



Embedded Metadata Extraction User Guide

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Overview

The functionality for embedded metadata extraction supports many standards, such as IPTC, EXIF and XMP and others, that provide information embedded in images. This feature allows users to import, display and search this information located in image files.

The purpose of this guide is to provide users with information regarding the process that needs to be followed to extract embedded metadata and store and display it in EQUELLA.

Install ExifTool

ExifTool, a free, third-party tool needs to be downloaded and installed on the EQUELLA server, and a configuration file edited.

To install ExifTool and update configuration

1. Go to <http://www.sno.phy.queensu.ca/~phil/exiftool/> and download the relevant ExifTool zip file version for your server's operating system.
2. Follow the instructions on the website for installing the tool for your operating system.
3. Navigate to the **learningedge-config** directory found in your EQUELLA directory and open the **optional-config.properties** file with an editor.
4. Scroll to the exiftool.path property, and update with the path to the installed ExifTool executable. For example, *exiftool.path=C:/Program Files/ExifTool/exiftool.exe*.
5. Save the changes.

Create metadata schema nodes

Metadata nodes must be created in the relevant schema in EQUELLA for the extracted metadata to be stored. See the [EQUELLA 6.3 Metadata Schema Configuration Guide](#) for further information.

Add a Save script

A **Save script** to extract the required data and input it into the relevant schema needs to be written and added on the **Expert scripting** tab of the image collection in the Collection Definition Editor. An example is shown below:

```
if(staging.isAvailable())
{
    var att = attachments.list().get(0);
    var mtdt = metadata.getMetadata(att);
    if(!mtdt.isEmpty())
    {
        xml.set('/item/itembody/description', mtdt.get('XMP', 'Description'));
        xml.set('/item/itembody/imagetype', mtdt.get('File', 'FileType'));
        xml.set('/item/copyright/authors/author', mtdt.get('EXIF', 'Artist'));
        xml.set('/item/copyright/publisher', mtdt.get('EXIF', 'Copyright'));
        xml.set('/item/lom/technical/location', mtdt.get('XMP', 'City') + ', ' +
mtdt.get('XMP', 'State') + ', ' + mtdt.get('XMP','Country'));
    }
}
```

```
var t = mtdt.get('IPTC', 'Keywords');
xml.set('/item/itembody/tags/', t.substring(1, t.length() - 1));

att.setCustomDisplayProperty('Author', mtdt.get('EXIF', 'Artist'));
att.setCustomDisplayProperty('Camera', mtdt.get('EXIF', 'Model'));
att.setCustomDisplayProperty('Camera Lens', mtdt.get('XMP', 'Lens'));
att.setCustomDisplayProperty('City', mtdt.get('City'));
att.setCustomDisplayProperty('State', mtdt.get('State'));
att.setCustomDisplayProperty('Country', mtdt.get('Country'));
att.setCustomDisplayProperty('Licence', mtdt.get('Copyright'));

}
}
```

Available commands to the **metadata** script object are:

- Returns the first key found in any type grouping that matches. If there are duplicate keys within groupings then `get(String, String)` (see below) should be used **String get(String key);**
- Returns a specific key within a type grouping e.g LensID for XMP would be `get("XMP", "LensID")`. This method should be used to get specific values when there are duplicate keys in the metadata **get(String type, String key);**
- Returns a list of all type groupings e.g EXIF, XMP, File etc **List<String> getTypesAvailable();**
- Returns all key values for a specific type e.g `getAllForType("XMP")` will return all the key/values for the type grouping XMP. If the type does not exist null will be returned **MapScriptType getAllForType(String type);**
- Returns true if there is no metadata available **boolean isEmpty();**

Please see the [EQUELLA 6.3 Scripting Guide \(Advanced\)](#) for more information on scripting in EQUELLA.

Viewing available metadata

Knowing what data can be extracted can be confusing. Once ExifTool is installed you can run the following command from your command line to see a print out of data available to EQUELLA.

NOTE: If you don't have access to your EQUELLA server, install the ExifTool on your local PC to be able to run the following command.

`exiftool -g -j -q -sort -u -x Directory -x FilePermissions -x ExifToolVersion -x Error <image>`, where **<image>** is the path to your image.

View custom display data

Based on the Save script example above, the following extracted metadata can be viewed from the attachment metadata drop-down, as shown in Figure 1. This would differ depending on what metadata has been extracted, saved and configured to display in EQUELLA.

The screenshot shows the EQUELLA interface with a 'Resource summary' page for a photograph titled 'Rain forest creek - Hogarth Falls'. The left sidebar contains navigation links like Dashboard, Favourites, My resources, Search, Contribute, and others. The main content area displays the resource details: Description (The creek beside the rain forest walk to Hogarth Falls, Strahan, Tas.), Photographer (Cath Fitzgerald), Location (Strahan, Tasmania, Australia), Title (Hogarth Falls), Caption (Creek on path to falls), Resolution - width (240), and Resolution - height (240). Below these are sections for Links to resources (with a thumbnail of the image) and Add a comment. A red box highlights a tooltip for the image thumbnail, which provides detailed embedded metadata: Type: Image, Filename: Hogarth Falls.jpg, Size: 514.58 KB, Author: Cath Fitzgerald, Camera: GT-i9100T, City: Strahan, State: Tasmania, Country: Australia, GPS Location: 42 deg 9' 4.96" S South, 145 deg 20' 23.31" E East. To the right of the main content is a sidebar with 'Details' (Owner: EQUELLA Beta, Collection: Photography, Version: 1 (show all), Status: Live, Find uses, Moderation history) and 'Actions' (Add to external system, Archive this version, Change ownership, Clone item into a collection, Create a new version, Delete this version, Edit this version, Export, Modify key resource, Move item into another collection, New contribution of same type, Redraft this version, Suspend this version).

Figure 1 Embedded metadata extracted and displayed for image

Note that in the above screenshot, some of the additional metadata fields have been configured to display on the Resource summary template (*Photographer*, *Location*, *Title*, *Caption*, *Resolution – width* and *Resolution height*). This is done from the **Display, Resource Summary Display Template** tab in the *Collection Definition Editor*. An example is shown in Figure 2.

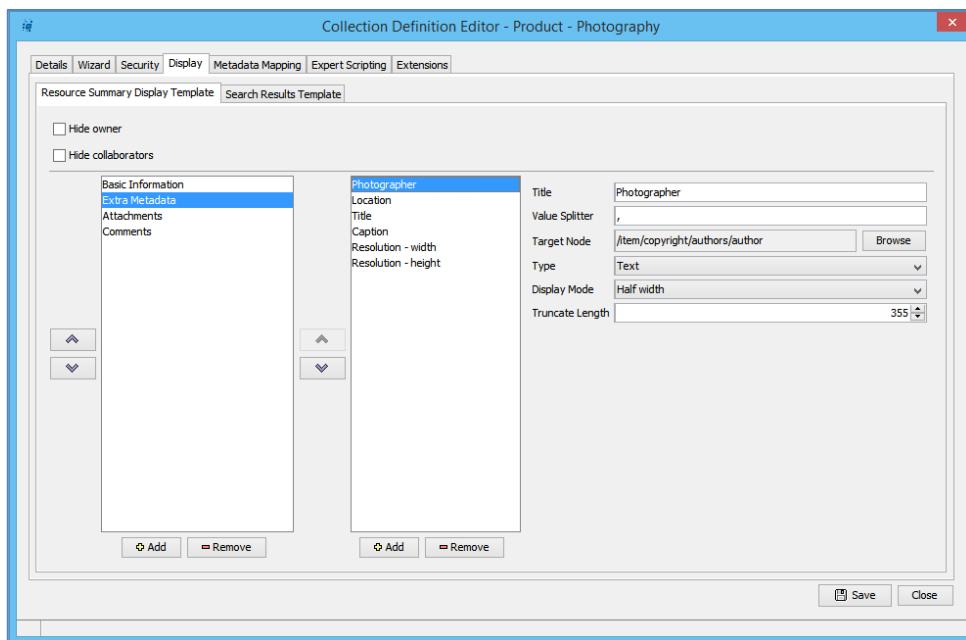


Figure 2 Display - Resource Summary Display Template tab

For further information, see the [EQUELLA Collection Definition Editor Configuration Guide](#).

Contact Client Support

We are always happy to help.

If your organisation has a support agreement with EQUELLA then help is available at <http://equella.custhelp.com>.