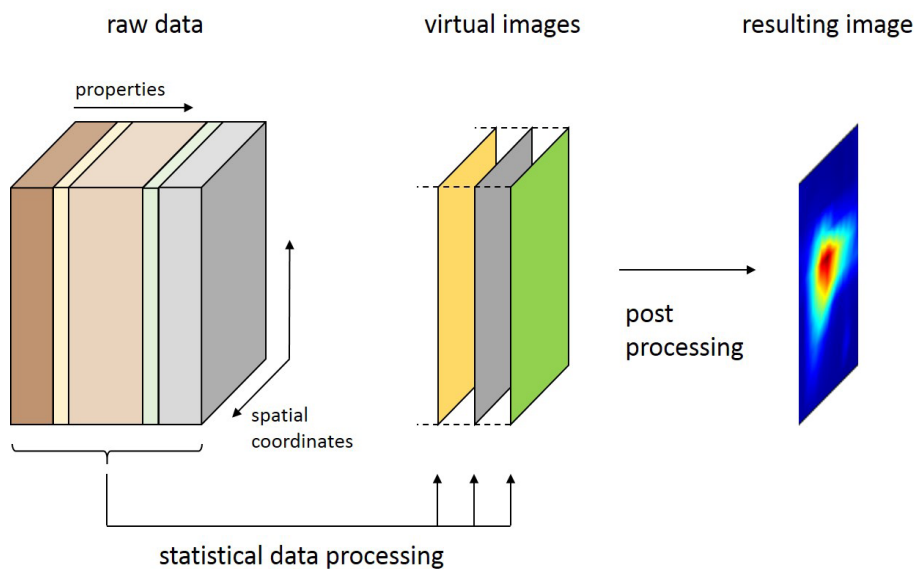


ImageLab

Hyperspectral Image Processing Software for THz Imaging Data



ImageLab is a one-of-a-kind image processing tool for the analysis of data from various spectroscopic imaging techniques such as THz, optical, UV/VIS, IR, Raman, or mass spectrometry. Based on multivariate statistical methods it enables the user to analyze and classify acquired hyperspectral images, to merge them with maps of physical properties and to overlay them with conventional high-resolution color photos. A chemometrics toolbox, visualization of the image data and highlighting of analytical information round up the software package to an indispensable instrument for in-depth analysis of spectroscopic image data.

ImageLab is now part of Menlo Systems' imaging extension TERA Image. Ask us for possibilities to upgrade your THz imaging system with our unique software tool!

Manufacturer information: www.imagelab.at

MenloSystems

FEATURES

- THz image pre-processing and improvement of raw image data
- Statistical image analysis and classification
- Combination with conventional photograph into an image stack
- Highlighting analytical information
- Hyperspectral image analysis
- 3D display of images
- Video visualization of data
- Individual data processing via open programming interface
- Supports user interface in English and German
- Automatic updates

APPLICATIONS

- In-depth material analysis of complex samples
- Chemical component mapping
- Elemental analysis
- Quality and purity control of foodstuffs
- Micro and macro analysis of environmental data
- Archeological sample analysis
- Atmospheric particulate matter analysis
- Biological tissue study

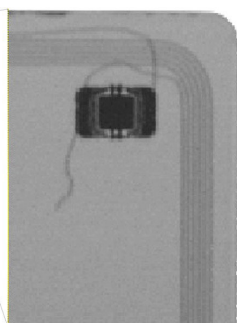
OPTIONS

- **Included in the TERA Image Unit for THz Imaging**
Basic Edition
- **Single License**
Basic Edition, Extended Edition Add-On, Enterprise Edition
- **Multiple License Package**
Ask us for our package pricing
- **Trial License**
Valid for 30 Days

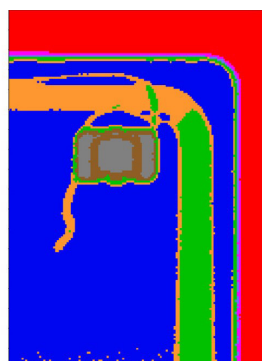
CASE STUDY Antenna and chip structure in a key card



Photo of a key card



Signal intensity in the 1.5 – 2.5 THz range: microchip, antenna, and wiring are visible



K-means cluster analysis: composition and structure orientation induce differentiated spectral signatures of the transmitted linearly polarized THz radiation

ImageLab



Hyperspectral Image Processing Software

VERSION FEATURES

Basic Edition	Extended Edition	Database Edition (coming soon)
Detection of suspicious pixels	4D data model	User-definable spectral databases
Image stack	64-bit architecture	Support of third-party databases
Basic set of mathematical methods	Multi-sensor support	Library search
Vertex component analysis	ImageLab script automation	Similarity maps
Principal component analysis	KNN classifiers	
Cluster analysis	Random forest classifiers	
PLS discriminant analysis	Multiprocessing support	
Similarity maps		
Baseline correction		
Spectral descriptors		
3D image display		
Maximum noise fraction transform		

SETUP REQUIREMENTS

Operating System	Microsoft Windows
Setup Configuration	Flexible import of Menlo Systems image data or custom data import
Internet Connection	Required only for installation

ORDERING INFORMATION

Product Code	
ImageLab Basic Edition	Single License*
ImageLab Extended Edition	Single License*
ImageLab Trial License	Valid for 30 days, FREE

*Allows installation on maximum two PCs. Ask for a multiple license package!



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