

LEOWorks

The teacher assistant for bringing
Earth Observation in the classroom

Open source educational toolbox for Remote Sensing and GIS

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LEOWorks is the ESA Eduspace software toolbox for demonstrating and teaching the use of Earth Observation data processing techniques. From its starting point to its present status - LEOWorks 3.0 has increased its processing algorithms, therefore being now able to perform more complex operations.

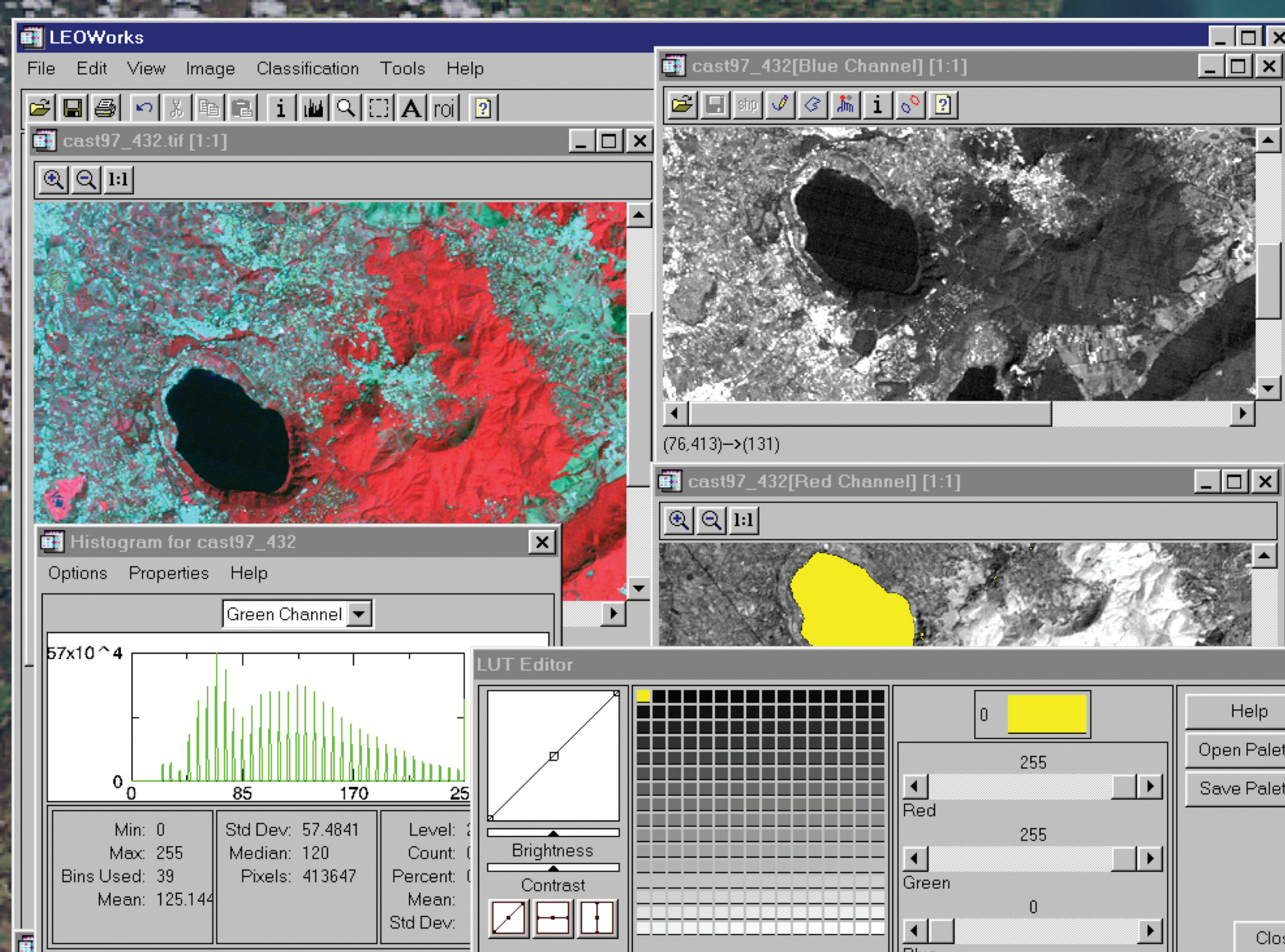
LEOWorks 3.0 Features:

- Display images in grayscale, RGB;
- Edit the color palette used to display an image;
- Image enhancement (contrast, filter);
- Perform measurement on images;
- Unsupervised and supervised image classification;
- Create, edit and query vector data;
- Temporal series animation.

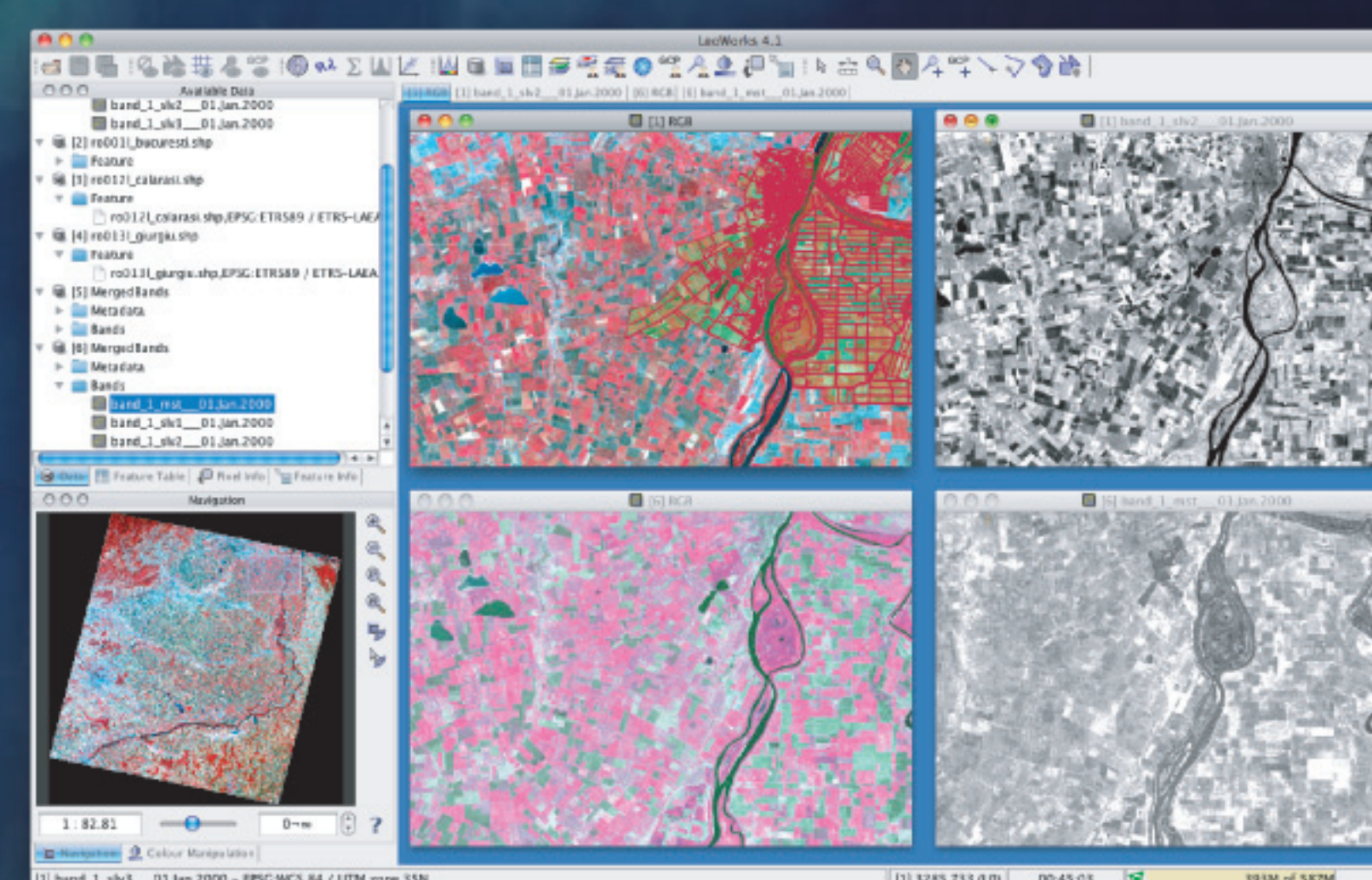
LEOWorks is now being re-engineered. LEOWorks 4.0 is entirely written in Java making use of the most advanced software technologies and will be more flexible and easier to use for both students and teachers in schools and universities.

LEOWorks 4.0 Features:

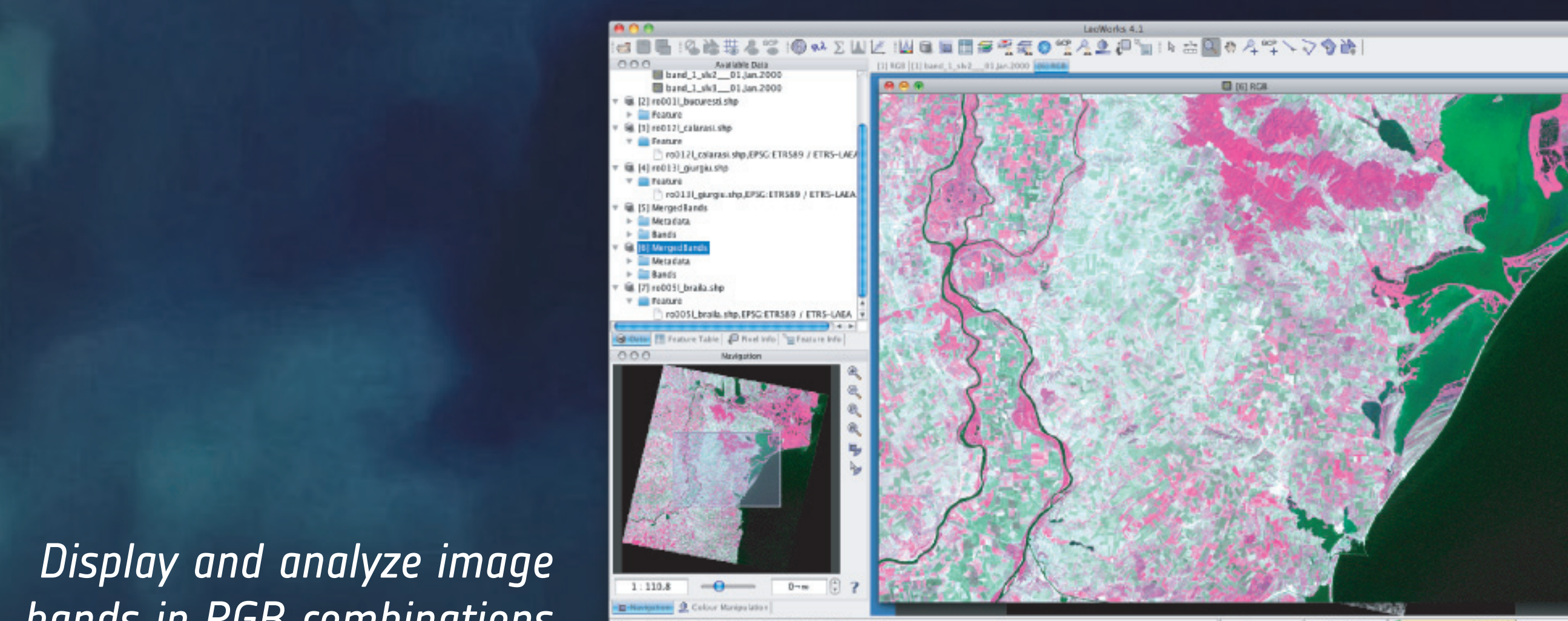
- Modular design allowing easy development of new functionalities and tools as plug-ins/modules, and linking to external libraries;
- Read common satellite data formats (ENVISAT, SPOT, Landsat, etc.) as well as generic digital image formats (geotiff, jpg, bmp, etc.);
- Basic GIS and new optical and SAR image processing tools added on top of the existing components developed in ESA's BEAM and NEST projects;
- Application-specific image processing algorithms for detecting e.g. urban areas, oil spills, ships.



LEOWorks 3.0 Toolbox

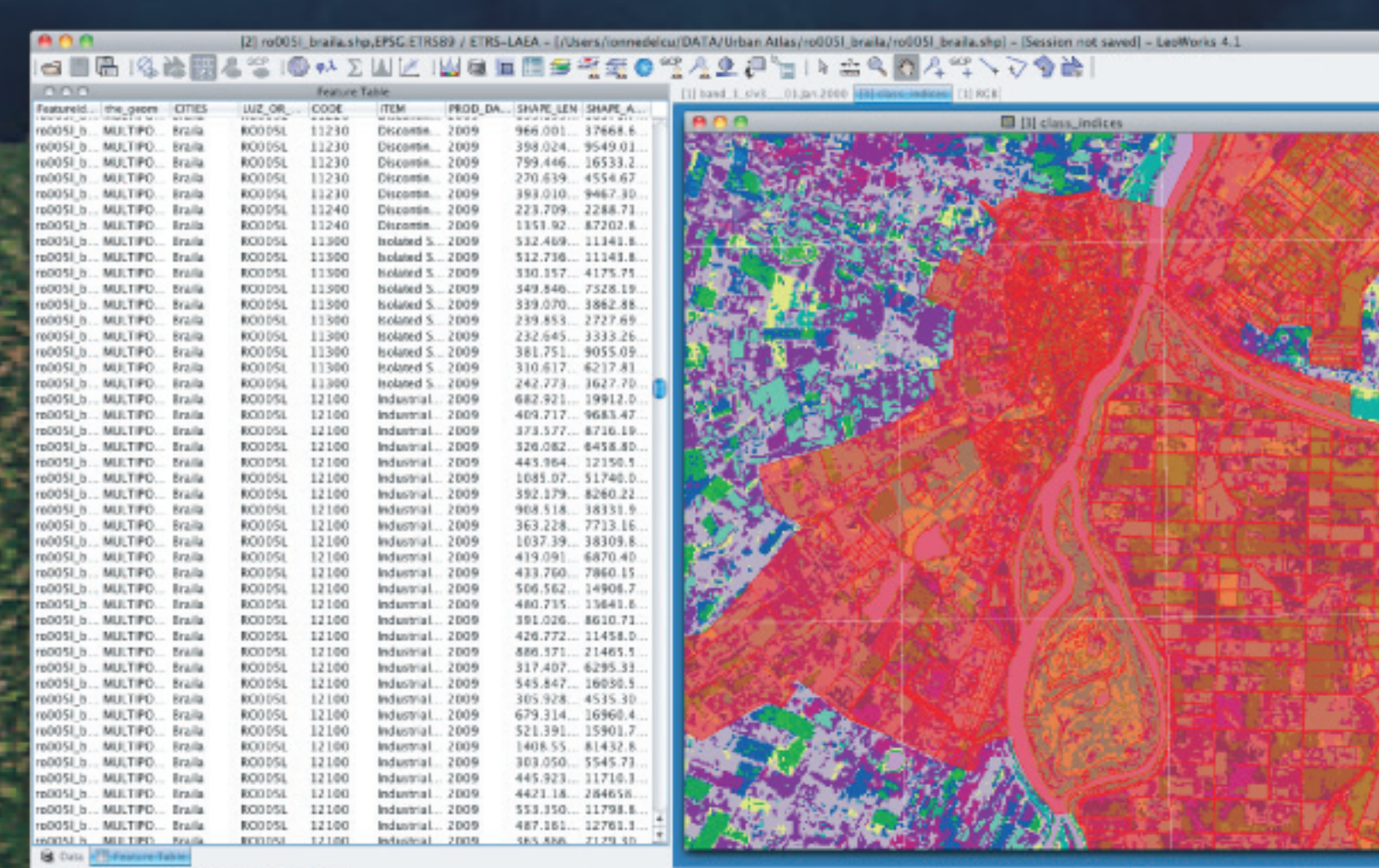


Generate viewers combining layers derived from both raster and GIS vector data



Display and analyze image bands in RGB combinations

LEOWorks 4.0 is developed and will be released under a GPL license (independent platform and no licence fees) by Advanced Studies and Research Centre (ASRC), Romania.
For more information about LEOWorks 4.0, please contact ASRC:
<http://www.asrc.ro/> info@asrc.ro



Display GIS vector data with different Coordinate Systems overlaid on satellite images and inspect their attribute tables