Multispectral Image:

Multispectral images are the main type of images acquired by remote sensing (RS) radiometers. Multispectral imagery generally refers to 3 to 10 bands of data that are represented in pixels. Each band is acquired using a remote sensing radiometer. Each band of the image may be displayed one band at a time as a grey scale image, or in combination of three bands at a time as a colour composite image. Colour composite image display combines three primary colours (red, green and blue) in various proportions producing different colours of the visible spectrum.

True colour composite: If Multispectral image consists of the three visual primary colour bands (red, green, blue).

False Colour Composite: The display colour assignment for any band of a multispectral image can be done in an entirely arbitrary manner. In this case, the colour of a target in the displayed image does not have any resemblance to its actual colour.

Hyperspectral Image:

Hyperspectral imaging, like other spectral imaging, collects and processes information from across the electromagnetic spectrum. Hyperspectral imaging creates a large number of images from contiguous regions of the electromagnetic spectrum. This increases sampling of the spectrum (versus multispectral data) and greatly increases the amount of information available to a researcher.

Steps for Hyperspectral Image Visualization:

1. Click on Image Visualization option in main toolbar.
2. A new pop up window will appear.
3. Click on File -> Open to select the file from location.
4. Select the desired display option RGB or Gray.
5. For RGB, select the red band, green band and blue band values.
6. For Grayscale, select the band value.
7. Click on OK button and the image visualizer will open.
8. The image visualizer has different options as zoom in, zoom out, cursor location, save the file, display spectral profile.