TUTORIAL STYLE

Getting Started

Arial 24 pt Bold, center

bar .25î from top edge, .5î thick, .75î from right edge

process icon .5î square, centered over lower outside corner of title bar

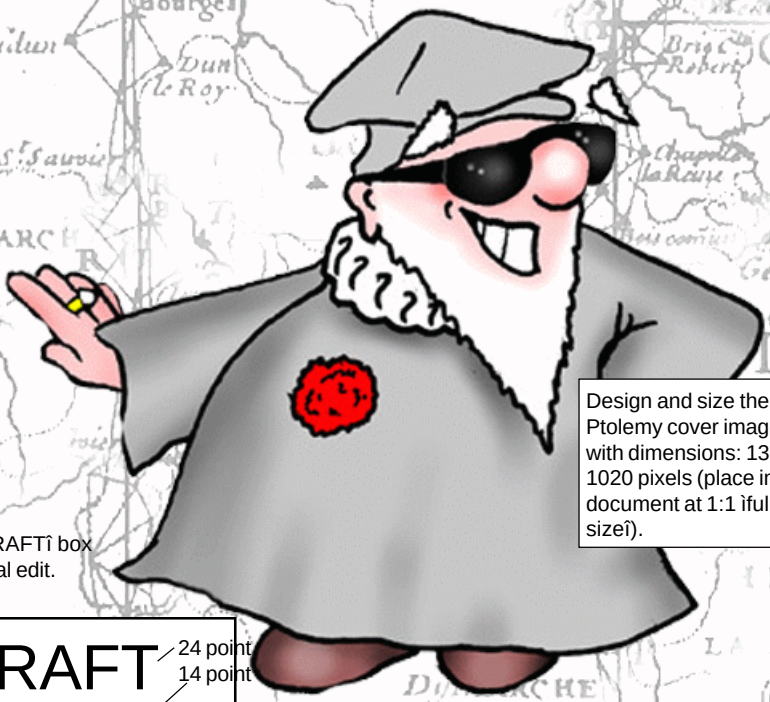
Arial 8 pt Bold, center vertically

Creating a Tutorial

36 point Arial bold, center

2 3/8î from top edge, .25î wide

Text and banner color:: CMYK: 0: 100: 100: 37



Design and size the Ptolemy cover image with dimensions: 1320 x 1020 pixels (place in document at 1:1 ìfull sizeî).

Remove ìDRAFTî box only after final edit.

DRAFT

2 October 2001

24 point

14 point

for

18 point

TNTmips®

TNTedit®

TNTview®

36 point bold

28 point bold

20 point bold

ìTMî symbol is 22 point

Page 2 (inside cover) always follows this model. Except for the first paragraph, it should be word for word, wherever possible.

Before Getting Started

This Getting Started booklet introduces techniques for creating, altering, and updating vector geospatial objects in the powerful Object Editor in TNTmipsÆ. Vector objects that you make or import contain point, line, and polygon elements in strict topological relationships with associated attributes. The exercises in this booklet introduce you to the basic tools used with each element type. The Object Editor also has tools for editing your CAD, raster, database, and TIN geodata.

Prerequisite Skills This booklet assumes that you have completed the exercises in *Getting Started: Displaying Geospatial Data* and *Getting Started: Navigating*. Those exercises introduce essential concepts and skills that are not covered again here. Please consult those booklets and the TNTmips reference manual for any review you need.

Sample Data The exercises in this booklet use sample data that is distributed with the TNT products. If you do not have access to a TNT products CD, you can download the data from MicroImagesí Web site. In particular, this booklet uses objects in the DEMORTHO and ORTHOINPUT Project Files in the DEMORTHO data collection. Make a read-write copy of these files on your hard drive; you may encounter problems if you work directly with the read-only sample data on the CD-ROM.

More Documentation This booklet is intended only as an introduction to vector editing in the Object Editor. Consult the TNT reference manual, which includes over 200 pages on the Object Editor, for more information.

TNTmips and TNTliteÆ TNTmips comes in two versions: the professional version and the free TNTlite version. This booklet refers to both versions as ìTNTmips.î If you did not purchase the professional version (which requires a software license key), TNTmips operates in TNTlite mode, which limits the size of your project materials.

The Object Editor is not available in TNTview or TNTatlas. All the exercises can be completed in TNTlite using the sample geodata provided.

Keith Ghormley and Merri Skrdla, Ph.D., 2 October 2001

It may be difficult to identify the important points in some illustrations without a color copy of this booklet. You can print or read this booklet in color from MicroImagesí Web site. The Web site is also your source for the newest Getting Started booklets on other topics. You can download an installation guide, sample data, and the latest version of TNTlite:

http://www.microimages.com

Arial 16pt Bold, center p.2; subsequent heads align outside

Writing Guidelines

All Getting Started booklets must conform to the style guidelines presented in this booklet. Special accommodations apply to existing booklets being translated into another language (see the *Getting started: Translating Tutorials* booklet.)

Page 2 Adapt the sample boilerplate text on page 2 to your topic, making only necessary modifications. Page 2 is where you mention the standard data that you use in your booklet's sample exercises. Always cite file and object names in SMALL CAPS.

Page 3 Page 3 is an overview page that you *should not write* until after you have completed the exercise pages for the first basic task.

Page 4: The Initial Task Starting with page 4, lead the reader through the simplest imaginable task in your process. Provide step by step instructions that let the user see visible results on each page. Give direct and simple instructions for getting from A to B. Fight the temptation to mention anything (initially) about the other possibilities C and D offer in your process.

AFTER you lead your reader through the simplest possible task, THEN go on to introduce a few of the other options and features of your process.

The target narrative style is simple, familiar, and informal as opposed to technical and impersonal. Address the reader directly with "you" and "your." You can even use contractions like "don't" for the normally preferred "do not."

Use "customary present," not future tense. Example: "When you click [OK], the process closes the window." (not "will close the window.")

Submit for Editing Your booklet must be reviewed by an editor who will mark changes to be made. Be prepared for several back-and-forth iterations as style and content are reviewed and modified.

Do not begin until your writing project has been approved. Submit your proposal, including an ordered list of page / task topics, to MicroImages Press.

- icons, not menus: Never use a menu when an icon is provided
- show them what their screen should look like at the end of each page
- be careful not to let them make choices that will give them something different on their screen than the illustrations you show in the book
- nothing flows across multiple pages; every page has its own headline and ends in a period

The exercises on pp. 4-14 of this booklet show you how to accomplish the first, basic task. Pages 15-17 introduce techniques for other operations. Pages 18-22 present ways to use other features with the project materials you have created.

adapt this exercise preview blurb to your project

1 point rule

Your Reading Audience

Accommodate everything for the lite user. Don't use non-lite datasets (unless you have a process like HyperIndex, which cannot be done in lite).

Getting Started booklets are directed to a ìlabî student. Do not teach theory. Your goal is to guide the student through a button-pushing sequence of steps that lets them see how a process works in TNTmips. *Getting Started* is not a text book, not lecture notes, not a theory book. Assume they have already had their lessons and read the book. Now all you have to show them is how to accomplish that general GIS or image processing task in TNT.

For example, don't tell them what georeferencing is — they read that chapter already in their text book. Just tell them one way to assign georeferencing to an object in TNT. Then show them one other way. Then show them how to go back and make changes. Then show them how it works with CAD. And so on.

Write as though you were speaking to a lab full of new users sitting at computers, and you want everyone to keep up. Tell them exactly what data to use, exactly what to do next, and show them what their screen should look like now. Donít let them make choices that will give them something different on their screen than the illustrations you show in the booklet.

Break things down into small chunks with the goal that nothing flows across multiple pages. Every page ends in a period. Every page has its own headline. If youíre showing them something so complex that you canít present the current step in one page, then youíre showing them something too complex for *Getting Started*.

Each page, they DO something and their screen looks like your illustrations.

Concentrate the main text column on step by step narrative. Donít comment on options that they donít use right now, or on the justification for the strategy you have chosen. Just lead them down the path and show them which rocks to step on. Gardening theory some other time.

vertical rule starts 1" from top of page and may extend to 1" from bottom of page (see page 8 for conventions on lower end of rule)

Phrasing Conventions

These examples may be used in abbreviated forms, but should not be drastically rephrased.

Use the standard object selection process to open the NAME raster object from the FILE Project File.

Click [OK] to accept the settings and close the Window Name window.

or

Click the OK button to accept ...

Since TNT shows both icons and icon buttons, use the complete designation ìicon buttonî:

Click the Add Raster icon button and use the standard File / Object selection process ...

it is NOT enough to say:

Click the Add Raster icon and use the standard File / Object selection process ...

And note, the form:

When you click the Add Raster button ...

should be used for labeled text buttons.

A complete discussion of the <process> is presented in the <Section> of the <Volume> of the TNTmips online documentation (Display / Documentation).

Select <thing> from the <title> menu.

Use the standard display process (Display / Spatial Data) to view the output raster object.

If itís in a Project File, refer to it as a ìraster object,î not just as a ìraster.î

Special Text Styles

Use the same text style conventions in both narrative and annotation text. That is, if a thing should be bold in the narrative text, then similar usage in the annotation text will also be bold.

Postulate: using too many bold, italic, and special font styles makes the text harder to read and can actually confuse the reader. On the other hand, consistent use of limited text styles makes the material easier to understand.

(Confession: the Display Getting Started booklet does not use styles with complete consistency).

Angle brackets <> refer to keyboard keys. Example: ìPress the <Enter> key to complete your selection.î

Square brackets [] for short reference to a labeled window button (like Close, Cancel, Help, OK, ...) Example: ìClick [OK] to complete your selection and close the window.î Longer reference does not require brackets. Example: ìClick the OK button to complete your selection. Do not use brackets when you are talking about the OK button in a simple indicative statement.

Bold is used for vocabulary and keyword emphasis.

Italics: for special emphasis. Example: *Be sure to save your work before exiting the process*.

Initial Caps: for window names and icon button names. Example: Click the Close button to close the Select Objects window. Use initial caps for the words Project File.

Small Caps: for all file and object names. Example: Select HYDROLOGY from the CB_DLG Project File.

All Caps (and bold): If you put a warning or other important note in a notice box. Example: **IMPORTANT**: Add the objects in the order specified.

Refer to Basic System Operations

You can assume that your reader is familiar with certain basic system operations, such as how to name and save an object, how to use the file / object selection process, and all the standard Display operations.

The Getting Started booklets *Navigating* and *Displaying Geospatial Data* are cited on page 2. Contents that you can assume (and therefore not repeat) include:

- File / Object selection
- Name and save an object
- Project File structure
- objects and subobjects
- Color selection
- Simple drawing/display styles
- Using and interpreting scroll bars
- Multiple views and groups
- File maintenance / copy objects

Referring to Standard Data

You can assume that the user has installed the sample data, knows where it is, and knows how to get to it. Thus, you should never give full data paths (like C:/DATA/TNT/ SAMPLE/LITEDATA/BLAH/BLAH/ BLAH.RVC/RASTER_1). Just use a statement in the form: Use the object selection process to select RASTER_1 from the BLAH Project File. Do not include the ìRVCî file extension.

A Headline for Every Page

Use the outside column for STEP lists, definitions, and supplementary comments. Capitalize and use complete sentences (except for short labels).

Paragraph spacing is .08" or 6 points ó NOT a blank line.

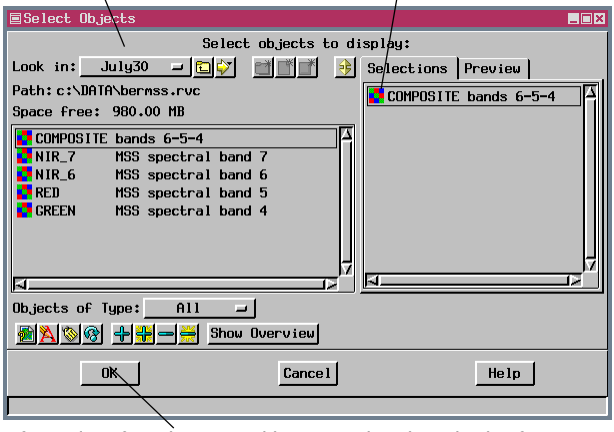
Show icons at 120% scale in STEP lists.

Icon buttons may be cropped to button extents only, or shown with some of the window context. Refer to them in the form: the Quick-Add icon button.

Vertical rule ends at the bottom of the narrative or annotation text, whichever is longer.

Normal size for captured windows: reduce to 80% or less. (Try to keep sizing consistent, but you may reduce more for larger windows.)

Use 0.5 point callout lines with 8-point annotation text.



Use area below narrative text and vertical rule cutoff for most illustrations; especially those of much complexity.

Refer to interface buttons with square brackets in the form: Click [OK]. - or without brackets in the form: Click the OK button.

Headlines Align Outside

Use facing 5.5 x 8.5 pages for landscape 8.5 x 11 layout.

Inside margins are 0.6" from the fold to allow for 3-hole punch option. Outside margins are 0.5".

Top and bottom margins are 1". A 1-point horizontal rule above the top margin is 5/8" from the top edge of the paper. A 1-point horizontal rule below the bottom margin is 3/4" from the bottom edge.

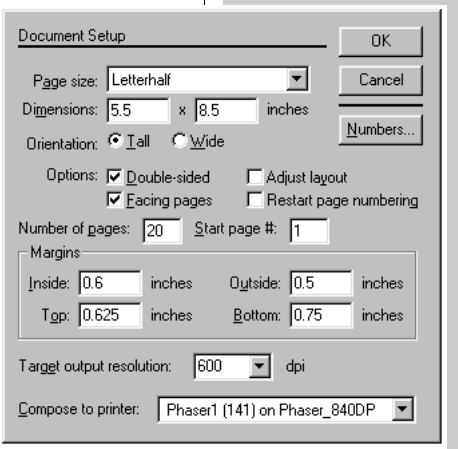
ìpage #î in Times 9 point italic is centered below the bottom rule 1/2" from the bottom edge.

Use two columns separated by a 1-point vertical rule 1.5 inches from the outside margin (2 inches from the edge of the paper). Leave 0.08" gutter between text and vertical rule.

Narrative Text is 10 point Times, justified.

1.5 inch margin to vertical rule

Annotation text is Arial / Helvetica 8 point, ragged right



0.6" inside margin to fold

gutter of 0.08" between vertical rule and text

Examples

Position **illustrations** along the outside edge of the page.

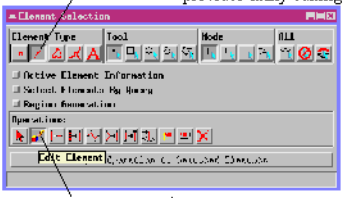
The narrative text column should flow in a **continuous block** from the top margin along the inside margin, wrapping any illustrations that intrude. If you have illustrations that require the full width of the page, put them across the bottom of the page after the end of the narrative text.

Pay attention to detail in window captures. Be sure that the selected tools correspond to the feature being illustrated. (Donít show the arrow tool selected when youíre explaining use of the crosshair.)

Edit Existing Line Elements

choose Edit Elements ...

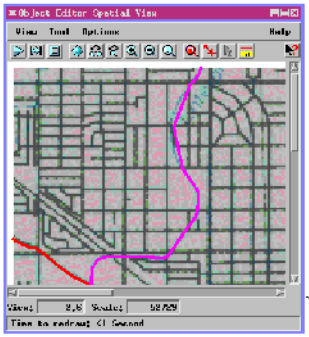
...then Line element type...



...then the Edit Element operation

After you accept a line, the editor draws it in the currently selected line style. You can extend it or change its shape with the edit tools.

Select the Edit Elements tool in the Vector Tools window. The editor opens an Element Selection window. This window provides many editing controls, only a few of which are discussed in this booklet. As the window name implies, editing operations involve two steps: first, element selection, and second, element editing. Element selection can be complex, involving operations that are applied to multiple elements that are selected in a number of ways. In our simple example, you will selectjust one line element by clicking on it.



Click the icons for Line element type and Edit Element operations in the Element Selection window. Then in the spatial view window, select our first hydrology line element by clicking on it with the left mouse button. The editor displays *selected* lines in a special highlight color.

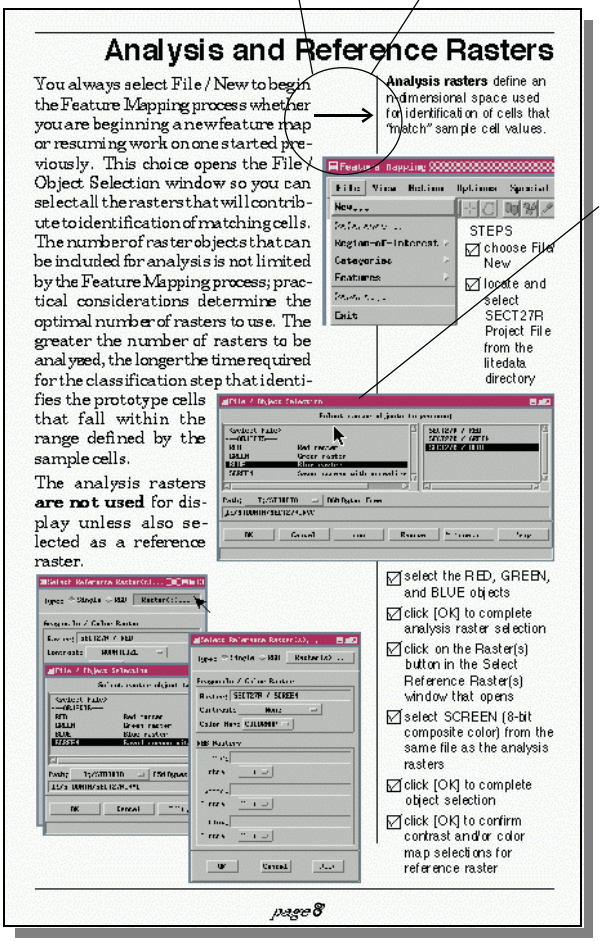
click on a line element with the left mouse button to select it

page 10

Examples

Narrative text should wrap around illustrations (leaving .08" space) to the vertical rule's .08" gutter. (*contra illustration.)*

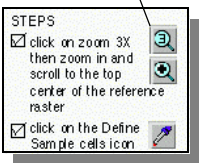
Don't show menu cascades (*contra illustration*). The reader should be comfortable with menu path notation in the form: Interpret / Raster / Filter.



Use a buffer of white space between the vertical rule and overlapping illustrations (*contra illustration*).

STEPS

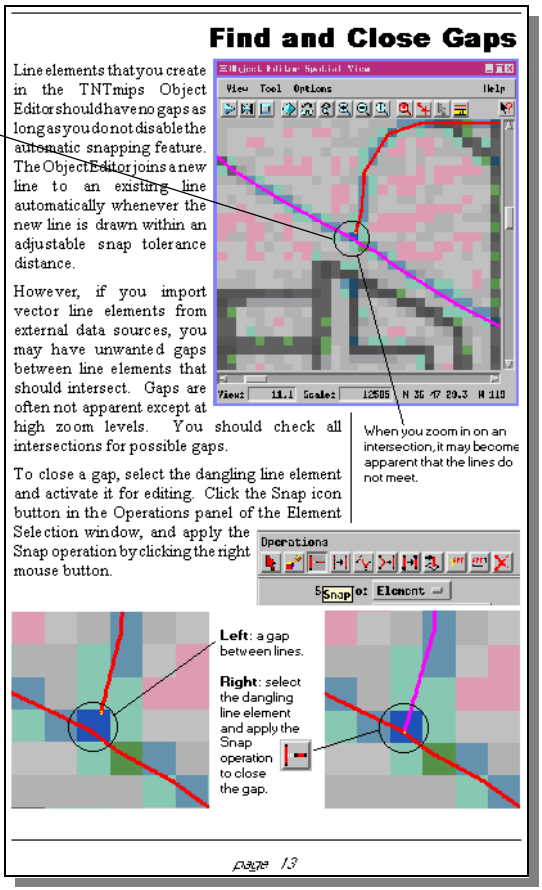
- ☑ items in STEPS lists do not have an initial capital
- ☑ STEPS list items do not end with a period
- ☑ always include a 120% icon button when the STEPS text refers to it



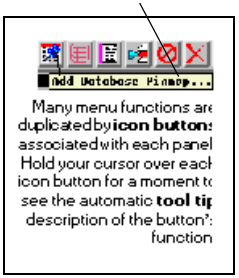
Three, sometimes four window images per page should be the limit. Use more, and it starts to be intimidating. The more windows you have, the more you should try to align them rather than letting them scatter around the page.

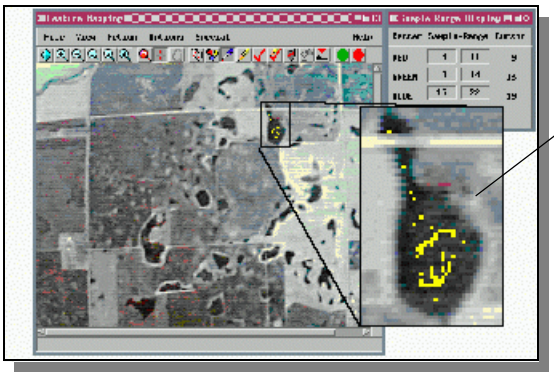
Examples

Use a circle with a callout line for focus or special emphasis.



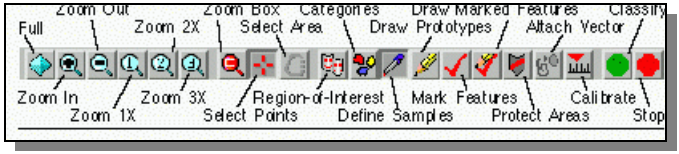
In general, do not expose an iconís tool tip when doing a screen capture (*contra illustration*). Exposing ToolTips or DataTips may be appropriate in some contexts.



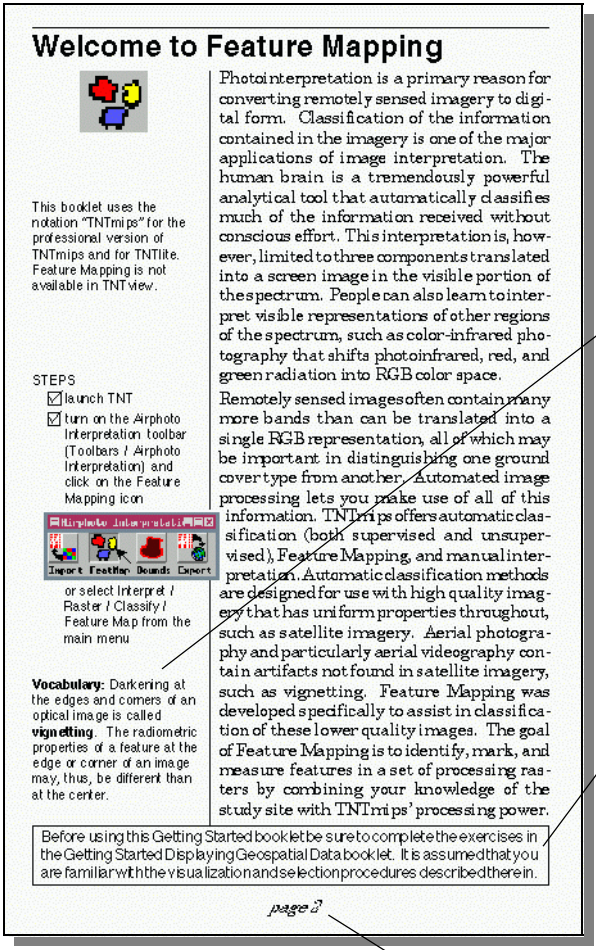


Use a zoom box in the manner shown to illustrate detail that is not visible at normal resolution.

Examples



Icon bar definitions should follow this form. However, avoid re-defining standard icons (mainly those used in Display such as zoom in, 1x, etc) and concentrate only on icons unique to your process.



Welcome to Feature Mapping

This booklet uses the notation "TNTmips" for the professional version of TNTmips and for TNTlite. Feature Mapping is not available in TNTview.

STEPS

☑ launch TNT

☑ turn on the Airphoto Interpretation toolbar (Toolbars / Airphoto Interpretation) and click on the Feature Mapping icon

or select Interpret / Raster / Classify / Feature Map from the main menu

Vocabulary: Darkening at the edges and corners of an optical image is called **vignetting**. The radiometric properties of a feature at the edge or corner of an image may, thus, be different than at the center.

Photointerpretation is a primary reason for converting remotely sensed imagery to digital form. Classification of the information contained in the imagery is one of the major applications of image interpretation. The human brain is a tremendously powerful analytical tool that automatically classifies much of the information received without conscious effort. This interpretation is, however, limited to three components translated into a screen image in the visible portion of the spectrum. People can also learn to interpret visible representations of other regions of the spectrum, such as color-infrared photography that shifts photoinfrared, red, and green radiation into RGB color space.

Remotely sensed images often contain many more bands than can be translated into a single RGB representation, all of which may be important in distinguishing one ground cover type from another. Automated image processing lets you make use of all of this information. TNTmips offers automatic classification (both supervised and unsupervised), Feature Mapping, and manual interpretation. Automatic classification methods are designed for use with high quality imagery that has uniform properties throughout, such as satellite imagery. Aerial photography and particularly aerial videography contain artifacts not found in satellite imagery, such as vignetting. Feature Mapping was developed specifically to assist in classification of these lower quality images. The goal of Feature Mapping is to identify, mark, and measure features in a set of processing rasters by combining your knowledge of the study site with TNTmips' processing power.

Before using this Getting Started booklet be sure to complete the exercises in the Getting Started Displaying Geospatial Data booklet. It is assumed that you are familiar with the visualization and selection procedures described therein.

page 2

Put special vocabulary definitions in the margin. Use bold for the word **Vocabulary** and also the **term(s)** being defined.

Use no more than one notice box per page. Run it margin to margin with a plain 1-point box. Use Arial/ Helvetica 9 point text.

Use standard boiler plate for page 2 (inside cover) (*contra illustration*).

Provide Sample Data and Layout

The data you use in your bookletís exercises should be collected in one or more Project Files so they can be posted on MicroImagesí web site and distributed with the Acrobat Reader PDF versions of the booklets on the quarterly release CDís.

As a last step, go through all the exercises in your booklet and use your sample data. Be sure the file and object names all agree with what you have in the booklet.

We suggest you prepare a layout that shows off your sample data, even if you do not use the layout as an illustration in your booklet. Use multiple layers, multiple groups, and even multiple views where appropriate. Your layout should include a large text annotation that tells the user which Getting Started booklet goes with this layout.

You may prepare other layouts, of course, to present several views of your sample data. Put all layouts in a LAYOUTS Project File, which will be kept with the other Project File(s) that comprise the sample data for your booklet.

Note: Although this booklet provides many instructions for creating *Getting Started* booklets, it is not a good example of a *Getting Started* booklet. Pages in your Getting Started booklets should never have as much blank space as found on many of the pages herein and all pages should have material in both the narrative and annotations columns.

Inside Back Cover

The inside back cover may be used in a variety of ways:

1. The last Getting Started **exercise** for your process
2. Title: **Where Next?** pointing the user to the next booklet, manual, or documentation.
3. Title: **Afterword**
4. References and Bibliography
5. A complete list of processes or formats available, such as Supported Import Formats, when not all are described in the booklet
6. A summary
7. Title: **Appendix**

In short, almost anything that gets past your MicroImages Press editor.

Plan your booklet so the whole thing, including front and back covers, has a page count that is a multiple of 4: (4, 8, 12, 16, 20, 24, 28 ...) for landscape 8.5 x 11 bookfold duplex printing.

Advanced Software for Geospatial Analysis

TUTORIAL STYLE

Arial 14 pt Bold, center

Times 9

bar .25î from top edge, .5î thick, .5î from left edge

MicroImages, Inc. publishes a complete line of professional software for advanced geospatial data visualization, analysis, and publishing. Contact us or visit our web site for detailed product information.

TNTmips TNTmips is a professional system for fully integrated GIS, image analysis, CAD, TIN, desktop cartography, and geospatial database management.

TNTedit TNTedit provides interactive tools to create, georeference, and edit vector, image, CAD, TIN, and relational database project materials in a wide variety of formats.

TNTview TNTview has the same powerful display features as TNTmips and is perfect for those who do not need the technical processing and preparation features of TNTmips.

TNTatlas TNTatlas lets you publish and distribute your spatial project materials on CD-ROM at low cost. TNTatlas CDs can be used on any popular computing platform.

TNTserver TNTserver lets you publish TNTatlases on the Internet or on your intranet. Navigate through geodata atlases with your web browser and the TNTclient Java applet.

TNTlite TNTlite is a free version of TNTmips for students and professionals with small projects. You can download TNTlite from MicroImagesí web site, or you can order TNTlite on CD-ROM.

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The length of the index will vary from one booklet to another. Adjust page components for even spacing.

0.5 point rectangle with rounded corners

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