

An award-winning desktop development environment, Definiens Professional enables the individual user to assemble image analysis applications on a stand-alone computer. Offering comprehensive functionality in a remarkably cost-effective package, Professional provides an entry-level introduction to the power and accuracy of Definiens Image Intelligence technology.

Fully compatible with Definiens Enterprise Image Intelligence for life sciences and earth observation/ geo-intelligence image analysis, all applications created via Professional can be migrated smoothly to the Definiens Enterprise environment.

Applicable to a host of remote sensing use cases, Definiens Professional serves to analyze image data on multiple scales for various applications.

Highlights at a glance

- Offering powerful data and information fusion options for many types of images and vector data, Professional enables users to extract the most valuable and reliable information.
- With multi-resolution image segmentation providing a hierarchical network of image objects, users get a multi-scale, real-world view.
- Professional delivers outstanding performance for panchromatic, multi/hyper-spectral imagery, lidar, infrared, and polarimetric SAR data from space-borne and airborne imaging platforms.
- Rule-based image analysis allows users to readily incorporate expert knowledge.
- Semantic class hierarchies and relationships use remote sensing and GI nomenclature to tremendously simplify modeling efforts.
- Fuzzy classification functionality emulates data sources and analysis models' inherent uncertainties, thereby enhancing accuracy assessment.
- Standard input and output formats ensure seamless workflows when extracting information from remotely sensed data, as well as GIS-ready results.
- Use Professional rulesets within high throughput Enterprise Image Intelligence environment.

What's New in Professional 5.0

Processes

A new, more powerful and easier to use approach for ruleware generation

Protocol	Processes
Only parallel processing:	Sequential processing possible; nothing changes that shouldn't change!
All classes applied to all image objects	Process can be targeted to individual objects
Inheritance concept only	Inheritance and domain concepts
Masking defined by inheritance	Masking additionally based on domain selection
Protocol recorded usually after rule set development is finished	Rule set is defined by the process which has protocol functionality
Merging settings defined by structure groups	Intuitive merging functionality defined by process
Limitation to levels defined by class	Limitation to levels defined by process
Fuzzy logic used as default class descriptor	Simple threshold functions solving already many problems for easy tasks are used as default class descriptor. Fuzzy classification is available as add-on for advanced analysis.

Thematic layers

- Basic digitizing functionality
- Use of point, polygon and line layers
- Usable independently from the segmentation
- Attribute table can be assessed
- Manual and automatic generation of thematic layers possible
- Manual object based changes of thematic layers possible

Layer and Level Alias

Easy ruleset transferability to new data stacks

New object features

New algorithms for fast segmentation

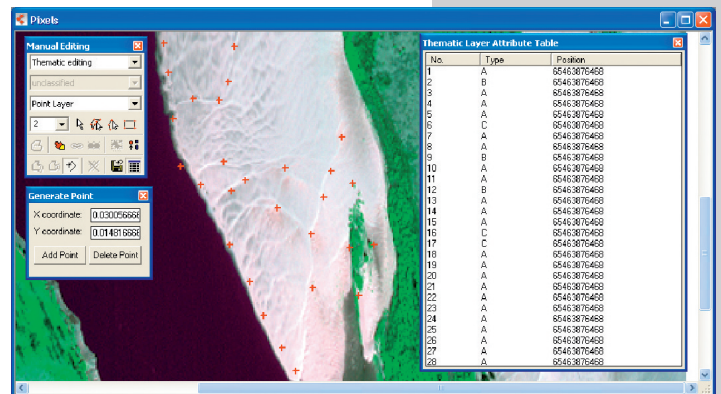
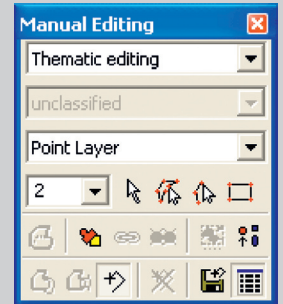
- Quadtree segmentation
- Chessboard segmentation

GUI

Customized feature management dialog

Manual editing

- Thematic layer editing
- Complex object cutting
- Snapping tolerance
- Point line polygon editing / generation
- Selection filter
- Object assisted thematic layer editing



Product Comparison

	Professional	Developer	Analyst	Viewer
Creating rulesets	●	●		
Manual Editing	●	●	●	
Single Image Processing	●	●		
Submitting data		●	●	
Reviewing results		●	●	●
Batch Processing <small>(only possible in combination with eCognition Server)</small>		●	●	

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