The standard for naming files

kaper

KAPER - standard for naming and cataloguing museum's collections' visual documentation image files.

Created for Museum of Gdańsk

Authors: Marcin Kłos, Hubert Kotarski, Ewa Grela (Digitization Department); translated into English by Marcin Kłos.

Release date: 2016-07-20 (English version 3.0_en 2018-05-28)

Spis treści

Function of the standard 5

Part 1: File names 7

File name 8

1. Object unique identification number 8

2. File number assigned by a device 10

3. Merging a file from multiple files (_s1_) 12

4. Technical parameters of a file created in postproduction. 14

5. File category - KAPER 15

6. File name extension 18

Sample file names 18

Metadata of a file 22

Part 2: Cataloguing 26

Cataloguing 27

Catalogues structure within photographic session 32

The standard is designed for description of 2D image files documenting museum's collections. It was created for the needs of the Museum of Gdańsk, although it can be adapted to the needs of any other museum. Additionally, it might be useful for implementation of digital asset management systems (DAM).

The standard describes the data cataloguing structure in a scenario without use of any specialized IT systems intended for multimedia management (DAM). In other words it is built upon catalogues in a directory tree. Therefore, it can also be adapted by the smallest of museums without budget and competence to purchase and manage a specialized system.

The standard does not cover the issues of making backup copies and archiving. In this regard, the practices recommended by the national law as well as ISO industry standards should be applied.

The name of the standard is an acronym of the main categories in Polish language: Conservation (Konserwacja), Archive (Archiwum), Publication (Publikacja), Records (Ewidencja), Coverage (Reportaż), allowing to specify range of use. For own needs museum may use own codes, but it is important to follow the general categories.

In case if you wonder what does "kaper" mean – it means privateer.

Function of the standard

There are various methods of file naming and this standard describes one of them, developed on the basis of many years of digitization of museums' collections. We do not say it is the best method, but we definitely can say it works and allows us to easily manage large quantities of files without any additional software.

The standard performs four functions as described hereafter. First of all, it enables the identification of the imaged object in the file without opening it. Next, it ensures the possibility of machine linking of files with records in database management systems. The last mentioned is only possible when unique identification numbers for objects are consistently applied (i.e. in the museum records, auxiliary registers, accession register and others) and a standardized file name structure is used without exceptions for all documented files that are registered in the institution. Selective application of the standard will provide limited or no advantage. For this reason, the implementation of the standard may require organizational changes in the institution and assigning of new roles to employees. In a worst scenario it will also include cleaning registers backlogs.

The third function of the presented file name method is the file classification by indication for which use the file has been made or reclassified. Finally, the last function relates to the data transfer and it concerns the possibility of bulk renaming for migration or any other purpose. This may include necessary file name modifications for export to Europeana or any other national aggregator.

Figure 1. on following page shows simplified part of the process of digitization. Step 2 is crucial – correct preparation of session allows almost completely automatic numbering (naming) of files as well recording in wright catalogues.

It is advised for quality reasons to create ready files from RAW files on your own and not directly from the device e.g. by using function of creating simultaneously RAW and JPEG files.

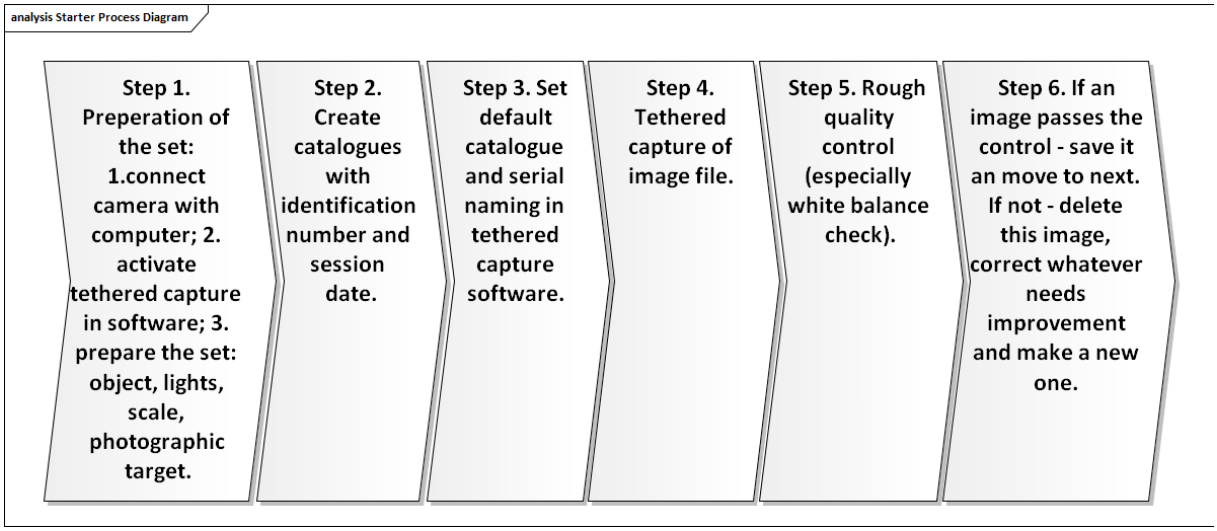

Figure 1. Simplified activities order during digital documentation of objects.

Part 1: File names

File name

The standard divides the name of an image file into six components (of which two are optional): a unique identification number of an object (1); a file number generated by a device - a digital camera or a scanner (2); for postproduction files, an indication of whether a file has been merged or stacked from a series of other files and an ordinal number of such a set (3); key parameters of postproduction (4); followed by a KAPER's category (5); and a file name extension (6). Elements of the file name must be separated by an underscore _.

The structure of the name is presented in the model below:

1_2_3_4_5.6

where:

unique-object-number_file-number_set_postproduction-parameters_category.file-name-extension

The components of the image file name are characterized below:
1. unique identification number of an object;
2. file number assigned by a device;
3. identification of a file merge or stack from multiple files in postproduction;
4. identifier of technical parameters of a file created in postproduction;
5. KAPER's category;
6. file name extension;

1. Object unique identification number

A file name starts with a unique identification number of an object. This id number might be a record number, inventory number, register number, accession number, or any other number uniquely indicating (identifying) object imaged in a file.

If an object id number is divided into components with slash or other separator, it must be changed to hyphen – .

Do not input diacritics or spaces between characters. All elements should be written in lowercase.

Unique identification number can be an accession number, commonly used in Anglo-Saxon museums. It may include three components separated by hyphens (dashes) (whereby the record in the books may be separated by dots). The first component is the owner's signage, usually an abbreviation of the institution in accordance with the organization's statute, followed by four-digit year and the ordinal number under which the object was registered in the book of accession at the time of purchase to a museum.

The order indicated above can, of course, be reversed and the object identifier can start with the ordinal number, after it can be followed by a year and the owner's signage or any other combination. One should only remember, that the adopted principle should be applied consistently and leave no freedom in the order of recording file names.

A museum may specify that the ordinal number in a file will have a fixed number of characters, e.g. four digits, because it does not purchase more than 9999 objects annually. Then a first object in a given year will have identifier 0001, a hundredth 0100 and a thousandth 1000.

Examples of accession numbers' identifiers:

mm-2014-0012 (variant with a fixed number of characters),

mm-1990-75 (variant without a fixed number of characters),

23-1984-mm (variant starting with ordinal number),

mm-84-1977 (variant with a year at the end)

In Polish museums a unique number identifying an object usually will be a complex number from one of a museum's records. Structure of this number should be regulated by a museum's internal rules. It often starts with an abbreviation of an owner in accordance with the organization's statute. In this document an abbreviation mm is used to indicate owner (as acronym for exemplary municipal museum). Second component is usually a letter abbreviation of an organizational unit (department,

workshop) responsible for an object, while the number of characters may vary. In this document abbreviations are used as follows: ab, h, hk, hs, p, rit, sh, tp, signaling only variety of abbreviations in museums. Next in order is an ordinal number of a register (museum inventory, auxiliary register or other), which can be a number or set of sub numbers, when it refers to a group of objects (entered under one number – e.g. pair of shoes might be mm-hk-123/1-2 or mm-hk-123/a-b depending on a museum internal rules or so called tradition). Examples of unique identification numbers of objects: mm-h-123 for mm/h/123, mm-rip-345 for MM/RIP/345; mm-ab-949-a, mm-ab-949-b, mm-ab-949-c for MM/AB/949/A-C.

Do not use the identification number given to an object or an object record by the IT system, because in the case of a change of the system such a unique identifier will no longer be relevant (will become obsolete) and will be replaced by an identifier given by a new IT system. To put it differently, such an identifier is not permanently connected to an object, on the contrary to described above variants, when accession number or records number are marked on an object.

ⓘ No object in the image frame

In the case of reportage and archival photography (e.g. construction of an exhibition, which will include objects, or an event), when it is difficult to indicate with which object the file is connected, a derogation is allowed, which does not introduce a unique identification number to the name of the file. It should be emphasized that such situations should occur marginally in the case of collections' documentation. Such documentation should be stored outside collections' documentation.

2. File number assigned by a device

The second element of the file name is a file number generated by a device (camera, scanner) on which it was created.

This is an original file name taken from a device before any modification. Structure of an assigned file name depends on the manufacturer of a device from which it comes.

It usually includes a string of digits (usually four), sometimes it is preceded by letters (e.g. IMG9785, P2564).

If different devices for different numbers are used, there is no need to merge the numbering. It is important from the point of view of later archiving to replace uppercase letters in the file number with lowercase letters (e.g. img9785, p2564). The presence of underscores in the file number assigned by a device should be avoided as much as possible.

3. Merging a file from multiple files (_s1_)

Important! This is an optional element – it may be used only to create postproduction files from files in folders 00_master and 01_ready.

Important! Merged files (_s1_, _s2_, and so on) must be stored exclusively in folder 02_postproduction and non-other.

A special case of publication files produced in the postproduction process are photographs created as a result of combining several files using the stack function, panorama or other. To distinguish merged files and indicate that those were obtained from combining a series of files, additional element of file name must be added – letter “s” along with the ordinal number, starting from 1 for the first series (_s1, _s2). This element is inputted as the third component of the file name after the unique object number (1) and file number from the camera (2), separated by "_"

A merged file should use a file name of a photograph with the lowest number assigned by a camera, from which it was created.

Bear in mind, that for technological reasons, it is not advisable to include in a name of a generated file numbers of all component files from which it was created.

In the example below, four photographs were taken of the MM/HH/124/1 object at a different depth of field and a new publication file was created after merging them with stack function. Documentation files:

mm-hh-124-1_img1234_e.jpg

mm-hh-124-1_img1235_e.jpg

mm-hh-124-1_img1236_e.jpg

mm-hh-124-1_img1237_e.jpg

Listed documentation files were merged into postproduction file:

mm-hh-124-1_img1234_s1_p.jpg ✓

Do not use such a type of file names:

mm-hh-124-1_img1234-img1235-img1236-img1237-img1238_s1_p.jpg ×

It is crucial to be consistent with application of the above principle (_s1, _s2, _s3, …) because in the course of the digitization of collections, more than one file created from combining a series of files might be generated. Any use of non-standardized names like stack1, merge1, render, presentation1, or other will lead to ambiguity and is not allowed.

Therefore, if there are several merged files created from the same series of files, or starting from a same file (which is a lowest number in a group), these should be distinguished by adding a number ascending after the letter s, according to the following rule:

mm-hh-124-1_img1234_s1_p.jpg – for the first postproduction file after merging series of files, from which the first file has the serial number from the camera img1234;

mm-hh-124-1_img1234_s2_p.jpg – for the second postproduction file after merging the same series of files;

mm-hh-124-1_img1234_s3_p.jpg – for the third postproduction file after merging the same series of files;

mm-hh-124-1_img1234_s4_p.jpg – for the fourth postproduction file after merging the same series of files;

…

mm-hh-124-1_img1234_s26_p.jpg – for the twentieth sixth postproduction file after merging the same series of files;

4. Technical parameters of a file created in postproduction.

Important! This is an optional element – it may be used only to create postproduction files from files in folders 00_master and 01_ready.

Important! Files created in postproduction with technical parameters in names must be stored exclusively in folder 02_postproduction and non-other.

After creation of a ready file (stored in 01_ready) from a master file (01_master), there is often a need for further processing of such a file for various needs related to the museum's activities, such as preparations of publications, exhibitions or sharing files with users. Therefore, files with different resolutions, dpi values, or additional visual effects (e.g. sepia, monochrome) are prepared in the postproduction process. Due the fact, that preparation of such files takes often considerable time, you should try to keep any files created in postproduction.

With this in mind, and the fact that the change of parameters does not change the name of a file (except change of a file's format, when file extension is changed), a parameter differentiating files created in the postproduction was introduced. The parameter is aimed to avoid incremental numbering of subsequent versions of a same file, because with the twentieth version of a file, it will be difficult to find out, which is which (for example monochromatic).

The description of technical parameters should not, in principle, exceed 10 characters, but in justified cases it is acceptable. Recommended variants:

- In case when you want to record an image size in pixels, the default record order is:

The number of pixels on the longest side x the dpi value, i.e.:

- 4000x72:

mm-hh-1275_img8875_4000x72_p.jpg ✓

the same with a merged file

mm-hh-1275_img8875_s1_4000x72_p.jpg ✓

mm-hh-1275_img8875_s2_6000x300_p.jpg ✓

- 12000x300:

mm-hh-5465_img8875_4000x72_p.jpg ✓

⏩ In case we want to record that a file was made with a visual effect:

- sepia – for files with sepia effect:

mm-hh-1568_img9865_sepia_p.jpg ✓

- mono – for files with monochrome effect:

mm-hh-1168_img2985_mono_p.jpg ✓

- collage – for files with collage effect, merged from a series of files:

mm-hh-6721_img3476_s1_collage_p.jpg ✓

mm-hh-6721_img3476_s5_collage_p.jpg ✓

⏩ In case we need to record visual effect and size:

mm-hh-1763_img0923_mono4000x72_p.jpg ✓

mm-hh-1768_img0928_s7_mono4000x72_p.jpg ✓

5. File category - KAPER

The fifth element of the file name is an image category which is a one-letter code. The standard defines five categories, which are described in the table below. They correspond to the acronym KAPER. The one-letter category must be entered at the end of a file name (after the number generated by a camera or optional elements in a postproduction file). The code must be entered necessarily with a lowercase letter and separated from the preceding component with an underscore _.

ⓘ Location of the category in the file name

The category is placed after the file number component assigned by a device, although from the point of view of day to day work and speed of renaming files, it would be more convenient to place categories between the unique object identifier and the number assigned by a device. It was not done due to the unambiguity. The category is the last character of the file name preceding the file name extension. It ensures the clarity of the name, without anxiety that some unique object identifier will be so complex that spotting the category component in a series of characters will be a serious impediment, especially while browsing a large number of files. In addition, it guarantees the avoidance of a situation where a device generates files starting with one of the letters of the KAPER category with an underscore, which would undoubtedly raise doubts in interpretation.

Category code	Category name	Category description
k	**conservation** [konserwacja]	Photographs taken during conservation (at all stages), document processes, states; do not require the use of photographic targets and scales, although it is recommended.
a	**archives** [archiwum]	Photographs documenting objects and publication photographs taken before the digitalization process started, including scans of the photographic archive created by museum's photographers. The category includes photographs that do not meet the quality requirements or standards, which serv as a comparative and reference material. **Important**! The category also includes files created in the course of digitalization for parts or elements of objects not recorded in the inventory book and records (like covers, briefcases, inserts, envelops, or other packaging which has no identification numbers/markings and is not mentioned in records) - such documentation is created for the needs of archiving information about the appearance and condition of such objects.
p	**publication** [publikacja]	Photographs of objects made for the needs of publications (dissemination) and public presentations, including a specially prepared arrangements including, among others, the use of mannequins for costumes, sets of objects (e.g. tableware) or collections, interiors with different lighting and/or filters, merging photographs into one, panoramic photographs, visual effects, and so on.
e	**records** [ewidencja]	Documentation photographs created with prime lenses, with optimal background and light, photographic targets, scales and profiles. This category marks files containing visual documentation of objects. Should be performer according to national requirements regarding visual documentation of objects recorded in museums' inventories. Preferred compatibility with *Metamorfoze Preservation Imaging Guidelines, Image Quality* and/or *Guidelines: Technical Guidelines for Digitizing Cultural Heritage Materials, Creation of Raster Image Files*. This is the most important category as it goes to visual documentation of collections.
r	**coverage** [reportaż]	Photographs documenting transport, exhibition preparation, exhibitions, vernissages, events including historical reconstructions, education. The category includes photographs of people.

Tabel 1. Kaper's categories.

6. File name extension

The last component (suffix) of the file name is a file name extension, which is separated by a full stop (period) from the rest of the name and specifies the file format in which it is saved (the way data is stored in the file), for example: nef, cr2, orf, pef, dng, 3fr, sr2, mef, cap, tiff, jpg.

Sample file names

The name **mm-sh-124-1_img1234_e.jpg** identifies a file with a visual documentation of an object with a unique identification number *mm-sh-124-1* (which in the traditional notation could be written as MM/SH/124/1 or MM.SH.124.1), categorized as records documentation (e), with the file number given by the device img1234, in jpg format.

The name **m-tp-dep-1_p98454_p.png** identifies a file with a visual documentation of an object with a unique identification number *m-tp-dep-1* (which in the traditional notation could be written M/TP/DEP/1 or M.TP.DEP.1), categorized as publication (p), with the file number assigned by the device P98454, in png format.

ⓘ Sets of objects depicted in one image file.

In case when a visual documentation file contains several objects which come from one set (the so-called number breaking with numbers e.g. MM/HK/123/1-5 – counted as five objects), such a file should be catalogued in the main folder of that set of objects and not in a folder of a particular (sub)object of that set. The same applies to a file containing several elements (components) of an object (the so-called number breaking with letters e.g. MM/HK/124/A-E – counted as one object). You will find more about cataloguing in the second part of the standard.

However, if the visual documentation contains different objects or their elements that do not belong to one set of objects (numbers without breaking, e.g. MM/HK/78, MM/HK/235), create a file for each element or object in the photograph and describe it with a unique identification number (according to the standard). Depending on the museum, the naming method may differ radically. Generalized examples are given below.

The IMG5436.jpg file depicts all elements of the MM/HK/123/A-E object (the same principle will apply to the MM/HK/123/1-5 marking). Keep in mind that the MM/HK/123/A-E is not a unique identifier which allows you to immediately indicate each depicted object/element (each of the five elements in the image may have one of the letters from the set A to E, of course, except the situation when you can read their numbers in the image). Only a file name with a specific object identifier like MM/HK/123/A is unique and unambiguous (leaves no doubt).

For the aforementioned set of elements, the file should be placed in the main folder for the set of objects and named:

mm-hk-123-_img5436_e.jpg ✓

Do not use bulk labeling:

mm-hk-123-**a-e**_img5436_e.jpg ×

because it is ambiguous. The indicated file will be identical for a file presenting the whole set, i.e. all elements of the object from A to E as well as for only two elements of the object - A and E. This is due to the use of a hyphen in the name as a separator (A and E) and not as a range indicator (A to E).

Regardless of the separator, indication of individual elements in a file name generates difficulties, which might be hard to cope with. If we would like to depict a larger set of objects, including, for example, 75 elements, of which there are 20 non-adjacent depicted in an image, it will lead to the creation of a file name exceeding the safe number of characters.

Therefore, the following **should not be used**:

mm-hk-298-1-7-9-12-24-30-35-56-59-62-64-69-70-73-75_img7598_p.jpg ×

Regardless of whether a set is depicted as a whole or as a selected components, it should be described without listing all of depicted sub numbers. To show that it depicts more than one object, a hyphen at the end of an object identification number must be added as shown:

mm-hk-123-_img5436_e.jpg ✓

mm-hk-298-_img7598_p.jpg ✓

In case where the img5436.jpg file depicts various objects, e.g. MM/HK/12, MM/P/2908, MM/RIT/754, create separate files with the object identification number for each of the objects depicted and save them to in appropriate catalogues:

mm-hk-12_img5436_p.jpg ✓

mm-p-2908_img5436_p.jpg ✓

mm-rit-754_img5436_p.jpg ✓

ⓘ Object's elements or parts which are not featured in inventory books.

In some cases, an object consists of a set of elements or objects, e.g. album cards with graphics, where each card has a unique museum number. Additionally, each card has also a cover and an insert with text. These are not recorded in inventory or mentioned in any records, because at the time of recording these seemed irrelevant. Without getting into details about justification of such a decision, these original parts of objects need to be digitally preserved as well. So, on the occasion of digitalization, they are subjected to documentation as part of the entire set and some file names are given to them, often simply without sub number. Then, at the cataloguing stage, there is a problem where to put such files and how to highlight them?

For files depicting such elements category a (archive) should be used. Sample file names:

mm-hk-123-_img5439_a.jpg ✓

identifies a file with a visual documentation consisting of set of objects (or object consisting of elements) with a unique identification number starting with mm-hk-123-, in jpg format.

mm-hk-228_img6729_a.jpg ✓

identifies a file with category archive depicting object with unique identification number mm-hk-228.

ⓘ Duplication of names

The probability of repeating a file name, that means situation when an object image file (e.g. mm-h-11_img1234_e.jpg made 2015-05-15) has the same number generated by a device as another (older) digital file made for the same object (mm-h-11_img1234_e.jpg made 2014-05-10) depends heavily on: a number of objects being documented in a museum, a number of photos taken during sessions of each object and a cyclical nature of sessions over time. Digital devices after reaching the highest available file numbering value (e.g. img9999) start a next numbering cycle again from the lowest value (e.g. img0001). As a rule, the more numerous are the collections the less likely file name will be ever repeated.

Only for purposes of academic discussion an undesirable scenario is presented: a museum annually makes digital photographs of 1000 objects, always in the same order, always 10 images per object. In such a case, each year new files would have the same file names as the existing ones. Cataloguing files by sessions (session dates) eliminates this problem.

If there is a need to compile and/or store files from different sessions in one catalogue (which is not recommended due to colour profile files), distinction between files with the same file name should be created by adding an additional digit to the number generated by the camera, as shown below:

mm-hs-123_img1234_e.jpg – for the first session (oldest file among files with repeating file name) ✓

mm-hs-123_img12341_e.jpg – for the first repetition of the file name ✓

mm-hs-123_img12342_e.jpg – for the second repetition of the file name ✓

…

mm-hs-123_img123435_e.jpg – for the thirty-fifth repetition of the file name. ✓

ⓘ More than one category for a one file

As a rule, one file has only one category. In case one file meets the requirements of several categories and it is necessary to indicate this, each time it should be copied and given different adequate category. This cannot become an everyday practice.

ⓘ Records and publication categories.

As a rule, an image with category records can be published, while it not necessary works the other way around, an image file created specifically for publication does not have to meet the requirements of records category.

Most photographs in museums are created for the needs of documentation and will have category records, whereas category publication is added to images which do not follow strict quality requirements, with a visual effect being the most important factor.

Metadata of a file

The standard does not specify how to fill file's metadata, but it is recommended to fill them consistently, using controlled vocabulary to the widest extent possible. That means that individual terms should be consistently applied in the same form (preferred noun in singular form), and that the organization should maintain list of controlled vocabulary for metadata description of digitization files.

Below the basic file's metadata is shown. It is available after displaying file properties in Windows (right click on a file>>properties>>details). The KAPER category should be filled in Tags metadata element. Category should be written with a full name.

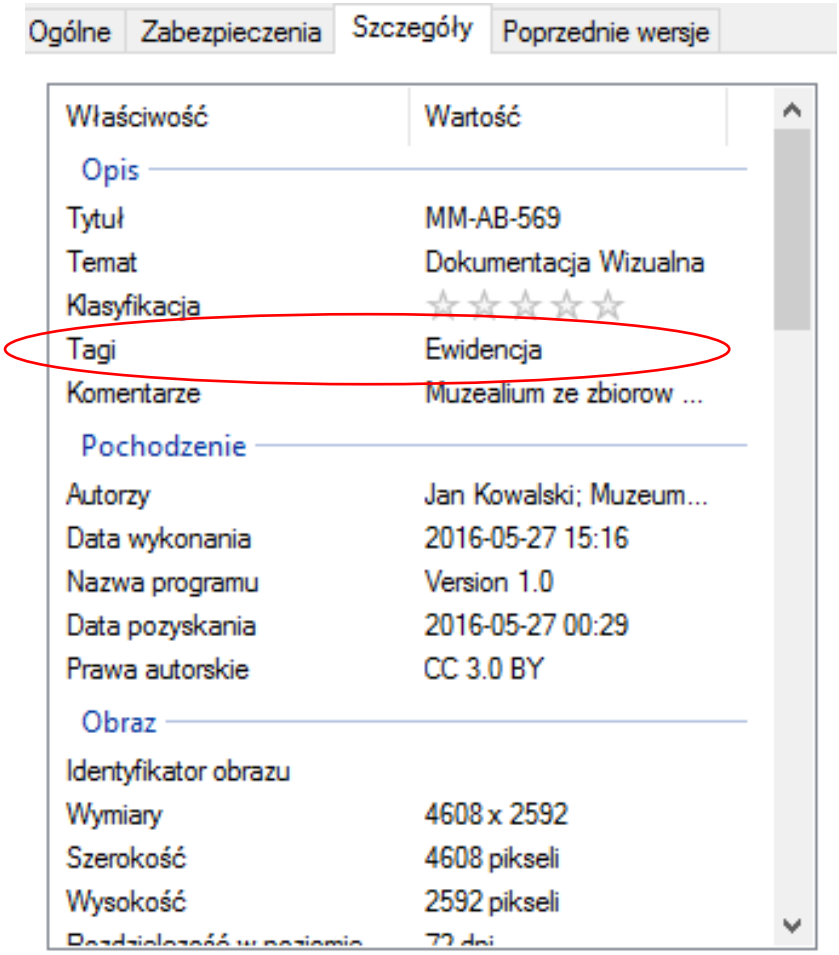

Figure 2. Properties of a file. Highlighted is the category: records in the metadata element" Tags.

When filling in IPTC data, the selected KAPER category should be filled in with the full name in the Keywords metadata element (shown below).

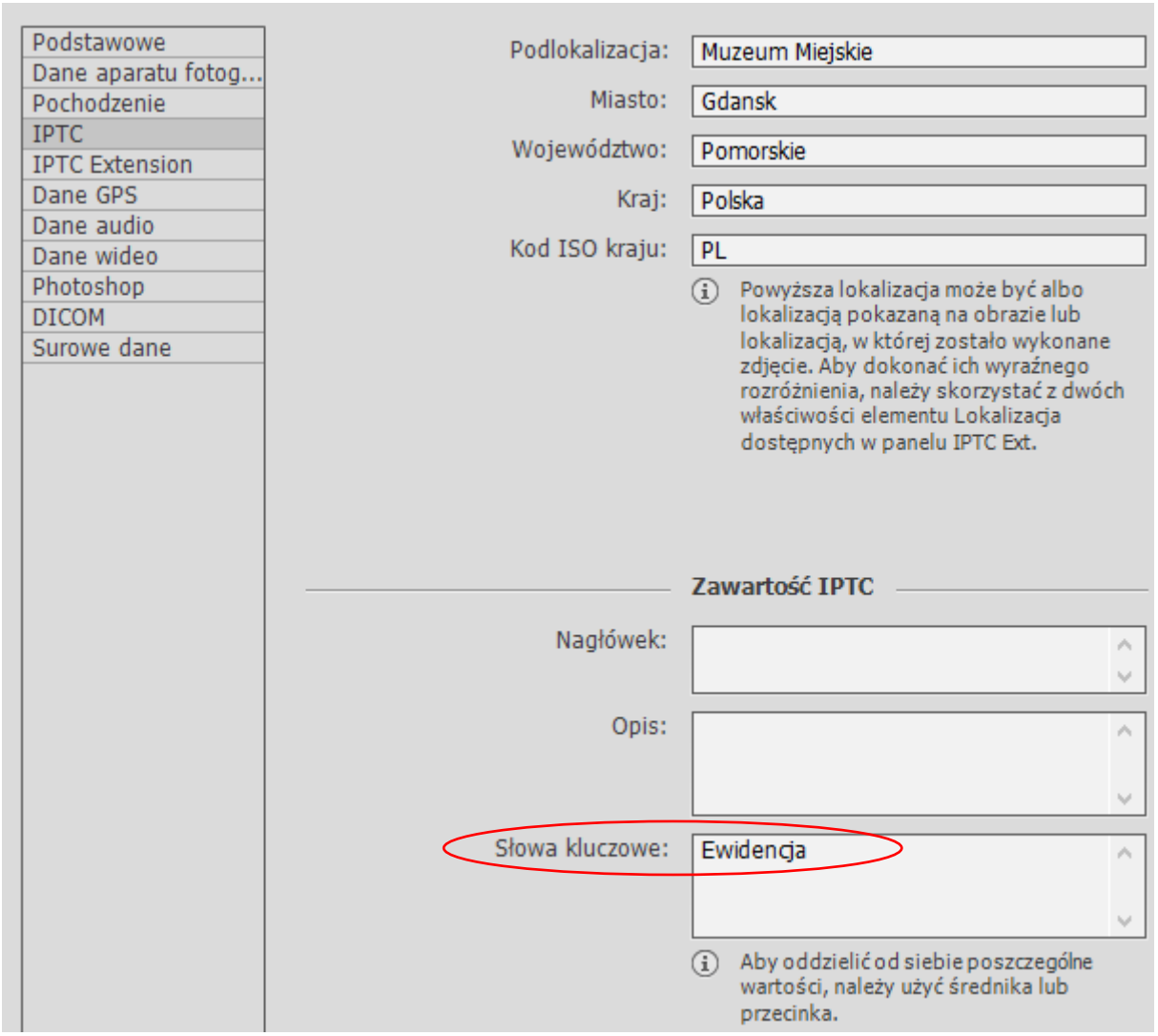

Figure 3. IPTC data of a file. Highlighted metadata element keywords with filled in category: records.

Detailed information on how to fill in IPTC data are described in the IPTC standard.

In some cases, it is important to keep detailed information about a documented object in a file, e.g. a specific graphic from a sketchbook card (when there are several graphics on a card). Such a piece of information can be recorded in a file's metadata, in one of the suggested metadata elements: comments or others.

Below, Figure 3 shows an example description within the file's metadata displayed in the file explorer. The depicted object’s elements have been specified in the comments.

Nazwa	Typ	Rozmiar	Data utworzenia	Komentarze	Tagi
mm-ab-665-1_p1100188_r.JPG	Plik JPG	4 028 KB	2016-07-15 11:29	gablota ekspozycyjna	Reportaż
mm-ab-665-1_p1100189_r.JPG	Plik JPG	4 846 KB	2016-07-15 11:29	etykieta podpisu	Reportaż
mm-ab-665-1_p1100190_e.JPG	Plik JPG	4 773 KB	2016-07-15 11:29	kartka 1; strona 1; druga grafika od góry	Ewidencja
mm-ab-665-1_p1100191_e.JPG	Plik JPG	4 284 KB	2016-07-15 11:29	kartka 1; strona 2; druga grafika od góry	Ewidencja
mm-ab-665-1_p1100192_e.JPG	Plik JPG	4 141 KB	2016-07-15 11:29	kartka 1; strona 2; widok ogólny	Ewidencja
mm-ab-665-1_p1100193_p.JPG	Plik JPG	4 851 KB	2016-07-15 11:29	kartka 1; strona 1; widok ogólny	Publikacja
mm-ab-665-1_p1100194_e.JPG	Plik JPG	4 891 KB	2016-07-15 11:29	kartka 1; strona 1; trzecia grafika od góry	Ewidencja
mm-ab-665-1_p1100195_e.JPG	Plik JPG	5 561 KB	2016-07-15 11:29	kartka 1; strona 1; druga grafika od góry	Ewidencja
mm-ab-665-1_p1100196_e.JPG	Plik JPG	5 519 KB	2016-07-15 11:29	kartka 1; strona 1; pierwsza grafika od góry	Ewidencja
mm-ab-665-1_p1100197_e.JPG	Plik JPG	5 312 KB	2016-07-15 11:29	kartka 1; strona 2; trzecia grafika od góry	Ewidencja
mm-ab-665-1_p1100198_e.JPG	Plik JPG	4 890 KB	2016-07-15 11:29	kartka 1; strona 2; pierwsza grafika od góry	Ewidencja
mm-ab-665-1_p1100199_e.JPG	Plik JPG	4 994 KB	2016-07-15 11:29	kartka 1; strona 2; druga grafika od góry	Ewidencja
mm-ab-665-1_p1100287_r.JPG	Plik JPG	19 191 KB	2016-07-15 11:29	widok na ekspozycje	Reportaż

Figure 4. File explorer details view showing a few elements of metadata. The highlighted Comments category contains detailed information about the depicted elements of the object mm-ab-665-1.

Part 2: Cataloguing

Cataloguing

Each object has its own catalogue named with its unique identification number, which is used in the museum as its primary records number (this is mention in case if object has also some former identification numbers). Catalogue names must contain only lower case letters, with no special or diacritic characters.

If you change the unique identification number of an object, for example as a result of a transfer to another inventory book, create a new catalogue with the current unique identification number and leave the old catalogue with its content. Do not change or delete anything in it. An object which had its number changed needs new visual documentation with new identification number. Changing just an object number in file name will not meet the needs in a long term, because it does not refer to current (up-to-date) state of that object. Finally, in no circumstances interfere into digital files and do not change objects' identification numbers in images.

In a case of a complex structure of collections, the collections should be divided according to the books or organizational units that supervise collections in such a way, that all catalogues of objects from the AB department are in the AB catalogue.

Each photo session is saved in an object's catalogue as a sub catalogue and its name is a date of the session when they were taken, recorded in the ISO8601 format i.e. YYYY-MM-DD (2012-05-12). However, if you are from USA or any other country which uses a different way of recording date i.e. MM-DD-YYYY, feel free to do it your way, but remember to be consistent.

Important! It should be accepted as a rule that one session does not go beyond one working day, i.e. it can have only one date (YYYY-MM-DD).

For example, an object marked as MM/AB/568 was photographed three times, in 2012, 2013 and 2016, which is reflected in the following catalogue structure shown in Figure 4.

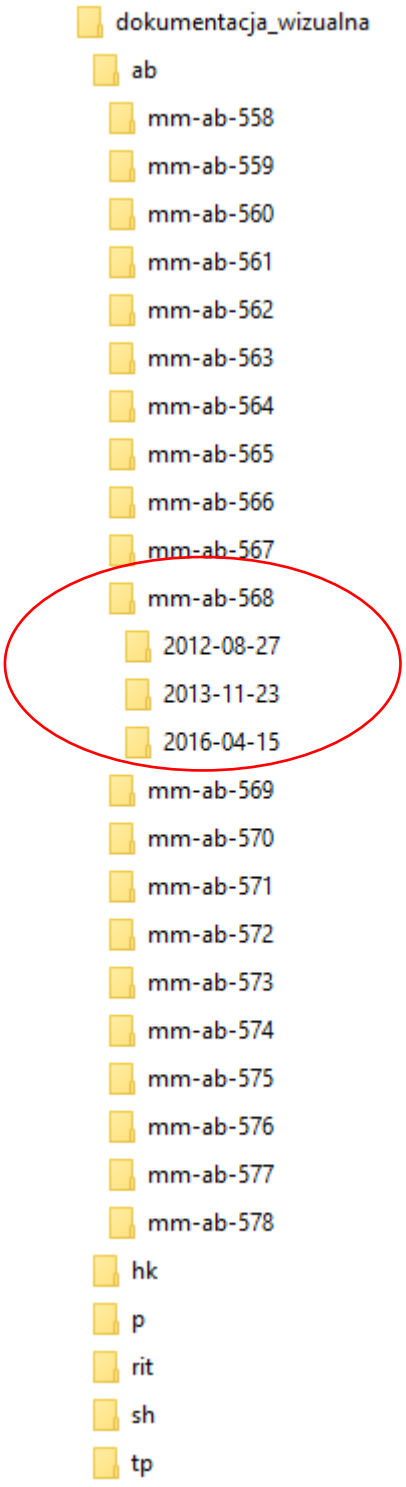

Figure 5. Tree-like structure of catalogues. Highlighted are three sessions for the object mm-ab-567.

One object consisting of set of elements (e.g. MM/HK/123/A-E) as well as set of objects inscribed in one record i.e. inventory position (e.g. MM/HK/124/1-3), will have sub catalogues corresponding to the names of individual sub numbers (e.g. mm-hk-124-2). It is only in these sub catalogues that photographic sessions catalogues should be added, as shown in figure 6 below.

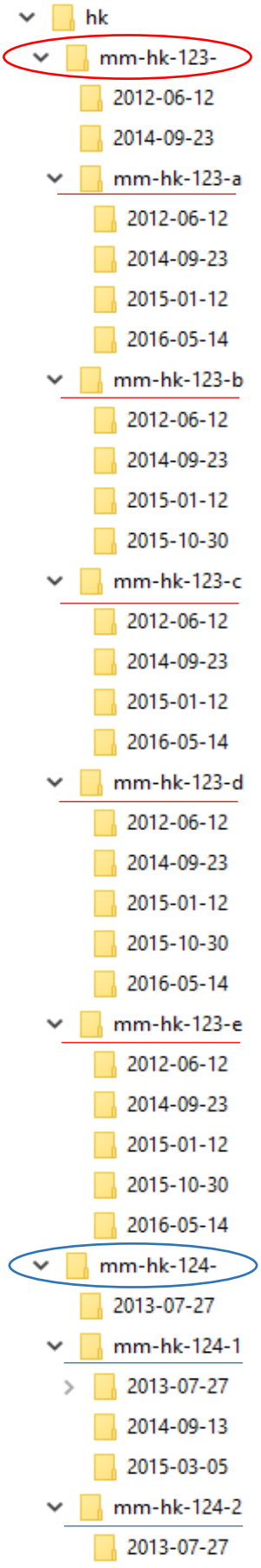

Figure 6. Tree-like structure view of catalogues. Highlighted are two complex objects MM/HK/ 123/A-E and MM/HK/124/1-3 as well as sessions performed for elements of these objects.

The above example shows that individual elements of the MM/HK/123/A-E were photographed at different frequencies (most often elements D and E). In the case of the set of objects MM/HK/124/1-3, the least frequently photographed object is MM/HK/124/2.

Regardless of the complexity of an object, its numbering should be reflected in the structure of catalogues, to the level of an unambiguous unique identification number. Only unambiguous catalogues can ensure the effectiveness of the standard. Figure 7 below shows an example of a complex numbering of a set of objects (e.g. coffee service):

MM/HK/125/1

MM/HK/125/1/A-D

MM/HK/125/2

MM/HK/125/3

MM/HK/125/3/A-C

MM/HK/125/3/C/A-B

MM/HK/125/4

MM/HK/125/5

MM/HK/125/6

MM/HK/125/6/A-K

MM/HK/125/6/H/A-D

MM/HK/125/7

MM/HK/125/8

To better illustrate the catalogues structure, the relationships between the catalogues were highlighted by arrows in different colours.

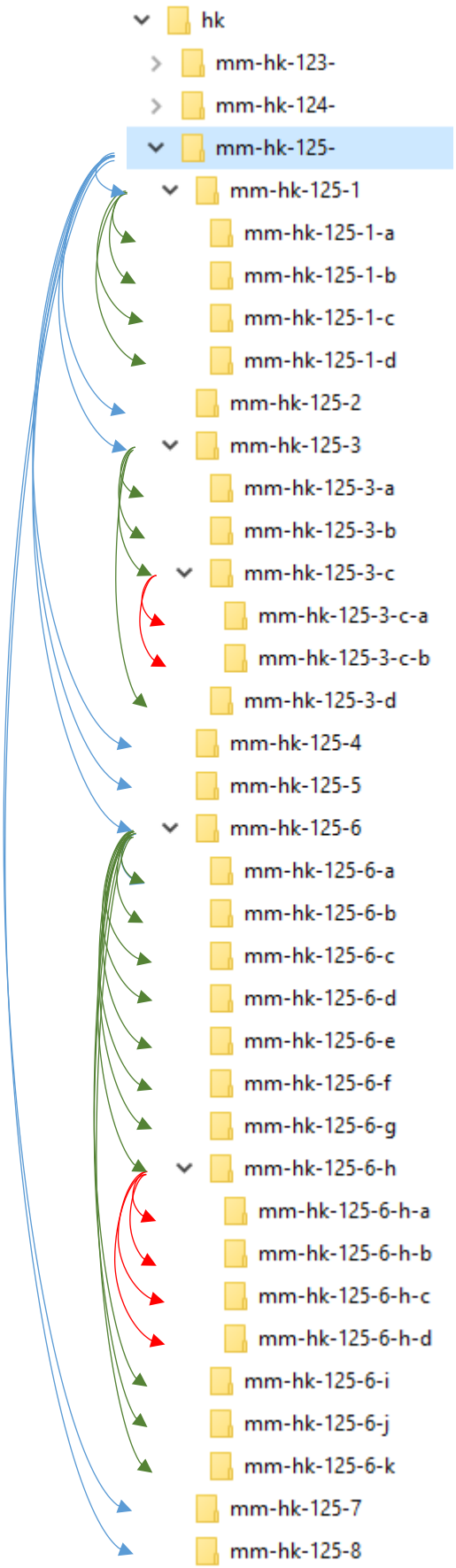

Figure 7. Tree-like catalogue view for the complex object MM/HK/125/1-8. Blue is the highest level of sub-numbers, followed by green and red.

Catalogues structure within photographic session

Three catalogues can be created within each session:

- 00_master
- 01_ready
- 02_postproduction

The 00_master catalogue contains files downloaded directly from the device (output files). These files are not processed. For the security of master files, you should never work directly on these files, and if you need to work with these files, always make a copy in your workspace – and work on this copy.

The 01_ready catalogue contains a jpg or tiff versions made of output files (or other), after revision with a colour profile. As a rule, the contents of the 01_ready folder have their direct equivalents in the files in the 00_master folder.

The 02_postproduction catalogue contains various versions and formats of "ready" files, created for numerous needs of museums, including files stacked from many files and files with added visual effects. Due to the fact, that files in 02_postproduction were processed, contents of the catalogue does not need to have their direct equivalents in quantity to the 00_master or 01_ready folder.

To ensure proper and constant order of folders (master, ready, postproduction) each of the catalogues should be preceded by the following designation: 00_, 01_, 02_ as shown in figure 8 below.

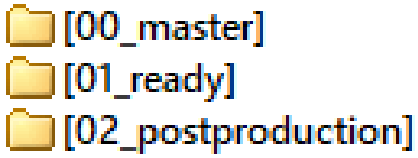

Figure 8. Order of catalogues within a photographic documentation session (distinguished by a date YYYY-MM-DD).

Important! It is crucial to emphasize distinction between the data downloaded from a device (00_master), ready files (01_ready) for further use, and files which undergone various operations like adding visual effects during postproduction (02_postproduction).

Depending on your needs, the structure inside the 02_postproduction and 01_ready catalogues can be additionally divided into, for example, file formats, work files, and thumbnails. An exemplary structure is shown in the figure 9 below.

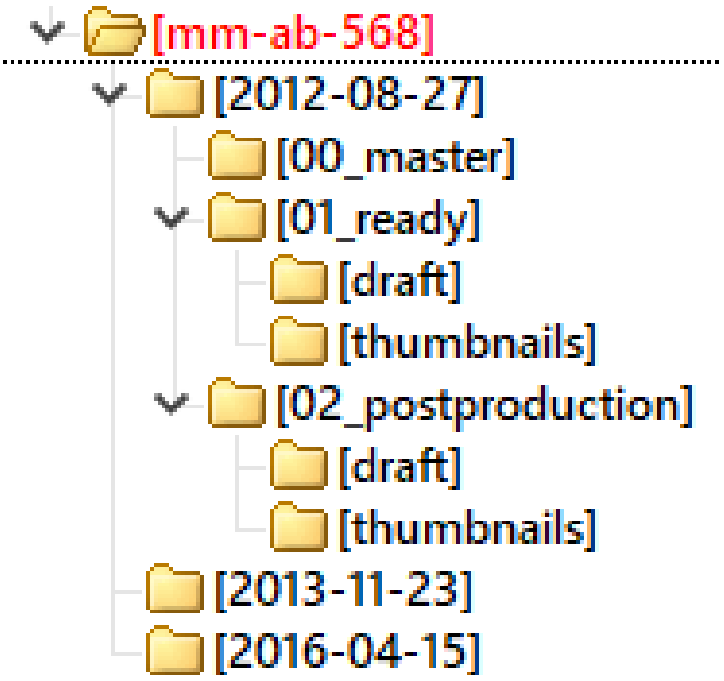

Figure 9. Tree-like structure of catalogues presenting folders within sessions.

The catalogue 00_master provides access to output files, obtained directly from a device, in case it would be decided that any of processed files in 01_ready does not meet set requirements.

ⓘ Omission of 02_postproduction catalogue

If the digitization process is organized in a way that does not require using the 02_postproduction folder, then there is no need to create such a folder.

⚠ Main function of catalogue 02_postproduction is storage of various files' variants related to the current activities of museum

Files created as a result of merging multiple files (_s1_, _s2_, etc.) and files containing technical parameters in their names (_4000x72_, _sepia_, etc.) are collected and store exclusively in the 02_postproduction folder.

ⓘ Usage of RAW catalogue in 01_ready

If there is a need to duplicate output files stored in the 00_master folder, for example to provide access for users, use a RAW catalogue in the 01_ready catalogue. If there is no such need, there is no reason to create such a folder.

An exemplary catalogues and files structure is shown in the figure 10 below.

Operations on catalogues will be described in a separate publication on the workflow in the digitization process.

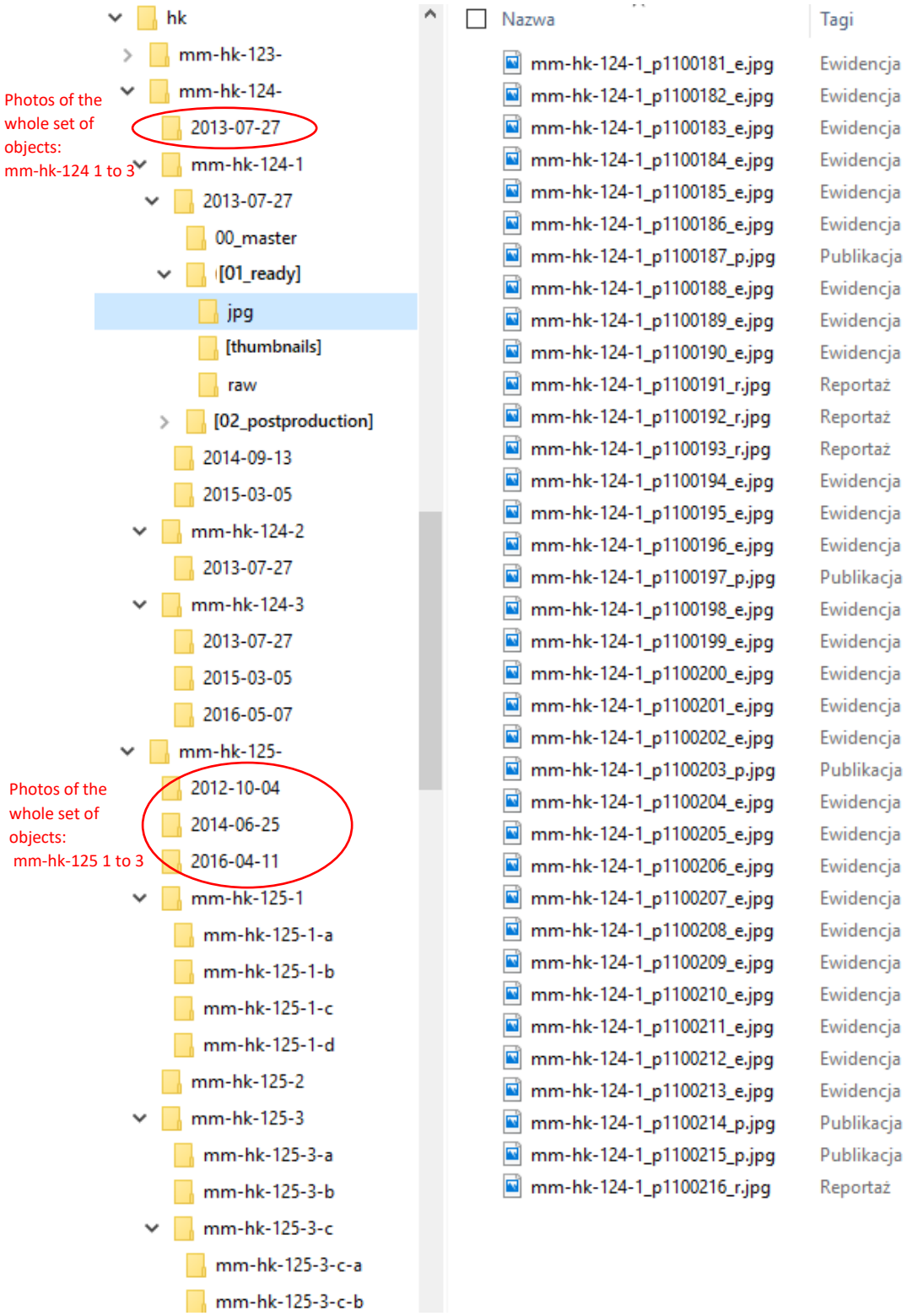

Figure 10. An exemplary catalogues (tree-like structure) and files (list) named in accordance with the KAPER standard.