

## Practical Stats Newsletter for November 2007

Website: <http://www.practicalstats.com>

In this newsletter:

1. New subscription format
2. Costs of statistical software
3. Upcoming courses

### 1. New subscription format

The Practical Stats newsletter has just moved to an 'announcement list' format. You've probably signed up for these before – they require you to verify your request to subscribe by clicking on a link before your email address is entered to the subscription list. This type of list prevents spam sent to the subscription address unknowingly putting the (stolen) address from which the email was sent onto the list. It also insures that only those who really want it will receive it. We hope the format works for you. Anyone can sign up for the list at <http://practicalstats.com/news> . You can unsubscribe there as well at any time, or click on the link provided at the bottom of our newsletter.

### 2. Costs of statistical software

Have you noticed the cost of statistical software recently? Most of the standard, well-known packages now cost more than your computer hardware for an individual to purchase! The 'high-level' big 3, SAS, SPSS and S-Plus, are sufficiently comprehensive to be used by statisticians (as well as by others) for their research. We recently looked into getting an individual SAS license, and it would have been over \$7,000! If you currently have a SAS license it is undoubtedly through a corporate or educational site arrangement. SPSS might be as low as \$2600 for an individual license, but if you want to do more complicated analyses like neural networks, time series or exact tests, add on \$700-\$2000 more. S-Plus doesn't list its individual price, and now is only sold through licensing arrangements with yearly fees – in essence a rental.

The 'mid-level' packages are generally more user-friendly, and therefore more suited to scientists who do statistics part-time. While still comprehensive in capabilities, they cost a little less. Systat, Stata, Statistica and JMP all cost around \$1500 for an individual license. I don't know about you, but \$1500 is not a mid-level price for software to me. It makes MS Office look cheap! Minitab has kept its price 'down' to \$1200, and openly quotes their price on their web site, a

pleasant difference from many of the others. It is the price per feature leader in this segment.

What's a scientist who's not part of the corporate structure, and so cannot benefit from site licenses, to do? It would seem there is an opportunity here for more competition in the sub-\$1000 range. We would like your views and experience on stat packages costing below \$1000. We know of three: NCSS, StatGraphics and Winks. NCSS ([www.ncss.com](http://www.ncss.com)) is available for \$500-\$600, with a free 7-day trial version ready to download (the trial version will only use 100 of your observations). In addition, they have incorporated many of the NADA methods for handling nondetects directly into their software. Statgraphics (<http://www.statgraphics.com>) has beefed up their procedures list, now more than graphics. Their base version (Standard) costs \$695, but does not perform some important methods needed by environmental scientists such as 'all possible regressions' and multiple comparison tests. They include more features in their Professional version, but this boosts the cost out of our consideration range to \$1300. WINKS Professional ([www.texasoft.com](http://www.texasoft.com)) is available for \$140-\$450, depending on whether you download, want a CD, or get printed manuals. We had one student in our AES course complete almost all of our exercises using WINKS, so it appears capable of much that you may want to do.

If you have experience using one of these, or with other statistics software costing under \$1000, we'd like to hear from you. Email [ask@practicalststs.com](mailto:ask@practicalststs.com) and give us your review. The procedures we find very useful in environmental statistics that are not typically found in lower-cost software are 'all possible regressions' and partial plots, two big time-savers for building multiple regression models. Please comment on whether those capabilities are in your software.

A third type of software are Excel add-ons, which add statistics capabilities to the spreadsheet software most of us already own. These cover a wide range of prices. We have used an inexpensive (\$60) add-on called StatPlus to compute nonparametric methods within Excel. It does an excellent job for what it tries to do, and for very little cost. More expensive add-ons go up to around \$500-600 in price. Two that we have tried are Analyze-It and StatistiXL. Analyze-It (\$185, [www.analyse-it.com](http://www.analyse-it.com)) provides a free 30-day trial, and covers the basic methods in data analysis, though of course not all that we would like. StatistiXL (\$75, [www.statistixl.com](http://www.statistixl.com)) also provides a free trial, includes several multivariate methods, and is surprisingly comprehensive for the price. It will produce residuals

plots and compute adjusted r-squared in multiple regression, for example.

So we'd like to get your reviews, to add to evaluations we are performing ourselves. Send us email at ask[at]practicalstats.com reporting the types of analyses you've completed with sub-\$1000 software. Can it produce partial plots? Multivariate methods? Multiple comparison tests? All Possible Regressions? Nonparametric tests? We'll compile the results, and will share them with you in an upcoming 2008 Practical Stats newsletter.

### 3. Upcoming courses

There are two open-enrollment courses now scheduled for 2008. You can always find the latest offerings listed at [http://www.practicalstats.com/new\\_classes/classes.html](http://www.practicalstats.com/new_classes/classes.html)

#### a) Applied Environmental Statistics

May 12-16, 2008

Rutgers University Eco-Complex

Trenton, New Jersey

Online registration soon.

Just before the National Water Quality Monitoring conference in Atlantic City, NJ

#### b) Nondetects and Data Analysis

March 10- 11, 2008

Golden, Colorado

Online registration soon.

Hope to see you at one of these in the not-too distant future.

'Til next time,

Practical Stats

-- Make sense of your data