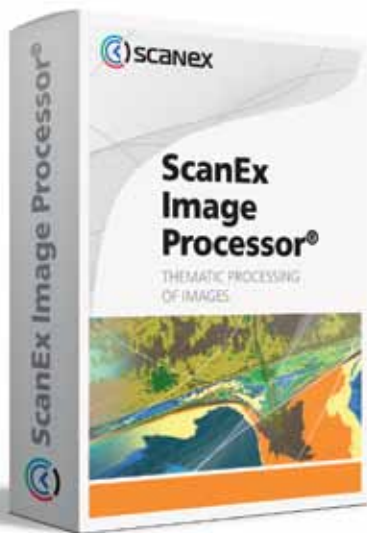# ›SIP

ScanEx Image Processor®
a multifunctional system developed in Russia for photogrammetric and thematic processing of satellite images

SIP contains the minimal required set of tools for processing of satellite images, including such operations as block adjustment, creating the color-balanced mosaics, pan-sharpening, geometric correction and ortho-transformation, radiometric calibration, image filtering, haze removal, operations with vector layers, change detection and many other. In addition, over 10 algorithms of image classification using both unsupervised and supervised methods, as well as extensive possibilities of results post-processing have been implemented in this application.

Main advantages of the application are the support of the majority of modern remote sensing data formats, a user-friendly and intuitive interface, as well as high performance, which is achieved by parallelization of computation processes, adaptation to work with large amounts of data, automation of basic operations and the availability of a 64-bit version.

To date, SIP has been used in more than 30 countries, including Russia, Kazakhstan, Ukraine, Armenia, Azerbaijan, Belarus, China, Mongolia, India, Nepal, Turkey, Indonesia, Vietnam, Lebanon, the U.A.E., Spain, Estonia, Latvia, the USA, etc.

Add-ons

Thematic Pro

The module contains unique algorithms of images classification based on self-organizing neural networks that enable to get the most accurate results. Among other things, the Thematic Pro includes advanced segmentation algorithms and extensive capabilities for post-processing are available that provide an expert with a complete set of tools for remote sensing data interpretation..


Terrain (3D)

It carries out building and visualization of 3D terrain models, with the possibility of applying vector and raster layers. The module functional enables to simulate different types of acts of nature, create or import ready-made 3D objects, set the motion path for them, etc.

DEM

It is intended for construction of DTM/DEM based on stereo-pairs of images and vector data. It also contains tools for editing of generated models, terrain analysis and automatic isolines drawing.
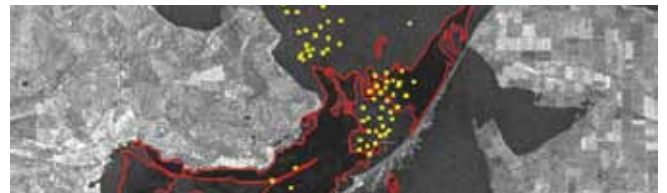
SAR

It conducts processing of images, received from synthetic aperture radars (SAR), including filtering and segmentation. The module has built-in algorithms for ships and oil spills detection on the water surface.

Modeling

It is equipped with the tools to calculate the components of the radiation balance of the atmosphere, as well as to build hydrological models (forecasting of runoff at the river basin, spills, season and flash floods).

Software development kit (SDK)

Internal programming language.