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17 **Attorneys for Plaintiff**
18 **EHIERARCHY LLC**

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**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
WESTERN DIVISION**

EHIERARCHY LLC,
Plaintiff,

Case No.

JURY TRIAL DEMAND

QNAP INC.,
Defendant.

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COMPLAINT

For its Complaint, Plaintiff eHierarchy LLC ("eHierarchy"), by and through the undersigned counsel, alleges as follows:

THE PARTIES

1. eHierarchy is a Texas limited liability company with a place of business located at 1400 Preston Road, Suite 400, Plano, Texas 75093.

2. Defendant QNAP Inc. is a California company with, upon information and belief, a place of business located at 168 University Parkway, Pomona, California 91768.

JURISDICTION AND VENUE

3. This action arises under the Patent Act, 35 U.S.C. § 1 *et seq.*

4. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and 1338.

5. Upon information and belief, Defendant conducts substantial business in this forum, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to individuals in this district.

6. Venue is proper in this district pursuant to §§ 1391(b), (c) and 1400(b).

THE PATENT-IN-SUIT

7. On November 8, 2011, U.S. Patent No. 8,055,692 (the "'692 patent"), entitled "Computer System For Automatic Organization, Indexing and Viewing of Information From Multiple Sources," was duly and lawfully issued by the U.S. Patent and Trademark Office. A true and correct copy of the '692 patent is attached hereto as Exhibit A.

8. eHierarchy is the assignee and owner of the right, title and interest in and to the '692 patent, including the right to assert all causes of action arising under

1 said patent and the right to any remedies for infringement of it.

2 **COUNT I – INFRINGEMENT OF U.S. PATENT NO. 8,055,692**

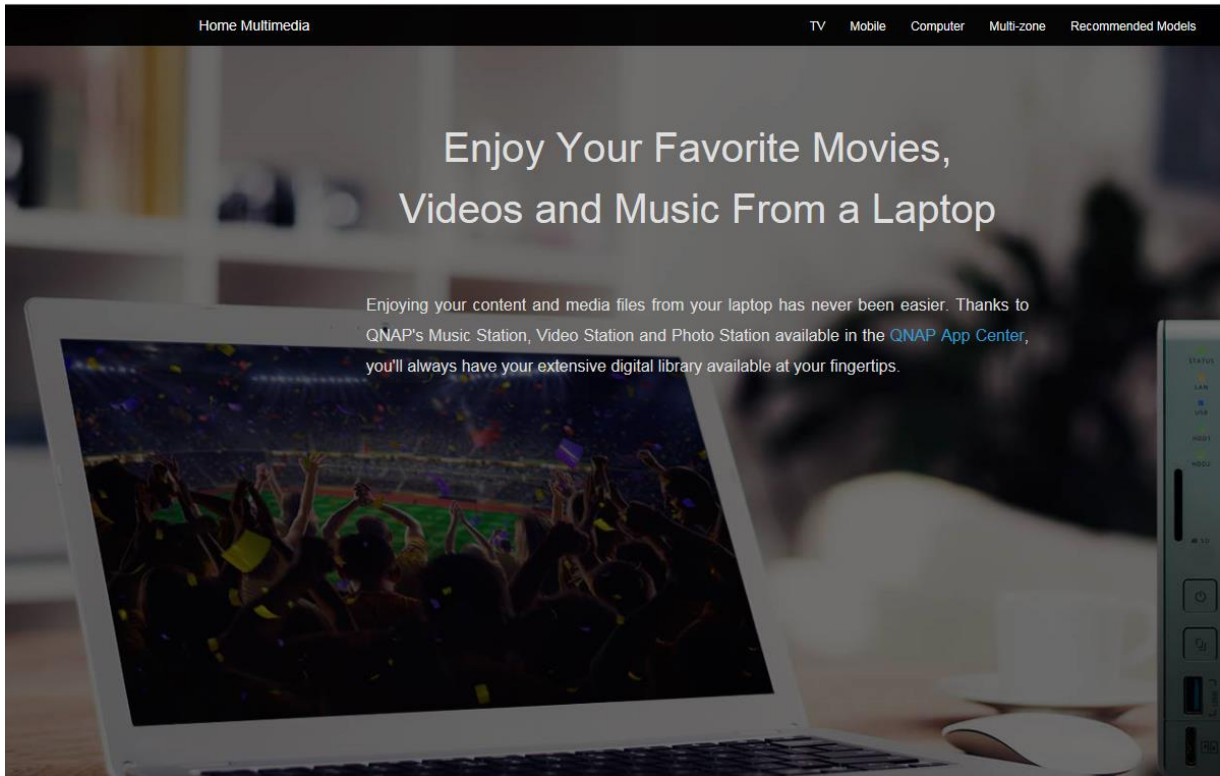
3 9. eHierarchy repeats and realleges the allegations of paragraphs 1 through
4 8 as if fully set forth herein.

5 10. Without license or authorization and in violation of 35 U.S.C. § 271(a),
6 Defendant has infringed and continues to infringe at least claim 12 of the '692 patent
7 by making, using, importing, offering for sale, and/or selling systems and methods
8 of management of informational objects by a computer system, including, but not
9 limited to, Photo Station 5, because each and every element is met either literally or
10 equivalently.

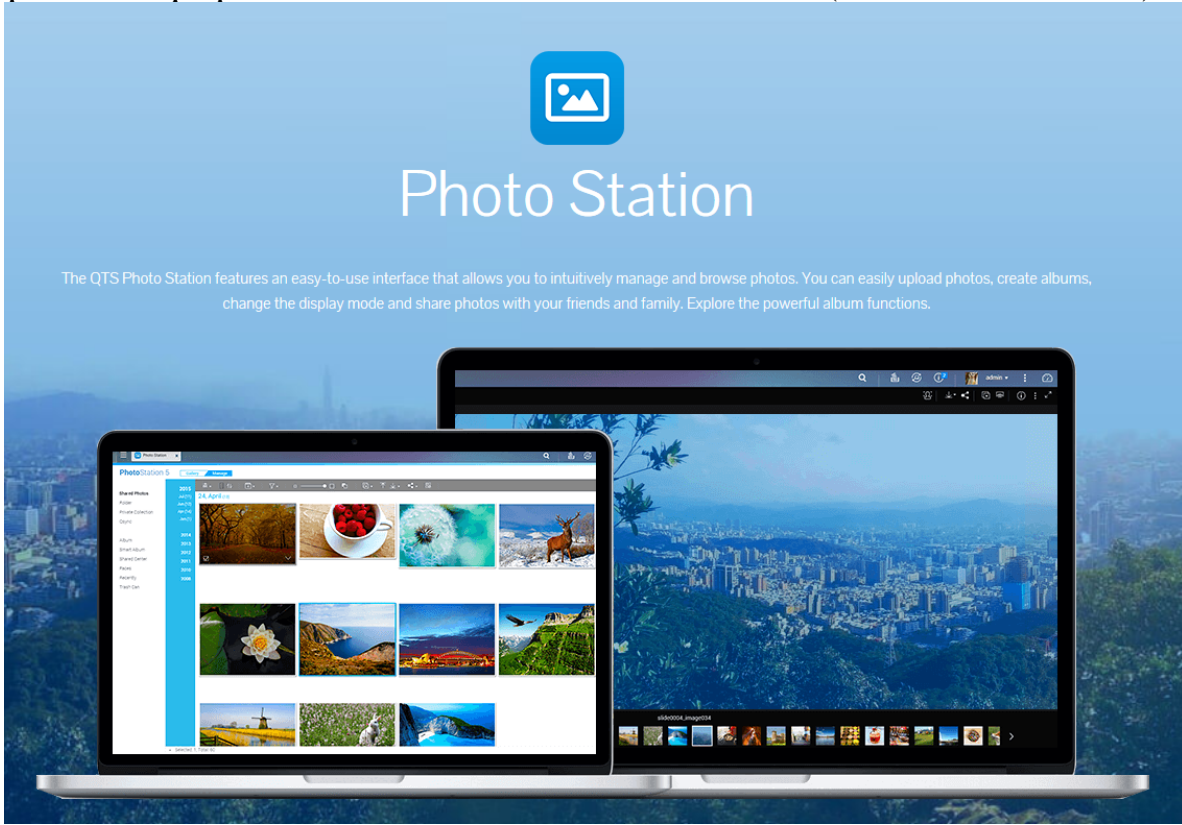
11 11. Upon information and belief, Defendant used Photo Station 5 via its
12 internal use and testing in the United States, directly infringing one or more claims
13 of the '692 patent.

14 12. More specifically and upon information and belief, Defendant's Photo
15 Station 5 is a platform that allows a user to manage, browse and upload photos, create
16 albums (such as Smart Albums), etc. stored on user's device (such as desktop, laptop,
17 etc.).

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<https://www.qnap.com/solution/home-multimedia/en-us/> ("Home Multimedia").



<https://www.qnap.com/solution/multimedia/en/photo.php> ("Photo").

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Photo Station Archive your photos. Arrange your photos to folders easily with a simple drag & drop. Create photo albums that you can predefine by dates and tags. Easily share blocks of photos to social media. Create personalized photo walls for your QNAP NAS login screen.



Home Multimedia.

Applications > App Center > QNAP Select \ Entertainment



Photo Station

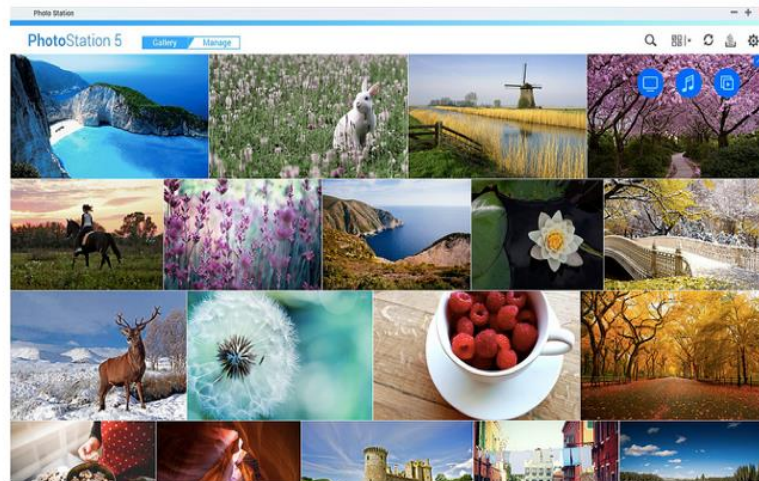
ARM Download



X86 Download



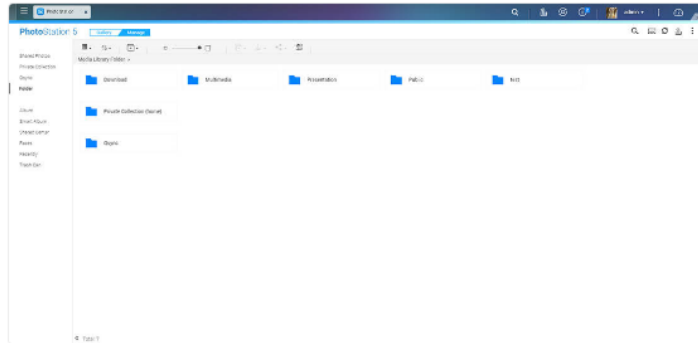
5.4.5 (2018/08/13) | QNAP Select \ Entertainment



Developer :
QNAP Systems, Inc.
Maintainer : QNAP Systems, Inc.
Resource : [Forum](#)
[Tutorials](#) [changeLog](#)
Language : Czech, Dansk, Deutsch, English, Español, Français, Italiano, Magyar, Nederlands, Norsk, Polski, Português, Român, Suomi, Svenska, Türk dili, Ελληνικά, Русский, ไทย, 日本語, 简体中文, 繁體中文, 한글
Description :
Photo Station is a web album for you to organize and share photos and videos with your friends, family, and the world. You can also share the photos by email or publish them to popular social networking websites.

1 [https://www.qnap.com/en-](https://www.qnap.com/en-us/app_center/con_show.php?op=showone&internalName=PhotoStation&version=5.4.5&down_1_name=TS-NASX86&jump_win=1&qts=4.3&seq=95)
2 [us/app_center/con_show.php?op=showone&internalName=PhotoStation&version=](https://www.qnap.com/en-us/app_center/con_show.php?op=showone&internalName=PhotoStation&version=5.4.5&down_1_name=TS-NASX86&jump_win=1&qts=4.3&seq=95)
3 [5.4.5&down_1_name=TS-NASX86&jump_win=1&qts=4.3&seq=95.](https://www.qnap.com/en-us/app_center/con_show.php?op=showone&internalName=PhotoStation&version=5.4.5&down_1_name=TS-NASX86&jump_win=1&qts=4.3&seq=95)

4 Convert folders to albums or 5 smart albums



Instantly and easily, convert your folders to albums or a smart album for easy management.

14 Photo. Photo Station 5 accesses files and the associated metadata from NAS. QNAP
15 NAS supports EXT4 file system that has some reserved space (e.g., "partitions") for
16 storing the metadata, such as file type and size. EXT4 file system offers a better and
17 faster access to files and metadata as the system knows the location of the files and
18 their metadata instead of looking in complete storage.

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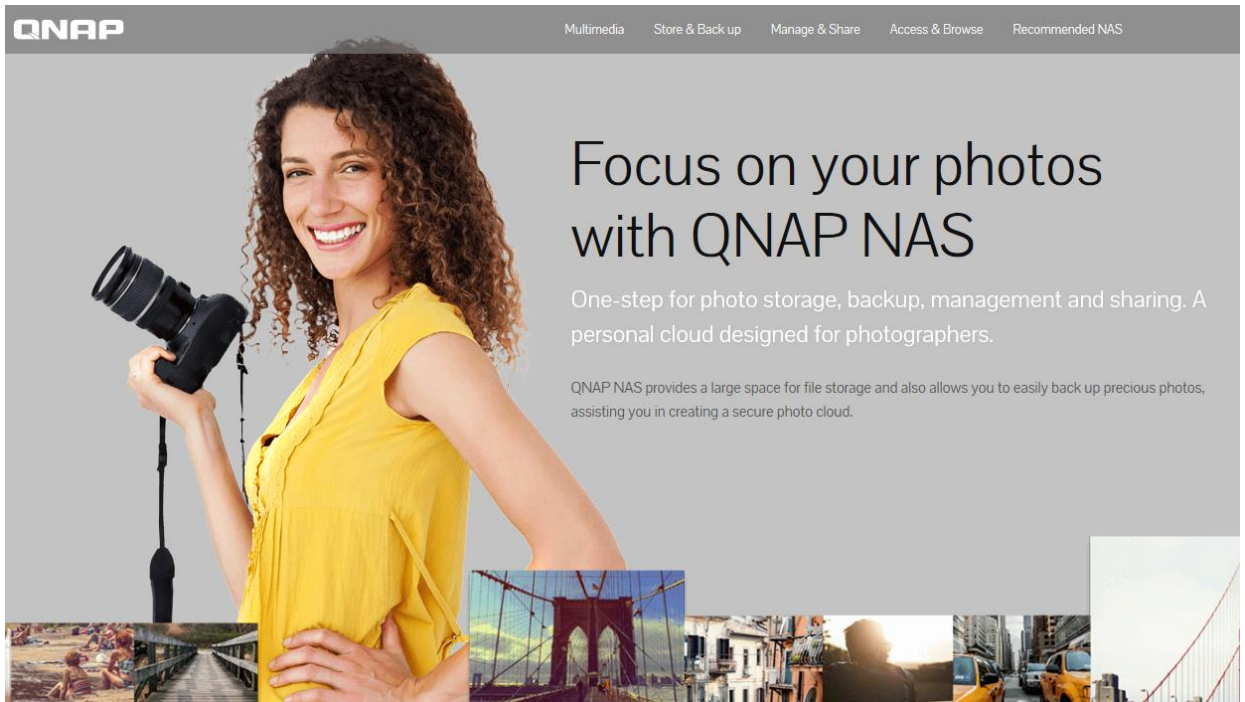
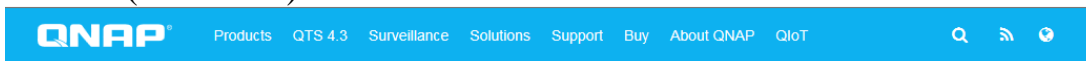


Photo.

Photo Station is a photo management solution that leverages the Media Library database. It offers a better browsing and photo management experience on a QNAP NAS.

<https://www.qnap.com/en-us/how-to/tutorial/article/managing-photos-with-photo-station/> ("Tutorial").



Support

What is System Reserved space?



Applied models:

- [All NAS Series](#)

On a QNAP NAS, system reserved space (Sys.Reserved in Storage Manager) consists of the following:

- QNAP RAID reserved space: stores RAID metadata. 1% of the total capacity of each RAID group is reserved, with an upper limit of 150GB for each group.
- QNAP storage reserved space: consists of storage configuration data, and extra space to keep the NAS functioning properly. Size is about 70 GB for each storage pool, and 20 GB for each static volume.
- EXT4 file system metadata: Size is 1% to 1.5% of each user-created volume.

Release date: 2017-03-03

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<https://www.qnap.com/en-us/how-to/faq/article/what-is-system-reserved-space/>.

EXT4

The **EXT4 filesystem** primarily improves performance, reliability, and capacity. To improve reliability, metadata and journal checksums were added. To meet various mission-critical requirements, the filesystem timestamps were improved with the addition of intervals down to nanoseconds. The addition of two high-order bits in the timestamp field defers the **Year 2038 problem** until 2446—for EXT4 filesystems, at least.

<https://opensource.com/article/17/5/introduction-ext4-filesystem>.

Inode

The inode, described previously, is a key component of the metadata in EXT filesystems.

<https://opensource.com/article/17/5/introduction-ext4-filesystem>.

The inode contains the metadata about the file, including its type and permissions as well as its size. The inode also contains space for 15 pointers that describe the location and length of data blocks or extents in the data portion of the cylinder group.

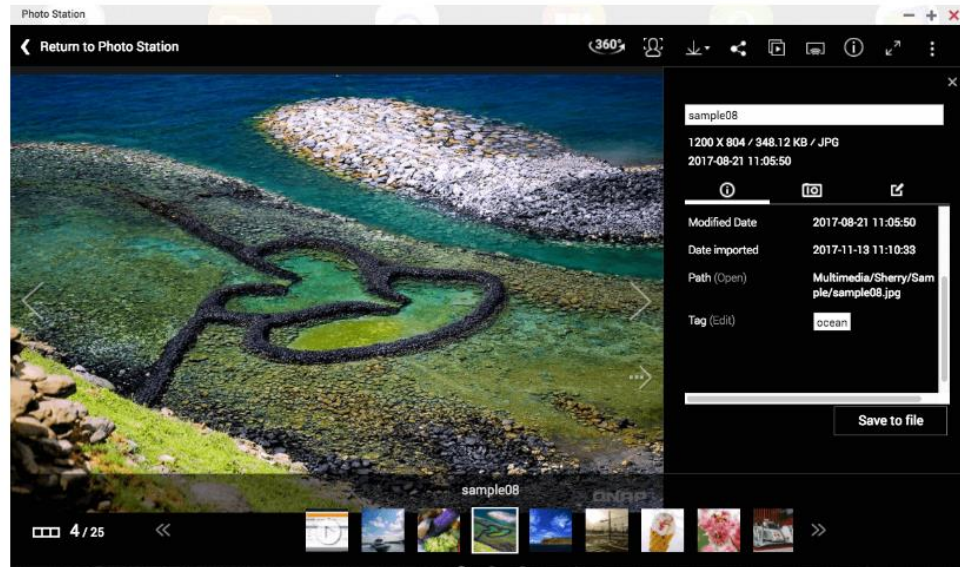
Id.

Viewing and Editing Metadata

Photo Station supports metadata in the Exif, IPTC, and XMP formats.

You can also edit the metadata of a photo or video, such as date taken, tag, description, title, and coordinates. To edit metadata, right-click an item and then select "information".

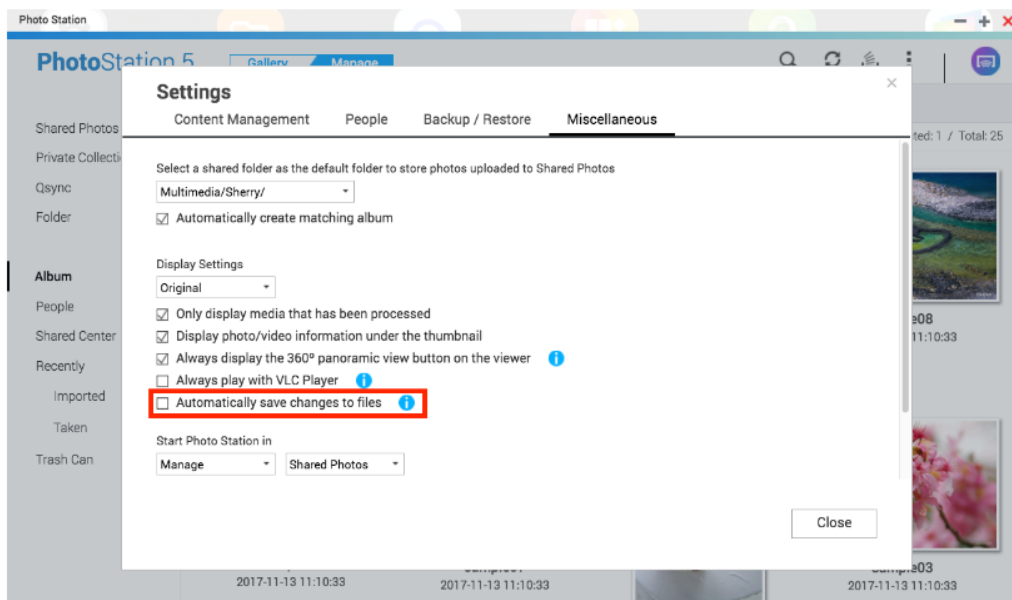
Note: The changes made to the RAW, PDF, and video files are not be saved to the original files.



To automatically save the changes in metadata to files, go to "Settings" > "Miscellaneous" and select "Automatically save changes to files".

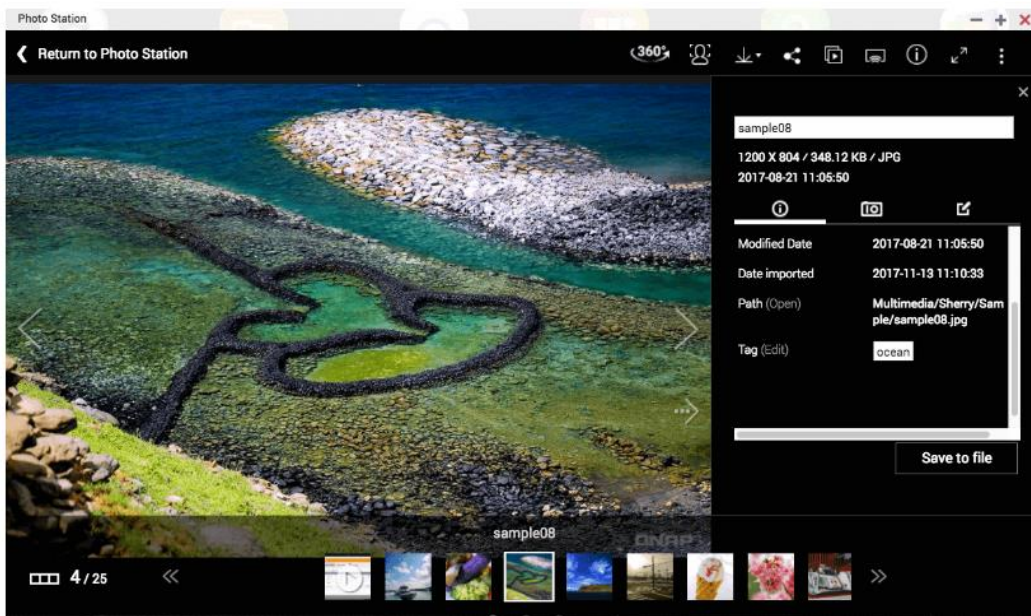
Note: Only changes made after enabling this option are automatically saved to files.

Tutorial.



Id.

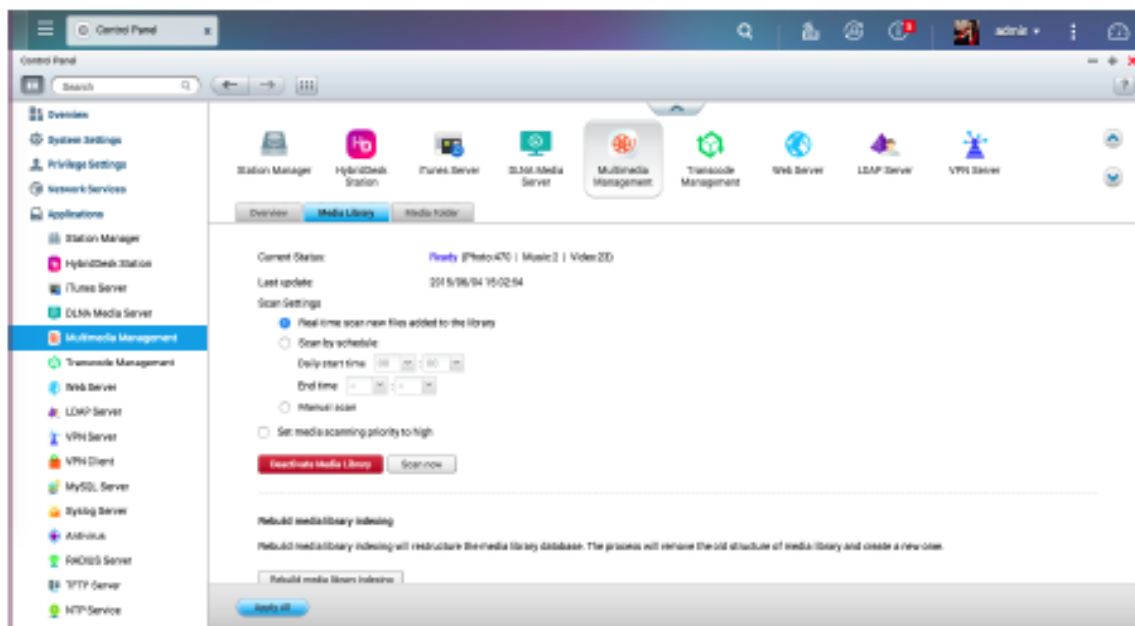
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Id. Photo Station 5 scans the media folders (e.g., "content source") specified by the user stored on the user's device and extracts files such as photos and their metadata.

- 1 • **Use the Media Library to efficiently manage photos**
- 2 ■ **Setup the Media Library**

3 The Photo Station is an application developed from a database known as the
4 Media Library. You can manage the Media Library settings in "Control Panel" >
5 "Applications" > "Multimedia Management". The Media Library will scan and
6 index multimedia files from designated media folders. You can select whether to
7 scan for multimedia files manually or by schedule under the "Media Library" tab.



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18 To set the Media Library to only scan for certain folders or media types, please
19 specify them under the "Media Folder" tab.

20 **Note:**

- 21 ● As the media folders in the Media Library are the content source for Photo
22 Station, Music Station, Video Station and DLNA Media Server; the contents
23 will be affected in those applications if new media folders are added or
24 existing media folders are removed from the Media Library.
- 25 ● The photo and video media folders you specified in the Media Library will
26 be used as the content source for Photo Station.

27 How to Manage Photos Stored in a QNAP NAS ("Manage Photos") at p. 4 (available
28 at

1 https://download.qnap.com/QPKG/GUIDE/Photo%20Station5_Tutorial_ENG.pdf).

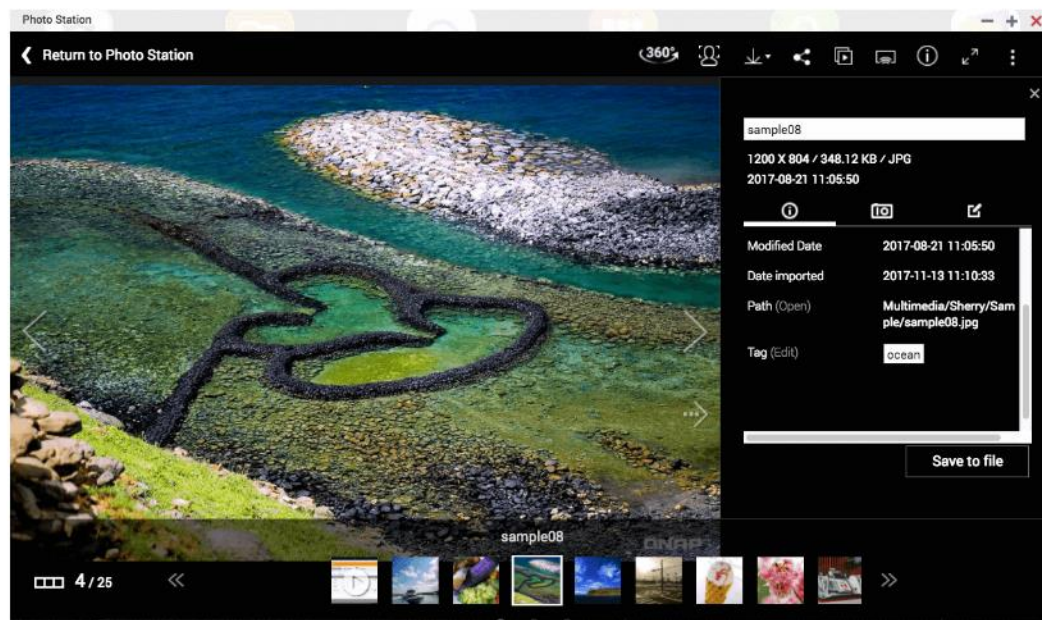
2 The metadata associated with the photos scanned and extracted from the media files
 3 also is extracted and saved along with the photos.

4 Viewing and Editing Metadata

5 Photo Station supports metadata in the Exif, IPTC, and XMP formats.

6 You can also edit the metadata of a photo or video, such as date taken, tag, description, title, and coordinates. To edit metadata,
 7 right-click an item and then select "information".

8 Note: The changes made to the RAW, PDF, and video files are not be saved to the original files.



18 **Tutorial.**

19 The table below presents the supported operations for each metadata property in Photo Station.

20

Properties	Operations				
	Import	View	Search	Edit	Save
Tag	Exif, XMP, IPTC	V	V	V	Exif, XMP, IPTC
Description	Exif, XMP, IPTC	V	V	V	Exif, XMP, IPTC
Title	Exif, XMP, IPTC	V	V	V	Exif, XMP, IPTC
Date taken	Exif	V	V	V	Exif
Rating	Exif	V	V	V	
Coordinate	Exif	V		V	Exif
Image size	Exif	V	V		
Exposure time	Exif	V			
F number	Exif	V			
Flash	Exif	V			
Focal length	Exif	V			
ISO equiv.	Exif	V			
Camera manufacturer	Exif	V	V		
Camera model	Exif	V			
Lens model	Exif	V			
Orientation	Exif	V		V	
White balance	Exif	V			
Metering mode	Exif	V			

1 *Id.* The extracted files (e.g., photos, images, etc.) are indexed and presented to the
 2 user as a collection of the files (e.g., photos, images, etc.). Photo Station 5 allows a
 3 user to create smart albums (e.g., "automatic generation of collection of contents") in
 4 which the user can specify certain criteria (e.g., "user-defined key-phrase matching").
 5 These criteria (such as date, tag, period, etc.) provided by the user are searched in the
 6 metadata that contain such details about the files (e.g., images, photos, etc.) to find
 7 matching results. The identified results are then provided to the user.

- 8 • **Use the Media Library to efficiently manage photos**

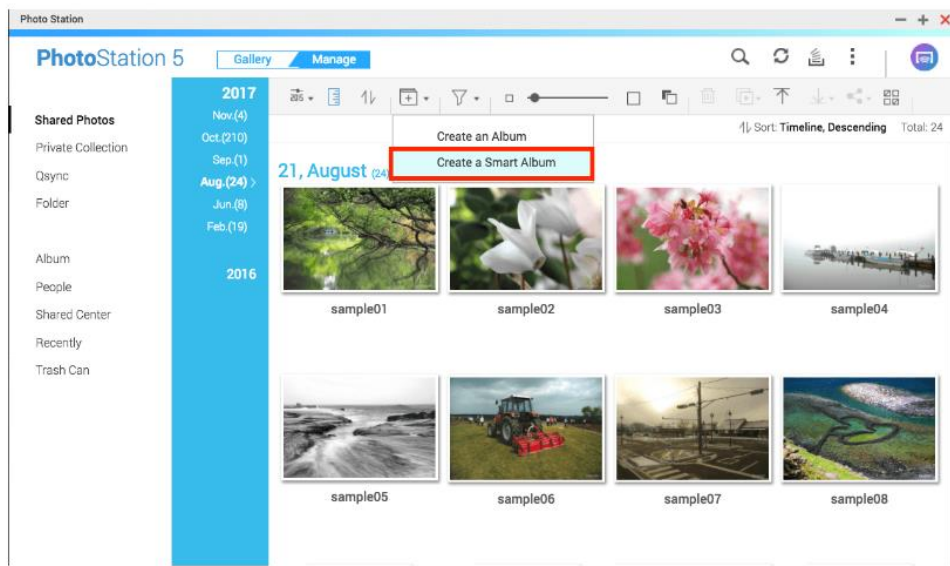
- 9
 - **Setup the Media Library**

10 The Photo Station is an application developed from a database known as the
 11 Media Library. You can manage the Media Library settings in "Control Panel" >
 12 "Applications" > "Multimedia Management". The Media Library will scan and
 13 index multimedia files from designated media folders. You can select whether to
 scan for multimedia files manually or by schedule under the "Media Library" tab.

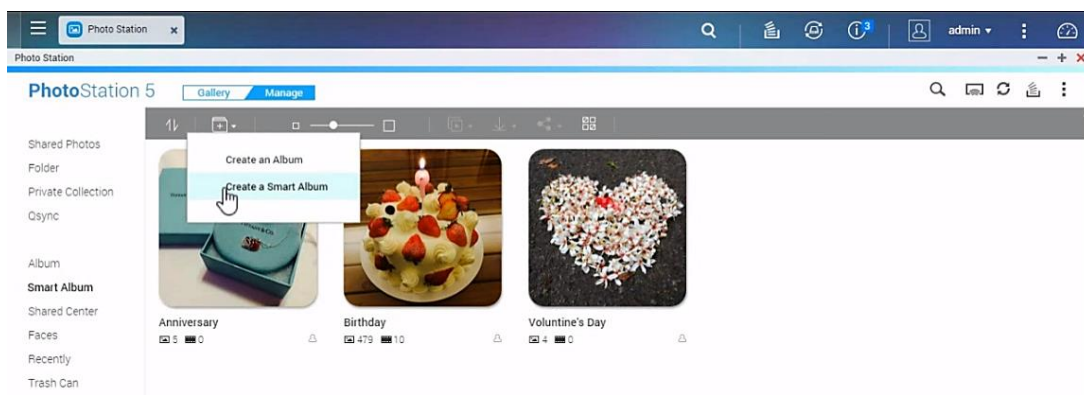
14 Manage Photos at p. 4.

15 Creating Smart Albums

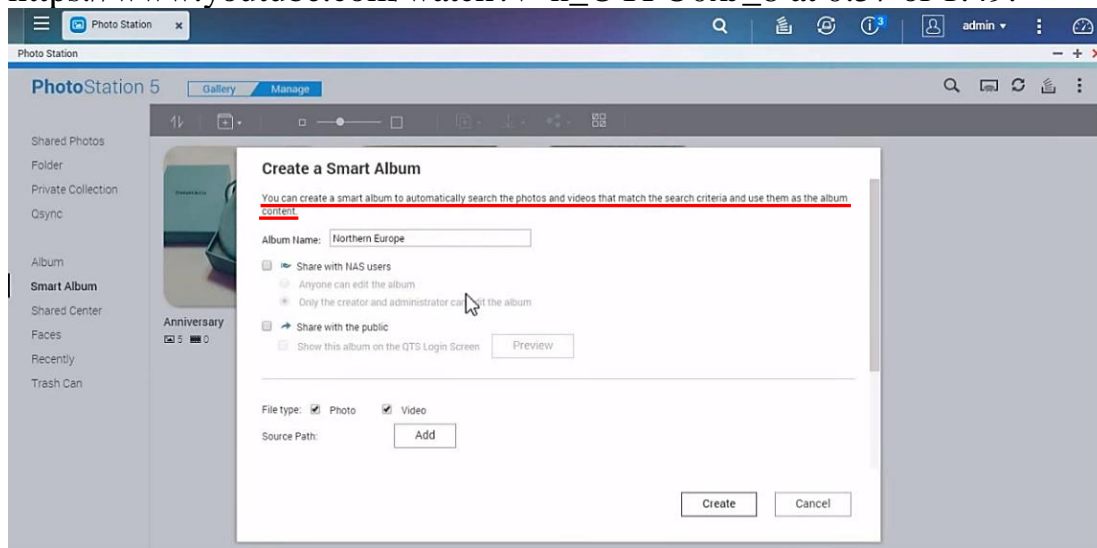
16 A smart album automatically displays photos or videos that match the criteria you specify. To create a smart album, click "Add
 17 Album" on the tool bar and select "Create a Smart Album". You can then specify search criteria such as "This day in history",
 "Period", "Random", "Tag", and "Color label".



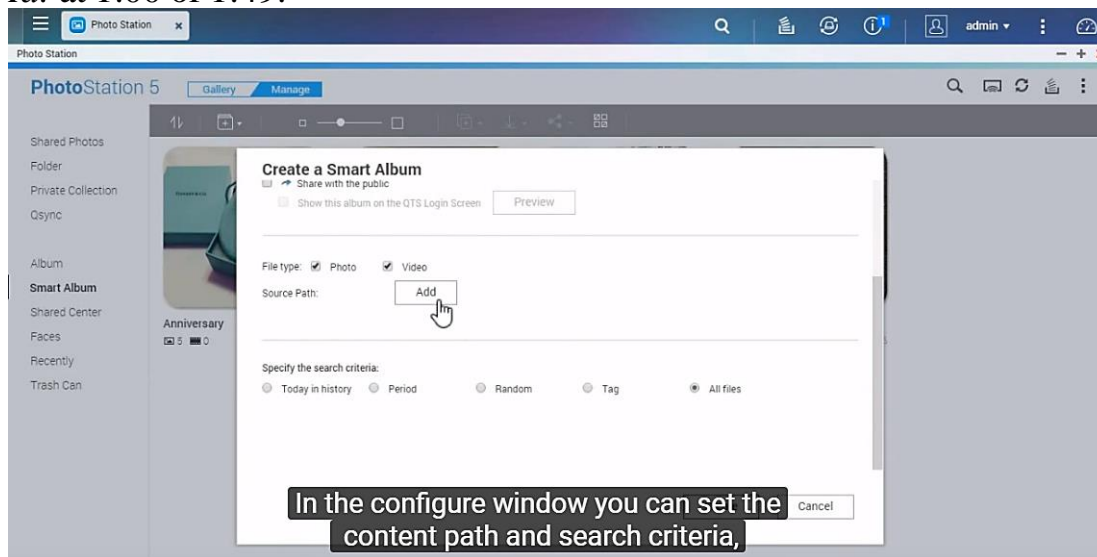
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https://www.youtube.com/watch?v=n_OYFO0xJ_8 at 0:57 of 1:49.

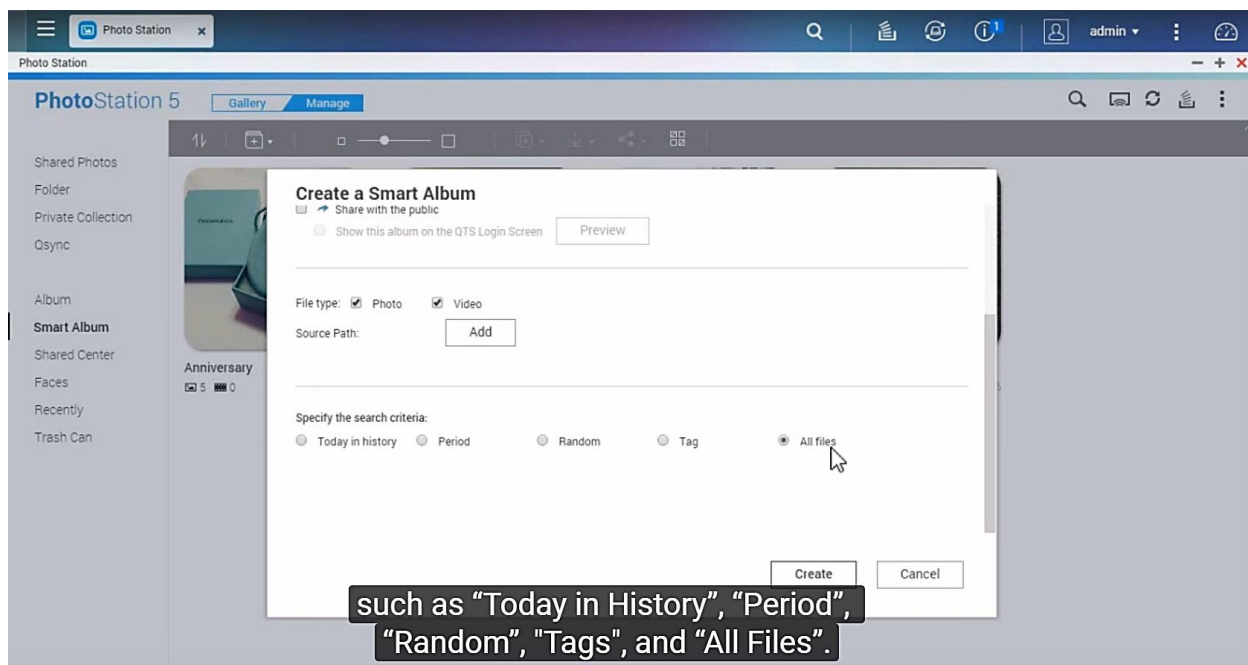


Id. at 1:00 of 1:49.



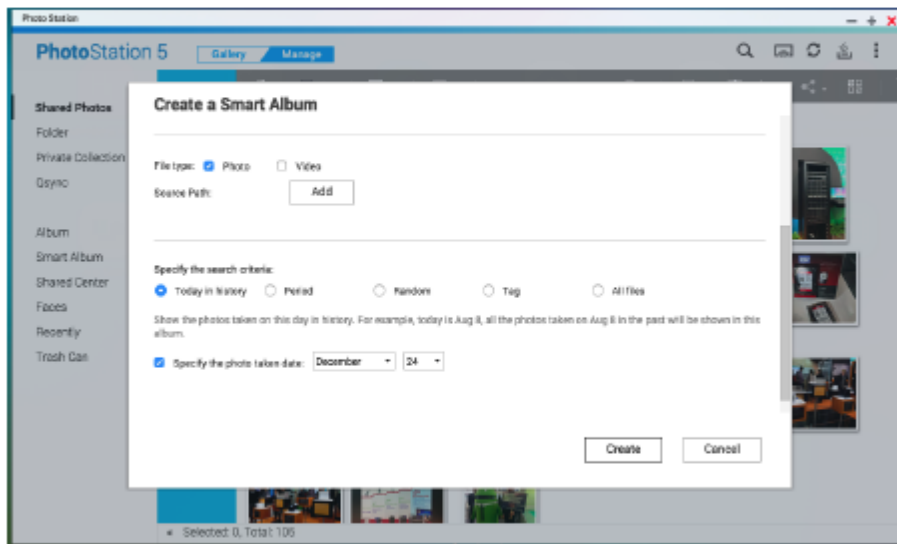
Id. at 1:08 of 1:49.

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Id. at 1:08 of 1:49.

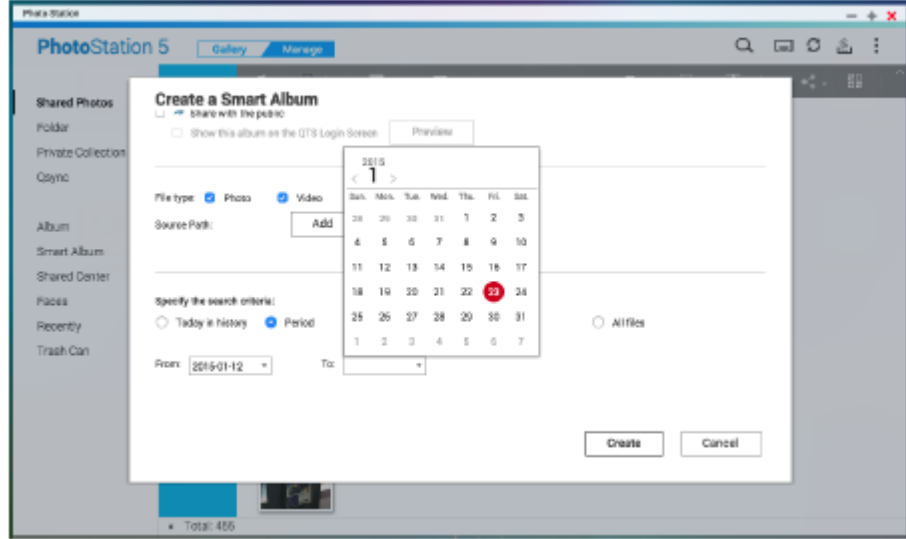
If "Today in history" is chosen as the search condition, photos taken on the same date as today will be displayed. If you often take photos on certain, important days such as birthdays or your wedding anniversary, you can specify a date to show these special occasions immediately from the smart album.



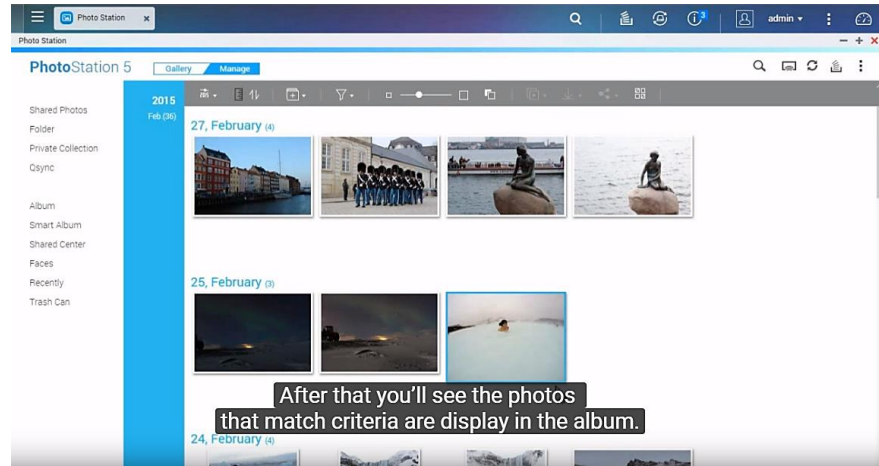
If you want to organize photos/videos efficiently, you can specify a time period to establish a travel album (for example: A trip to Germany for 12 days, from the 12 January until the 23 January).

Manage Photos at p. 9.

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Id. at 10.



https://www.youtube.com/watch?v=n_OYFO0xJ_8 at 1:10 of 1:49.

13. eHierarchy is entitled to recover from Defendant the damages sustained by eHierarchy as a result of Defendant's infringement of the '692 patent in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

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JURY DEMAND

eHierarchy hereby demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, eHierarchy requests that this Court enter judgment against Defendant as follows:

1. An adjudication that Defendant has infringed the '692 patent;
2. An award of damages to be paid by Defendant adequate to compensate eHierarchy for Defendant's past infringement of the '692 patent and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
3. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of eHierarchy's reasonable attorneys' fees; and
4. An award to eHierarchy of such further relief at law or in equity as the Court deems just and proper.

Dated: February 20, 2019

Respectfully submitted,

FERNALD LAW GROUP APC

By /s/ Brandon C. Fernald
Brandon C. Fernald, Esq.

Attorneys for Plaintiff,
EHIERARCHY LLC