INTRODUCTION

MicroImages¹ Inc. produces a complete line of TNT software products that you can use to manipulate and analyze image processing and geographic information systems (GIS) data. Include is a geospatial scripting language called SML. Over the last 17 years, the author² has written hundreds of SML scripts to perform a range of programmed tasks – from simple to complex.

Dr. Lee D. Miller, President MicroImages Inc., asked the author to write a new set of SML scripts to serve as examples of how remote-sensing imagery and GIS data can be handled. These scripts are on <u>www.microimages.com</u> through a new "column" being called *Scripts by Jack*TM. Supporting these scripts are tutorials being called *FAQs by Jack*TM.

The tutorials serve Three Purposes:

- **1.** Describe relevant scientific, mathematical, and technical fundamentals.
- 2. Define cryptic names for parameters, variables, and objects in each SML script.
- **3.** Provide a Quick Guide for the user of each SML script.

TNT products contain hundreds of procedures and functions. By choosing a logical sequence of these operations from interactive menus, a disciplined expert can solve many geospatial problems. But, this approach requires excellent management skills with output products from one process serving as input products to the next process. The chance of making errors is high.

Alternatively, you can create a customized SML script to carry out complex operations in a systematic and efficient workflow in ways that express your own unique solutions. And, the chance of making errors is reduced.

But, like all programming codes, SML requires that its creators understand and follow strict rules of SML syntax. Of course, you should also use correct algorithms. And, the source data should be appropriate for the project.

Please ask the author about any items in the *Scripts* or in the *FAQs* that are incorrect or poorly understood.

Dr. Jack F. Paris Longmont, Colorado March 27, 2005

¹ MicroImages, Inc., is in Lincoln, Nebraska. Visit <u>www.microimages.com</u> for further details. Extensive information about some of the subjects discussed in this document can be downloaded from this Web site.

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