# **SPECIM**INSIGHT

SpecimINSIGHT is an off-line software tool that allows users to browse and explore hyperspectral data, create and validate classification models. The models created with SpecimINSIGHT can be deployed on SpecimCUBE computing platform for real-time data processing.

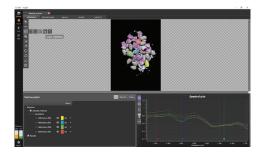
### TURN HSI DATA QUICKLY INTO APPLICATIONS

- Explore and analyse hyperspectral data
- Train qualitative and quantitative prediction models
- Apply the models on SpecimCUBE for real-time data processing

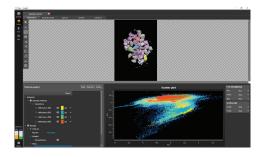
### **TECHNICAL DETAILS**

| Supported O/S                     | Windows 10 64bit   |
|-----------------------------------|--|
| Minimum PC requirements           | Intel i3 or equivalent   |
|                                   | 4GB of RAM   |
|                                   | At least 256GB hard drive  |
|                                   | Intel HD series GPU  |
| Recommended PC requirements       | Intel i5 or equivalent   |
|                                   | 8GB of RAM   |
|                                   | CUDA v10 compatible GPU for faster offline processing  |
|                                   | SSD drive instead of HDD for faster data loading   |
| Supported data format             | ENVI   |
| <section-header></section-header> | <ul> <li>Various plotting tools (spectral, spatial, scatter, time series)</li> <li>Various selection tools (single point, rectangle, ellipse, brush,<br/>lasso, magic wand)</li> <li>Principal Component Analysis (PCA)</li> <li>Spectral similarity tool (SAM)</li> <li>Hyperspectral calculator</li> <li>Color measurement tools</li> <li>Qualitative analysis with PLS-DA</li> <li>Quantitative analysis with PLS</li> <li>Preprocessing options : Derivative, Normalization (p-Norm, max<br/>Norm), Mean-centering, Savitzky-Golay smoothing, Standard<br/>Normal Variate (SNV)</li> <li>Creating new datasets with mosaicing</li> <li>Annotating data</li> <li>Real-time data processing with SpecimCUBE</li> </ul> |

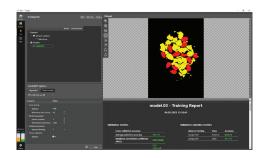
# **SPECIM**INSIGHT



#### BROWSE AND VIEW HYPERSPECTRAL DATA



### EXPLORE AND ANALYZE HYPERSPECTRAL DATA



#### CREATE CLASSIFICATION MODELS BY TRAINING AND VALIDATION



#### **APPLY**

- Transfer the classification models created with SpecimINSIGHT to SpecimCUBE and apply them for real-time data processing.
- Suitable for both industry and research applications inline, at-line, and in the laboratory.
- Sorting, quality inspection, and process optimization.
- Analysis, quantification, and monitoring of nutrients, moisture, protein, sugar, fat, pH values, etc.

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