

ScanEx Image Processor v.3.0 modules list and configuration

| Modules | Tools |
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| 1. Basic configuration | <ul style="list-style-type: none"> - Raster importing/exporting and visualization - SRTM-90 and GTOPO30 data correction and batch processing - RS data systematic geometric correction - Satellite and sensor attitude verification model - Polynomial transformation - Local transformation - Raster ortho-transformation - Raster automatic co-registration - Image Fusion - Image mosaicking - Image haze compensation - Radiometric transformations - Raster layers arithmetic operations - Image texture features calculation - Change detection - Classification of images (supervised and unsupervised) - Classification results processing - Vector layers loading, creation and modifying - Automatic vectorization - Thematic products calculation according to MODIS data - Layout preparation |
| 2. 3D modeling and visualization module | <ul style="list-style-type: none"> - 3D models creation with different resolution - Real-time OpenGL rendering - Vector layers, additional raster thematic layers application - Modeling of cloudiness, fogs, haze, water surface, trees, etc. - Possibility to create textures for created 3D-objects - Importing 3D Meshes from 3D Studio MAX format - Video-clips recording option - Possibility to create car tracks and camera tracks - Possibility to measure distances and angles "by terrain" |
| 3. Multispectral imaging classification and thematic interpretation module | <ul style="list-style-type: none"> - Multispectral data segmentation - Thematic calibration of segmentation results - Results interpretation - Thematic classes merging - Results vectorization |
| 4. DEM module | <ul style="list-style-type: none"> - Hydrologically correct DEM generation from vector maps - DEM generation from stereo pairs |
| 5. SAR radar images processing module | <ul style="list-style-type: none"> - SAR data segmentation - Image texture parameters consideration option - Results automatic vectorization - Oil spills detection - Ships detection |
| 6. "Modeling" module | <ul style="list-style-type: none"> - Solar radiation balance calculation - TOPOMODEL hydrological model - Flooding and overflow modeling and visualization - Modeling of water distribution as of the indicated date |
| 7. Software development kit (SDK) | <ul style="list-style-type: none"> - Possibility to work with images as with matrix - Use of over 40 mathematic functions, operators and filters - Stereo processing and radiometric correction option - Creation of own scripts and GUI for scripts option |