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#### **MODDE 12 Top Priorities**

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

(MODDE Go and Pro)

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#### **One-Click Analysis**

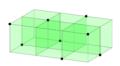
- What
  - Can run the analysis wizard almost automatically
  - Interactive advisor functionality that is situational aware
- Why
  - Make the user more confident in getting the correct model
  - Create the foundation for an automated workflow (MODDE-Q)

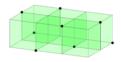
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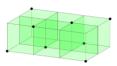
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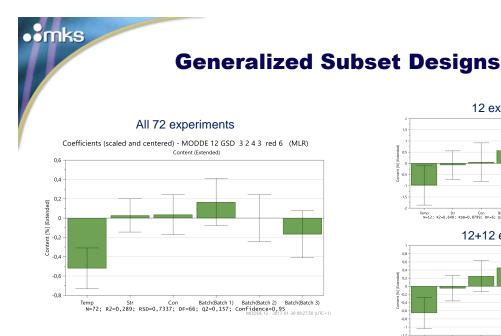
## **Generalized Subset Designs**

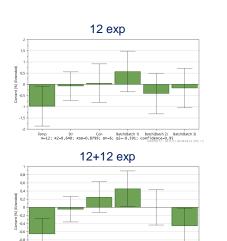
- What
  - This unique design setup generates a sequence of reduced design sets that will add up to a full design of all possible combinations.
  - The design sets are as orthogonal, equal and balanced as possible.
- Why
  - Solves a problem for generation efficient stability studies (30 – 50% more efficient)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











Temp Str Con Batch(Batch 1) Batch(Batch 2) Batch(Batch N=24; R2=0,538; RSD=0,7163; DF=18; Q2=0,162; Confidence=0,95

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### **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

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#### **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.

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### **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