Documentation for

IFCB\_attribute\_editor.m

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## Overview:

This software is a Matlab function designed to view and tag images collected with custom-built IFCBs in the Laney lab (008 and 015). It provides very general tagging of images with attributes that can be custom-defined by the user. Taxon is one possible attribute, but the software supports multiple attributes per image, and multiple values of an attribute.

The input files are the ‘triplets’ of a normal IFCB (\*.roi, \*.adc, and \*.hdr). The output is a similarly named, human-readable \*.atr file that simply lists key-value pairs (attribute is the key, value is the attribute value).

## Requirements:

This software is written for Matlab 2015b on a Windows platform, and requires the Image Processing Toolbox. No support is provided for other Matlab platforms or versions.

## Download:

This software is available at the following location on GitHub:

<https://github.com/samlaney/IFCB_attribute_editor>

If installing new to a Matlab folder, use the source versioning to download from GitHub

1. If this is an initial install, create a new folder using the Matlab editor (the ‘Current Folder’ panel on the left side of the GUI)
2. Change directory to that folder
3. In the ‘Current Folder’ pane in the Matlab GUI: right click in the whitespace, select “source control 🡪 manage files”.
4. Top pull down menu: select ‘git’
5. Download from: use the URL above
6. Download to (sandbox): should be the folder you created above, and are currently in.

## Initial test & verification of install:

1. From the Matlab prompt, type “attribute\_editor” then <RET>. This will open an empty window AND an Options Dialog window
2. You should see ‘No file selected’ as the title in the main window.
3. You should see no red or orange errors in the Matlab command line window.
4. In the Options Dialog box, you should see the fields you’ve specified in your config file
5. You should be able to see the version of the software by selecting ‘Version’ on the menu. Check that it is actually an update compared to any previous versions you may have been using.

## Preparing your data:

1. Your data should be somewhere in a folder called ‘data’. If you have matching attribute files already, they should be in a parallel folder called ‘attribs’

## Operation:

(document in progress after this point)

1. From the Matlab prompt, type “attribute\_editor” then <RET>. This will open an empty window.
2. Go to the File menu and Open. Go to the directory you want and select the ROI file you want to work on. It will only show ROI files (and not ADC or HDR files) for simplicity.
3. The window will show the rotating circle as it loads the images. Larger files take longer to load. Once a file is loaded you will see images in the main window, and in the title bar you will be on page 1 of however many pages it takes to display all the images in the file.
4. You will be prompted to create a matching ATR file if one does not already exist.
5. Use PAGEDOWN and PAGEUP to move to later or earlier pages. HOME and END jump to the first and last pages, respectively.
6. A dialog box will also be open (OPTIONS DIALOG) to the right: it contains controls on different display options.
7. An autosave timer
8. To assign attributes: