	CBG Class 100
XAVC Intra	3840×2160	23.98p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	VBR Class 300
XAVC Intra	3840×2160	23.98p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	CBG Class 300
XAVC Intra	4096×2160	23.98p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	VBR Class 300
XAVC Intra	4096×2160	23.98p, 24p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Intra	CBG Class 300
XAVC Long	1280×720	50p, 59.94p	MPEG-4 AVC Long	80 Mbps (max)
XAVC Long	1920×1080	23.98p, 25p, 29.97p, 50i, 50p, 59.94i, 59.94p	MPEG-4 AVC Long	80 Mbps (max)
XAVC Long	3840×2160	23.98p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long	200 Mbps (max)

## XAVC S

Container: MP4

Audio codec: PCM, 48 kHz, 24-bit

Format	Frame size	Frame rate	Video codec	Bit rate
XAVC S	1920×1080	23.98p, 25p, 29.97p, 50p, 59.94p	MPEG-4 AVC Long	80 Mbps
XAVC S	3840×2160	23.98p, 25p, 29.97p	MPEG-4 AVC Long	188 Mbps
XAVC S	3840×2160	50p, 59.94p	MPEG-4 AVC Long	300 Mbps

## AVCHD

Container: MPEG-2 Transport Stream

Audio codec: Dolby AC-3 or PCM, 2-channel, 48 kHz, 16-bit

Format	Frame size	Frame rate	Video codec	Bit rate
AVCHD	1280×720	59.94p	H.264/MPEG-4 AVC	24, 17 Mbps
AVCHD	1440×1080	50i, 59.94i	H.264/MPEG-4 AVC	9, 5 Mbps
AVCHD	1920×1080	23.98p, 25p, 29.97p, 50i, 59.94i	H.264/MPEG-4 AVC	24, 17 Mbps
AVCHD	1920×1080	50p, 59.94p	H.264/MPEG-4 AVC	28 Mbps

## HDV

Container: M2T for Windows, MOV for macOS

Audio codec: MPEG-1 Audio Layer-2 for Windows, 32-bit float PCM for macOS

Format	Frame size	Frame rate	Video codec
HDV	1440×1080	50i, 59.94i	MPEG-2 MP@H14

## DV

Container: AVI for Windows, MOV for macOS

Audio codec: PCM

Format	Frame size	Frame rate	Video codec	Bit rate
DV (SD)	720×480	59.94i	DV	25 Mbps CBR
DV (SD)	720×576	50i	DV	25 Mbps CBR

## ProRes (macOS only)

Container: MOV

Audio codec: PCM

The following five types of files are included in each format.

Apple ProRes 4444, Apple ProRes 422 (HQ), Apple ProRes 422, Apple ProRes 422 (LT), Apple ProRes 422 (Proxy)

Format	Frame size	Frame rate
ProRes	720×486	23.98p, 29.97p, 60i
ProRes	720×576	25p, 50i
ProRes	960×720	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
ProRes	1280×720	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p



Format	Frame size	Frame rate
ProRes	1280×1080	23.98p, 24p, 29.97p, 30p, 59.94p, 60p, 60i
ProRes	1440×1080	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p, 50i, 60i
ProRes	1920×1080	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p, 50i, 60i
ProRes	2048×1080	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
ProRes	2048×1556	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
ProRes	3840×2160	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
ProRes	4096×2160	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
ProRes	5120×2160	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p

## DNxHD

Container: MOV, MXF

Audio codec: PCM

Format	Frame size	Family name	Color space/No. of bits	Frame rate/Maximum bit rate
DNxHD	1920×1080	Avid DNxHD 444	4:4:4/10-bit	29.97p @ 440 Mbps, 25p @ 365 Mbps, 24p @ 350 Mbps, 23.98p @ 350 Mbps
DNxHD	1920×1080	Avid DNxHD 220x	4:2:2/10-bit	60p @ 440 Mbps, 59.94p @ 440 Mbps, 50p @ 365 Mbps, 59.94i @ 220 Mbps, 50i @ 185 Mbps, 29.97p @ 220 Mbps, 25p @ 185 Mbps, 24p @ 175 Mbps, 23.98p @ 175 Mbps
DNxHD	1920×1080	Avid DNxHD 220	4:2:2/8-bit	60p @ 440 Mbps, 59.94p @ 440 Mbps, 50p @ 365 Mbps, 59.94i @ 220 Mbps, 50i @ 185 Mbps, 29.97p @ 220 Mbps, 25p @ 185 Mbps, 24p @ 175 Mbps, 23.98p @ 175 Mbps
DNxHD	1920×1080	Avid DNxHD 145	4:2:2/8-bit	60p @ 290 Mbps, 59.94p @ 290 Mbps, 50p @ 240 Mbps, 59.94i @ 145 Mbps, 50i @ 120 Mbps, 29.97p @ 145 Mbps, 25p @ 120 Mbps, 24p @ 115 Mbps, 23.98p @ 115 Mbps
DNxHD	1920×1080	Avid DNxHD 100	4:2:2/8-bit	59.94i @ 100 Mbps, 50i @ 85 Mbps, 29.97p @ 100 Mbps, 25p @ 85 Mbps, 24p @ 80 Mbps, 23.98p @ 80 Mbps

Format	Frame size	Family name	Color space/No. of bits	Frame rate/Maximum bit rate
DNxHD	1920×1080	Avid DNxHD 36	4:2:2/8-bit	60p @ 90 Mbps, 59.94p @ 90 Mbps, 50p @ 75 Mbps, 29.97p @ 45 Mbps, 25p @ 36 Mbps, 24p @ 36 Mbps, 23.98p @ 36 Mbps
DNxHD	1280×720	Avid DNxHD 220x	4:2:2/10-bit	59.94p @ 220 Mbps, 50p @ 175 Mbps, 29.97p @ 110 Mbps, 25p @ 90 Mbps, 23.98p @ 90 Mbps
DNxHD	1280×720	Avid DNxHD 220	4:2:2/8-bit	59.94p @ 220 Mbps, 50p @ 175 Mbps, 29.97p @ 110 Mbps, 25p @ 90 Mbps, 23.98p @ 90 Mbps
DNxHD	1280×720	Avid DNxHD 145	4:2:2/8-bit	59.94p @ 145 Mbps, 50p @ 115 Mbps, 29.97p @ 75 Mbps, 25p @ 60 Mbps, 23.98p @ 60 Mbps
DNxHD	1280×720	Avid DNxHD 100	4:2:2/8-bit	59.94p @ 100 Mbps, 50p @ 85 Mbps, 29.97p @ 50 Mbps, 25p @ 45 Mbps, 23.98p @ 45 Mbps

## Supported languages for speech recognition search

Searching audio transcriptions using speech recognition is supported on Windows only in the following languages. It is not supported in the macOS version. Note that a localized OS or corresponding language pack is required.

- English
- French
- German
- Spanish
- Chinese (simplified)
- Chinese (traditional)
- Japanese

## Still image formats for creating thumbnails

Files in the following formats are supported for creating thumbnails from still-image files.

### Note

Searching using face recognition is not supported for still-image files.

- BMP
- JPEG
- PNG

## Proxy file formats

The following formats are supported for proxy files that are created for video files. You can select one of the following formats when creating proxy files.

- H.264 High Quality: 480×270, 768 kbps (16:9) / 320×240, 384 kbps (4:3)
- H.264 Normal: 320×180, 384 kbps (16:9) / 240×180, 192 kbps (4:3)

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