



What's new in MODDE® 12

Design of Experiments Solution

MODDE 12 Top Priorities

- One-click analysis (MODDE Go and Pro)
 - Simplify and speed up the analysis procedure
- New design; Generalized Subset Designs (MODDE Pro)
 - A generalized fractional factorial for generation of an optimal sequence of subset designs
- New Design; Definitive Screening Design (MODDE Go and Pro)
 - Available for 4 to 30 factors
- Rebranding and other GUI improvements (MODDE Go and Pro)
- Connection to SIMCA (MODDE Go and Pro)
- Design Space calculation updates (MODDE Pro)
 - Updates with new functions
- MODDE-Q updated functionality (MODDE Pro)
 - Align with MODDE 12 functionality

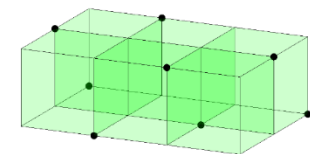
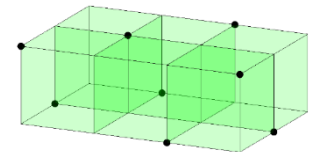
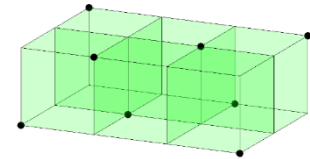
One-Click Analysis

- What
 - Can run the analysis wizard almost automatically
 - Interactive advisor functionality that is situational aware

- Why
 - Make the user more confident in getting the correct model
 - Create the foundation for an automated workflow (MODDE-Q)

Generalized Subset Designs

- What
 - This unique design setup generates a sequence of reduced design sets that will add up to a full design of all possible combinations.
 - The design sets are as orthogonal, equal and balanced as possible.
- Why
 - Solves a problem for generation efficient stability studies (30 – 50% more efficient)
 - Solves DOE problem within Multivariate calibration
 - Introduces a sequential approach in screening DOE

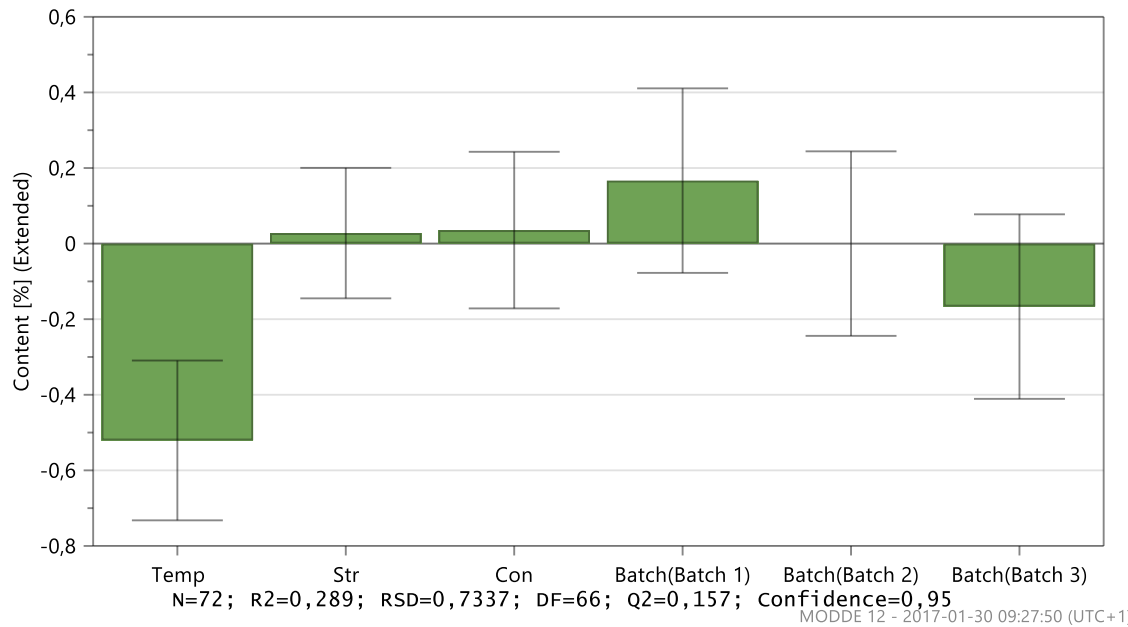


Generalized Subset Designs

All 72 experiments

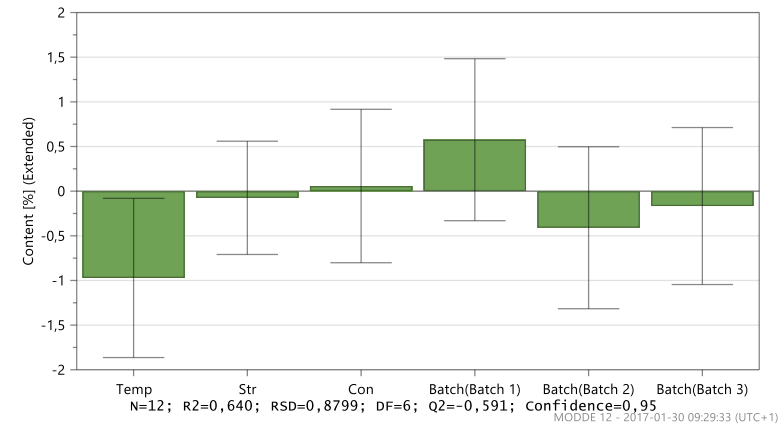
Coefficients (scaled and centered) - MODDE 12 GSD 3 2 4 3 red 6 (MLR)

Content (Extended)



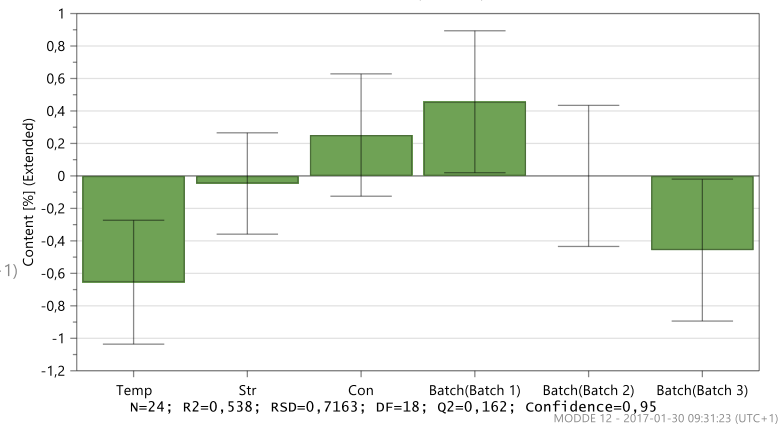
12 exp

Content (extended)



12+12 exp

Content (Extended)



Definitive screening design

- What
 - A new screening design with the of $2k+1$ experiments (k factors)
 - Optimized for linear and square terms, all confoundings are set in the interaction part
 - Implemented for 4 to 30 factors
- Why
 - An efficient design for initial screening of 5 or more factors
 - Can detect specific non-linear factor effects

Connection to SIMCA

- What
 - Export the worksheet to SIMCA
 - Open SIMCA with data if installed

- Why
 - Easy to continue the analysis in SIMCA and merge the DOE setup with other type of big data tables as Spectroscopy raw data or process data.

GUI improvements

- Better advisor functionality
- Streamlined terminology in the probability presentations
- RED-MUP matrix result coloring
- New installation wizard
- Possibility to return the license activate again on another computer
- Branding update

Design space calculation

- Extended the DS calculation functionality with a possibility to include response correlation effects