

SOFTWARE RELEASE NOTICE

1. SRN Number: <u>344</u>		
2. Project Title:	Project No.06002.01.251 No.06002.01.291 No.06002.01.311 No.OHD20.110 No.OHD20.112 No.OHD20.125	
3. SRN Title: ERDAS IMAGINE® Version 8.7		
4. Originator/Requestor: Marius Necsoiu	Date: Nov 30, 2004	
5. Summary of Actions <input checked="" type="checkbox"/> Release of new software <input type="checkbox"/> Change of access software <input type="checkbox"/> Release of modified software: <input type="checkbox"/> Software Retirement <input type="checkbox"/> Enhancements made <input type="checkbox"/> Corrections made		
6. Validation Status <u>2003 12/22/04</u> <input checked="" type="checkbox"/> Validated <input type="checkbox"/> Limited Validation <input checked="" type="checkbox"/> Not Validated Explain: <u>Planned for 1/2005</u>		
7. Persons Authorized Access		
Name	Read Only/Read-Write	Addition/Change/Delete
ALL	YES	NO
8. Element Manager Approval: <u>M.P. McKee</u>		Date: <u>12/16/04</u>
9. Remarks: Software is licensed, commercial, acquired software not to be modified.		

SOFTWARE SUMMARY FORM

01. Summary Date: November 15, 2004	02. Summary prepared by D. Marius Necsoiu (210)522-5541	03. Summary Action: NEW	
04. Software Date: January 22, 2004	05. Short Title: ERDAS IMAGINE®		
06. Software Title: ERDAS IMAGINE Version 8.7		07. Internal Software ID: None	
08. Software Type: <input type="checkbox"/> Automated Data System <input checked="" type="checkbox"/> Computer Program <input type="checkbox"/> Subroutine/Module	09. Processing Mode: <input type="checkbox"/> Interactive <input type="checkbox"/> Batch <input checked="" type="checkbox"/> Combination	10. Application Area a. General: <input checked="" type="checkbox"/> Scientific/Engineering <input checked="" type="checkbox"/> Auxiliary Analyses <input type="checkbox"/> Total System PA <input type="checkbox"/> Subsystem PA <input type="checkbox"/> Other b. Specific: remote sensing data visualization and analyses	
11. Submitting Organization and Address: CNWRA/SwRI 6220 Culebra Road San Antonio, TX 78228		12. Technical Contact(s) and Phone: Leica Geosystems GIS & Mapping, LLC Worldwide Headquarters 2801 Buford Highway, N.E. Atlanta, GA 30329-2137 USA Support: +1 800 953 6643 Toll Free: +1 877-463-7327 Phone: +1 404-248-9000 Fax: +1 404-248-9400 (general inquiries) Fax: +1 404-836-6541 (sales)	
13. Software Application: ERDAS IMAGINE is a broad collection of software tools designed specifically to process imagery.			
14. Computer Platform UNIX: Sun SPARC Station or PC: Intel Pentium II or any 100% compatible computer (Pentium 4 recommended)	15. Computer Operating System: UNIX: Sun Solaris 8 or 9 PC: Microsoft Windows 2000, XP Professional (recommended)	16. Programming Language(s): N/A	17. Number of Source Program Statements: N/A, only have executable code

<p>18. Computer Memory Requirements:</p> <p>UNIX: 64 Mb or more recommended, with 200 Mb swap space</p> <p>PC: 256 Mb (512Mb recommended)</p>	<p>19. Tape Drives:</p> <p>Local: Any Microsoft 2000, XP Professional supported tape drive</p> <p>Remote: Any tape drive connected to a UNIX machine running the ERDAS IMAGINE tape server utility may be accessed across a local area network (LAN)</p>	<p>20. Disk Units:</p> <p>Installation Disk Space: UNIX: 1.1 GB disk space PC: 2.7 GB disk space (depending upon software config.)</p> <p>Data Disk Space: minimum 10 GB</p>	<p>21. Graphics:</p> <p>UNIX: 24-bit graphics card are recommended such as Sun Standard GS, CREATOR 3D, ELITE 3D or EXPERT 3D.</p>
<p>22. Other Operational Requirements:</p> <p>UNIX: a. OpenGL 1.2.1 or higher, if IMAGINE VirtualGIS and Image Drape Modules are used b. Sun Forte Developer 6 Update 2, C and C++ or SunONE Studio 7 Compiler Collection, required if IMAGINE Developers' Toolkit Module is used.</p> <p>ERDAS IMAGINE supports PostScript Level II and HP-RTL (recommended) output. Any printing device that supports any of these languages should work.</p>			
<p>23. Software Availability: X Available <input type="checkbox"/> Limited <input type="checkbox"/> In-House ONLY</p>		<p>24. Documentation Availability: X Available <input type="checkbox"/> Preliminary <input type="checkbox"/> In-House ONLY</p>	
<p>25. Software Developer: Leica Geosystems GIS & Mapping, LLC</p>			<p>Date: November 15, 2004</p>

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

QA VERIFICATION REPORT

FOR

→ ACQUIRED SOFTWARE NOT TO BE MODIFIED ←

Software Title/Name: ERAPS IMAGINE
Version: 8.7
Demonstration workstation: SUNSPARC or PC
Operating System: SUN SOLARIS 8049 or MS 2000 Professional
User: M. NECSON

NOTE: Acquired software may or may not meet all requirements and will be evaluated on a case-by-case basis.

Installation Testing [TOP-018, Section 5.6]

Has installation testing been conducted for each intended computer platform and operating system?

Yes: No: N/A:

Computer Platforms: PC Operating Systems: XP Professional MS

Location of Acceptance Test Results: Attached

Comments: 7/3/02

Software Output [TOP-018, Section 5.5.4]

Is software designed so that individual runs are uniquely identified by date, time, name of software and version?

Yes: No: N/A:

Date and Time Displayed: _____

Name/Version Displayed: _____

Comments:

Interactive

NOTE: Output identification content and format is typically taken as is.

Medium Documentation [TOP-018, Section 5.5.6]

The physical labeling of software medium (tapes, disks, etc.) contains: Program Name, Module/Name/Title, Module Revision, File type (ASCII, OBJ, EXE), Recording Date, and Operating System(s)?

Yes: No: N/A:

Comments:

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User Documentation [TOP-018, Section 5.5.7]

Is there a Users' Manual for the software and is it up-to-date?

Yes: No: N/A:

User's Manual Version and Date: installed with the code
 Comments: PDF.

Are there basic instructions for the *installation* and *use* of the software?

Yes: No: N/A:

Location of Instructions: see above
 Comments:

Configuration Control [TOP-018, Section 5.7, 5.9.3]

Is the Software Summary Form (Form TOP-4-1) completed and signed?

Yes: No: N/A:

Date of Approval: 1/22/04

Is the list of files attached to the Software Summary Form complete and accurate?

Yes: No: N/A:

Comments:

Is the source code available or, is the executable code available in the case of (acquired/commercial codes)?

Yes: No: N/A:

Location of Source Code: _____
 Comments:

Have all the script/make files and executable files been submitted to the Software Custodian?

Only the executable files are being submitted.

Yes: No: N/A:

Location of executable files: attached - 8 files
 Comments:

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Software Release [TOP-018, Section 5.9]

Upon acceptance of the software as verified above, has a Software Release Notice (SRN), Form TOP-6 been issued and does the version number of the software match the documentation?

Yes: No: N/A:

SRN Number: 344

Comments:

Software Validation [TOP-018, Section 5.10]

Has a Software Validation Test Plan (SVTP) been prepared for the *range of application* of the software?

Yes: No: N/A:

Version and Date of SVTP: _____

Date Reviewed and Approved via QAP-002: _____

Comments:

Planned for January 2005

Has a Software Validation Test Report (SVTR) been prepared that documents the results of the validation cases, interpretation of the results, and determination if the software has been validated?

Yes: No: N/A:

Version and Date of SVTR: _____

Date Reviewed and Approved via QAP-002: _____

Comments:

Planned for January 2005

Additional Comments:

[Signature] 12/22/04
 Software Evaluator/User/Date

[Signature] 12/22/04
 Software Custodian/Date

**INSTALLATION TEST RESULTS
ERDAS IMAGINE® Version 8.7**

Prepared for

**U.S. Nuclear Regulatory Commission
Contract NRC-02-02-012**

Prepared by

M. Necsoiu

**Center for Nuclear Waste Regulatory Analyses
San Antonio, Texas**

November 2004

CONTENTS

Section	Page
FIGURES.....	ii
1 ENVIRONMENT.....	1
1.1 Software.....	1
1.2 Hardware.....	1
2 INPUT FILES.....	1
3 REFERENCES.....	1
4 DESCRIPTION OF INSTALLATION TEST.....	1
5 RESULTS.....	3

FIGURES

Figure	Page
Figure 1. The Available Bands List Window	2
Figure 2. Landsat TM Band 5 Displayed in the ERDAS IMAGINE Viewer #1	2
Figure 3. Statistics Results for the Band 4 Landsat TM Test Dataset	3

1 ENVIRONMENT

1.1 Software

- Operating System: Microsoft® Windows XP Professional, Version 2002, Service Pack 1

1.2 Hardware

The following hardware will be used to perform installation testing activities:

- Platform: Intel® Xeon™
- CPU 3.06 GHz
- Memory: 2 GB RAM

2 INPUT FILES

The input data file *lanier.img* is a 7-band Landsat TM sample file included with the ERDAS IMAGINE® 8.7 installation. This file is located in the c:/program files/imagine 8.7/examples directory.

3 REFERENCES

IMAGINE Online Documentation for ERDAS IMAGINE® Version 8.7 found under the Help Menu on the Main Menu bar.

4 DESCRIPTION OF INSTALLATION TEST

1. Open ERDAS IMAGINE program.
2. Load the satellite images *lanier.img*.
 - a. **Viewer** -> **Classic Viewer**
 - b. On the **Select Layer to Add** dialog, select *lanier.img* file (Figure 1). Click the **Raster Options** tab and display the image as an RGB image using Band 3 for Red, Band 2 for Green and Band 1 for Blue bands. Make sure that no stretch is applied to data and the zoom factor is 1. Click **OK**.

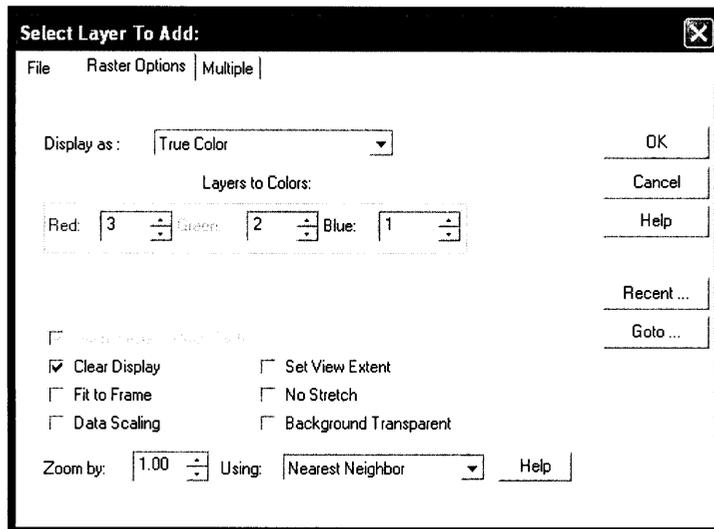


Figure 1. The Available Bands List Window

Compare the obtained results with the ones in Figure 2. Verify that the viewer displays a RGB 3, 2, 1 image and the status bar indicates UTM projection, Spheroid Clarke 1866.

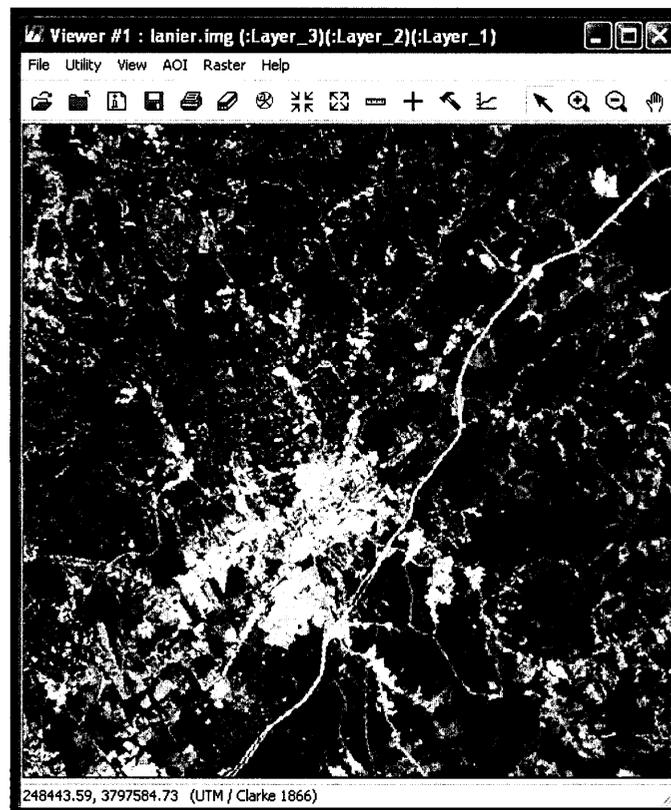


Figure 2. Landsat TM Band 5 Displayed in the ERDAS IMAGINE Viewer #1

3. Calculate general statistics (i.e., minimum, maximum, mean, and standard deviation) for the multi-band image.
 - a. Select **Utility** → **Layer Info** → **Compute Statistics**. The **Statistics Generation Options** dialog appears.
 - b. Ignore value 0. Click **OK**. The statistics are calculated for all seven layers.
 - c. To see each layer statistics, use the pull down menu and select the desire band. Click **OK**. The statistics results are similar with the ones in Figure 3.

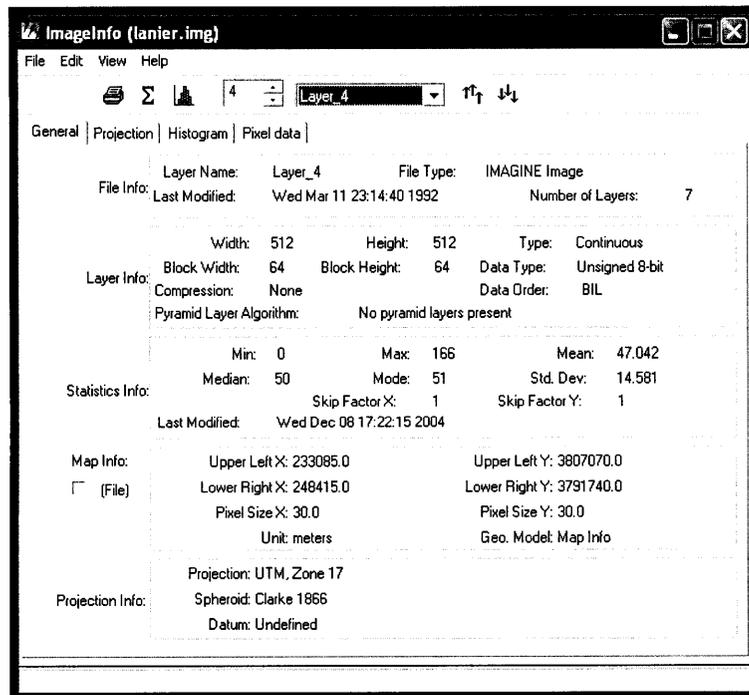


Figure 3. Statistics Results for the Band 4 Landsat TM Test Dataset

5 RESULTS

This installation test was successful and passed. The obtained results shown in Figure 2 are reasonably similar to the expected results shown in the ERDAS IMAGINE Tour Guides, IMAGINE Essentials. Based on the results of this test, the software appears to have been successfully installed.

Similar results were obtained when ERDAS IMAGINE 8.7 was tested on a SUN Solaris Version 5.9.