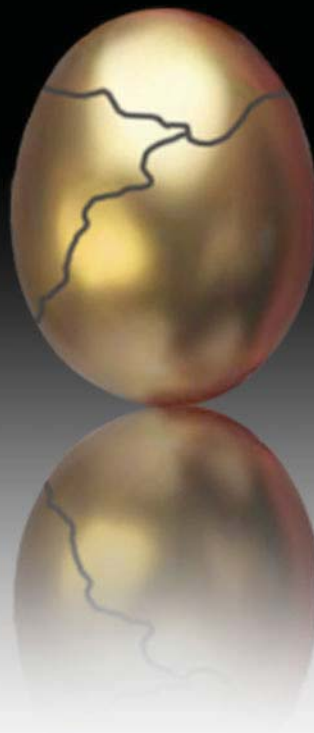


Presenting **The Unscrambler[®] 9.5**

Powered with **Multivariate Curve Resolution**



CAMO

Delivering Tomorrow's Innovations, Today



The Unscrambler[®]

Multivariate & Experimental Design Software

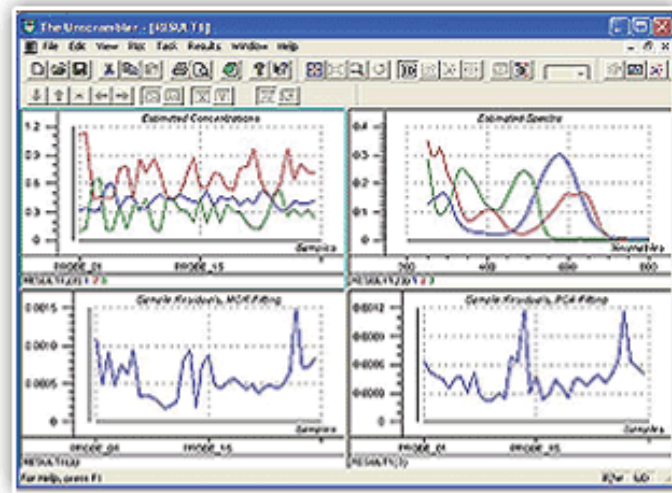
Unleash the potential in your Data

In a rapidly evolving market place, CAMO enables its customers to understand the knowledge hidden inside the data. CAMO software products and solutions reveal latent structures within analytical instrument and sensory data. This core knowledge of critical parameters holds the key to success for processes, products and ultimately, organizations.

The Unscrambler® is acknowledged as an industry standard, comprehensive multivariate software product. It is extensively used in both research and industry for:

- » *Exploratory Statistics*
- » *Regression Analysis*
- » *Classification*
- » *Prediction*
- » *Design of Experiments*

The Unscrambler® offers powerful methods like Multivariate Curve Resolution (MCR), PCA, PLS, 3-way PLS regression, & Experimental Design for your applications in product development, process control, quality control, research and projects involving analysis of small or large amounts of data. The software supports manufacturing process analysis in Chemicals, Pharmaceutical, Food Processing, Pulp & Paper, Consumer Products and Agriculture Industry etc.



File-Duplicate-As 3-D data table:

- » Converts an unfolded 2D data table into a 3D format, for modeling with 3-way PLS regression

The Unscrambler® version compatibility:

- » Read any data or model file built in version 9.x into any other version 9.x (Does not apply for MCR models)

Features

Offering the most definitive analytical modeling, prediction and optimization, key features that make The Unscrambler® the leading software it is, include:

Analysis Methods

The Unscrambler® combines statistical analysis techniques and “multivariate mapping” for easier data interpretation. They are:

- » Descriptive statistics (Mean, Standard Deviation, Box-Plot, skewness, kurtosis...)
- » Principal Component Analysis (PCA)
- » Multivariate Curve Resolution (MCR)
- » Regression (MLR, PCR, PLS-R, 3-way PLS-R) and Prediction
- » Classification (SIMCA, PLS-DA)
- » ANOVA and Response Surface ANOVA
- » Validation options: Leverage Correction, Cross-Validation (freely choose number of samples per segment), Test Set
- » Variable Scaling options: Scaling is free on each variable. Suggested options: auto-scaling, constant, passify
- » Interaction and Square terms can be included in all models

“The Unscrambler® 9.5”

Dedicated to innovate quality multivariate software products, CAMO has developed The Unscrambler® 9.5. A stalwart version powered with MCR, it makes the task of data analysis in-depth, effective and easy.

Highlights

Analysis:

- » Multivariate Curve Resolution (MCR) resolves mixtures by determining the number of constituents, their spectral profiles and their estimated concentrations
- » New tutorial exercise incorporated, to guide users through the use of Multivariate Curve Resolution (MCR) modeling

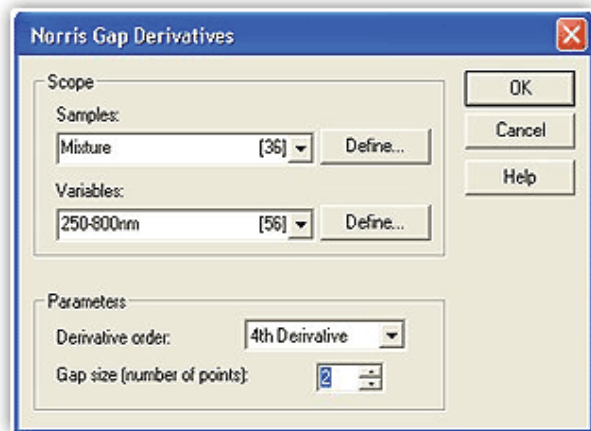
Data Pretreatments:

- » Area, Peak, Unit Vector Normalization options introduced for pre-processing of multi-channel data
- » Norris-Gap and Gap-Segment derivatives, implemented in collaboration with Dr. Karl Norris

Smart Tools for Analysis

The Unscrambler® provides users with the analytical tools required to decipher data and create innovative solutions. These tools are:

- » Automatic detection of significant X-variables in PCR and PLS-R
- » Model stability in PCA, PCR and PLS-R
- » Automatic outlier detection in PCA, MLR, PCR, PLS-R and Prediction
- » Message list of recommendations in MCR modeling
- » Interactive analysis:
 - * Mark samples and/or variables on plots
 - * Recalculate with or without Marked Samples or Variables
 - * Recalculate with Passified Marked or Unmarked Variables
 - * Extract Data from Marked or Unmarked
- » Automatic pretreatments in Prediction and Classification
- » Interactive help



Design of Experiments

Experiments can be designed, analyzed and interpreted with this single statistical package. The features available for Design of Experiments are:

- » Design Wizard: takes you through the stages of building a design
- » Fractional and Full Factorial designs
- » Plackett-Burman designs
- » Central Composite designs
- » Box Behnken designs
- » Mixture designs (Simplex-Lattice, Axial, Simplex-Centroid)
- » D-Optimal designs of mixtures and non-mixtures

Spreadsheet Editor

The Unscrambler® Spreadsheet Editor has the following advantages:

- » No size limit

- » 2D and 3D tables supported
- » Continuous, discrete and mixture variables supported
- » Sample and variable names of up to 49 characters
- » Raw data plots (Line, 2D scatter, 3D scatter, Normal probability, Histogram, Matrix, Matrix 3D)
- » Set Editor: allows to work freely either on the whole table or on a selection of samples and/or variables
- » Sort samples / Sort variables
- » Transpose
- » Mathematical array manipulation
- » Undo/Redo feature

Data Pretreatments

The Unscrambler® offers built-in preprocessing functionalities dedicated to best prepare your multi-channel data for analysis

- » Smoothing: Moving Average and Savitzky Golay
- » Area, Unit Vector, Mean, Maximum, Range and Peak Normalizations
- » Spectroscopic conversions: absorbance/transmittance/reflectance/Kubelka-Munk
- » Multiplicative Signal Correction (MSC) and Extended MSC (EMSC)
- » Noise
- » Norris-Gap, Gap-Segment and Savitzky Golay derivatives
- » Baseline offset and Linear Baseline correction
- » Standard Normal Variate (SNV)
- » User-Defined pretreatments (programmed for example in Matlab or C++ and utilized by The Unscrambler® as a dll)

Interactions with Other Software

The Unscrambler® can import data from and export data to other software products. The interactions with other software products are:

- » Drag 'n' drop values from MS Excel to The Unscrambler®
- » Data import of 2D and 3D tables with over 20 file formats supported: ASCII, spreadsheet software (Excel, Lotus), statistical software (NSAS, Matlab...) and instrument software (JCAMP-DX, Tracker, Grams, CLASS-PA, SpectrOn, Indico...)
- » Copy/Paste data or plots to Microsoft Office applications
- » Data export in various formats (ASCII, Matlab, JCAMP-DX...)
- » Model export in various formats (ASCII, NSAS, Vision, Tracker)

21 CFR Part 11 compliant

The Unscrambler® satisfies the FDA's requirements for 21 CFR Part 11 compliance

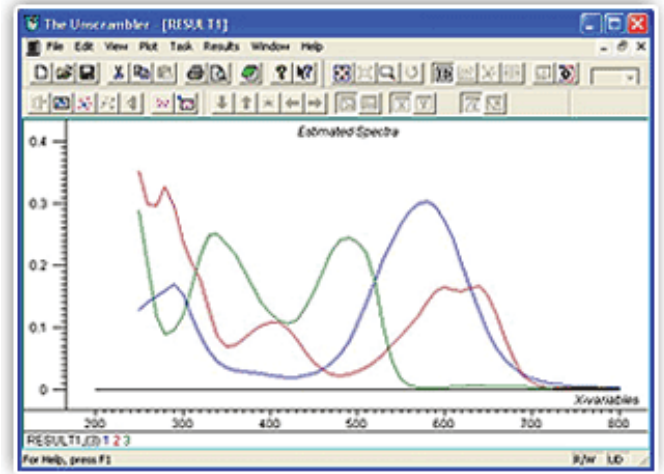
Documentation



Comprehensive methodology, user-interface description and tutorials are available from the Help system

Benefits

An innovative multivariate software that incorporates the latest and most efficient advances in data analysis and interpretation, The Unscrambler® :

- » Discovers patterns and relationships in data using the powerful methods of PCA, PLSR analysis & DoE capabilities
- » Has easy- to- upload data features and point-and-click-ability that allow users to focus on interpretation of results rather than statistics
- » Has the best graphical and visualization capability vis-a- vis other tools in the market that helps speed up R & D
- » Facilitates data import, easy cut and paste transferability of various views, making it easier to develop reports and interpret results, competently
- » Is non-industry specific and has multiple applications within a variety of data intensive organizations
- » Initiates greater savings and an optimal utilization of funds by reducing the number of experiments and samples required for the experiments
- » Enables faster product optimization and increased throughput, resulting in reduced development costs and greater ROI
- » The licensing system introduced supports network installations, allows floating licenses and guarantees a fast and easy delivery of your The Unscrambler® upgrades via the internet



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The Unscrambler®

**30 Day
Trial**

**Download
NOW**

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