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PBC resources

**Metadata and
digital media files**

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Metadata and digital photo, audio and video files

This guide on metadata explains what we understand when we talk about metadata and why it is important. In the context of digital photos, audio and video files metadata contains important information of several types: descriptive (title, keywords), structural (type, versions) and administrative (creator, permissions). Digital cameras automatically capture a range of metadata, see figure 1. They are called exchangeable image file format (exif) tags like camera and lens model. But this data is probably not the most relevant when we want to know the ‘when, where, why and who’ about the media file.

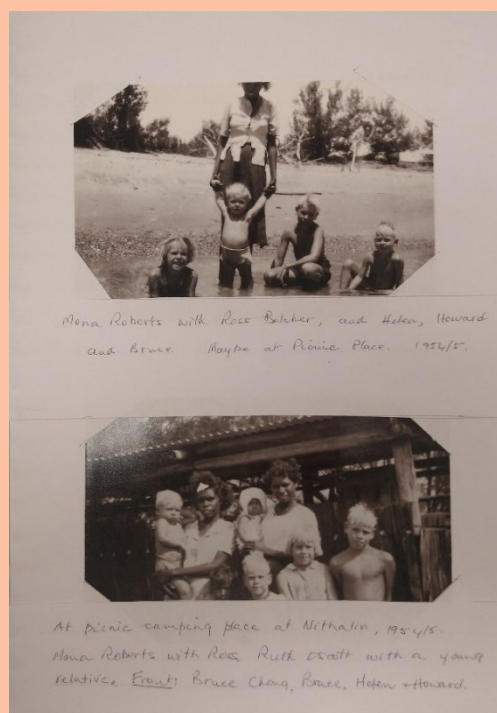
Why you need to add metadata for photo, audio and video files?

In the past we had photo albums often containing annotations about the year, location and occasion or who was captured in the photo. They were owned by somebody who could provide information about the content, see figure 2. Today in the fast paced digital world vital information often gets lost. It is important to add metadata to your media files because it identifies and helps tracking digital media files and it provides information about ownership and use.

Figure 1

Camera Data (Exif)	
Exposure Mode	Auto
Sensitivity Type	Recommended exposure index (REI)
Recommended Exposure	125
Focal Length	39.0 mm
Lens	18-270mm
Max Aperture Value	f/4.4
Date Time Original	12/12/2020, 4:47:28 AM
Flash	Did not fire, compulsory mode
Metering Mode	Evaluative
Custom Rendered	Normal Process
White Balance	Auto
Scene Capture Type	Standard
Make	Canon
Model	Canon EOS 700D
Body Serial Number	415075038657
Lens Specification	18-270mm f/0
Lens Serial Number	0000000000

Figure 2



Scenario

Imagine, you have this fantastic media file, it can be a photo, sound or video snippet, and you would like to include it in your report, book or film you are about to publish. This file has been shared with you, but it does not contain metadata information about authorship, copyright or usage terms. You also don't know who created it or who or what it represents. The following aspects need to be considered:

- Copyright: Depending on the age of the media file it may be in the public domain.¹ If it is more recent than 50 to 70 years ago Australian copyright laws² do not permit you to publish this file without permission from the copyright holder.
- Indigenous Cultural and Intellectual Property (ICIP): Australia also acknowledges ICIP rights. These refer to the rights of Indigenous persons to manage and develop their cultural heritage. Its principles can be found in Article 31 of the United Nations Declaration on the Rights of Indigenous Peoples.³ If your file originates from or is about Aboriginal and Torres Strait Islander subjects you should ask the subject, the community or community organisation for permission to publish.

In the case of your media file it means you have to find out who the copyright holder is and which community this file relates to, so you can ask them for permission. This can take weeks or longer. If you are unable to establish a copyright holder or the community this material is from, you can declare your media file as an orphan work.⁴ You need to be able to demonstrate reasonable effort to find the copyright and ICIP holder until you can publish without acknowledgment or permission from them.

By adding metadata to files you can ensure that rights are considered and that the right people can be contacted.

What else should we be aware of when we use metadata?

Please consider the long-term approach of how you and your organisation want to apply metadata to digital files. Consider if it is important to be consistent, for example how creators and copyright holders are acknowledged. Or, if you want to use a controlled vocabulary such as metadata standards,⁵ the AIATSIS subject thesaurus⁶ or Austlang⁷ for Australian Indigenous languages.

When dealing with sensitive resources, ethical issues or copyright, you might want to add metadata regarding the use and protection of these resources. Some examples are:

- © date, name/organisation, all rights reserved.
- © date, name/organisation, all rights reserved. Do not copy, alter, distribute or use this photo/audio/film without permission of: name, telephone, email. For ICIP rights contact: name, community, telephone, email.
- © date, name/organisation, all rights reserved. For permission to copy, alter, distribute or use photo/audio/film please contact: name, telephone, email. For ICIP rights contact: name, community, telephone, email.

If you want to share your photos with the public, meaning you make them part of the public domain, for example on digital platforms such as Flickr or YouTube, you can consider applying the various creative commons licences.⁸

How can you alter or update existing metadata?

Metadata is created by digital tools (cameras, recorders) or platforms (computer programs) and can be viewed and minimally edited by your photo or file viewing program. [Exifinfo](#) is an online based viewing tool for metadata.

Here is an example of editing metadata in Windows 10:⁹

1. Right-click the image and select 'Properties'.
2. Choose the 'Details' tab from the top of the pop-up in the 'Properties' window (see figure 3).

Here, you can edit some metadata of the image file (see figure 4). However, the relevant information is automatically added to the file such as the parameters of the camera or that the image cannot be modified.

There are some free desktop or online tools helping you to view, access and edit the embedded automatic metadata of digital files. You can use these to add vital information you want to see captured such as copyright, ICIP rights or sensitivity information. Some of these downloadable programs are ExifTool¹⁰ and Adobe Bridge¹¹ or the web based program theXifer.¹²

Figure 3

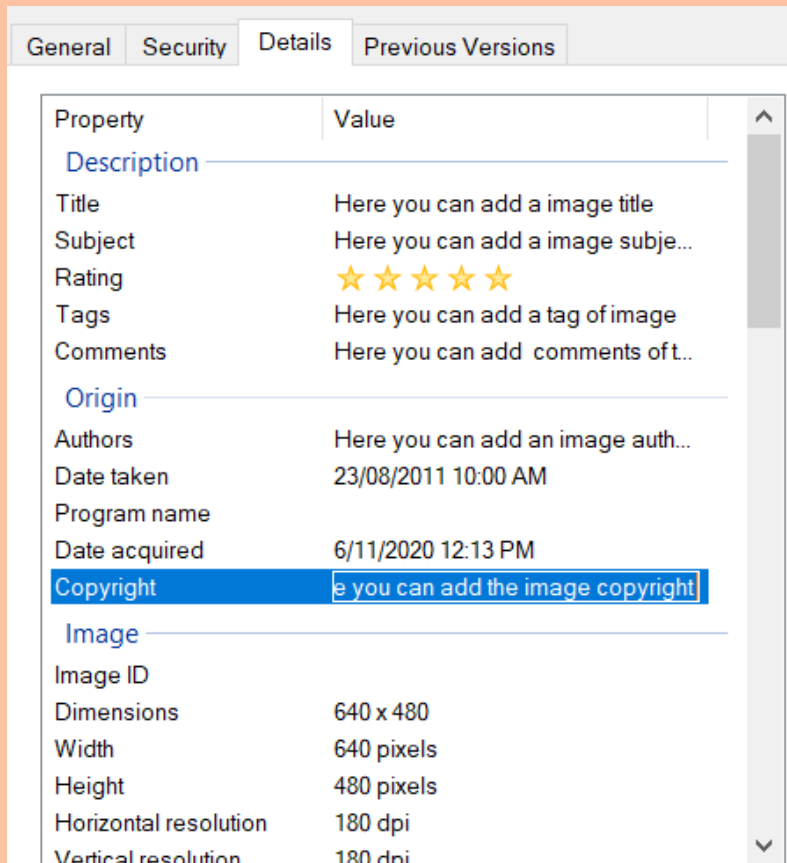
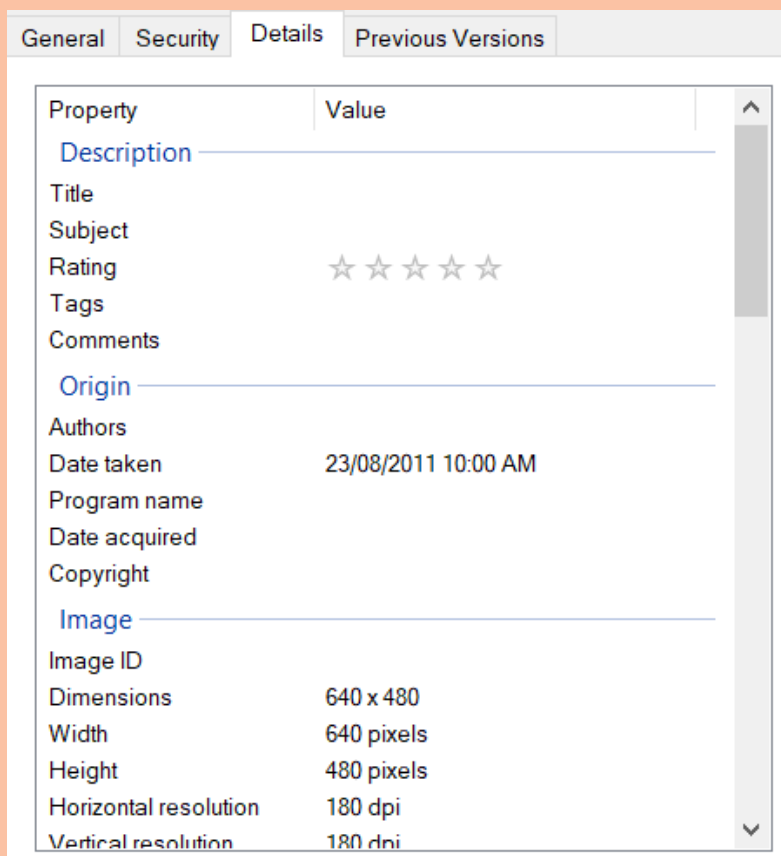


Figure 4



Adding and editing metadata with Adobe Bridge

Adobe Bridge is a media manager¹³ you can use to do all sorts of things like view and organise your photos, batch-rename of files, or batch-adding or editing of metadata.

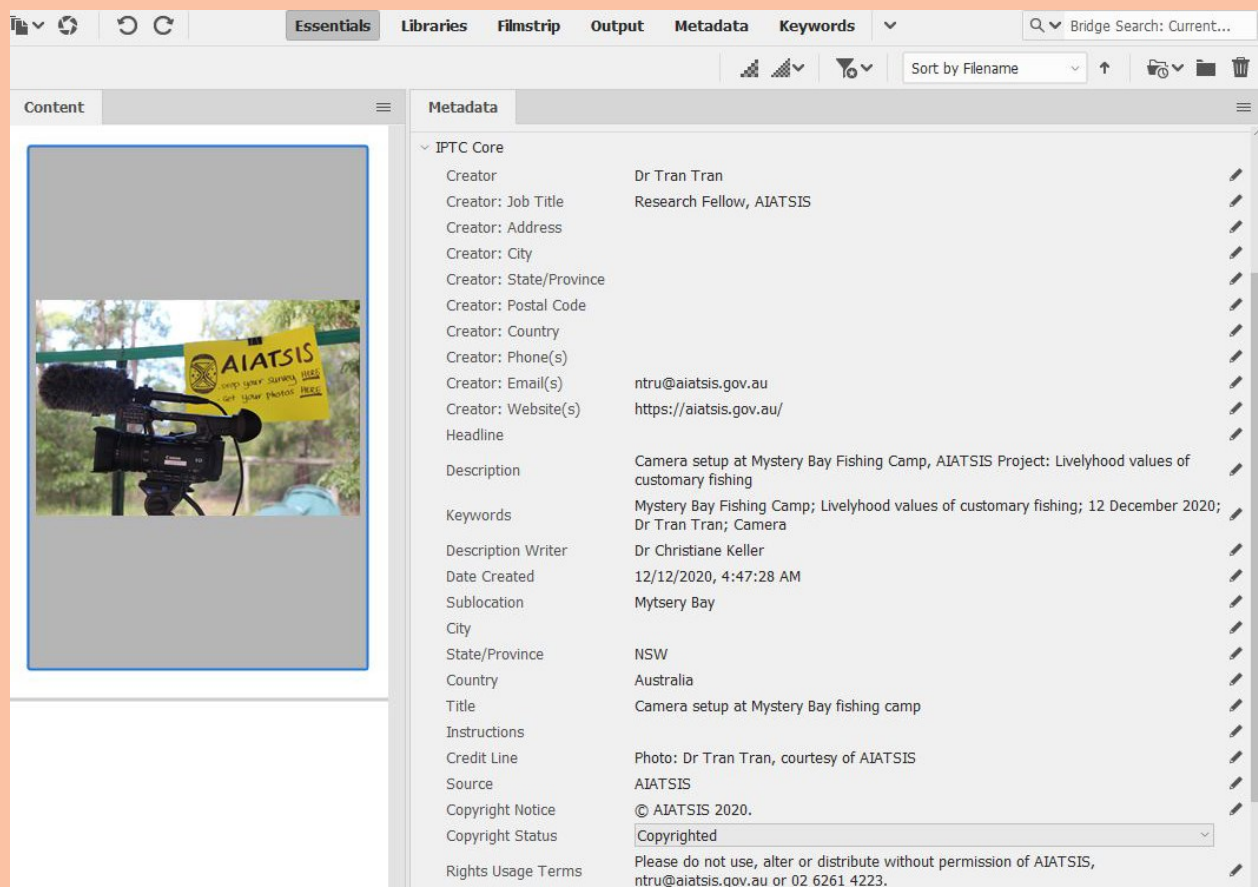
- Example of adding metadata with Adobe Bridge and find YouTube instructions¹⁴

Add metadata information to one or a batch of your digital media:

The Metadata tab lists all the different fields in which you can add information. Here you can write your metadata information by filling out the different fields. How detailed you do this is up to you and your requirements. More information is always better than none. Critical fields would be:

- **Creator** of the file (photographer, sound recordist, videographer etc.) and any contact details for the artist (author, contributor, performer, singer, etc.).
- **Description:** This is where the 'what, who, where, why' goes.
- **Keywords:** Add as many keywords as you find useful. The advantage of keywords is that they can be filtered, see filter tab on left-hand side of Bridge window.
- **Description writer:** This may be important in your context to know who supplied the metadata.
- **Date created:** This field is filled out by the camera or recording equipment. If these devices had the wrong date/time settings it is useful to overwrite the exiting information. Otherwise leave this field with pre-recorded information.
- **Location information:** This is very useful when people need to generate a caption for a photo or need to describe the content of a recording. There might be double up with information in earlier fields (e.g. description or keywords), but noting the location here will help with affirming that a particular language term is the name for a place or site.
- **Title:** This may be useful
- **Instructions:** Note any instructions such as viewing restrictions
- **Credit line:** Enter the photographer and/or copyright holder
- **Source:** Enter where the photo came from e.g. your native title organisation or any other organisation that supplied or will supply the photo.
- **Copyright notice:** Enter how the copyright should be acknowledged.
- **Copyright status:** This is a field that gives you three options: copyrighted, public domain or unknown. Please select the most appropriate one.
- **Rights usage terms:** Enter any information about the rights and usage of the images. Various formulations have been shown above.

Figure 4



Batch add/edit metadata:

1. Click on the **Tools** tab and choose create a metadata template. This brings up an empty metadata field as described above.
2. Give the template a name that is relevant to your current batch or generic for your organisation.
3. Fill in all required fields and save the form.
4. Select a folder or a selection of files in a folder.
5. Click the **Tools** tab again and choose:
 - a. **Append metadata:** Click the respective form you saved earlier that is needed for your current batch. Appending metadata leaves all existing data in the respective fields but adds the data from the chosen form.
 - b. Or **replace metadata:** Click the respective form you saved earlier and is needed for your current batch. Replacing metadata will delete all existing data and replace with what is in the chosen form.
6. The program will now write metadata to all the files you selected.

Remember: deleted metadata cannot be reversed, but you might be able to fix it with adding more or replacing with correct metadata. If you want to keep the original date and time codes, please leave the **date created** field empty in your form.

References

- ¹ Copyright Agency, 'Duration of copyright', 17 September 2020, viewed 14 April 2021, <<https://www.copyright.com.au/about-copyright/duration/>>.
- ² Copyright Act 1968 (Cth), n.d., viewed 27 April 2021, <http://www5.austlii.edu.au/au/legis/cth/consol_act/ca1968133/>.
- ³ 'Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.' in United Nations, *United Nations Declaration of the Rights of Indigenous peoples*, United Nations, 2008, p. 24, viewed 3 April 2014, <http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf>.
- ⁴ National and State Libraries Australia, *Procedural guidelines: reasonable search for orphan works*, National and State Libraries Australia, 2019, viewed 16 March 2021, <<https://www.nsla.org.au/resources/procedural-guidelines-reasonable-search-orphan-works>>.
- ⁵ S Higgins, 'What are metadata standards?', *Digital Curation Centre*, 2007, viewed 23 April 2021, <<https://www.dcc.ac.uk/guidance/briefing-papers/standards-watch-papers/what-are-metadata-standards>>.
- ⁶ AIATSIS, *AIATSIS Subject Thesaurus*, n.d., viewed 27 April 2021, <<https://thesaurus.aiatsis.gov.au/subject/subject.asp>>.
- ⁷ AIATSIS, *Austlang*, n.d., viewed 27 April 2021, <<https://collection.aiatsis.gov.au/austlang/search>>.
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- ⁹ Windows Central, *How to edit image metadata on Windows 10*, n.d., viewed 6 December 2020, <<https://www.windowscentral.com/how-edit-picture-metadata-windows-10>>, p. 10.
- ¹⁰ P Harvey, *ExifTool*, n.d., viewed 7 February 2021, <<https://exiftool.org/>>.
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- ¹² *The Exifer.net - Just a web based EXIF editor*, n.d., viewed 27 April 2021, <<https://www.thexifer.net/>>.
- ¹³ 'How to use Adobe Bridge to manage and organize your images', *Photoshop Essentials*, 6 July 2017, viewed 9 April 2021, <<https://www.photoshopessentials.com/basics/what-is-adobe-bridge/>>.
- ¹⁴ Pictures and Stories & A Taylor (dir.), *Adding photo metadata using Adobe Bridge CC: Part two-- Configuring Bridge and adding metadata*, 2017, viewed 27 April 2021, <https://www.youtube.com/watch?v=NLN_-pmwcj8>.