

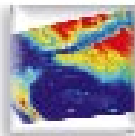
Creating, balancing and mosaicing Orthophotos

- Wizards • Map production • 3D presentations • Annotation • Orthophoto • Surface gridding • Contouring
- Image mosaicing • Data compression • Geocoding • Spatial analysis • Raster to vector
- Land use classification • Data integration • Image analysis • Radar processing • Fast Fourier Transforms



Airphoto

+



DEM

+

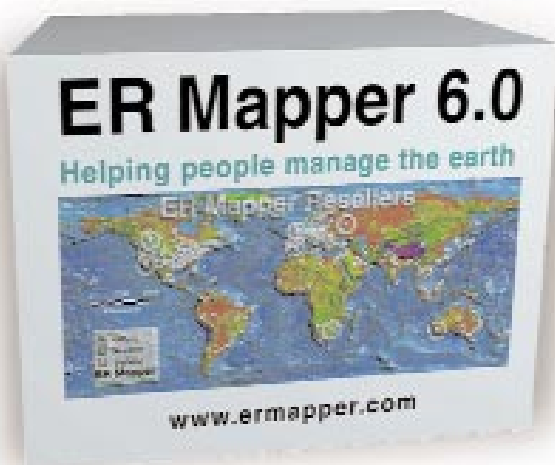


Camera and control points

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Orthophoto



Total end-to-end airphoto processing

Remove local and global distortions from aerial photographs and produce accurate seamless mosaics for use in your GIS software.

Easy to use wizard interface

ER Mapper's Orthorectification is so intuitive that within just one hour you will be able to produce accurate Orthorectified Airphotos.

Compress images

New breakthrough technology in ER Mapper 6.0, achieve compression rates of up to 50:1.

Distribute compressed imagery with FREE plugins

No need to purchase expensive image add-ons for GIS/CAD/Office products, all plugins can be shipped with your data for easy viewing.

ER Mapper 6.0 - the com

The complete end-to-end Orthophoto solution

With the addition of Orthorectification in ER Mapper 6.0 you can now produce accurate orthophotos that will enhance your visualization of landuse, determine ground distances and angles or for use as a base map for GIS.

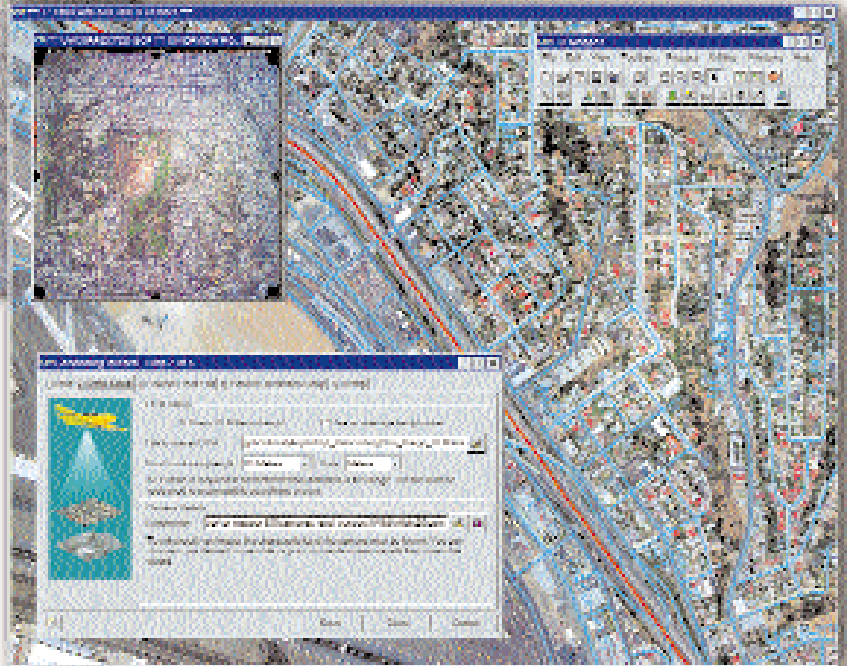
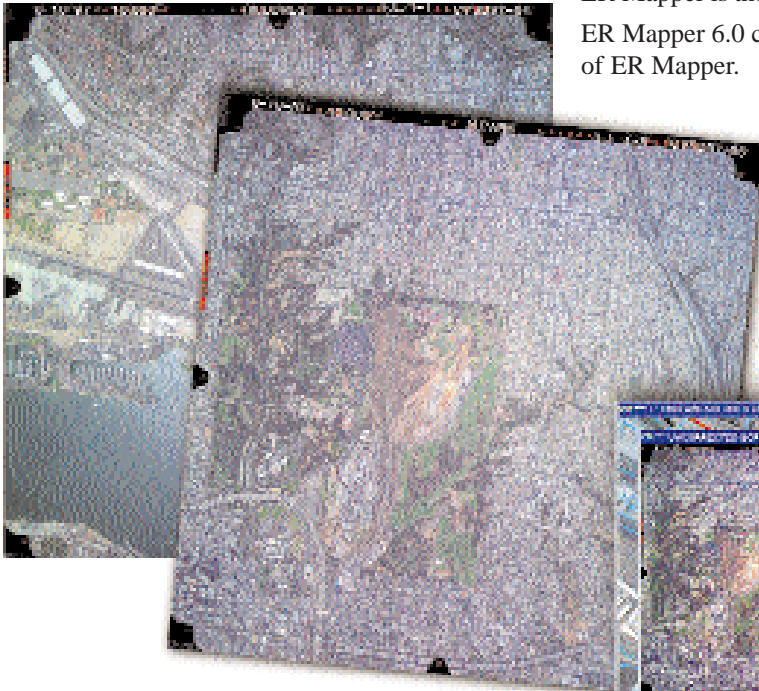
ER Mapper is the most powerful fully bundled image processing solution available today.

ER Mapper 6.0 combines many features that individually cost in excess of the total price of ER Mapper.

The Orthophoto wizard is intuitive and very easy to use. Tools such as mosaic feather, transparency overlay, DTM drape, contour and 3D perspective and GIS data import overlay are second to none."

-- Tom Tadrowski

*General Manager & Principal Consultant
SIDA - Spatial Image Data & Analysis*

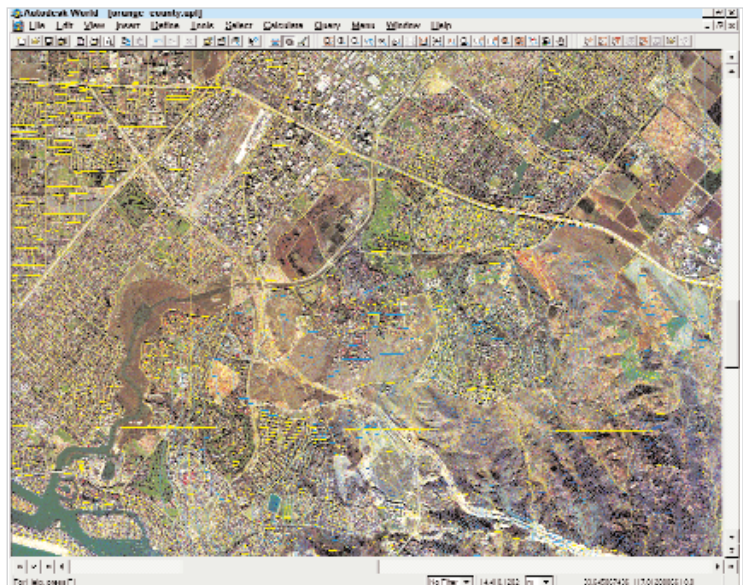


1. Generate Orthophotos

Remove local and global distortions from aerial photographs to produce seamless mosaics for use in your GIS software.

ER Mapper's Orthorectification is so intuitive that within just one hour you will be able to produce accurate Orthorectified Airphotos.

- Intuitive and easy to use wizard interface
- Easily make images for precision mapping
- Create orthos in any map projection, even if different from the DEM
- Automatically crop image borders to exclude black borders
- Easily select the output area
- Use a DEM or average ground height
- Extract ground control height from a DEM
- Import/Export GCPs from other systems
- Create new camera files using the Camera detail wizard
- Use Exterior Orientation from any Aerial Triangulation system to eliminate the need for GCPs

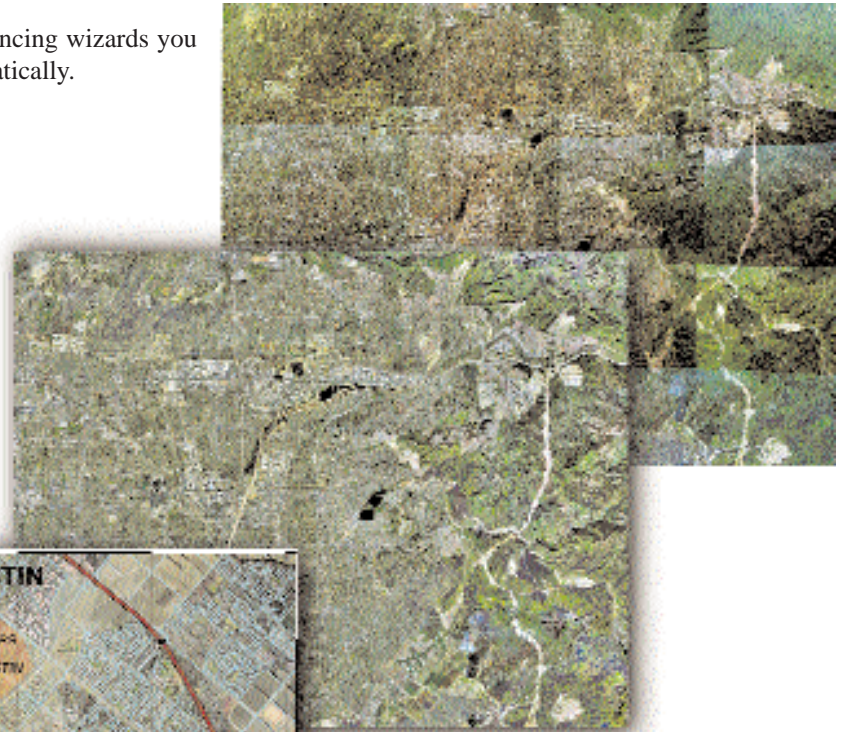


plete Orthophoto package

2. Mosaic and balance images

With ER Mapper's new image display, mosaic and balancing wizards you can now perform powerful image enhancements automatically.

- Intuitive and easy to use wizard interface
- Automatically display any number of images
- Create views in both 2D and 3D
- Intelligently display imagery based on the imagery source
- Mosaic images with different cell sizes
- Detect and remove black edges of airphotos
- Compensate for variations in images such as sun glint
- Create truly seamless mosaics



4. Print high quality output

With ER Mapper's advanced map production and annotation system you can produce maps of the highest quality quickly and easily.

- Print at any size and scale
- Print to a huge selection of printers and plotters
- Output to graphics file formats such as TIFF and EPS
- Drag-and-drop a selection of customizable map items
- Add grids and scale bars that automatically fit the image
- Customize your own map items



3. Use FREE ER Mapper plugins to view images directly into your GIS

With the ER Mapper plugins you can directly read an ER Mapper image behind your GIS vector data. Your information is then immediately put into a real world context and errors and changes can be identified.

Free plugins shipped with ER Mapper 6.0 include:

- Free ArcView® GIS Version 3.1 plugin
- Free MapInfo Professional v4.5 and v5.0® plugin
- Free AutoCAD Map® plugin
- Free Autodesk World™ plugin
- ER Viewer (view images within Microsoft® programs such as Word and Excel)

5. Distribute royalty free compressed imagery

The Image compression wizard with real time decompression represents breakthrough technology to compress large images.

- Achieve compression rates of 10:1 to 15:1 for grayscale imagery and 25:1 to 50:1 for color imagery
- Compress large files to Email them
- Adjustable compression ratio



6. Try for yourself today

Evaluate ER Mapper with the free CD-ROM which contains:

- The complete ER Mapper software
- Online manuals
- Over 400Mb of sample data

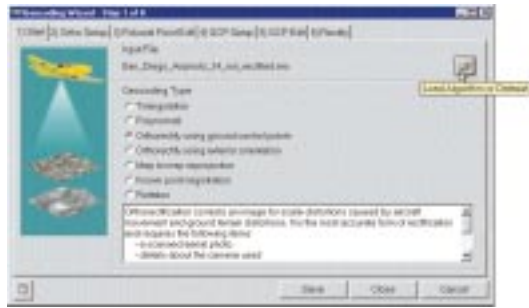
Create your own orthorectified images with ER Mapper's 6 easy steps

Follow the 6 easy steps and in 5 minutes you can produce an accurate orthorectified image

Click on the Ortho and Geocoding Wizard button  in the Common Functions toolbar.

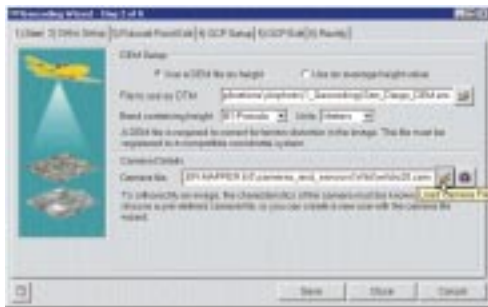


1. Choose a file



2. Choose a DEM (in any supported projection) or average ground height

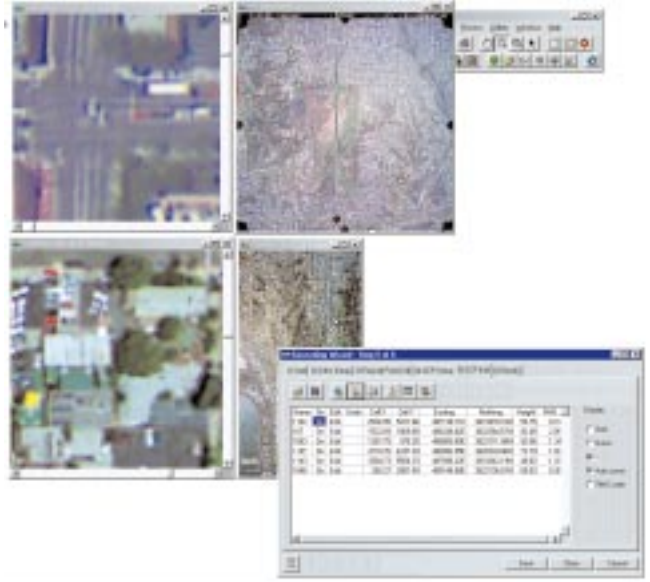
3. Select the Camera file



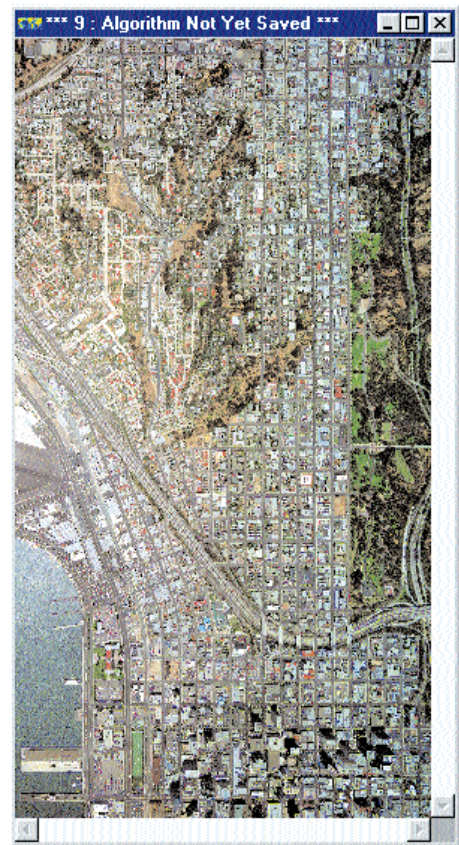
4. Choose 4-12 fiducial points



5. Pick 4 GCPs from images, vectors, digitizer or survey sheet (in any supported projection)



6. Select Start and within 5 minutes you will have an orthorectified image ready to use.



For more a detailed Tutorial using sample data supplied with ER Mapper look in the on-line Tutorial manual.

Creating and balancing an image mosaic

In this exercise you will use the Mosaic wizard to learn how easy it is to display overlapping images in different layers to create an image mosaic.

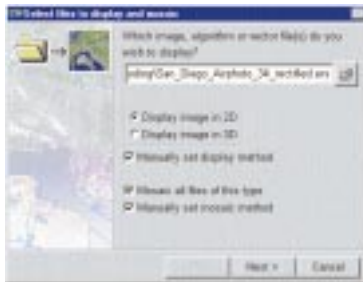


Note: The sample images used in the following exercise were previously rectified to the same map projection, so they can be displayed together in a mosaic.

Select files to display and mosaic

1. On the Common Functions toolbar, click the Image Display and Mosaicing Wizard button.

The Image Display and Mosaicing Wizard opens



2. Click the Load Image button .

The Select File dialog opens.

3. From the Directories menu, select the path ending with the text \examples.
4. From the directory 'Applications\Airphoto\1_Geocoding' Select: 'San_Diego_Airphoto_34_rectified.ers'
5. Select the following options on the wizard page:
 - ✓ Display image in 2D
 - ✓ Manually set display method
 - ✓ Mosaic all files of this type
 - ✓ Manually set mosaic
6. Click on the Next> button to go to the next wizard page.
7. Select the Cell size option. Do not select the other options on this page.

The images in this directory that we want to mosaic all have the same cell sizes, the wizard will reject the other images as their cell size is different.

8. Click on the Next> button to go to the next wizard page.
9. Select the Red Green Blue display option.
10. Click on the Next> button.

ER Mapper will display a mosaic of two Orthophotos

11. Click Finish to close the wizard.

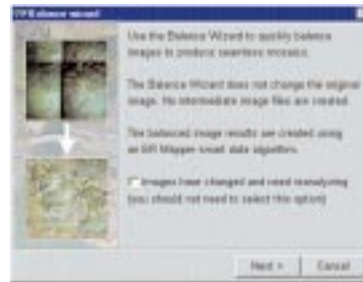
Color balancing the mosaic

You can now use the Color Balancing Wizard for Airphotos to color balance the mosaiced images.

1. Click on the Color Balancing Wizard for Airphotos button on the Common Functions toolbar to open the wizard.



The wizard processes the currently active image window which you left open after the previous exercise.



2. Click on the Next> button to go to the next wizard page.
3. Click on the Next> button to go to the next wizard page.

The wizard will analyze images for balancing

The wizard requires the images to be analyzed before it can do the balancing. The analysis information is stored in the image dataset header files. If the images have not yet been analyzed, the wizard will now do so.

4. Click on the Next> button to go to the next wizard page.
5. Select the Balanced option

6. Click on the Next> button to go to the next wizard page.

The wizard will balance the images

7. Click on the Finish button to exit the Color Balancing Wizard for Airphotos.



Mosaic before balancing

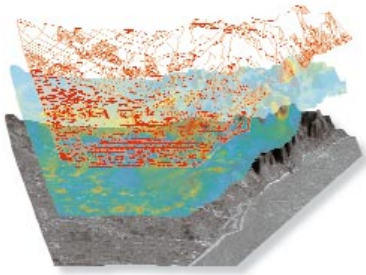


Mosaic after balancing

ER Mapper 6.0

Helping people manage the earth

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View multi-surface 3D

New features include:

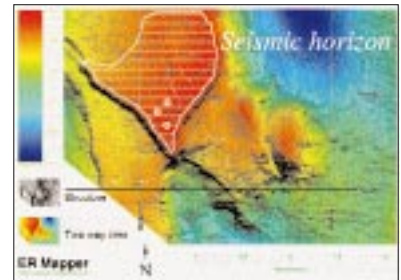
- ✓ Free imagery plugins for GIS systems
- ✓ Orthorectification of airphotos
- ✓ Image display and mosaic wizard
- ✓ The Image Balance wizard
- ✓ The Geocoding wizard
- ✓ The Surface Gridding wizard
- ✓ The Contouring wizard
- ✓ Save as... to popular formats
- ✓ File open... directly from popular formats
- ✓ Image compression wizard
- ✓ Real time roaming and zooming
- ✓ Radar processing fully bundled



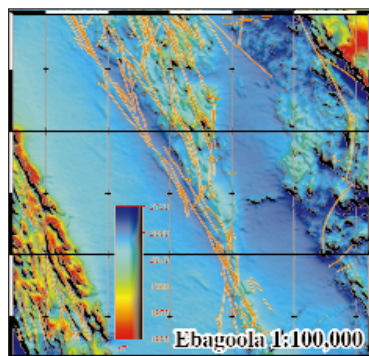
View images and vectors in 3D



View ER Mapper images inside other software

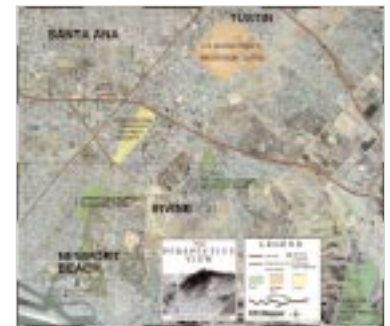


Oil and Gas exploration



Mineral exploration

Authorized Reseller



Combine GIS and images to make great maps

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