What’s new in MODDE® 12
June 2020
MODDE 12 Top Priorities

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

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

Content (Extended)

12+12 exp
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