Application worx

NIR model development simplified

ZEUTEC

made in Germany

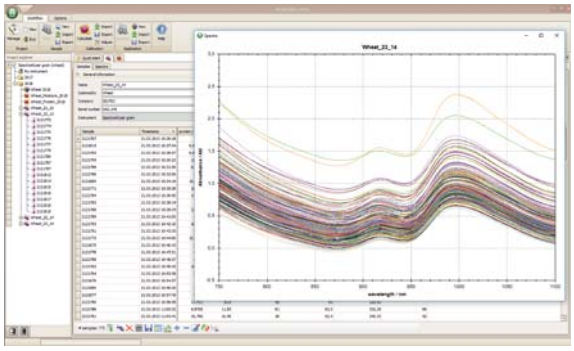
What it does for you

> **Application worx** is a chemometric software package that is designed for calibration model development in the field of Near-infrared (NIR) spectroscopy. Application worx is used to predict chemical characteristics of the NIR spectrum of a sample.

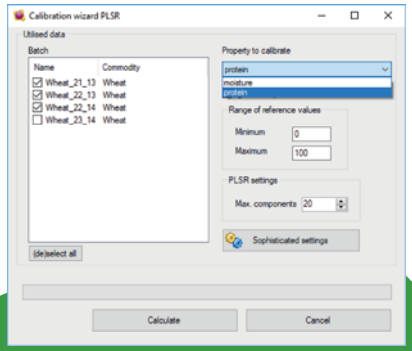
Usually vast knowledge and expertise is required to calculate a calibration model based on spectral data of wellknown reference samples using chemometrics. This is where **Application worx** differs from similar software packages because it is well structured, guides the user through all steps and emphasises the work flow. Well arranged wizard windows give comprehensive assistance and thus even allow the layman to develop a calibration utilising multiple linear regression (MLR) or partial least squares regression (PLSR). Throughout the calibration development process **Application worx** offers the option to automatically improve the calibration model successively and the expert is still able to incorporate invaluable experience into the calibration development.

Application worx compiles an application which consists of calibrations for various properties for the product the user wishes to analyse and the properties can be determined quickly and instantaneously using an NIR spectrometer.

Key features



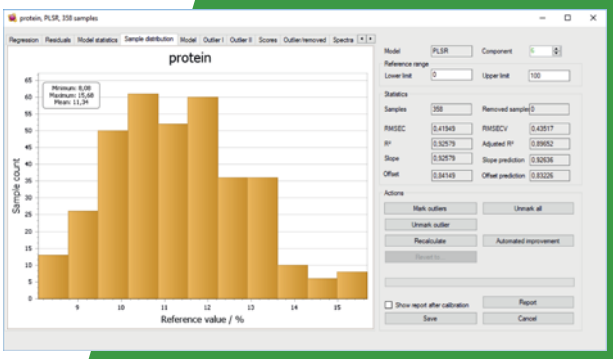
- Clearly structured user interface
- Easy spectra import from instrument files or JCAMP-DX
- Chemical reference values can be imported from csv file and edited manually
- Data storage using MySQL database (local pc or intranet/internet)



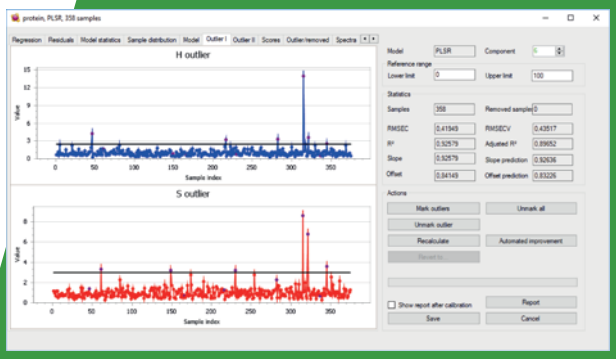
- Wizard guided calibration set-up
- Multiple batches can be combined
- Trimming of reference value range
- Model calculation utilising MLR or PLSR
- Different data pretreatments available, e.g. smoothing and derivatives

- Wizard performs full combination search for MLR
- Best results are automatically selected for each factor

- Statistics support user to choose optimal model (e.g. RMSEC, RMSECV, Fisher's value)



- Histogram of sample distribution enables improvement of reference data pool



- The expert can utilise outlier statistics to improve the model individually
- Score plots are presented for PLSR models

- Fast automated model improvement by means of outlier detection
- Full history of calibration iteration available
- Easy switchback to previous models

Technical data

System requirements

MS Windows 7 / 8 or 10

Scope of delivery

Awx USB dongle with installation folder and help files. Dongle is essential for software operation.

Instrument compatibility

SpectraAlyzer, Kernelyzer, Olivas Gold, and others

Software features

Administration of spectral and chemical reference data, calibration development, calibration adjustment, and application composition.

Order information

Awx Item no	10509

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