LAR-IAC2
Product Guide

For the
Los Angeles Region
Imagery Acquisition Consortium
(**LAR-IAC**) Program
2008-09

LOS ANGELES ● REGION
LAR|ac
imagery acquisition consortium

Product Guide Developed by:

Los Angeles County

Pictometry
Intelligent Images®

SANBORN

Dewberry

February 2009

Orthophotography Data Acquisition & Data Production provided by:
Prime: Pictometry International Corp.
Subcontractor: The Sanborn Map Company, Inc.

Oblique Imagery Data and Viewer provided by:
Pictometry International Corp.

Quality Assurance, Quality Control and Deliverables provided by:
Dewberry and Davis LLC

TABLE OF CONTENTS

LAR-IAC – BACKGROUND AND OVERVIEW

Please see the original **LAR-IAC Product Guide** for complete background and overview information on the LAR-IAC program. The original LAR-IAC Project Guide (2006) provides plenty of information on the first iteration of the project, orthophotography, digital terrain datasets and oblique aerial digital imagery.

This document can be found online on the LAR-IAC Program Web Site:
http://planning.lacounty.gov/LARIAC/resource/doc/ProductGuideFinal.pdf (3.7 MB; 41 pages)

Overview of Data Acquisition Process – LAR-IAC2

Pictometry International Corp. (hereafter referred to as Pictometry) acquired ortho and oblique imagery for the LAR-IAC2 Project. Aerial photography data were collected by Pictometry for all LAR-IAC2 project areas. The Sanborn Map Company, Inc. (hereafter referred to as Sanborn) was the subcontractor on the project for the main ortho production process. Pictometry partnered with Sanborn, a recognized leader in geospatial technologies for the production of high-accuracy digital orthophotos included in the 2008 project. Approximately 278,000 nadir image chips were collected simultaneously with Pictometry's oblique imagery collection. The collected nadir image chips were post processed by Pictometry.

To provide stereoscopic coverage for the compilation, Sanborn modified its standard parameters by both adding frames along lines and increasing the frequency of the lines to ensure that the photography would have a minimum of 60% forward overlap between exposures within a flight line and a minimum of 30% side lap between exposures in adjacent flight lines.

To provide the proper geodetic controls for the production of the digital ortho imagery, a combination of existing GPS ground control points and GPS/IMU were employed during the image capture. Existing digital terrain model (DTM) data from LAR-IAC was provided by Los Angeles County and used in the production of the digital ortho imagery. Pictometry accomplished aerial triangulation (AT solution) of the photo set using automatic analytical aerial triangulation (AAAT) procedures in a softcopy environment and the resulting external orientations.

The AT solution and the processed imagery were provided by Pictometry to Sanborn for stereo DTM updates and digital imaging orthorectification. The DTM was updated as needed to support accurate orthorectification by using Softcopy compilation techniques where significant change in the terrain was detected. The DTM tiles containing areas identified by Sanborn as having a significant terrain change were delivered to the County. Sanborn processed orthorectification and produced 3-band (RGB), 24-bit (8-bit per channel) digital orthophotos at 4 inch and 1 foot pixel resolution for respective project areas with no overlap between areas. The 4 inch and 1 foot areas were color balanced independently. The ground resolution of the ortho photography will be approximately nominal 10 cm GSD (Ground Sample Distance) and nominal 28 cm GSD. All products from the LAR-IAC2 Project underwent rigorous quality assurance and quality control (QA/QC) procedures by Dewberry and Davis LLC (hereafter referred to as Dewberry) as an independent QA/QC firm.

All project data were established and produced in the California State Plane Coordinate System (1983, Zone V). The 4-inch and 1-foot pixel resolution orthophotos were delivered by Sanborn to Dewberry for eventual distribution to the LAR-IAC2 participants. Oblique imagery was delivered by Pictometry to Dewberry for eventual distribution to the LAR-IAC2 participants.

PROJECT DELIVERABLES

The LAR-IAC2 Project consists of digital imagery and elevation products in various delivery formats. The LAR-IAC2 Technical Advisory Group (TAG) made every effort to consider and include as many products and delivery formats as possible. While not every format is included, the final products can be converted to other formats, if necessary. The following is a description of all LAR-IAC2 Project Deliverables:

Digital Orthophotography, Digital Terrain Datasets Spot Updates, Oblique Imagery and Viewers

After the quality assurance team receives, reviews and accepts all of the ortho products delivered by Sanborn for each delivery area, the data is finalized and copied to hard drives for delivery to Los Angeles County and the LAR-IAC2 participants.

The full countywide delivery of oblique imagery, software and support data is also delivered to Dewberry by Pictometry for creation of the Spatially-Limited Dataset (SLDS) deliveries of all project data products to the various LAR-IAC2 participants. The final SLDS datasets will be delivered on external hard drives (provided through the LAR-IAC2 contract).

The delivery extents for each SLDS are defined by two shapefiles developed and provided by Los Angeles County in consultation with each SLDS participant. One shapefile defines the 4-inch (urban) and 1-foot (forest) ortho imagery delivery boundaries, and the other defines the Pictometry (oblique product) delivery boundary.

LAR-IAC2 Project Deliverables (each described below):

There are three (3) main products (now called deliverables) for LAR-IAC2 and over twelve (12) data formats. The main products include:

> **Deliverable 1** - Color Orthogonal Imagery, 4" resolution (urban areas) and 1' resolution (national forests), 1' resolution for urban areas (for Web/public consumption).
> **Deliverable 2** - Digital Terrain Datasets (DTM) – spot updates from stereo compilation.
> **Deliverable 3** - Color Oblique Aerial Digital Imagery (with viewer application and other integration software).

Data Formats
Sanborn will translate or transfer the digital data from the original system specific format to the final and required output format. The softcopy photogrammetric data collection software of choice is Bentley Microstation which allows direct translation to Autodesk AutoCAD Map 5 (ACAD2000) dwg format and ESRI ArcGIS format. Pictometry will provide their oblique imagery library, software, and supporting materials. Their oblique imagery format is a

propriety JPEG format. The formats listed below for the listed deliverables are for graphic display only and do not contain any written reports.

Delivery Product	Format 1	Format 2	Format 3
Orthophoto – RGB (4" and 1' products)	GeoTIFF & JPG2000	MrSID (50:1 mosaic and 20:1 mosaic grid) ECW (50:1 mosaic and 20:1 mosaic grid)	SDE Export or file geodatabase
Digital Terrain Model (DTM) Spot Updates *	ArcGIS shapefile - points, 3D lines	Microstation (dgn) – points , lines	
Oblique images	Proprietary JPG	Compressed JPG	

*   *Digital Terrain Model represents the bare earth terrain including the breaklines.*

Reports and support data:
Ground Control: ESRI ArcGIS shapefile with attributes
                                   ASCII point file listing
                                   Report
Tile Grid   ESRI ArcGIS shapefile
Block Adjustment   ESRI ArcGIS shapefile
                                   Report

Each participant will receive all delivery formats for the area agreed upon prior to joining the LAR-IAC2 project (provided in their letter of support with the County). For most entities this is their jurisdiction or coverage area along with a buffer area. All products are delivered in the State Plane Coordinate System, NAD83, California, Zone V, U.S. Survey Feet (0405).

Deliverable 1 – Natural Color Orthophotos
1. Four-inch pixel resolution natural color ortho imagery coverage of the urban project area and Santa Catalina Island (Area 1 and Area 3) at a 1" = 100' map scale.
2. One-foot pixel resolution ortho imagery coverage of the national forest areas (Area 2) at a 1" = 200' map scale.
3. One-foot pixel resolution ortho imagery coverage of the urban project area and Santa Catalina Island (Area 1 and Area 3) at a 1"=200' map scale (reprocessed from 4" pixel resolution imagery).
4. Imagery to be delivered as GeoTIFF files (uncompressed) corresponding to each ortho tile in the supplied tile grid.
5. Other data formats to be provided include ECW, MrSID, JPEG2000, SDE export and ESRI File Geodatabase.

Deliverable 2 - Digital Terrain Datasets (DTM) – Spot Updates
1. Digital Terrain Datasets (updated tiles) from stereo compilation with sufficient point spacing to support generation and rectification of ortho imagery for urban areas and Santa Catalina Island (Area 1 and Area 3).
2. Digital Terrain Datasets from stereo compilation with sufficient point spacing to support generation and rectification of ortho imagery for the national forest areas (Area 2).

Deliverable 3 - Color Oblique Aerial Digital Imagery

1. 4,276 Sectors of Community 2-Way Images covering 4,083 square miles of the County (all areas plus some buffer). This includes 963 Sectors of Community 2-Way Images covering Area 2 (national forests).
2. 3,309 Sectors of Neighborhood 4-Way Images covering Area 1.
3. 139 Sectors of Neighborhood 4-Way Images covering Area 3 (Santa Catalina Island).
4. 16 Sectors of Neighborhood 8-Way Images covering downtown areas.
5. Shapefiles representing the oblique footprint of each image trapezoid in California State Plane Coordinate System, Zone V, NAD 83, and U.S. Survey Feet.
6. Oblique imagery is a proprietary image trailer tacked onto industry standard image format. May be exported to a number of formats. County DTM with up to 2m spacing will be included in image trailer.

Map of LAR-IAC2 Project Areas
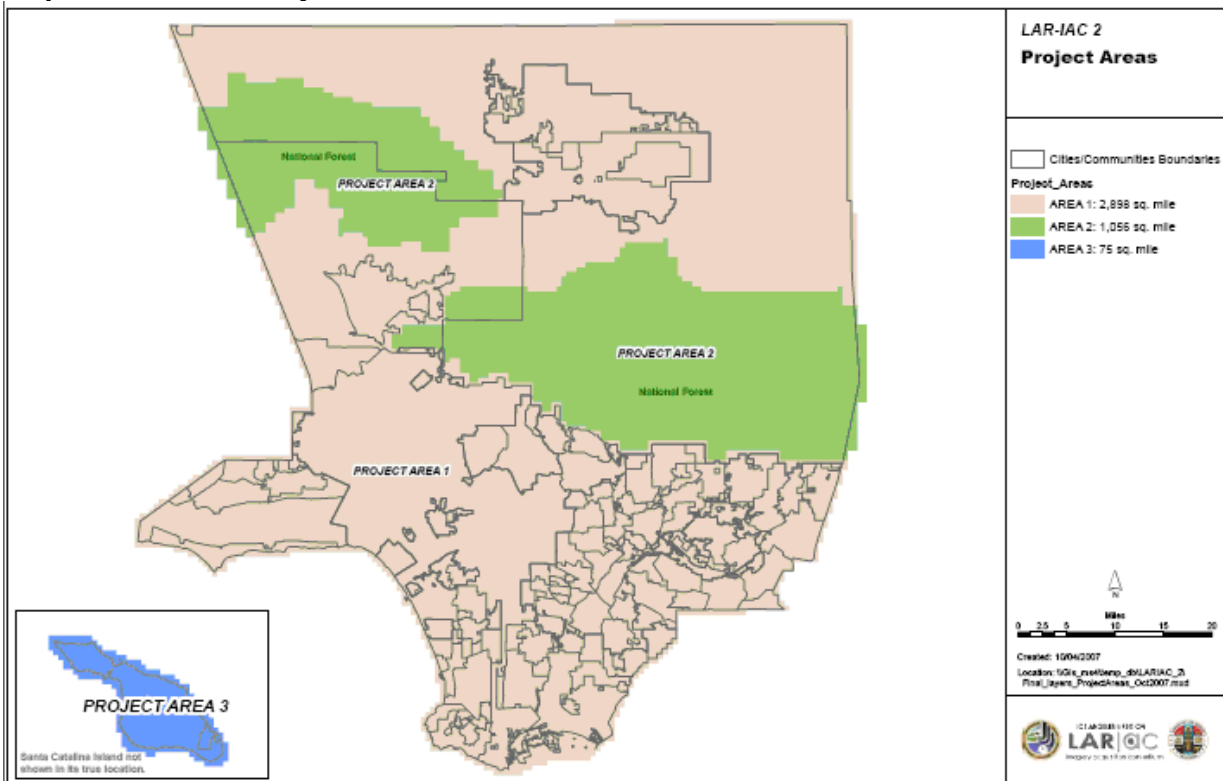
Area 1 – urban, Area 2 – national forests, Area 3 – Santa Catalina Island.

Other Deliverables

1. Federal Geographic Data Committee (FGDC) compliant metadata.
2. Geodetic control network for ground control points used for AT solution.
3. Oblique imagery software from Pictometry
    - Electronic Field Study (EFS)
    - Configuration Editor
    - Change Analysis
    - ArcGIS Extension
    - ArcMap Script
    - Network Image Warehouse (NIW)
    - ActiveX control - for integrating with other applications (available upon request)

See **Readme** delivered with oblique imagery data products for software information (included here as **Attachment 1**).

DELIVERABLE REVIEW & ACCEPTANCE CRITERIA

All products from the LAR-IAC2 Project underwent rigorous quality assurance and quality control (QA/QC) procedures. The same Acceptance Criteria was used for LAR-IAC2 as LAR-IAC. For detailed information regarding the acceptance criteria, please see the LAR-IAC Product Guide (pages 15 to 20).

Coordinate System and Datum for LAR-IAC2 Project Data

All LAR-IAC2 Project deliverables (except oblique aerial digital imagery) are projected in the State Plane Coordinate System, NAD 83, CA Zone V, US Survey Feet (0405).

Horizontal and Vertical Positional Accuracy

Horizontal Accuracy – For Orthophotos

LAR-IAC2's 4" digital orthophotos were tested in accordance with the 4 inch GSD Acceptance Criteria listed above. The "georeferenced ground positions of higher accuracy," referred to generically as "QA/QC checkpoints," were provided from the first LAR-IAC project and from other data points collected by the vendors. The National Standard for Spatial Data Accuracy (NSSDA) absolute accuracy statistic ($Accuracy_r$) is computed as $RMSE_r$ x 1.7308 in order to report the tested horizontal accuracy at the 95% confidence level as required by FGDC Geospatial Positioning Accuracy Standards, Part 3: NSSDA. The 4" digital orthophotos were tested with **1.500 feet horizontal accuracy at 95% confidence level.** Class 1 (1 foot accuracy) for Area 1 and 3 and class 2 (2 foot accuracy) are the same standards as LAR-IAC.

Horizontal and Vertical Positional Accuracy - For Oblique Imagery

The *georeferenced ground positions of higher accuracy*, referred to generically as *QA/QC checkpoints*, were provided by LAR-IAC2 from multiple sources. Most checkpoints were X's painted on asphalt, accurately surveyed as control points, and used as *target points* by photogrammetric firms for aerial triangulation. Because these checkpoints are accurate, well-defined and photo-identifiable on the airborne oblique imagery, Dewberry measured the x-, y- and z-coordinates on these checkpoints on each of the 4-view Pictometry images, where visible, to compute errors in Eastings (Δx), errors in Northings (Δy), and errors in elevations (Δz). For each checkpoint, Dewberry also averaged the Eastings, Northings and elevations for all views that were visible; for many, the average resulted from four views, but some points were obscured by buildings, trees, cars, etc., so the average resulted from the mean of three, two, and (in a few cases) only one view.

When coordinates were averaged from north-view, south-view, east-view, and west-view images, the averaged coordinates were normally more accurate than coordinates from individual views, as summarized with the following accuracy statements:

Accuracy of clearly-defined surveyed targets on Pictometry 4-view images with coordinates averaged from all views in which targets were visible and could be measured:
> **All-view averaged coordinates tested 5.04 ft horizontal accuracy at 95% confidence level**

> **All-view averaged coordinates tested 2.47 ft vertical accuracy at 95% confidence level.**

These results are well within contract specifications for oblique imagery for the LAR-IAC2 Project.

OPERATING OPTIONS

The LAR-IAC2 Project is mainly about data products but it is important to note how the data can be viewed and what special software is included or can be used. For detailed information regarding hardware and software requirement, please see the LAR-IAC Product Guide (pages 20 to 23).

LAR-IAC2 product deliverable Index Files (identifying the tile grid, etc.) are provided in ESRI shapefile format. ArcView, or the free ArcExplorer and AccuGlobe applications, and most other GIS software can read the index shapefiles included with the data.

Other LAR-IAC2 Project reports (Horizontal and Vertical Accuracy, Aerial Triangulation, Geodetic Control, etc.) are provided in Adobe Acrobat (.PDF) file format. Other miscellaneous data tables can be opened and used with a word processing and/or spreadsheet application like Microsoft Word or Microsoft Excel.
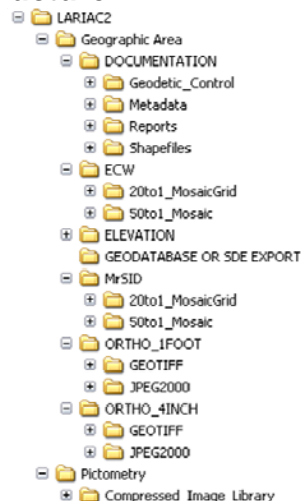
ACCESSING OR LOADING DATA

The following section refers to accessing and/or loading the LAR-IAC2 data. Most agencies are receiving their data on an external hard drive (provided this time through the LAR-IAC2 Project). See the original LAR-IAC Product Guide regarding Data Loading (pages 24 and 25).

2008 LAR-IAC2 Ortho Data Products Folder Structure
The following folder hierarchy details the folder structure for the LAR-IAC2 Ortho Data Products.

Folder Structure:

```
LARIAC2
  Geographic Area
    DOCUMENTATION
      Geodetic_Control
      Metadata
      Reports
      Shapefiles
    ECW
      20to1_MosaicGrid
      50to1_Mosaic
    ELEVATION
    GEODATABASE OR SDE EXPORT
    MrSID
      20to1_MosaicGrid
      50to1_Mosaic
    ORTHO_1FOOT
      GEOTIFF
      JPEG2000
    ORTHO_4INCH
      GEOTIFF
      JPEG2000
  Pictometry
    Compressed_Image_Library
```

Oblique Imagery File Structure
See **Readme** delivered with oblique imagery data products for this information (included here as **Attachment 1**).

Orthophotography – Delivery Blocks, Tile Counts, Tile Grid and Tile Naming Convention

Delivery Blocks (AT Superblocks):
The LAR-IAC2 Project is divided into large blocks (formerly called delivery areas and sometimes referred to as AT Superblocks) and each area is divided into delivery tiles (the smallest grid for the project). Each tile represents an orthophoto tile. The size of the grid and tile counts are below:
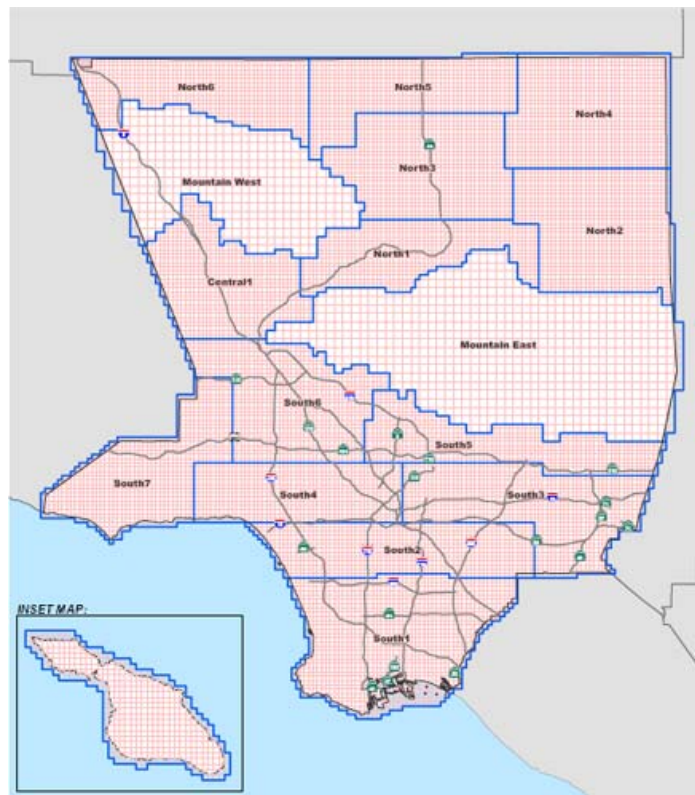

Map of project delivery blocks (ortho products)

Tile Counts:
12,302 tiles for 4" orthos and digital terrain datasets (Area 1 – urban)
1,080 tiles for 1' orthos and digital terrain datasets (Area 2 – national forests)
428 tiles for 4" orthos and digital terrain datasets (Area 3 – Santa Catalina Island)

Tile Grid:
Tiles for Area 1 and Area 3 – 0.25 sq. mile area, 0.5 mile length and width
(2,640 ft. x 2,640 ft.)
Tiles for Area 2 – 1 sq. mile area, 1 mile length and width
(5,280 ft. x 5,280 ft.) – some tiles (along the edge of Area 1) are 2,640 ft. x 2,640 ft.
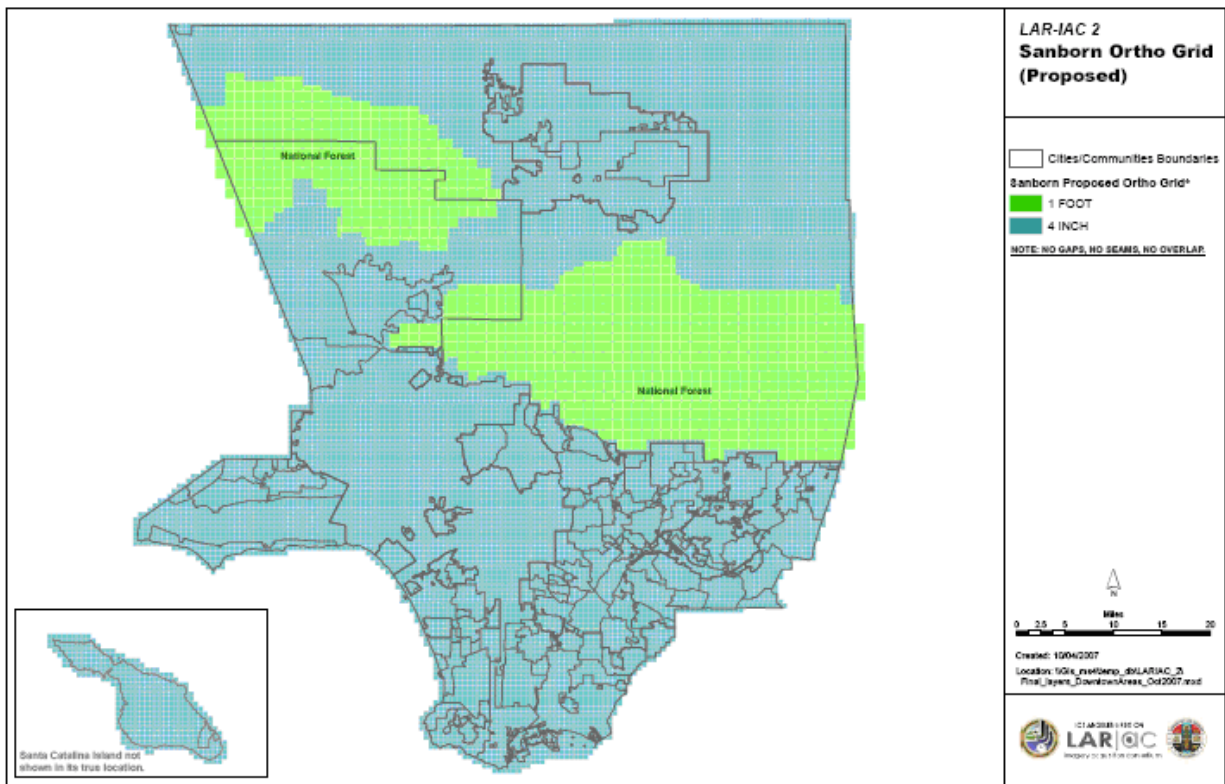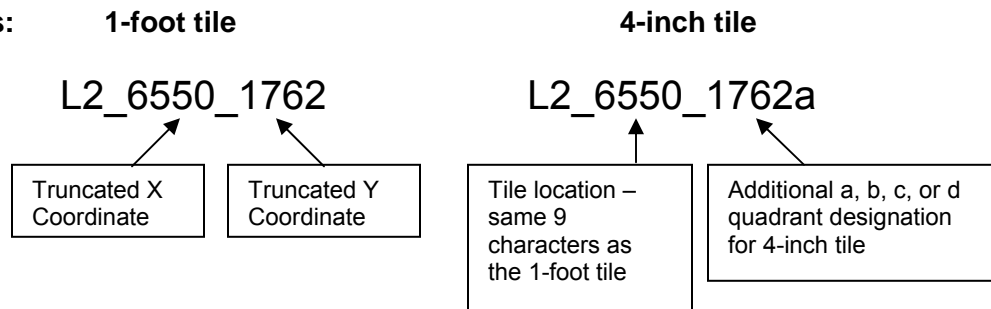
Map of tile grids (ortho delivery products).

Tile Naming Convention – Tile ID:

In order to be able to work with the tiles, it is necessary to have a unique naming convention that uses a deterministic process to identify both the geographic location, as well as the type of data product and format. Each 1-foot tile name is a 12-character ID. The first three characters, "L2_", distinguish between LAR-IAC and LAR-IAC2 data files. The latter part of the name consists of a truncated X coordinate (first 4 digits) in thousands of feet, separated with an underscore from a truncated Y coordinate in thousands (last 4 digits). Each 4-inch tile name has an additional a, b, c, or d quadrant designation.

Examples: **1-foot tile**   **4-inch tile**

L2_6550_1762   L2_6550_1762a

| Truncated X Coordinate | Truncated Y Coordinate | Tile location – same 9 characters as the 1-foot tile | Additional a, b, c, or d quadrant designation for 4-inch tile |

Sample 4-inch tiles with the LAR-IAC2 tile grid and naming convention.

All of the core orthophotography files are identified by this tile number and a file extension that designates the files data file format (e.g. .tif or .jp2). For all of the other LAR-IAC2 data products, the 12-character ID is followed by a product type identifier (suffix). The file type (product) suffix starts with an underscore and is followed by a 2- or 3-character product type designation, consisting of:

_1	1-foot resampled ortho tile
_dem	digital elevation model data
_dtm	digital terrain model data

NOTE:

Following each file name is the file extension. The extension begins with a period and then a 3 (or more) character string designation of the data format (e.g., .dwg, .dgn, .shp, .xyz, etc.).

CREDITS - HOW TO CITE THE LAR-IAC2 DATA

The mapping products provided under the LAR-IAC2 Project are an important operative component to all consortium participants and have significant value. This value must be protected by all consortium participants and parties affiliated with LAR-IAC2 and its contractors. When using the LAR-IAC2 datasets for public viewing, media or third party applications, Los Angeles County strongly encourages its LAR-IAC2 participants to properly cite the source of the data.

NOTE: Third party or "derived datasets" created from the LAR-IAC2 data are not subject to citation requirements.

Citing Pictometry/Sanborn Data (ortho products)
When citing the source of the Pictometry/Sanborn data please use one of the two following options:

Option 1 - Short Version:
> "This is a proprietary dataset provided courtesy of the Los Angeles Region Imagery Acquisition Consortium (LAR-IAC), Pictometry International Corp. and The Sanborn Map Company, Inc."

Option 2 - Long Version:
> This is a proprietary dataset provided courtesy of the Los Angeles Region Imagery Acquisition Consortium (LAR-IAC), Pictometry International Corp. and The Sanborn Map Company, Inc. Use other than what is allowable under license or by written permission from Pictometry International Corp. or The Sanborn Map Company, Inc. will be considered unauthorized and may be punishable by law.   Permission for external use may be given with written permission from Pictometry International Corp. or The Sanborn Map Company, Inc.

Citing Pictometry Imagery (oblique products)
When citing the Pictometry oblique imagery please use the following:
> "© Copyright 2008, Pictometry International"

Let Us Know How You Are Using the LAR-IAC2 Data
We want to know about your successes! The LAR-IAC2 Technical Advisory Group will be documenting how people are using the LAR-IAC2 products. This valuable information will help Los Angeles County present a strong business case to decision-makers for maintaining the County's geographic information systems (GIS) infrastructure. Please send a few sentences about how you are using the data to gis@planning.lacounty.gov.

LAR-IAC2 PROJECT HELP

For help using the LAR-IAC2 data products, users can contact:

Los Angeles County Department of Regional Planning – GIS Section
Project Manager – Nick Franchino, GIS Manager
gis@planning.lacounty.gov (213) 893-0881

Los Angeles County Chief Information Office
Project Director – Mark Greninger, Associate CIO (County GIO)
mgreninger@cio.lacounty.gov (213) 253-5624

LAR-IAC2 Project information can be found at the project Web site:
http://planning.lacounty.gov/lariac

For Technical Assistance with hard drives or delivery:
Data Quality Assurance and Distribution by:
Dewberry & Davis LLC
8401 Arlington Boulevard
Fairfax, VA 22031-4666
Phone: (703) 849-0396
DMaune@dewberry.com

Data Acquisition and Oblique Data Production by:
Pictometry International Corp.
100 Town Centre Drive, Suite A
Rochester, NY 14623
Phone: (888) 771-9714
mike.horan@pictometry.com

Ortho Production by:
The Sanborn Map Company, Inc.
Attn: Jason Caldwell
1935 Jamboree Dr, Suite 100
Colorado Springs, CO 80920
Phone: (877) 368-9702
JCaldwell@sanborn.com

CITATIONS

All citations should reference the original LAR-IAC Product Guide (pages 34 and 35).

Readme

This document is provided to you through the Los Angeles Region Imagery Acquisition Consortium 2 (LAR-IAC2) Project. It provides you with the list of Pictometry software you have received with the oblique imagery delivery, as well as the LAR-IAC2 Project contact information. For detailed instructions on how to get started with your oblique imagery, please refer to the Oblique Image Library Instructions included in this document.

Pictometry Software Deliverables

- Electronic Field Study (EFS)
- Configuration Editor
- Change Analysis
- ArcGIS Extension
- ArcMap Script
- ActiveX Control – to connect the oblique imagery library to ArcIMS Web mapping sites; has basic navigation and measurement tools (available through Pictometry upon request). Click for **Request for ArcIMS Integration Package**

LAR-IAC2 Project Contact Information

For help in using the LAR-IAC2 oblique imagery, users can contact:

Los Angeles County, Department of Regional Planning – GIS Section
Project Manager – Nick Franchino, GIS Manager
gis@planning.lacounty.gov (213) 893-0881

Administrative Lead Contact – Lois Yoon
lyoon@planning.lacounty.gov (213) 974-8275

Technical Lead Contact – Jason Levine
jlevine@planning.lacounty.gov (213) 974-8275

Los Angeles County, Chief Information Office
Project Director – Mark Greninger, Associate CIO (County GIO)
mgreninger@cio.lacounty.gov (213) 253-5624

Project information, can be found at the project Web site:
http://planning.lacounty.gov/lariac

Oblique Imagery Data Acquisition and Data Production by:
Pictometry International Corp.
100 Town Centre Drive, Suite A
Rochester, NY 14623
Phone: (888) 771-9714
mike.horan@pictometry.com

Data Quality Assurance and Distribution by:
Dewberry & Davis LLC
8401 Arlington Boulevard
Fairfax, VA 22031-4666
Phone: (703) 849-0396
DMaune@dewberry.com

WELCOME TO YOUR NEW IMAGE LIBRARY!

The hard drive you have been sent contains your new image library! This document is intended to familiarize you with the content of the delivery media, and describe required procedures to ensure you can quickly start using your new imagery.
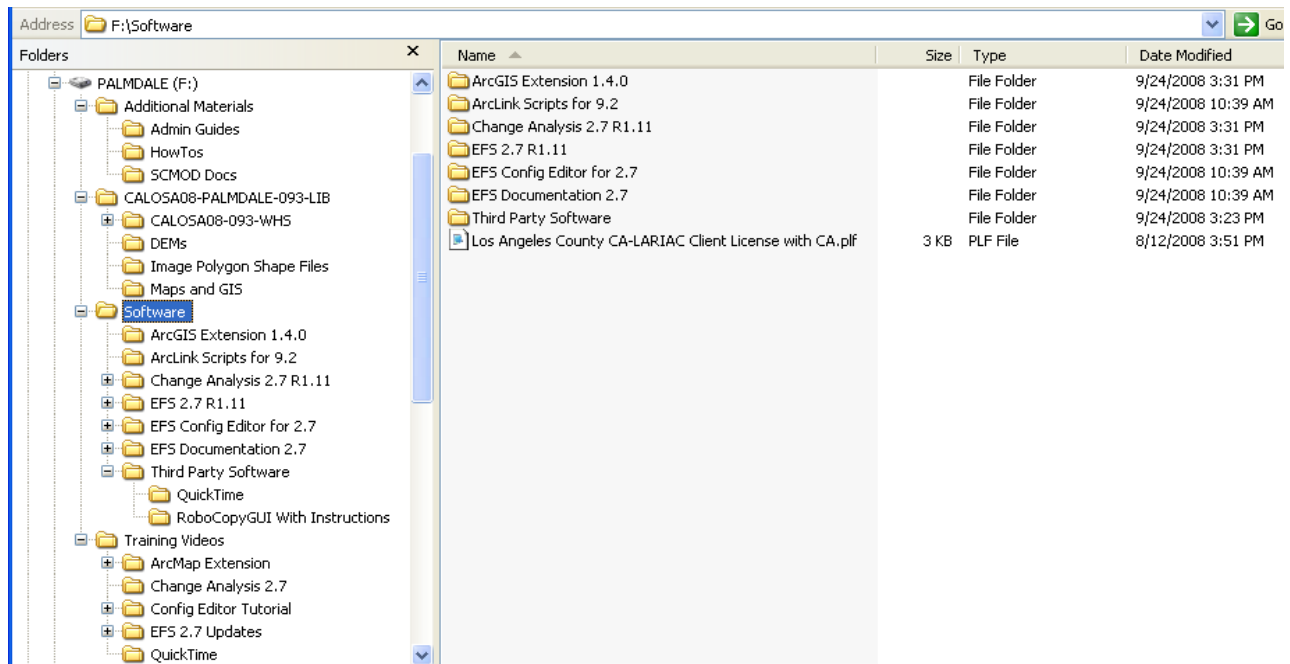
Distribution Media (Hard Drive)

The root of the Distribution Media contains:
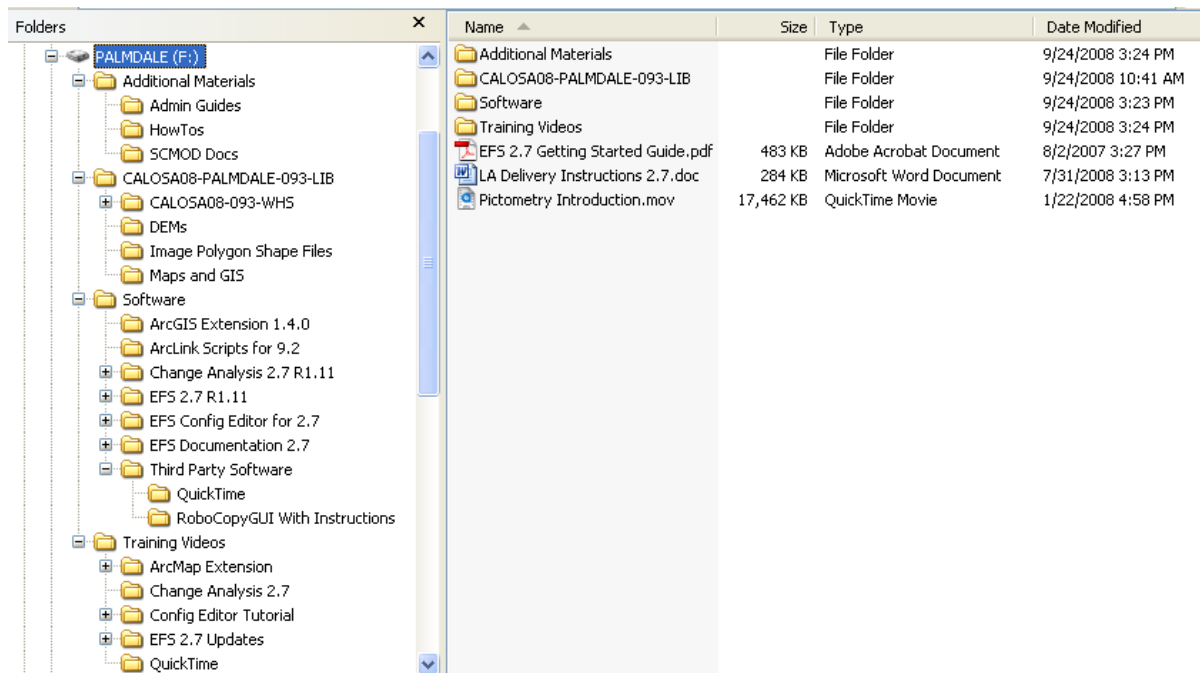
Example of the contents at the root of the Distribution Media

Software Folder
Image library (CALOSA08-ENTITYNAME-093-LIB) Folder
Additional Materials Folder
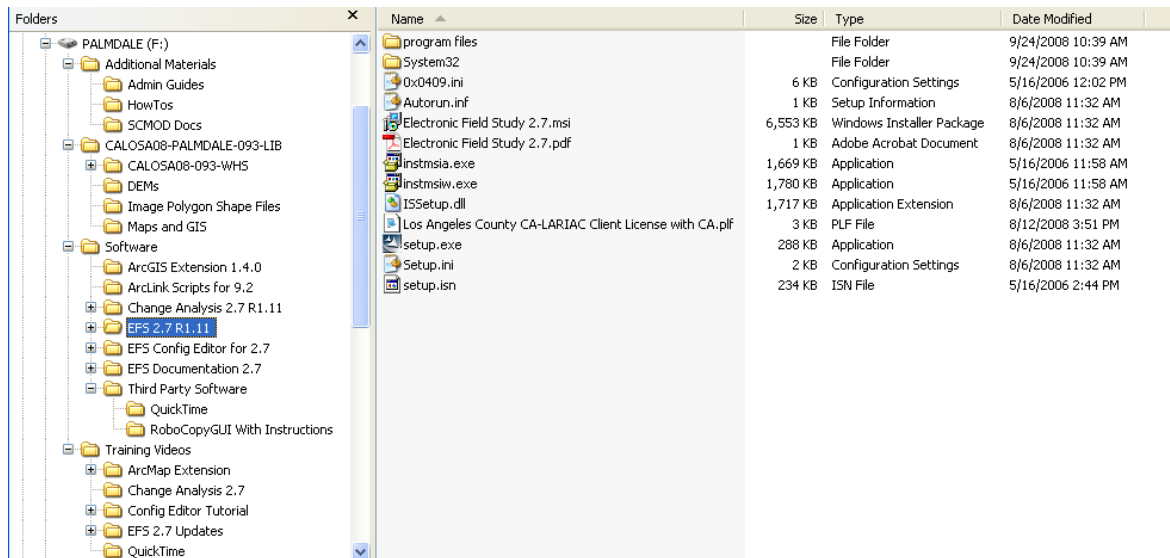**Training Videos Folder**

Software Folder:

Example of the contents of the Software Folder

EFS 2.7 Installer Folder (*EFS 2.7*)
This is the latest release of EFS 2.7. EFS installation is required for accessing the image library.
Run Software>EFS 2.7 Rx.x>setup.exe to install.

Example of the contents of the EFS 2.7 Installer Folder

EFS 2.7 Configuration Editor Utility
This utility program is for IT Administrators. (Please refer to the Configuration Admin Guide in Additional Materials>Admin Guides>EFS System Admin Guide – Configuration Editor). This utility will create Pictometry Configuration Files SPECIFIC to EFS 2.7 (.pcf) that IT Administrators can use to install EFS without the need for additional configuration.

Change Analysis 2.7 Installer Folder (*Change Analysis 2.7*)
This is the latest release of Change Analysis 2.7. This application allows the user to compare two sets of imagery, usually from two different years of capture. Based on EFS, Change Analysis shares its capabilities and interface. Change Analysis installation is required for accessing the image library. Run Software>Change Analysis 2.7 Rx.x>setup.exe to install.

There can be a variety of other programs in the Software directory; these names often have a version number with them as well.

ArcGIS Extension: A "lite" front-end for accessing Pictometry imagery intelligently through a viewer interface in ArcMap.

ArcMap Script: Create a custom ArcMap tool to pass ArcMap coordinates to Electronic Field Study.

Training Videos Folder: Contains a variety of tutorial and how-to videos for various products.

Your "-LIB" Folder:

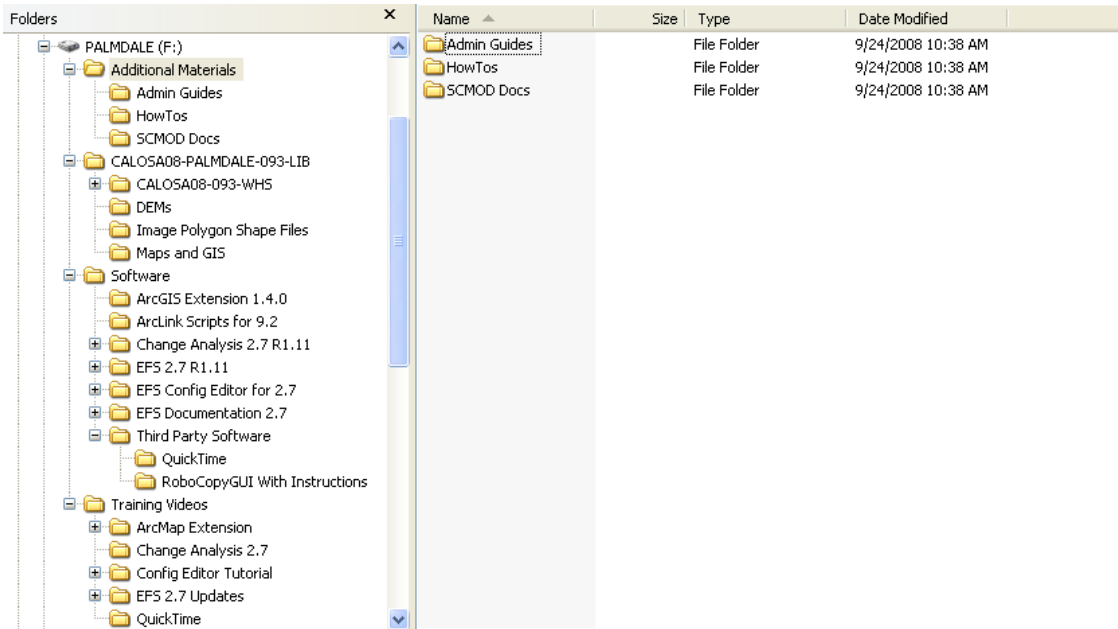**Library** Folder **(CALOSA08-ENTITYNAME-093-LIB)**

Generally speaking, the Image Library needs to be copied to a network accessible location; all users of EFS will need read access to this directory. It contains your aerial imagery as well as starter workspaces, any GIS data supplied to us, base maps and image polygon shape files. This should be read-only for normal users. If you choose to have users access GIS data from the Maps and GIS directory in the image library, your GIS personnel will need write access to that directory to update their Shape files.
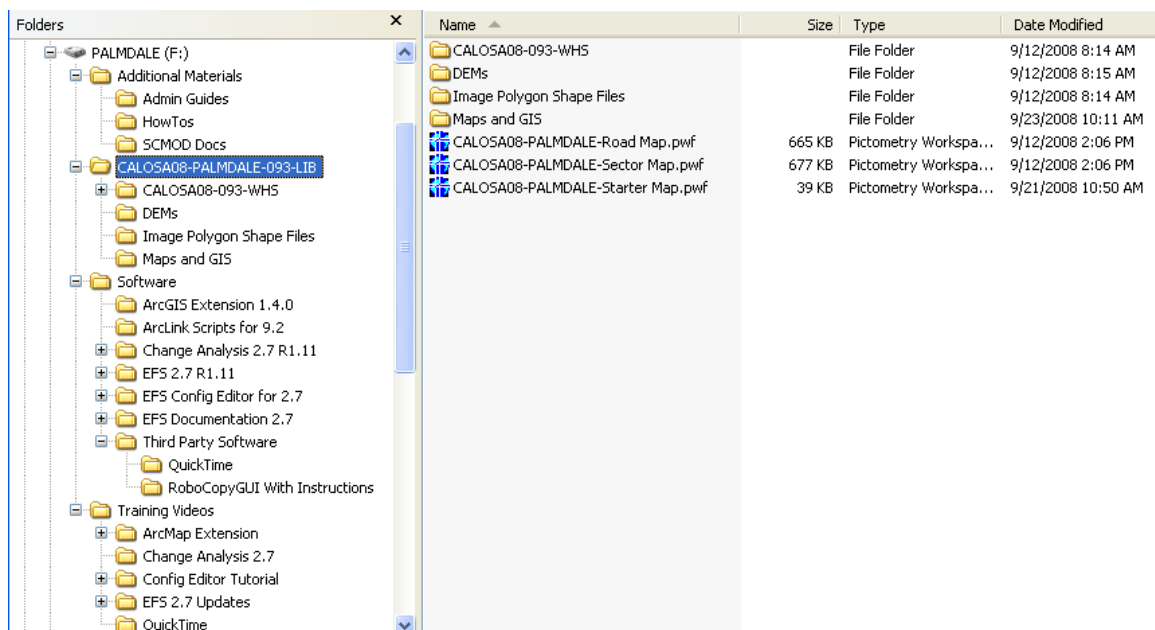
Example of the contents of the Library Folder

Additional Materials Folder:

Contains Training Handouts, a 'How To' folder of Documents and a SCMOD (touchscreen interface) document folder.

Folders		Name ▲	Size	Type	Date Modified
⊟ 🖙 PALMDALE (F:)		📁 Admin Guides		File Folder	9/24/2008 10:38 AM
⊟ 📁 Additional Materials		📁 HowTos		File Folder	9/24/2008 10:38 AM
📁 Admin Guides		📁 SCMOD Docs		File Folder	9/24/2008 10:38 AM
📁 HowTos					
📁 SCMOD Docs					
⊟ 📁 CALOSA08-PALMDALE-093-LIB					
⊞ 📁 CALOSA08-093-WHS					
📁 DEMs					
📁 Image Polygon Shape Files					
📁 Maps and GIS					
⊟ 📁 Software					
📁 ArcGIS Extension 1.4.0					
📁 ArcLink Scripts for 9.2					
⊞ 📁 Change Analysis 2.7 R1.11					
⊞ 📁 EFS 2.7 R1.11					
⊞ 📁 EFS Config Editor for 2.7					
⊞ 📁 EFS Documentation 2.7					
⊟ 📁 Third Party Software					
📁 QuickTime					
📁 RoboCopyGUI With Instructions					
⊟ 📁 Training Videos					
⊞ 📁 ArcMap Extension					
📁 Change Analysis 2.7					
⊞ 📁 Config Editor Tutorial					
⊞ 📁 EFS 2.7 Updates					
📁 QuickTime					

*Example of the contents of the Additional Materials Folder*

EFS Initial Configuration

Each newly installed copy of EFS software needs to be pointed to the Image Warehouse (***–WHS**) located within the Image Library folder. Each user on each workstation will need to do this unless a configuration file is used. (Please refer to the Configuration Admin Guide in Additional Materials>Admin Guides>EFS System Admin Guide – Configuration Editor).

Once EFS is installed:

Go to the **Navigate** menu and select **Image Tool Properties**.

Click on the **Add** button.
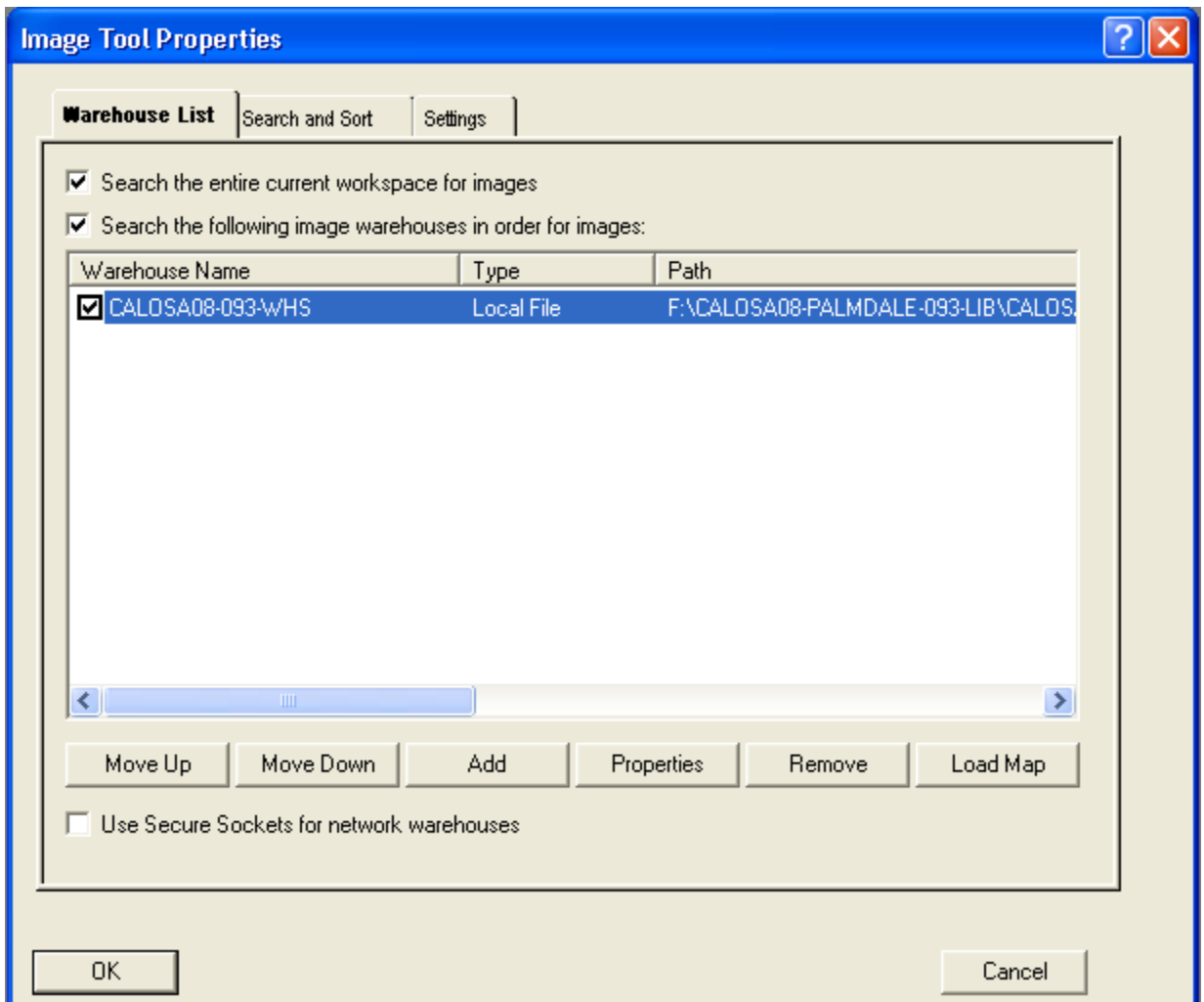
Example of Image Tool Properties dialog box

Click on the **Browse for Local File** button.

Note:'Local File' refers to an Image Library located on an external hard drive, or a shared drive of a server residing on the Local Area Network, accessible via a mapped drive or UNC path. 'Network Warehouse' refers to an Image Library made available through Pictometry's Network Image Warehouse (NIW).
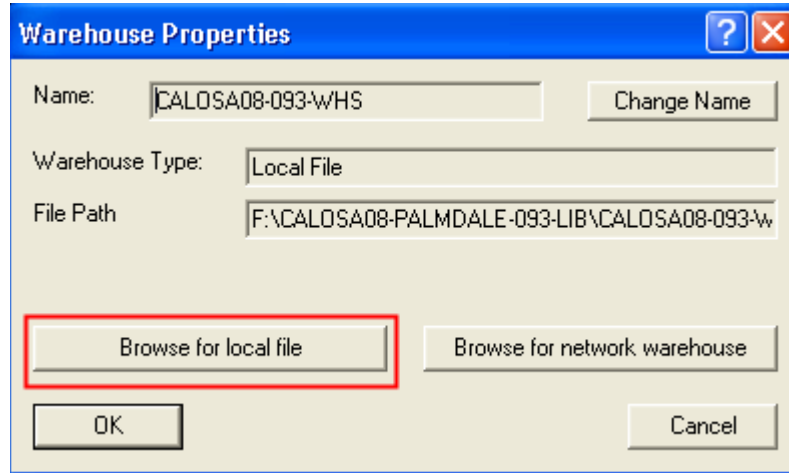
You will then need to browse to your ***–LIB**, open the ***–WHS** folder, and double-click (or open) the ***.PIW** file, which will be at the very **END** of the list. Click **OK** to go back to the Warehouse List tab.

There should now be a warehouse in the list. You can check/uncheck the box next to the warehouse name to turn it on/off. If it is on, its images will be displayed in the main image window and thumbnail window. More than one warehouse can be checked on.

If there are multiple warehouses (2008, 2006 and/or 2003 warehouses), the order in which they are listed will determine the images that will be displayed first (warehouses at the top of the list have priority over warehouses at the bottom). To reorder the warehouses, highlight one and click "Move Up" or "Move Down".

Click **OK** again, and EFS is now linked to the Image Warehouse(s).

Note: Please keep in mind that if the path to your Image Library changes, you will need to re-connect EFS to it. For this reason, we strongly recommend the use of UNC paths rather than mapped drives. It is our experience that these are more "futureproof" and robust than mapped drives unless there is a universal login script used to consistently map drives for *every single user.*

Configuring Starter Workspaces:

The paths to GIS data and base maps in workspaces are stored in the workspace, not based off of the Image Warehouse location. This means that since we did not know the path you and your users would be following from your workstations to the data, they are most likely wrong, since when we configured these files the drive was most likely local to our machine as D:\ or E:\

What this means is that when you open one of the supplied workspaces, *** Sector Map Workspace.pwf**, * **Road Map Workspace.pwf**, or * **Starter Workspace.pwf**, you may not see a base map, and the paths to GIS data may be wrong.

This will need to be fixed on each workspace in turn, so start with whichever you want.

Double click on the workspace, and it will open in EFS.

If you see a blank grey screen where you'd expect the base map to be, you need to click on the ⊞ symbol in the workspace to expand the workspace tree, and right click on the *.pmi base map and choose **Relocate *.pmi**.

Browse to your Maps and GIS folder inside your Image Library, and select that .pmi file.

Once you have relocated the file, you'll need to double click on it in the workspace tree to open it.

The procedure for relocating any GIS layers is exactly the same – right click on the layer in the workspace and choose **Relocate *** and browse to that file in the Maps and GIS directory, or anywhere else that you would rather access GIS data from.

Customer Support:

We are pleased to have you as a customer and look forward to working with you. Please don't hesitate to contact customer support with any issues you're having.

Sincerely,

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