

Enabling online predictions

High performance in real time



Unscrambler X
Prediction
Engine



Unscrambler X Prediction Engine

Unscrambler X Prediction Engine is a CAMO initiative designed to make models generated off-line using The Unscrambler® X, more widely accessible to third party instruments and control systems. Unscrambler X Prediction Engine can be interfaced into an existing software platform to provide users all of the predictive and diagnostic tools found in The Unscrambler® X, configured in a way that allows real time quality control.

Standardize prediction values



Transfer one single model across many sites or over different equipment in the same site.

Reduce deployment & training costs



Models developed in a central laboratory or technical group can be seamlessly transferred with no prior experience with The Unscrambler® X. This leads to lower manufacturing and training costs and maximizes ROI.

Automate operations



Allows reduction of manual calculations and testing procedures, therefore reducing the risk of error.

Customize Solutions



Some specific requirements are highly specific to business and are unique in nature. Such requirements can be customized in-house or using CAMO's extensive expertise.

How to implement Unscrambler X Prediction Engine?

Unscrambler X Prediction Engine "packages" an Unscrambler model into a DLL (32 bit & 64 bit) Through these protocols, third party software, whether custom built (C, C++, Fortran, Visual Basic etc) or proprietary, can interface with the Unscrambler X Prediction Engine for the generation of real time prediction values and associated diagnostics.

Integrating Unscrambler X Prediction Engine with a client software



Instrument client software

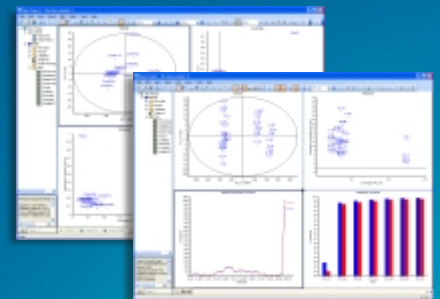


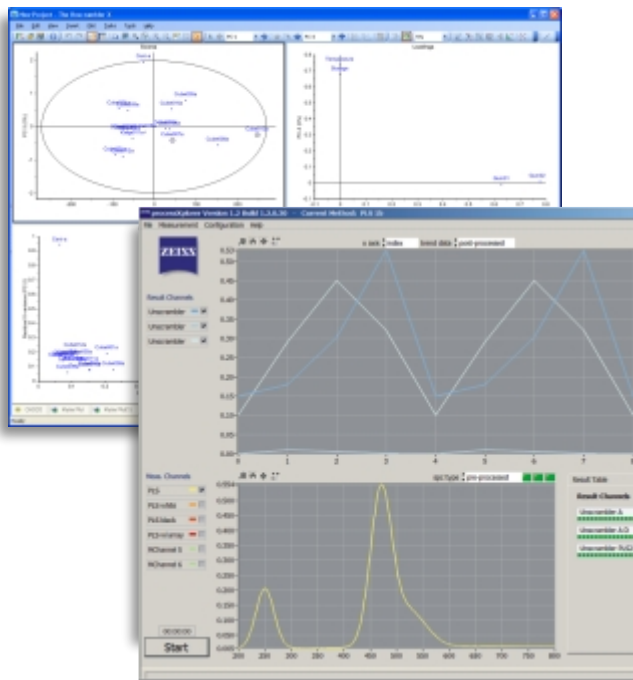
Sample data

Measurement data

Scores y Predicted y Deviation Residuals

The Unscrambler® regression model file





Features

- ▶ Perform real time predictions from data obtained from laboratory or process equipment
- ▶ DLL function calls(32-bit and 64-bit)
- ▶ Automatic data preprocessing, supports all pretreatments available in The Unscrambler® X
- ▶ Programmers reference manual available for in-house customization
- ▶ Supports PCR and PLS models built in The Unscrambler® X (v10.1)
- ▶ Supports predictions from MLR models
- ▶ Outputs Hotelling T2 statistics to help discover erroneous or outlying samples
- ▶ Runs on Windows 7, XP, Vista or Windows NT, 2000, 2003

If you're using Unscrambler Predictor (v9.8), you can convert models created in Unscrambler Predictor (v9.8) to Unscrambler X Prediction Engine (v10.1) with our new file converter.



File converter
utility
v9.8 to v10.1

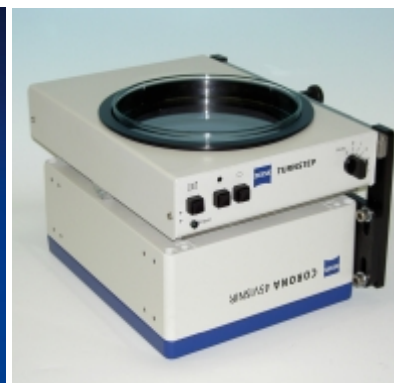
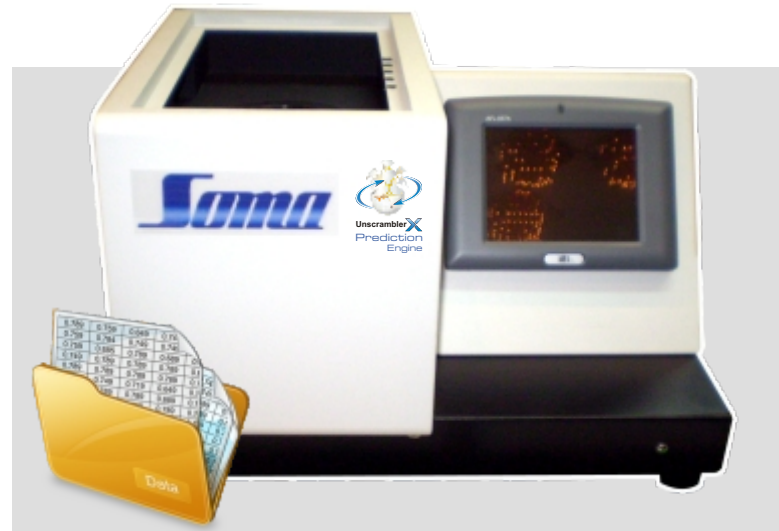


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Application areas

Unscrambler X Prediction Engine is an easy to use, software package enabling real time quality control measurements and Multivariate Statistical Process Control (MSPC). It has proven to be ideal for capturing data from various instruments and process outputs, moving away from univariate approaches to a multivariate view of quality. The Unscrambler X Prediction Engine can be used for

- ▶ Providing quality measurements based on outputs of process spectrometers or other multichannel instruments
- ▶ Detection of process deviations and faults before they become a problem
- ▶ Pharmaceutical applications using Process Analytical Technology (PAT) and Quality by Design (QbD) initiatives
- ▶ Reaction and process monitoring in the petrochemical, agriculture and food sectors and for environmental monitoring



Unscrambler X
Prediction
Engine

New

version 10.1

Free Trial

Download a fully functional 30-day trial version of Unscrambler X Prediction Engine. To get started using the trial product visit predictor.camo.com



www.camo.com

CAMO Software

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