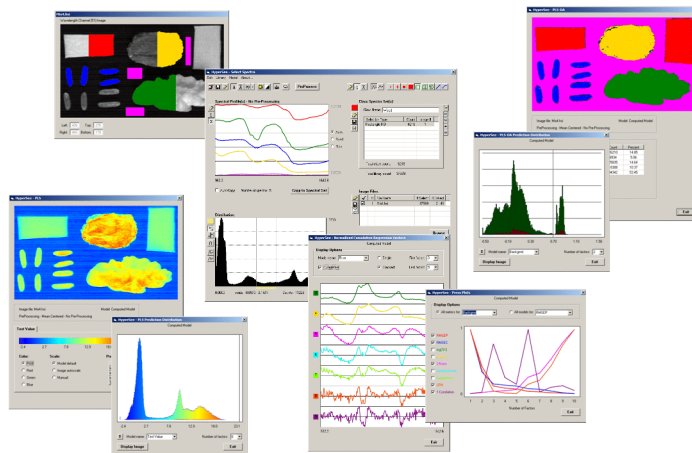


HyperSee

Hyperspectral Chemical Image Analysis - Features List



Display of Spatial/Spectral Data

- Mean wavelength image
- Wavelength channels image
- PCA score images
- Selected spectra plots

Spectral Selection Tools

- Cursor (point, cross, small or large square)
- Rectangle
- Line
- Histogram distribution thresholds
- Intersection of multiple selection sets

Spectral Libraries

- Save spectral library
- Load spectral library
- Add / remove image
- Add / remove class
- Add / remove spectral set

Spectral preprocessing filters

- Smoothing
- First derivative
- Second derivative
- SNV
- 1 & 2 Norms
- Detrend
- Any Combination of up to 3 filters

Training/Test Sample Selection

- Random subset (% or size)
- Random PCA
- Bootstrapped Resampling

Regression Prediction Models

- Partial Least Squares (PLS)
- Up to 10 variables
- PLS Discriminate Analysis (PLS-DA)
- Up to 10 classes
- Advanced multi-class determination
- Save / load to file

Model Results

- Model statistic tables
- Loading plots (single / multiple stacked)
- PRESS plots (8 modeling statistics)
- Single or multi-class prediction maps
- Multi-class false negative maps
- Multi-class confusion matrix
- Class prediction histograms
- Independent image predictions

Model Optimization

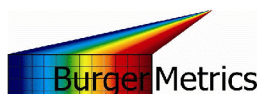
- Class threshold selection
- Number of latent variables
- Interactive update of model results

MATLAB file exports/imports

- Selected spectra
- Selected spectra locations
- Regression models
- Class prediction maps

Image File Formats

- BurgerMetrics HyperPro
- ENVI
- Malvern MatrixNIR



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