Importing Images:

Images can be imported into the WAIUAVTool from a digital camera, usb device or CD by first connecting the device, and then selecting either the import images button in the top left hand corner (Fig 1) or by selecting File --> Import images (Fig 2).

Once this step has been completed you can now select the images or folders you wish to review (Please note that only folders and image files will be visible in this view).

These images will be then displayed in the image thumbnail viewer panel on the left hand side, and are now ready to be reviewed.
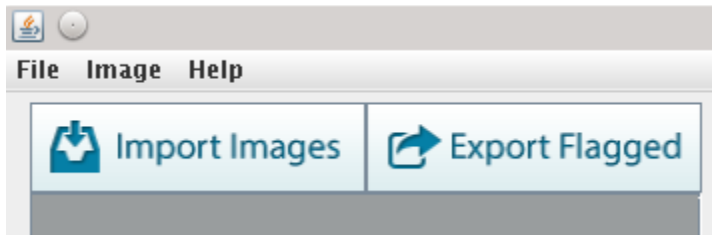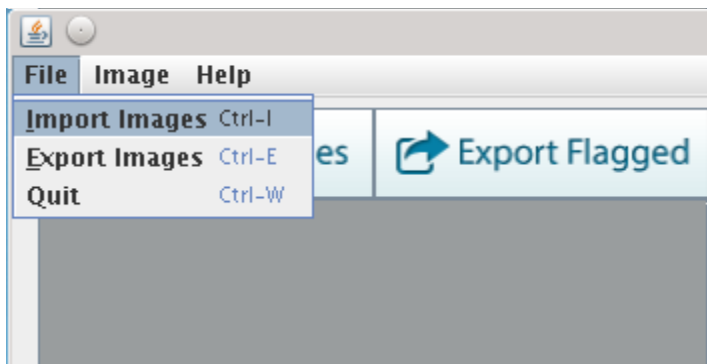

Fig 1

Fig 2

Reviewing Images

Once a set of images has been imported you can then browse and review the images.

The images can be selected by clicking on any of the image thumbnails in the panel on the left hand side of the screen. These are then displayed in the main view on the larger panel on the right (Fig 3).
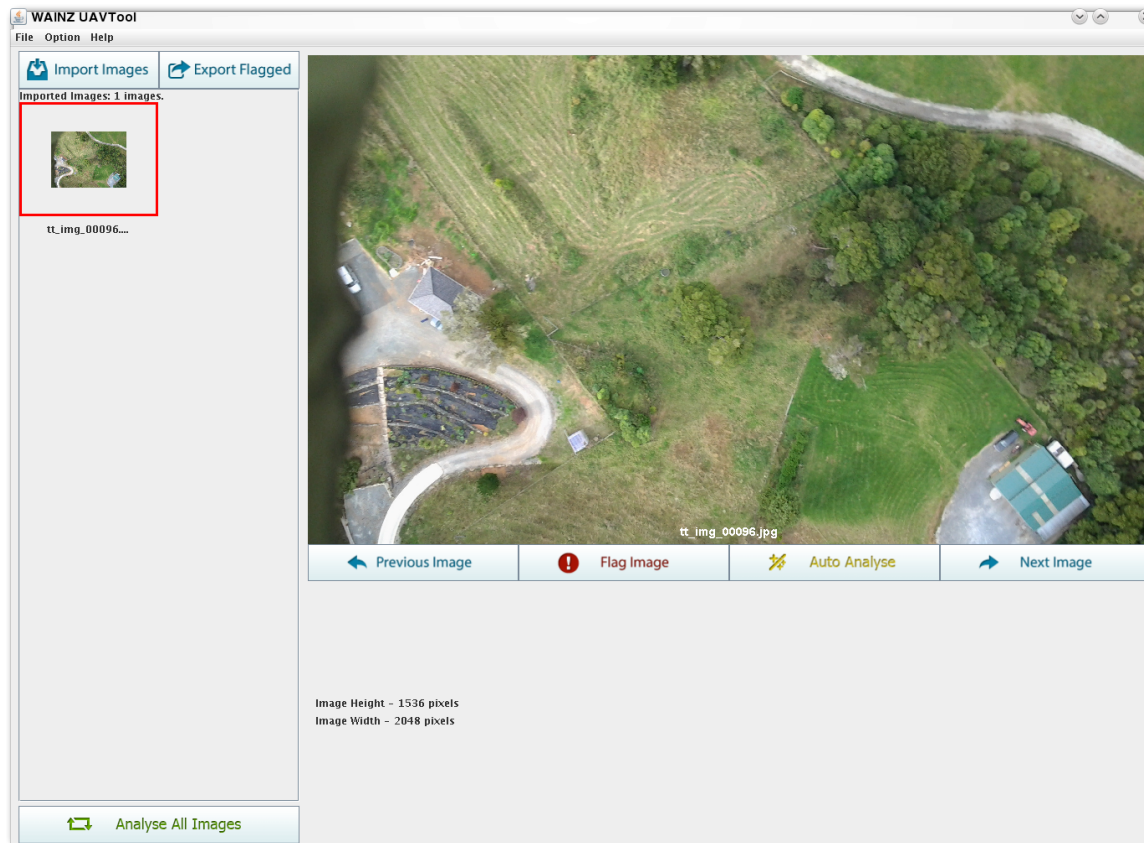

Fig 3

You can see that the selected image is outlined in red. The panel below the image shows any image meta data that is present in the image. The most interesting being the time and geographical information. This information is also represented on a map of New Zealand (See Fig 4)

GPS Latitude Ref – S
GPS Latitude – –40.0° 16.0' 47.400000000009754"
GPS Longitude Ref – E
GPS Longitude – 175.0° 37.0' 13.199999999953889"
GPS Altitude Ref – Below sea level
GPS Altitude – 0 metres
GPS Time–Stamp – 8:21:39 UTC
GPS Img Direction Ref – True direction
GPS Img Direction – 170.12 degrees

Image Height – 1536 pixels
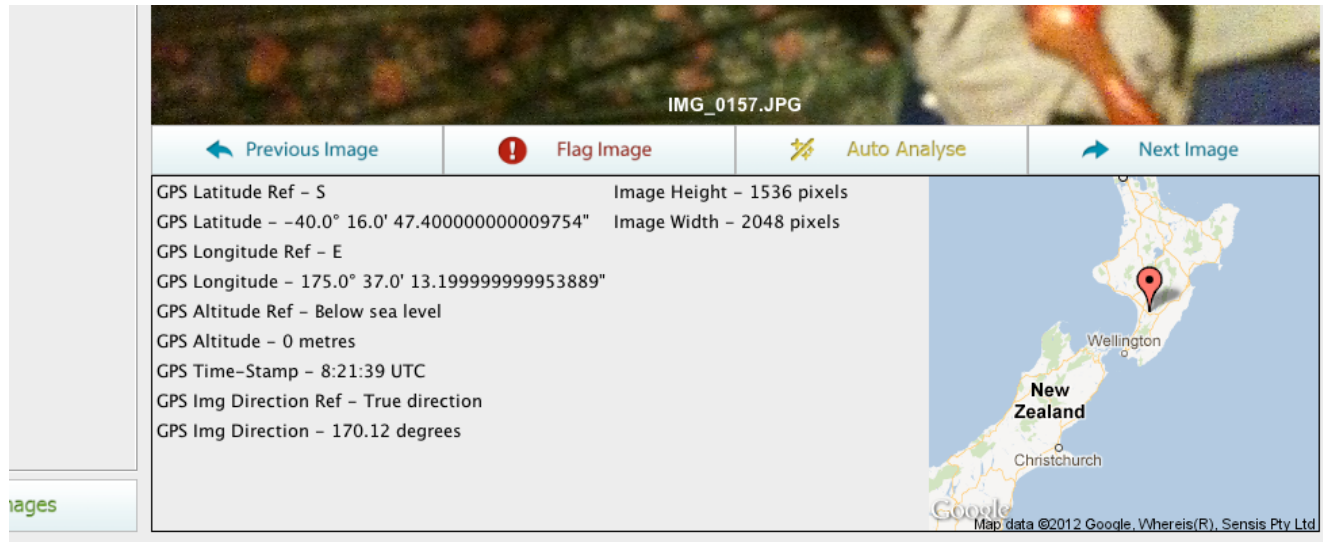Image Width – 2048 pixels

Fig 4

Then you can move through the other images by either clicking on the next or previous image buttons or clicking on the image thumbnail in the panel on the right, and the right hand panel will update for the selected image. This process can be used for manual classification, or to review automatically classified images.

Image Classification

The tool supports two types of classification: Manual classification and automatic classification, where the automatic classification can be overridden by the manual classification.

You can use the built in classifier to classify one or all of the imported images.

To classify a single image simply click on the Auto Analyse button below the image preview (Fig 6). This will run the classifier on the image and determine if the image contains a stock incursion and flag the image appropriately.

To classify the whole image set the user clicks on the "Analyse All Images" button on the bottom of the image thumbnails panel on the left side (Fig 5). Depending on the number of images to be analysed this could take a while.
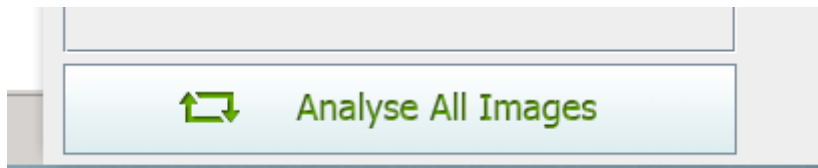

Fig 5

These classifications can then, if chosen, be manually reviewed to ensure that the flagged images do in fact contain instances of stock incursion before they are reported.

To classify images manually you simply click the the Flag/Unflag Image button on the panel below the image preview (Fig 6).
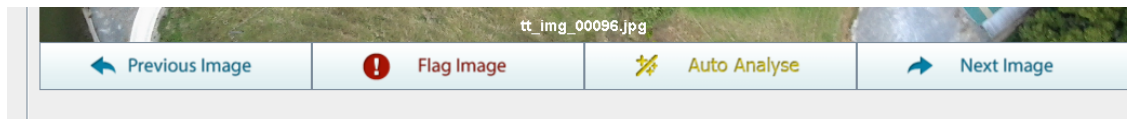

Fig 6

This then will flag the image as containing as containing a stock incursion. It will also display a small flag icon next to the image thumbnail in the left hand panel (Fig 7). Once an image is flagged the button will change to an unflag button that can then be used to unflag the image.
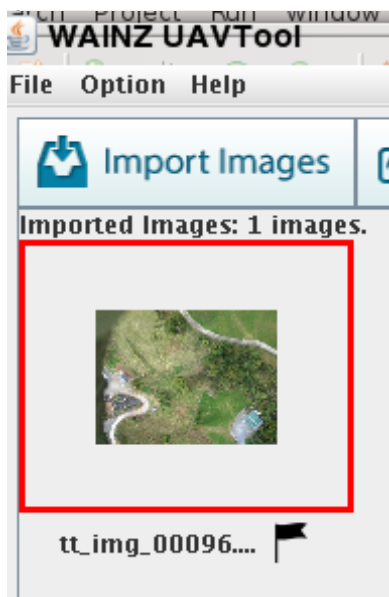

Fig 7

Exporting Images

The tool provides two ways of exporting flagged images: Exporting all images to a directory or producing a PDF report.

To export all of the images to a directory the user will click on the "Export Flagged" button (Fig 8)
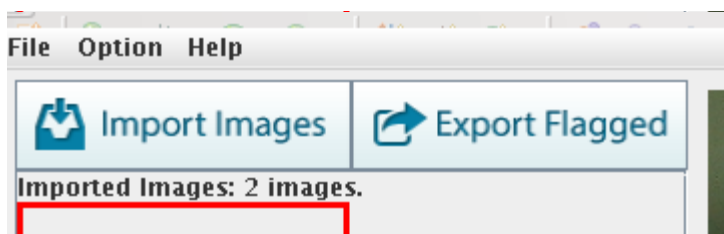

Fig 8

This will then present the user with a File browser in which they can select a folder for the images to be exported to. On selection these images will be copied to the specified directory.

To export to a report in the required standard the user can select the export to pdf option, by going to Option → Generate PDF Report (Fig 9).
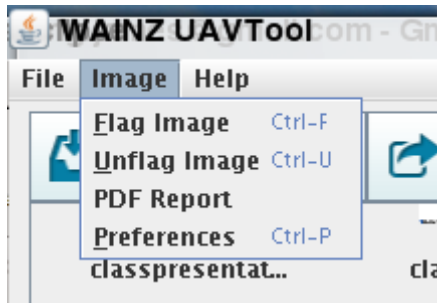
Fig 9

This will then generate a pdf document containing the selected image in the correct reporting format and open the document.

Change Preferences

The tool also allows the user to customize their experience. It contains options for setting close actions, the look of the tool, and a default location for exported files.

The preferences are broken down to three areas (Fig 10)

General:

- "Minimize window when I click close"
  - If enabled this will ensure on clicking the close button it minimises the window rather than exiting the tool
- "Warn me before quitting"
  - If enabled this will prompt the user to confirm if they want to close the tool or if they accidentally clicked the cloes button

Appearance:

- This provides three different looks for the tool of which the user can select the one they feel most comfortable using

Export:

- This section controls where the files are exported to by default. The user can select a location for these to be exported to automatically. Or if preferred can be prompted for a location on each export.
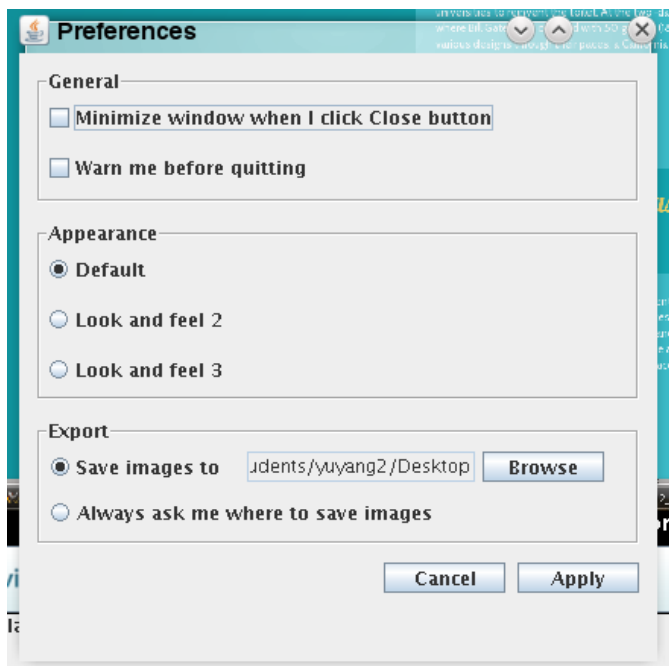
Fig 10