ENVI® Pocket Guide

Volume 2 Intermediate

NV5 GEOSPATIAL

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In association with the U.S. Army TWI Program.

CONTENTS

The ENVI® Pocket Guide is a quick reference booklet not intended to be read from cover to cover although it can be. The intent is to provide users with succinct steps on how to accomplish common tasks in ENVI.

If you need or desire comprehensive explanations of tasks from this guide refer to the following resources:

ENVI Documentation Center
nv5geospatialsoftware.com/docs

ENVI Tutorials
nv5geospatialsoftware.com/docs/tutorials.html

ENVI Videos
nv5geospatialsoftware.com/Learn/Videos

ENVI Help Articles
nv5geospatialsoftware.com/Support

Tech Support
(+1)303-413-3920

Email Support
geospatialinfo@nv5.com

GETTING STARTED

OPENING ENVI

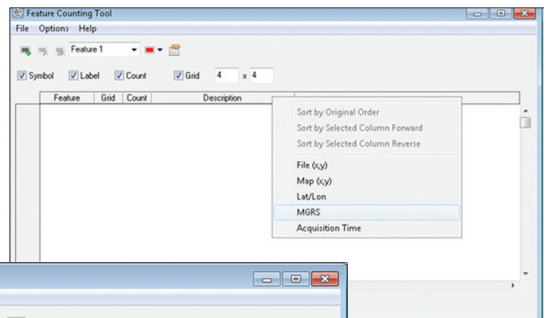
1. Please reference **ENVI Pocket Guide Volume 1 | BASIC** if you need instructions on how to open ENVI, load and remove data, descriptions of the interface components, and basic data preparation procedures.

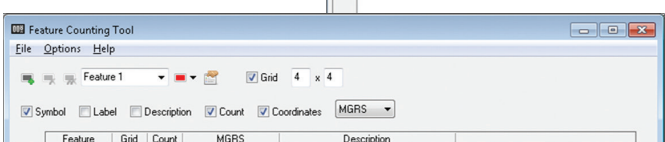
ENVI Pocket Guide Volume 1 | BASIC
provides an introduction to familiarize users with common methods for opening ENVI, loading data, navigating, and performing stretches.

You are currently referencing
ENVI Pocket Guide Volume 2 | INTERMEDIATE
which expounds a step further on intermediate procedures using ENVI, IDL and ENVI LiDAR, assuming you have already mastered the basics.

GRID REFERENCE

1. Load an image (nadir, off-nadir, referenced or unreferenced) into ENVI, then right-click the image in the Layer Manager and select Zoom to Layer Extent.

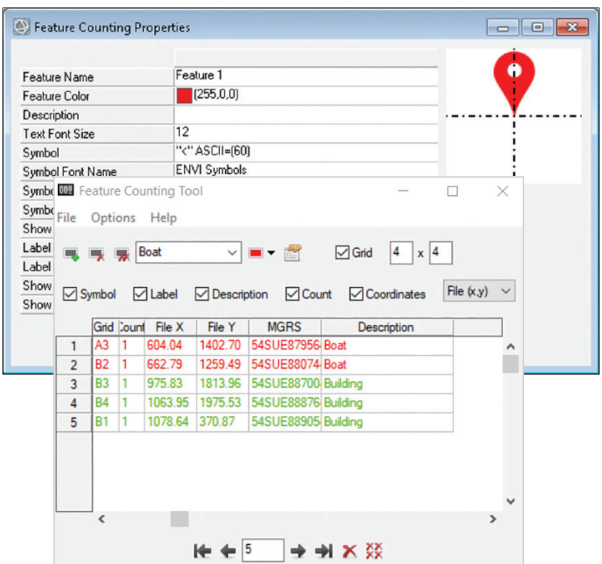




If your image is georeferenced, you will not be able to record coordinates. However, you will still be able to count features and record the File (x,y) values. Toggle the check boxes next to Symbol, Label, Description, Count or Coordinates to determine which attributes will be labeled.

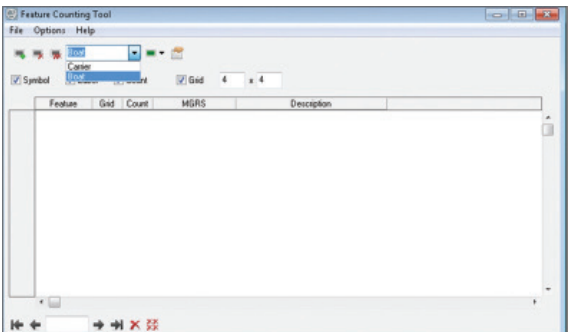
2. Click the Feature Counting Tool button 009 to open the Feature Counting dialog. Right-click on Description to turn on coordinates or File (x,y) values for unreferenced images.

3. Enable the Grid check box. By default, the Grid is set to 4 x 4. You can adjust the grid size by entering different values in the fields provided.



4. Click the Feature Counting Properties button to edit the feature properties such as the Feature Name, Font Size, Symbol, Label Position, Show Label, and Show Count.

5. Close the Feature Counting Properties dialog. Add more features by clicking the Add Feature button . Change the default Feature Name (Feature1) in the name field.



6. Select the Feature Name of the feature you want to count using the drop-down arrow in the Feature Name field. Begin counting by clicking on the features in your image.

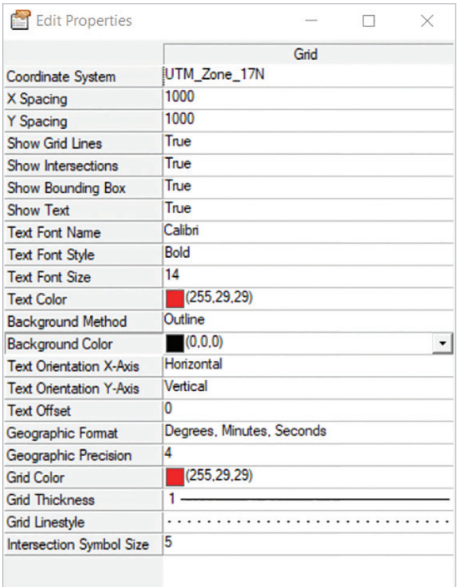
7. As you count the features, click Description and enter in the attribute and associated information.

8. You can delete mistakes by highlighting the feature row(s) and clicking the Delete Point button to delete individually or the Delete All Points button to delete all.

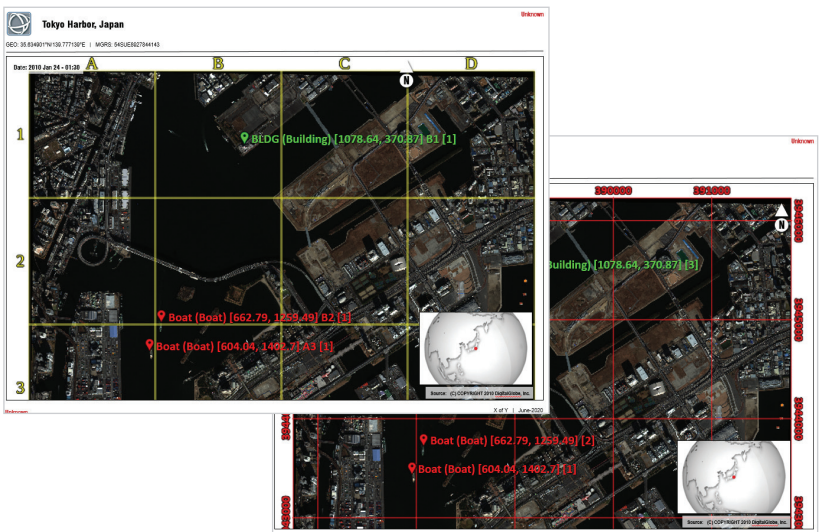
9. To add a geographic grid, click the Annotations button 

then select Add Grid Lines. The new grid often defaults to WGS 1984 Web Mercator Projection.

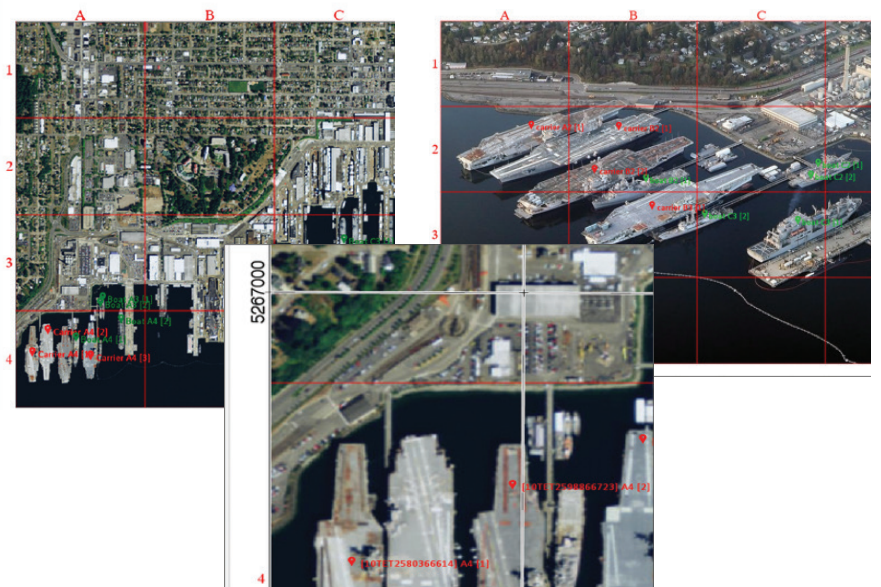
10. You can edit the grid in the Grid Edit Properties that is located directly underneath the ENVI Toolbox. Here, you can change the Coordinate System, Text and Line Color, XY Spacing and other grid properties as shown in the following example:



11. Go to the ENVI main menu and click File > Chip View To > PowerPoint or PDF for a finished product. Also known as the Report Generation Tool, chipping to PowerPoint allows you to utilize a variety of ENVI's built-in product briefing templates.



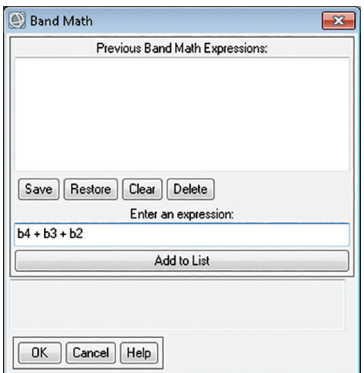
Example NADIR with Reference and Off NADIR without Reference:



BAND MATH

1. Load a multispectral or hyperspectral image into ENVI, then select Band Algebra > Band Math from the Toolbox. The Band Math dialog appears.

2. Enter a simple or complex mathematical expression using b# variables to represent the bands you want to manipulate. Replace # with the band number as shown in the example.



Band Math is a method used to create new raster data by performing complex or simple mathematical functions on existing bands available in one or more geographically referenced images. Analysts will be able to compress data into isolated values of interest such as NDVI (Normalized Difference Vegetation Index).

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Thank you for your interest in ENVI®

To continue reading the remaining chapters of the ENVI Pocket Guide Volume 2 | Intermediate please click the following button.

DOWNLOAD THE COMPLETE POCKET GUIDE

For more information:

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Email: GeospatialInfo@nv5.com
Phone: 303.786.9900