

DESIGN-EXPERT® SOFTWARE

Best in class design of experiments software makes R&D easy with an intuitive interface and amazing graphics. Whether you are new to DOE or a seasoned pro, you'll make breakthrough improvements with Design-Expert software.

DESIGNEXPERT

VERSION 13



Design Your Experiment

Design-Expert provides powerful tools to lay out an ideal experiment on your process, mixture or combination of factors and components. Build robust designs via in-line power calculations and the ability to add blocks and center points. Design-Expert's design wizards and intuitive layouts such as the stoplight configuration for two-level factorials make it all far easier than you'd even imagine.



Analyze Your Data

Design-Expert makes it easy to see what, if anything, emerges as statistically significant and how to model the results most precisely. Automated model-reduction tools, paired with in-line diagnostic graphs, provide a streamlined analysis process. It provides the confidence you need to present and publish your findings. Test it with one or more of the data sets that come with the software.



Visualize Your Results

Design-Expert offers a wide selection of graphs that help you identify standout effects and visualize your results. Its outputs create a strong impression when you communicate your findings to supervisors and peers. Download the free trial today, skim through the response surface tutorial provided under 'Help', and see for yourself.

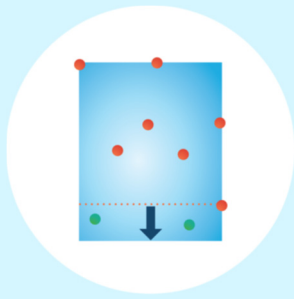
What's New in Version 13

Version 13 of Design-Expert software (DX13) provides a substantial step up on ease of use and statistical power for design of experiments (DOE). It lays out an array of valuable upgrades for experimenters and industrial statisticians.

- Modify Design Space Wizard
- Poisson Regression
- Multiple Analyses per Individual Response
- Rounding Factor or Component Settings
- Import Data Set



See DX13's amazing features for yourself via the free, fully functional, trial download at www.statease.com/trial/.



Modify Design Space

Expand, contract, or shift your design space to hone in on an optimal area. DX13's wizard makes this easy for both process and mixture designs. Re-use existing data (or remove some) and make the most out of your experiment!



Poisson Regression

Use Poisson regression to fit more precise models when the response is count data (discrete, non-negative), such as the number of defects per unit or the number of occurrences per time period.



Multiple Analyses

Easily model any response in various ways to easily compare them. Simply press the plus (+) button on the Analysis branch and try different model reduction methods or transformations. Choose the best analysis for achieving optimization goals.

BREAKTHROUGHS WITH DESIGN-EXPERT VERSION 13

Often an experiment leads to promising results that lie just beyond its boundaries. DX13 paves the way via its new **modify design space wizard**. Press the Augment Design button, select “Modify design space” and off you go. Run through the “Modify Design Space – Reactive Extrusion” tutorial, available via program Help, to see how wonderfully this new wizard works. As diagrammed on its initial screen, the modify-design-space tool facilitates shrinking and moving your space, not just expanding it. And it works on mixture as well as process space.

For assessing measures that come by counts, **Poisson regression** models fit with greater precision than ordinary methods. Demonstrate this via the “Poisson Regression – Antiseptic” tutorial where Poisson regression proves to be just the right tool for modeling colony forming units (CFU) in a cell culture. This new modeling tool, along with logistic regression for binary responses (introduced in version 12), puts Design-Expert at a very high level for a DOE-dedicated program.

The Antiseptic tutorial demonstrates the utility of trying **multiple analyses per individual response**, none of which can do better than Poisson regression (but worth a try!).

Optimal (custom) designs work wonderfully well for laying out statistically ideal experiments. However, the numerical levels they produce often extend to an inconvenient number of decimal places. No worries: DX13 provides a new **“Round Columns”** button—very convenient for central composite and optimal designs. As demonstrated in the Antiseptic tutorial, this works especially well for mixture components—maintaining their proper total while making the recipe far easier for the experimenter to accomplish. Do so either on the basis of significant digits or by decimal places.

DX13 makes it far easier to **import existing data**. Simply paste in your data from a spreadsheet (or another statistical program) and identify each column as an input or output. If you paste in headers, right click rows to identify names and units of measure. For example, DX13 enables entry of the well-known Longley data (see the “Historical Data – Unemployment” tutorial for background) directly from an Excel spreadsheet. Once in Design-Expert, its advanced tools for design evaluation, modeling and all can be put to good use.

Make the most from every experimentSM

