The Stat Teaser

Stat-Ease, Incorporated | Page 1 of 2 | Fall 1994

Get GUI With New DESIGN-EASE V3

DESIGN-EASE now runs beautifully on Windows and Macintosh. It provides the same features as the existing **DESIGN-EASE** version 2 for DOS (still available), but with all the advantages that come with the graphical user interface, such as cutting and pasting to technical reports.

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"Vastly superior."
Mark Bruce, Wadsworth Labs

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Notices to users went out in August. Orders are now pouring in for new packages ($395) or upgrades for DOS users ($195 or less -- depending on serial number). Buy before October 15th and get a free mouse pad.

Mixture DOE Success Story in *Adhesives Age*

Dow-Corning touts the use of mixture design in an article that appeared this August. Author Bob Krahnke tells how researchers in Midland, Michigan used DESIGN-EXPERT to optimize a silicone sealant.

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"DESIGN-EXPERT cut months off a long drawn-out [experimental] process."
Bob Krahnke, Dow-Corning

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For reprints of the article, or to get a complete list of case-study reprints, contact Mark Anderson at 612-378-9449 (or by E-Mail to Compuserve 72103,1436). Do you have a success story to tell about using **DESIGN-EASE** or **DESIGN-EXPERT**? If so, please get in touch with Mark.

Experiment Design Made Easy Workshop Coming to Philly and Other Friendly Cities

After a record-breaking response to its September class in Minneapolis, Stat-Ease moves on to Philadelphia, rated the most friendly of the top 10 US cities by *Traveler* magazine.

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"It's a wonderful course."
D. K. Loo, Senior Chemist
Hercules, Wilmington
6/94 **Experiment Design Made Easy**

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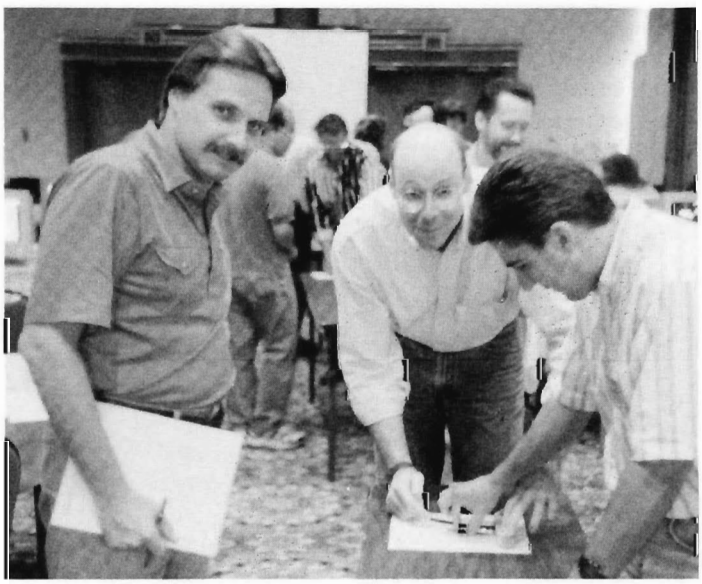
This 3½-day presentation of **Experiment Design Made Easy** begins Tuesday, November 8, at 8:00 a.m. It will be held at Sugarloaf Conference Center, at Temple University. The conference center, comprised of three converted historic estates, rests on forty beautifully landscaped acres in Chestnut Hill. Lodging will be available on site.

If you can't make it to Philly, consider booking a seat at one of two Winter **Experiment Design Made Easy** workshops:

- **January 17-20, Orlando**
- **March 14-17, Anaheim**

Call Stat-Ease at 800-325-9816 (direct line 612-378-9449) to get all the details and reserve your seat. The cost is $995 per student.



Gene Blandford (left) and Dave Baker (right) of Tool Products watch Larry Stichter of Phillips Plastics take a shot at tabletop hockey. The exercise gives students of **Experiment Design Made Easy** a hands-on experience in factorial DOE.

STAT-EASE® INC.

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"Statistics Made Easy" SM

Software • Training • Consulting

October Mixture Class a Sellout

The October session of **Mixture Design for Optimal Formulation** has sold out. If demand warrants, Stat-Ease will schedule an overflow class November 15-18 in Minneapolis. This 3½-day workshop provides powerful design of experiment techniques specifically geared to formulators. Call Stat-Ease at 800-325-9816 (direct line 612-378-9449) to get all the details.

DESIGN-EXPERT Upgrade to Version 4.04 Now Ready

If you haven't upgraded to version 4 of **DESIGN-EXPERT**, now is the time to do so. The new version, which began shipping earlier this year, includes many new powerful statistical tools, such as automatic regression and design evaluation. Call Stat-Ease at 800-325-9816 for a complete list of the enhancing features. Version 4 users can get a free maintenance upgrade by faxing a request including serial number and current mailing address. Owners of previous **DESIGN-EXPERT** versions pay $195 or less depending on their serial number.

Statistical Design Tests Fantastic Footballs: Will Black Bomb Out-distance Nerf Turbo?

The hoopla over football reached new heights this Fall as baseball struck out and Fox TV took over from CBS. My two teenage boys and their friends have caught the fever. They are running the lawn ragged with elaborate pass routes.

To add fuel to the fire, I purchased the Black Bomb foam football. Here's what sold me:

"You will be able to throw the Black Bomb farther than any other foam football."

The football sports an awesome look - aerodynamic dimp[illegible] as well as a hard plastic ring around its middle.

I immediately got in to my **DESIGN-EASE** software and set up a one-variable test plan to compare the Black Bomb to its chief rival, the Nerf Turbo. I enlisted nine neighborhood Troy Aikman wannabes, including boys and Dads, to toss the two balls.

During the warm-ups I noticed a great deal of variability from person to person and from one throw to the next. To reduce the potential confounding, I had each quarterback throw both randomly chosen balls.

The statistical summary from DESIGN-EASE shows a mean difference of 4.56 yards in favor of the Nerf Turbo (see results below).

Turbo	Bomb	Turbo - Bomb
70	50	20
86	71	15
60	62	- 2
62	66	- 4
55	40	15
54	60	- 6
85	84	1
92	72	20
69	87	-18

However, the standard deviation of the raw difference came to a whopping 13.43. The standard error of the mean computes to 4.48 (13.43 divided by the square root of 9), which results in a t value of approximately 1, which isn't high enough to achieve an appreciable level of statistical confidence.

Obviously we needed more testing to be able to say that the Black Bomb could be beat. But at this stage the boys were bored, so the other Dads and I retired to take some liquid pain suppressant in 12-ounce aluminum cans to soothe our aching rotator cuffs.

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