

Hatékony információ kinyerés légi és űrfelvételekből 2011-ben



Kákonyi Gábor,
GeolQ kft.



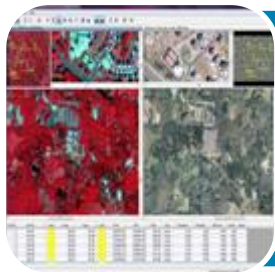
Mit érdemes tudni az ERDAS-ról?



The Earth to Business Company – we help organizations *harness the information of the changing Earth for greater advantage*

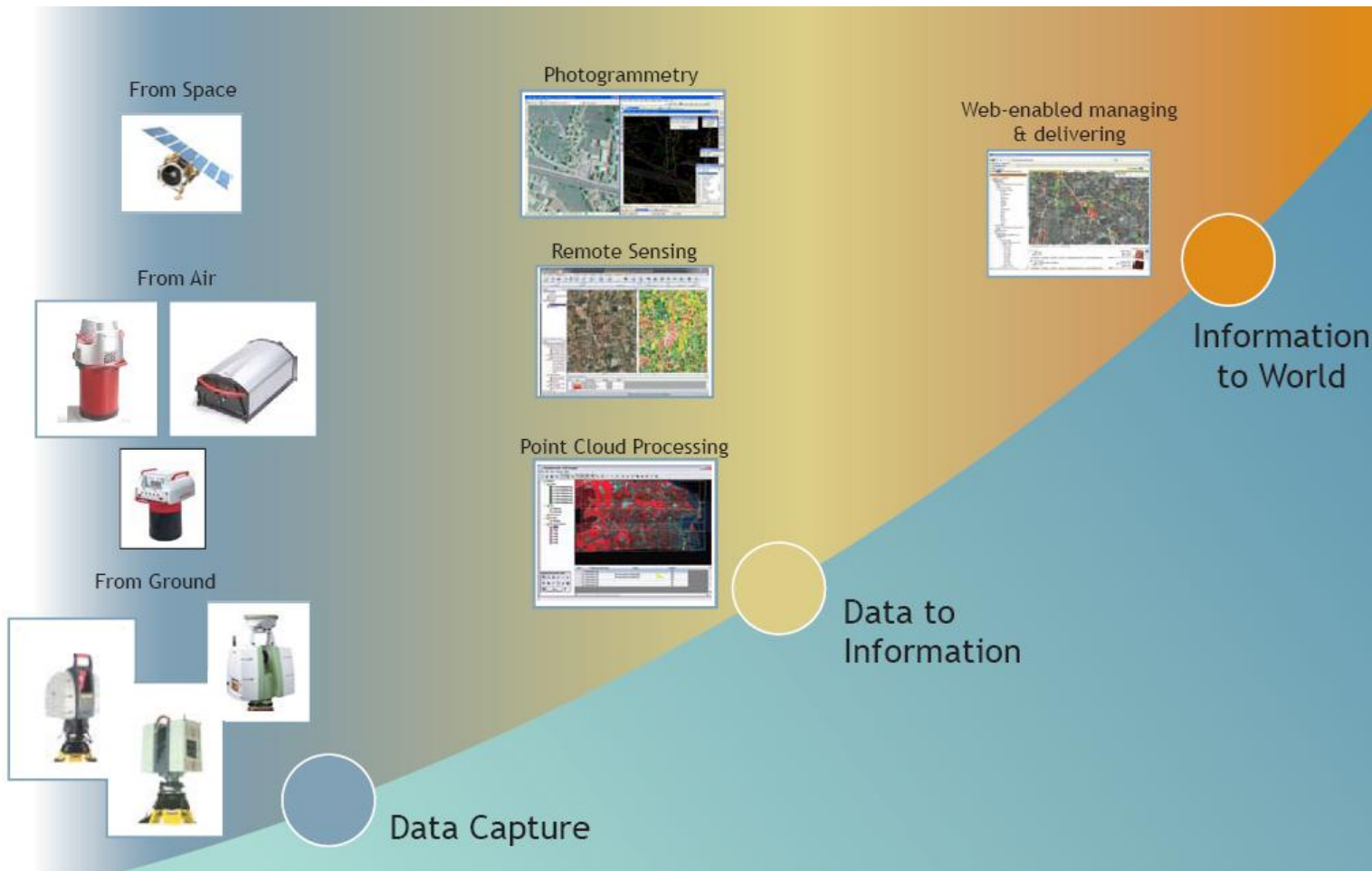


We are a **geospatial software company** providing integrated remote sensing and photogrammetry enterprise solutions

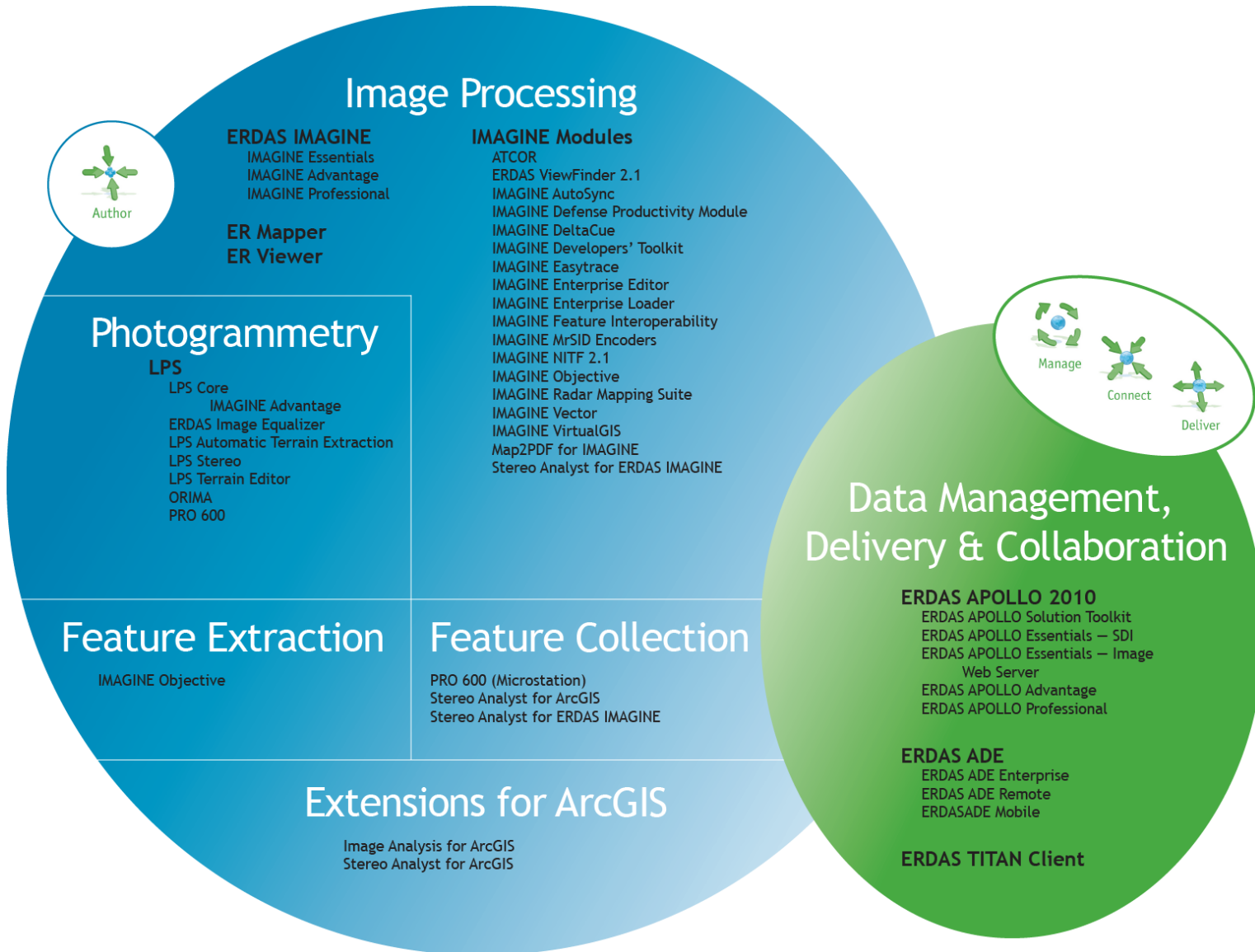


We have over **30 years of imagery expertise**, with a deep understanding of geospatial data

A térbeli információk életciklusa



Az ERDAS Portfóliója



ERDAS IMAGINE 2011

Térbeli információk előállítása



Reference your imagery to the earth's surface

Measure primary information from the imagery to collect vector, point, area and other quantitative data

Analyze data to draw conclusions about the processes and activities affecting your area of study

Update your GIS with accurate geospatial data

Present and **publish** your imagery, geospatial information and geospatial processes in 2D and 3D environments

ERDAS IMAGINE 2011

A legfontosabb új képességek

- **Imagery Analysis** tools increase your speed and efficiency with image exploitation workflows for the defense, intelligence and security markets
- **Internationalization** efforts enable partners to develop localized versions of desktop products for improved access to the software
- **Increased processing efficiency** through parallel and distributed processing, which can be further scaled using cost-effective ERDAS Engine licenses
- Further additions to the Ribbon interface improve **ease of use** for data visualization
- **Terrain handling** is extended by enabling visualization of LIDAR data and production of vector contours from digital terrain data
- Extended support for modern sensors including **WorldView-2** pan sharpening algorithms
- Provide **context** and spatial reference to your visualization using the new Bing Maps for ERDAS IMAGINE service

Lokalizáció

ERDAS IMAGINE 2011

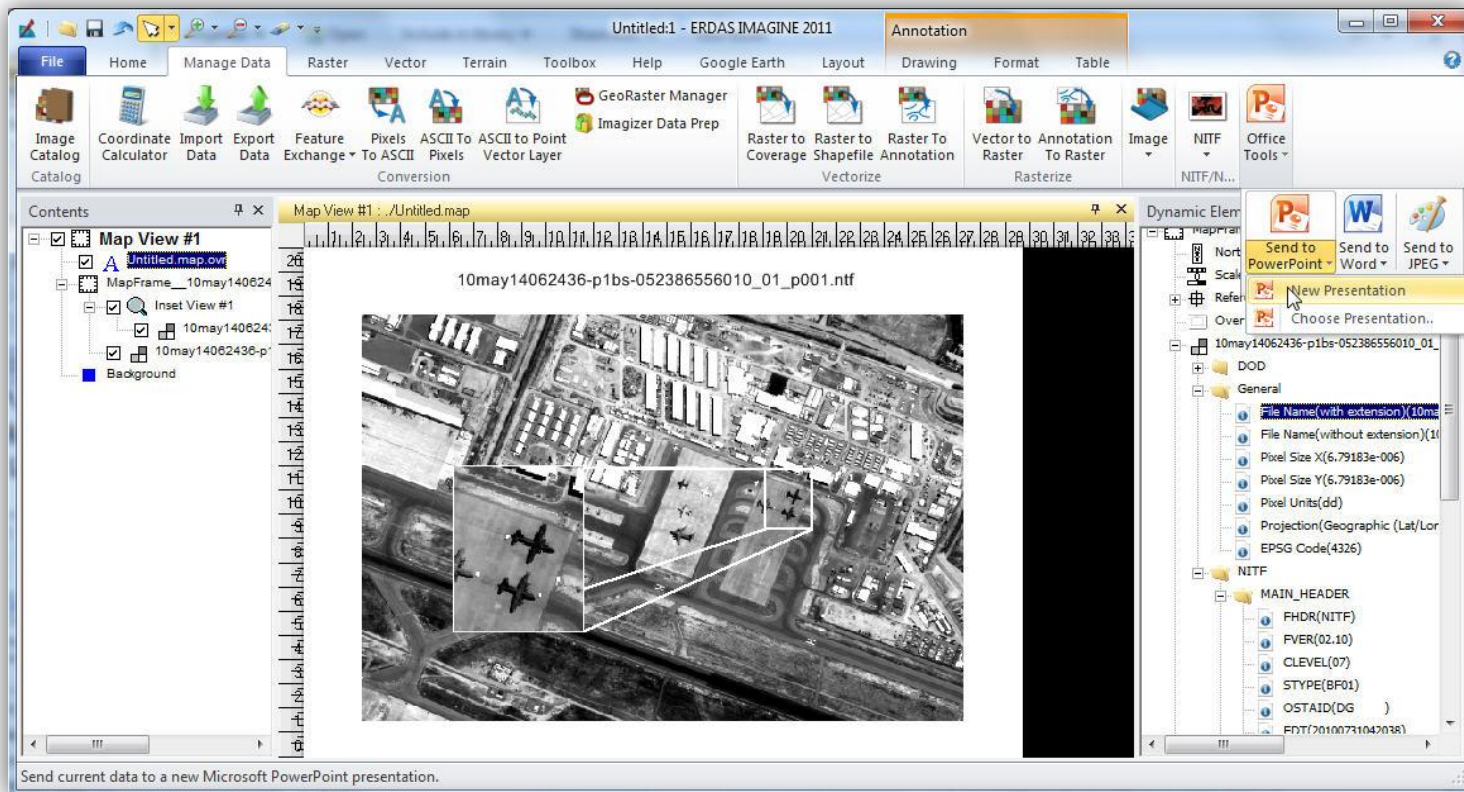
The screenshot displays the ERDAS IMAGINE 2011 software interface. The main window shows a satellite image of a forested area. A dialog box titled "卷积" (Convolution) is open, allowing the user to process the image. The dialog box includes the following fields and options:

- 输入文件:** tm_00.img
- 输出文件:** 00.img
- 内核选择:** default.kib (selected)
- 内核:** 5x5 Horizontal, 5x5 Vertical, 5x5 Summary, 5x5 Haze Reduction, 1x5 Vertical Linear Smo, 7x7 Edge Detect, 7x7 Edas Enhance (selected), 7x7 Low Pass, 7x7 High Pass
- 坐标类型:** 地图 (selected)
- 数据类型:** Unsigned_8_bit
- 输出:** 无符号的位
- 边处理方式:** 反射 (selected), 填充
- 子集的定义:** 左上: 404852.70, 右上: 567002.70, 左下: 5322257.07, 右下: 5187197.07

At the bottom of the screenshot, a yellow banner contains the text: "NB: Translation work still in progress!"

Tipikus képelemzési munkafolyamatok ERDAS Software 2011

Increase your speed and efficiency with image exploitation workflows for the defense, intelligence and security markets
– Reference, Measure, Analyze, Update and Present more efficiently



Dinamikus feliratok

ERDAS IMAGINE 2011

Metadata Insertion Tool for Map Reports (NITF)

The screenshot displays the ERDAS IMAGINE 2011 software interface. The main window shows an aerial map of La Paz Airport, Bolivia, with a yellow boundary and a red polygon highlighting a specific area. The map is annotated with text boxes containing metadata:

- U // REL TO [GROUPS]//
- LaPaz Airport, Bolivia
- 16 30' 04" S, 68 10' 42" W
- DOI: 29 MAY 2005
- 15:06:59 Z NIIRS: -999
- ICOD: November 12, 2010
- U // REL TO [GROUPS]//
- CLASSIFIED BY:
- CLASSIFIED REASON:
- DECLASSIFY ON:

The interface includes a menu bar (File, Home, Manage Data, Raster, Vector, Terrain, Toolbox, Help, Google Earth, Layout, Drawing, Format, Table), a toolbar, and several panels:

- Contents:** Shows the map's structure, including Map View #1, Background, and various layers like Logo_Frame and Main_Frame_1.
- Retriever:** Lists data sources and files, including Landsat imagery and metadata files.
- Dynamic Elements:** A tree view showing metadata elements such as Classification, MissionID, ImageType, AcquisitionDate, Availability, and NITF headers.

Kinagyított nézet

ERDAS IMAGINE 2011

Call out information of interest using the dynamic Inset View, either of the same data or of other layers

It's a linked View, not a dumb image chip

The screenshot displays the ERDAS IMAGINE 2011 software interface. The main window shows a satellite image of an airport with a red-bordered inset view. The inset view is a zoomed-in view of a specific area within the main image, showing a building and surrounding infrastructure. The main image is labeled 'UNCLASSIFIED La Paz JFK Airport Aircraft Re-commissioning' and includes a legend for aircraft status: A1-A5: Active Aircraft, B1-B7: Decommissioned Aircraft, and C1: Re-commissioning. The interface also shows various toolbars, including 'Porthole On', 'Lock to Map', and 'Style'. The status bar at the bottom indicates 'Set inset view to porthole mode'.

Code: Bolivia
Number: IAN/44/7489
Graphic Number: 0345-87097

UNCLASSIFIED
La Paz JFK Airport
Aircraft Re-commissioning

COPYRIGHT OF ERDAS, Inc

16 30' 09.30" S, 68 10' 54.93" W

29 MAY 2005

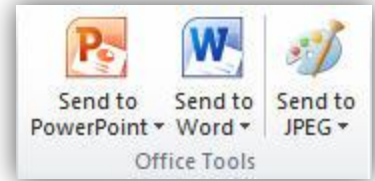
24 AUG 2009

UNCLASSIFIED

Contains DigitalGlobe and DigitalGlobe Copyrighted Materials
QB02 and WV01

Set inset view to porthole mode

Átküldés Word, PowerPoint fele ERDAS IMAGINE 2011



Rapid interaction with the Microsoft Office suite for quickly creating briefings, reports and presentations

The screenshot displays the ERDAS IMAGINE 2011 software interface. The main window is divided into two panes. The left pane shows a PowerPoint slide titled "Country Code: Bolivia" and "La Paz JFK Airport Aircraft Re-commissioning". The slide content includes a map of the airport with aircraft labeled A1-A5 (Active) and B1-B7 (Decommissioned), and C1 (Re-commissioning). The right pane shows a Word document titled "Mining Activity, Tasmania South-west outskirts of Hobart", featuring a satellite image of a mining area with a red overlay and a scale bar.

Country Code: Bolivia
Task Number: IAN/447489
Graphic Number: 0345-87097

UNCLASSIFIED
La Paz JFK Airport
Aircraft Re-commissioning

COPYRIGHT OF ERDAS, Inc

16 30' 09.30" S, 68 10' 54.93" W

29 MAY 2005

24 AUG 2009

UNCLASSIFIED

Contains DigitalGlobe and DigitalGlobe Copyrighted Materials (DGI) and WV01

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UNCLASSIFIED

Mining Activity, Tasmania
South-west outskirts of Hobart

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Scale 0.5 1.0 0.5 Km
1 : 12000

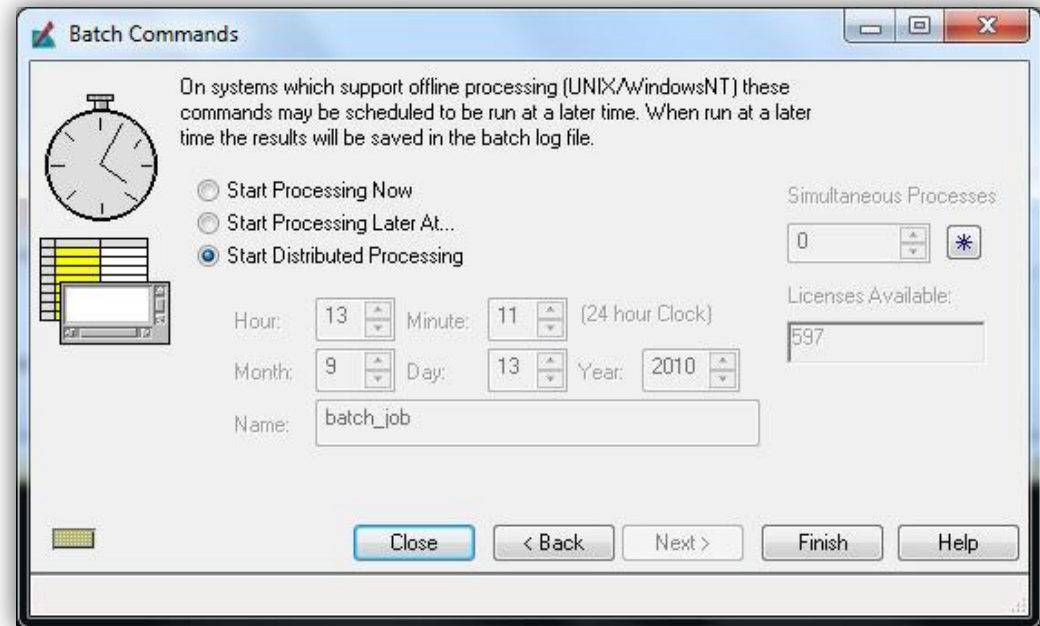
Image Location: Hobart, Tasmania

Map Projection: UTM xx North WGS 84
Map Created by ERDAS, Inc., on 14 January, 2011
Based on Image 5V090205m0001912234520000040082m_301506509

UNCLASSIFIED

Batch - elosztott feldolgozás

- Allows jobs to be run on multiple machines
- Uses Condor for distributed processing
- Leverage under-utilized hardware
- Cost-effective scalability with ERDAS Engine



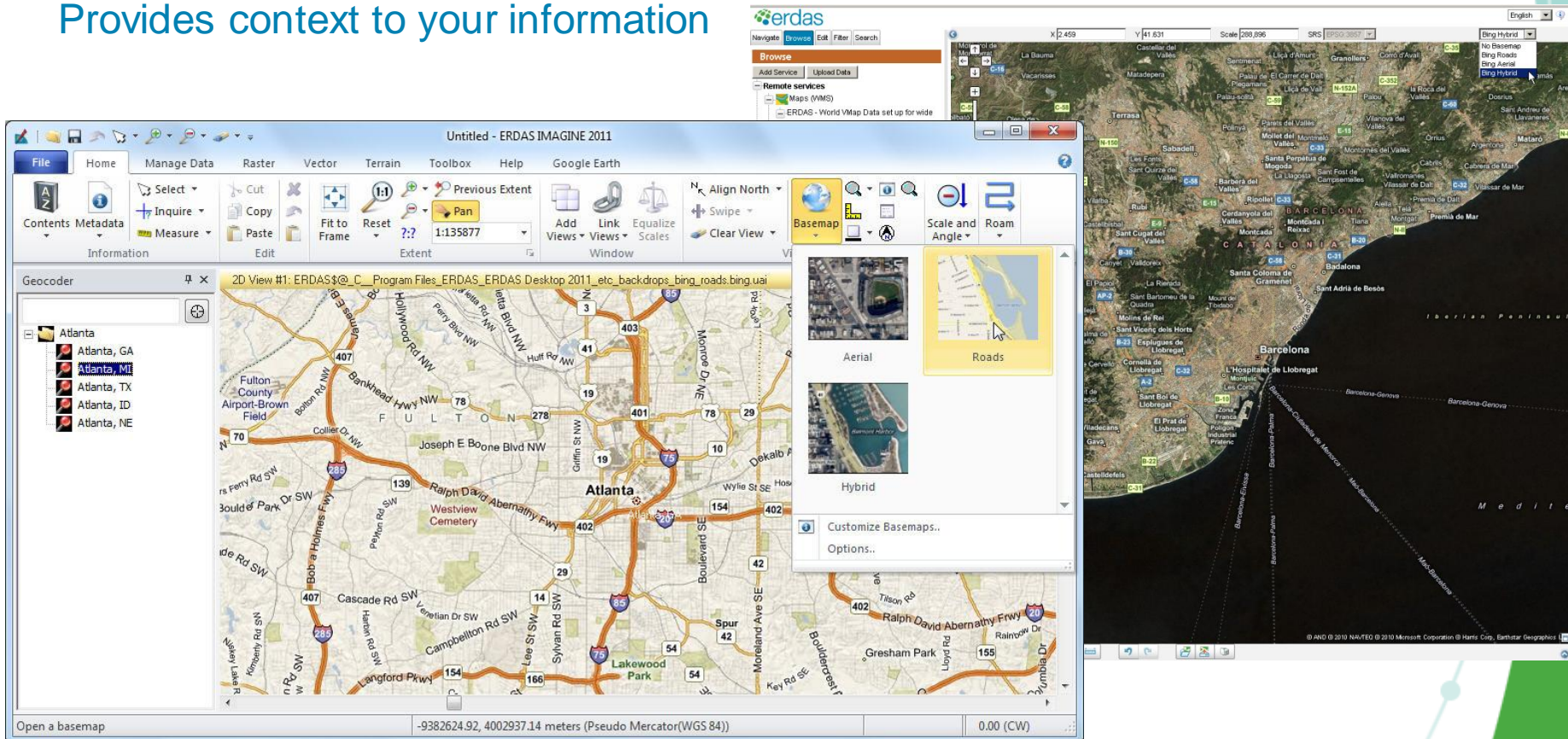
ERDAS Motor

- ERDAS Engine is a new offering that allows organizations to boost their processing power cost-effectively
- IMAGINE Advantage, IMAGINE Professional and LPS Core all enable simultaneous execution of up to four processes natively
- ERDAS Engine provides the ability to increase this by four more processes per ERDAS Engine purchased, at a price point far below that of purchasing additional ERDAS IMAGINE or LPS seats

Bing térképek

ERDAS IMAGINE, ERDAS APOLLO & ERDAS TITAN 2011

Work with base imagery and map data along with geo-coding services provided by the Microsoft Bing Maps platform -
Provides context to your information



Google Earth Integráció

Exploit your Google Earth environment for information mining

The image displays the integration of Google Earth into the ERDAS IMAGINE 2011 software environment. The top window shows the ERDAS IMAGINE interface with a menu bar (File, Home, Manage Data, Raster, Vector, Terrain, Toolbox, Help) and a toolbar. The main workspace shows a 2D view of a raster dataset with a blue and red color scheme. The bottom window shows the Google Earth interface with a 3D terrain view of a coastal area, featuring a television transmitter on Mt Wellington. The Google Earth interface includes a search bar, a 'Fly To' section with coordinates, a 'Places' list, and a 'Layers' panel. A toolbar at the bottom of the Google Earth window lists the following options: Connect to Google Earth, Drive to Location, Match GE to View, Match View to GE, Link GE to View, Sync GE to View, Export View Footprints, and Export Overlays. The ERDAS logo and tagline 'The Earth to Business Company' are visible in the bottom left corner.

Domborzat előállítás - szintvonalak

Surface DTM

Output DEM Reference Coord. System...

Filename: (*.img) DEM.img

Cell Size: X: 80.00 Y: 80.00 Meters

Surfacing Method: Linear Data Type: Float Single

Output Contours

Filename: (*.shp) Contours.shp

Root Height: 60.68 meters Contour Interval: 5.00 meters

Index Every: 5 Contours

Smooth Contour Level of Smoothness: Medium

Remove Open Contours Less Than 0.00 Meters

Remove Closed Contours with Area Less Than 0.00 Square meters

Common Options:

ULLX: 516117.25390000 LRX: 555077.25390000

ULY: 3770062.79710000 LRY: 3728702.79710000

Maximum Aspect Ratio: 100.00

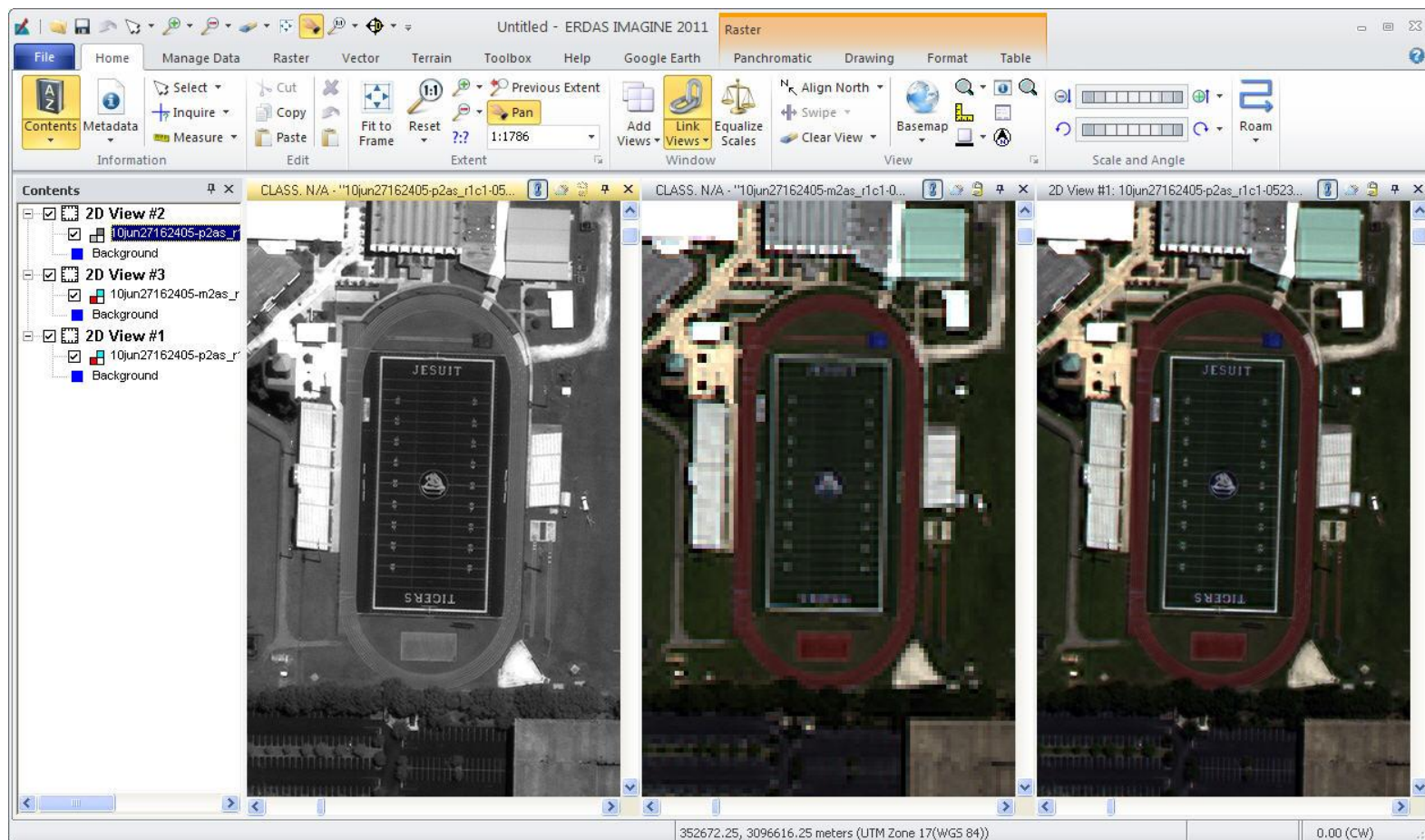
OK Cancel Help

The Terrain Preparation Tool now creates contours from a variety of terrain formats including:

- 3D ASCII
- 3D Shape (.shp)
- DTED
- DWG
- DXF
- LIDAR (.las)
- Raster DEM
- SRTM
- TIN
- And more

HCS képélesítés

ERDAS IMAGINE 2011



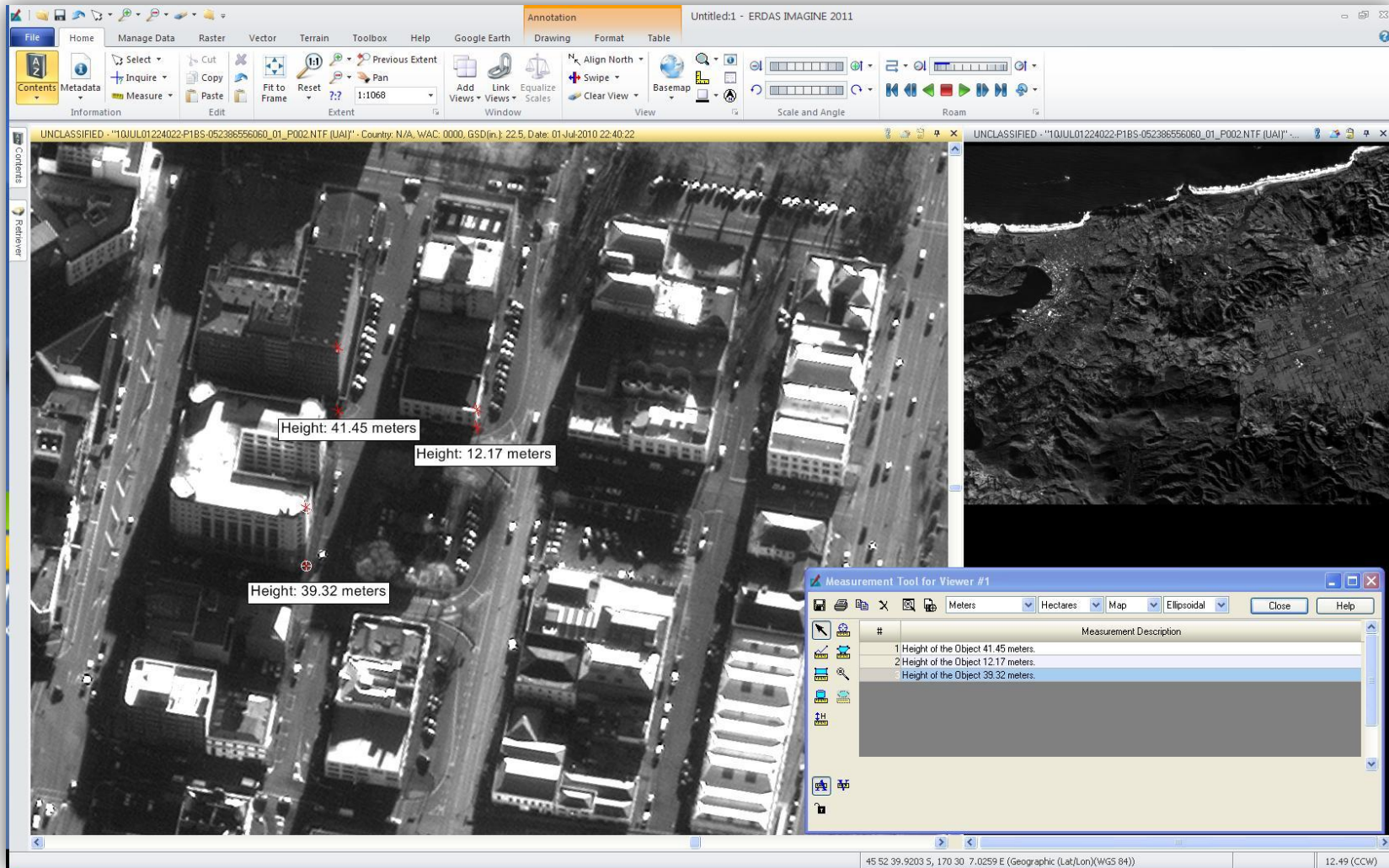
.5 Meter Panchromatic

2 Meter 8 band MS

.5 Meter 8 band MS

Magasságmérés a dőlésből

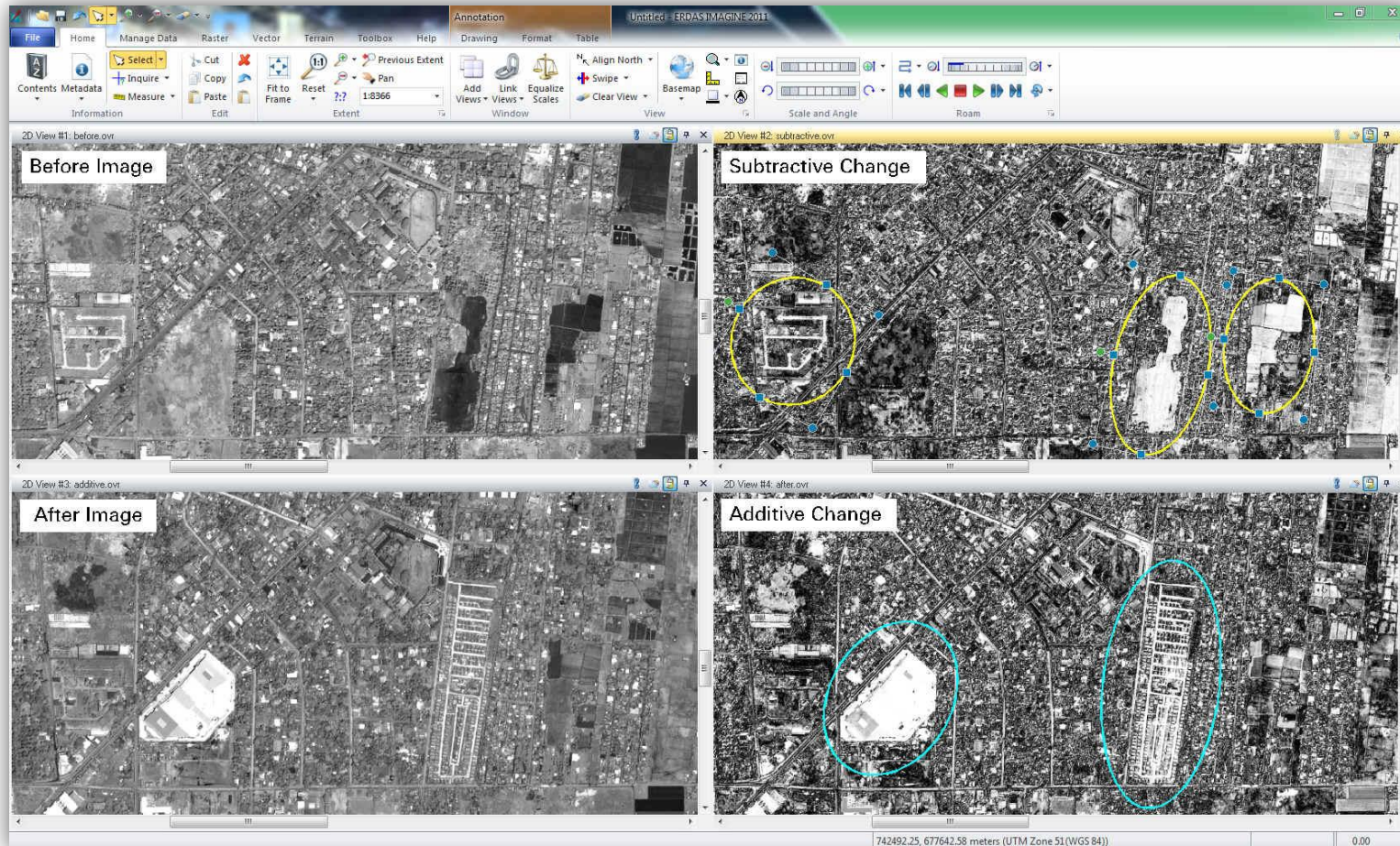
Cost-effectively attribute features and annotations with heights derived from imagery



Kétirányú változás detektálás

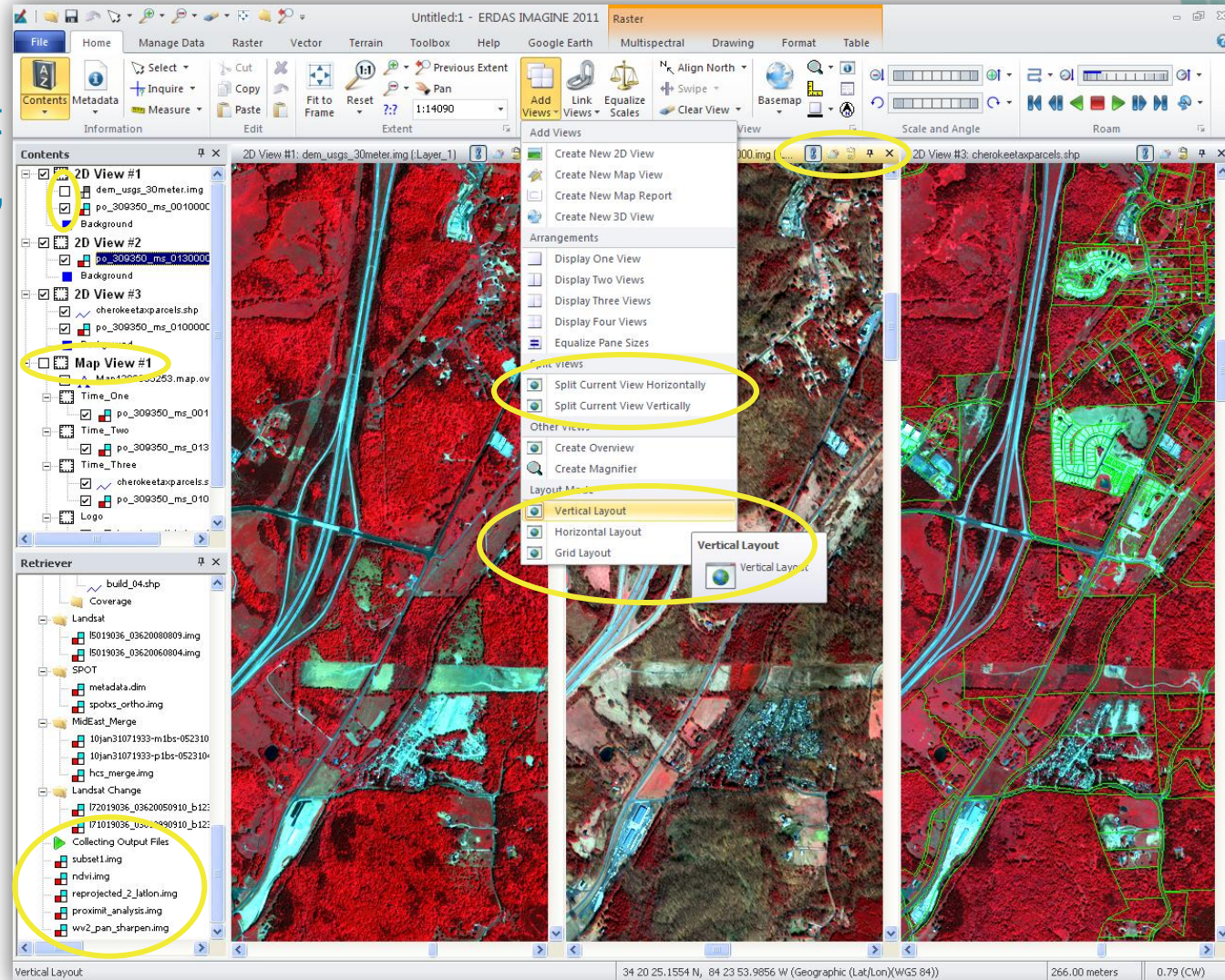
ERDAS IMAGINE 2011

Novel ERDAS algorithm for identifying subtractive and additive change



Könnyed használat

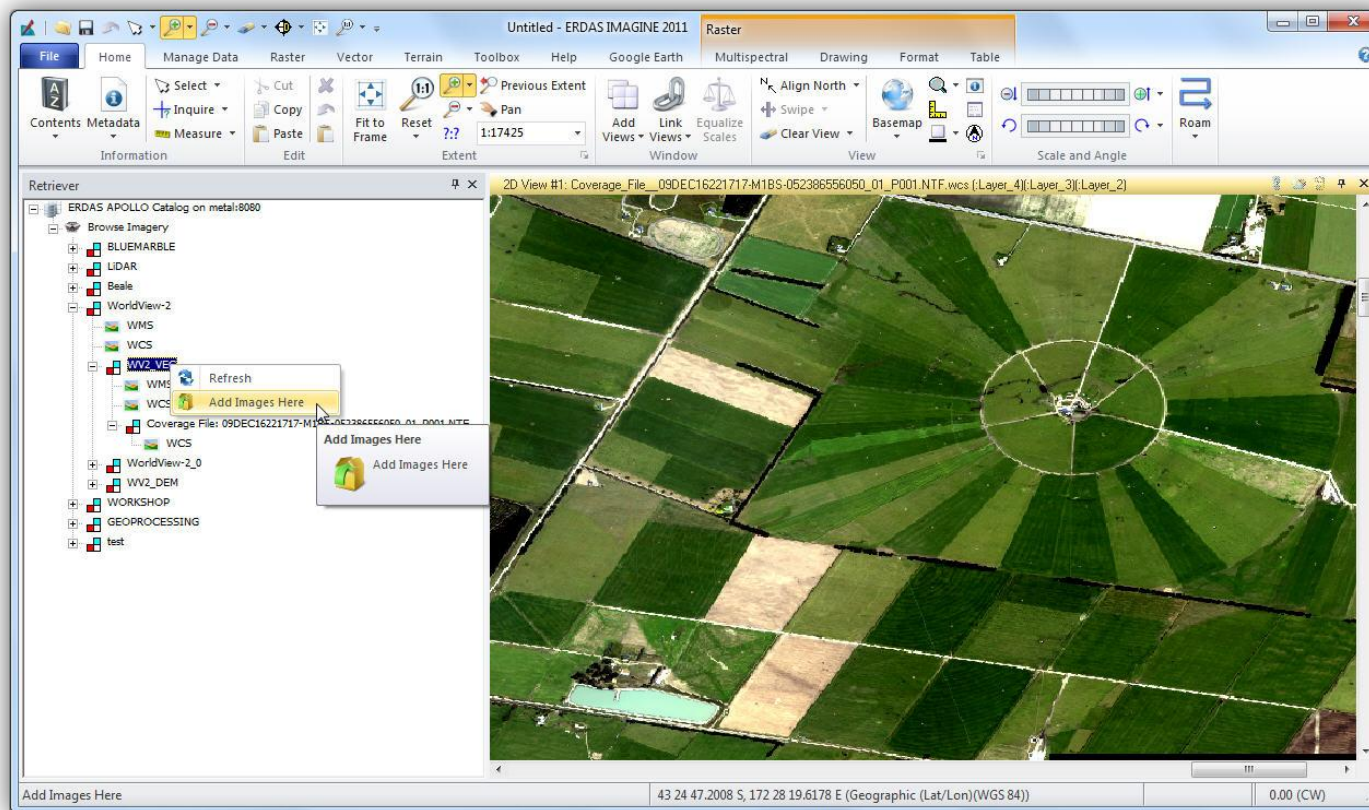
- More control over view layout
- Easy to use link, sync, and spectral link
- Checkbox to turn layers on/off
- Checkbox to hide and unhide views
- New files populate to ShoeBox for easy access



Gyors publikálás

ERDAS Software 2011

Publish data directly from ERDAS IMAGINE to the ERDAS APOLLO catalog enabling rapid information sharing within an organization



További finomítások, ERDAS 2011

- Improved Special Character support in directories, filenames, etc. (prime example being parentheses)
- Support most recent EPSG codes
- Improved support for latitude/longitude in IMAGINE VirtualGIS
- EGM 2008 vertical datum
- Improved Drop Point rectification
- Streamlined orthorectification options
- IMAGINE & LPS make greater use of RAM when using 64-bit OS (a few pieces in v10.1)
- Use Microsoft Windows Fonts automatically
- Export GeoTIFF tags to .aux, retrieve from .aux
 - Helps preserve GeoTIFF tags when going to Adobe Photoshop
- Rescale has more flexibility in ignoring input values
- Shapefile subset

Köszönöm a figyelmet!

- Email: kakonyi@geoiq.hu
- Tel: +36 30 931 0626
- www.geoiq.hu
- www.erdas.com