



# Benchmarks *Online*

Volume 4 - Number 7 \* July 2001

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A new service for persons with vision disabilities is now available on campus computers. Read all about it and also find out about a job opportunity in RSS.

### [Simeon Support to be Phased Out](#)

Over the next year, starting September 1, 2001, support for the Simeon E-mail client will be gradually withdrawn. Details within.

### [The Force is just around the corner ... really!](#)

The Smartforce Win2000 Webserver is currently in "testing production." More information inside.

### [Faculty/Staff NDS Directory Update](#)

As was mentioned in a recent campus-wide E-mail message, the Campus Wide Networks Computing Team is currently working on updating some of the biographical account information stored in the campus NDS system. This article explains why this is necessary.

### **TODAY'S CARTOON**

Click on the title above for an information age laugh.

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## Don't forget to check out our monthly columns. This month's topics:

- [RSS Matters](#) -- "An Introduction to Robust Measures of Location Using GNU S-Plus"  
" This month soon-to-be-Dr. Rich Herrington demonstrates the use of robust estimators of location using the GNU S-Plus language, "R."
- [SAS Corner](#) -- "SAS/Spectraview"  
Spectraview is a useful tool for exploratory data analysis and data visualization. Cool 3D animations!
- [The Network Connection](#) -- "The need for speed" Dr. Baczewski discusses bandwidth and alternatives to dialup modem technology.
- [List of the Month](#) -- "WMOB: the wiretap network" Are you hooked on the Sopranos? If so, this site is for you.
- [WWW@UNT.EDU](#) -- "The New UNT Website!" Just in time for the fall semester.
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# Research and Statistical Support

## University of North Texas

### RSS Matters

## An Introduction to Robust Measures of Location Using GNU S-Plus

By [Dr. Rich Herrington](#), Research and Statistical Support Consultant

This month we demonstrate the use of robust estimators of location using the GNU S-Plus language, "R". R is a statistical programming environment that is a clone of the S and S-Plus language developed at Lucent Technologies. In the following document we will illustrate the use of a GNU Web interface to the R engine on the "rss" server, <http://rss.acs.unt.edu/cgi-bin/R/Rprog>. This GNU Web interface is a derivative of the "Rcgi" Perl scripts available for download from the CRAN Website, <http://www.cran.r-project.org> (the main "R" Website). Scripts can be submitted interactively, edited, and re-submitted with changed parameters by selecting the hypertext link buttons that appear below the figures. For example, clicking the button below:

opens a new window with a "browser entry form" where the program code that has been submitted is displayed. The script can be edited and re-submitted to produce a new program output. Scrolling down the browser window displays text from the program execution. Selecting the "Display Graphic" link will open another browser window where graphics will be displayed. Readers are encouraged to change program parameters to see what the effect will be on results.

## Introduction to Robust Estimation

Conventional wisdom has often promoted the view that standard ANOVA techniques are robust to non-normality. However, this view is with respect to type I error (Wilcox, 1998). When it is assumed that there are no differences between groups in a group difference testing setting, then the probability level corresponding to the critical cut-off score, used to reject the null hypothesis, is found to be close to the nominal level of .05. However, many statistical journals have pointed out that standard methods are not robust when differences exist (Hampele, 1973; Tukey, 1960). As early as 1960, it was known that slight deviations away from normality could have a large negative impact on power whenever means were being compared, and that popular measures of effect size could be misleading (Tukey, 1960). Later, a theory of robustness was developed by Huber (1964) and Hampel (1968). Today, there is a well established mathematical foundation for dealing with these issues (Huber, 1981; Rousseeuw & Leroy, 1987). Moreover, basic coverage of the theory and the use of computer software in performing robust analyses can be found in introductory textbooks (Rand Wilcox, 1997, 2001).

## Dealing with Outliers

It is often assumed in the social sciences that data conform to a normal distribution. Numerous studies have examined real world data sets for conformity to normality, and have strongly questioned this assumption (Hampel, 1973; Tukey, 1960; Micceri, 1989; Stigler, 1977). Sometimes we may believe that a normal distribution is a good approximation to the data, and at other times we may believe this to be only a rough approximation. Two approaches have been taken to incorporate this reality. One approach is a two-stage process whereby influential observations are identified and removed from the data. So-called outlier analysis involves the calculation of leverage and influence statistics to help identify influential observations (Rousseeuw & Leroy, 1987). The other approach, robust estimation, involves calculating estimators that are relatively insensitive to the tails of a data distribution, but which conform to normal theory approximation at the center of the data distribution. These robust estimators are somewhere between a nonparametric or distribution free approach, and a parametric approach. Consequently, a robust approach distinguishes between plausible distributions the data may come from, unlike a nonparametric approach, which treats all possible distributions as equal. The positive aspect of this is that robust estimators are very nearly as efficient (very nearly optimal estimators) as the best possible estimators (Huber, 1981). It is possible to get a sense of how much you can violate the normality assumption before inferences are compromised.

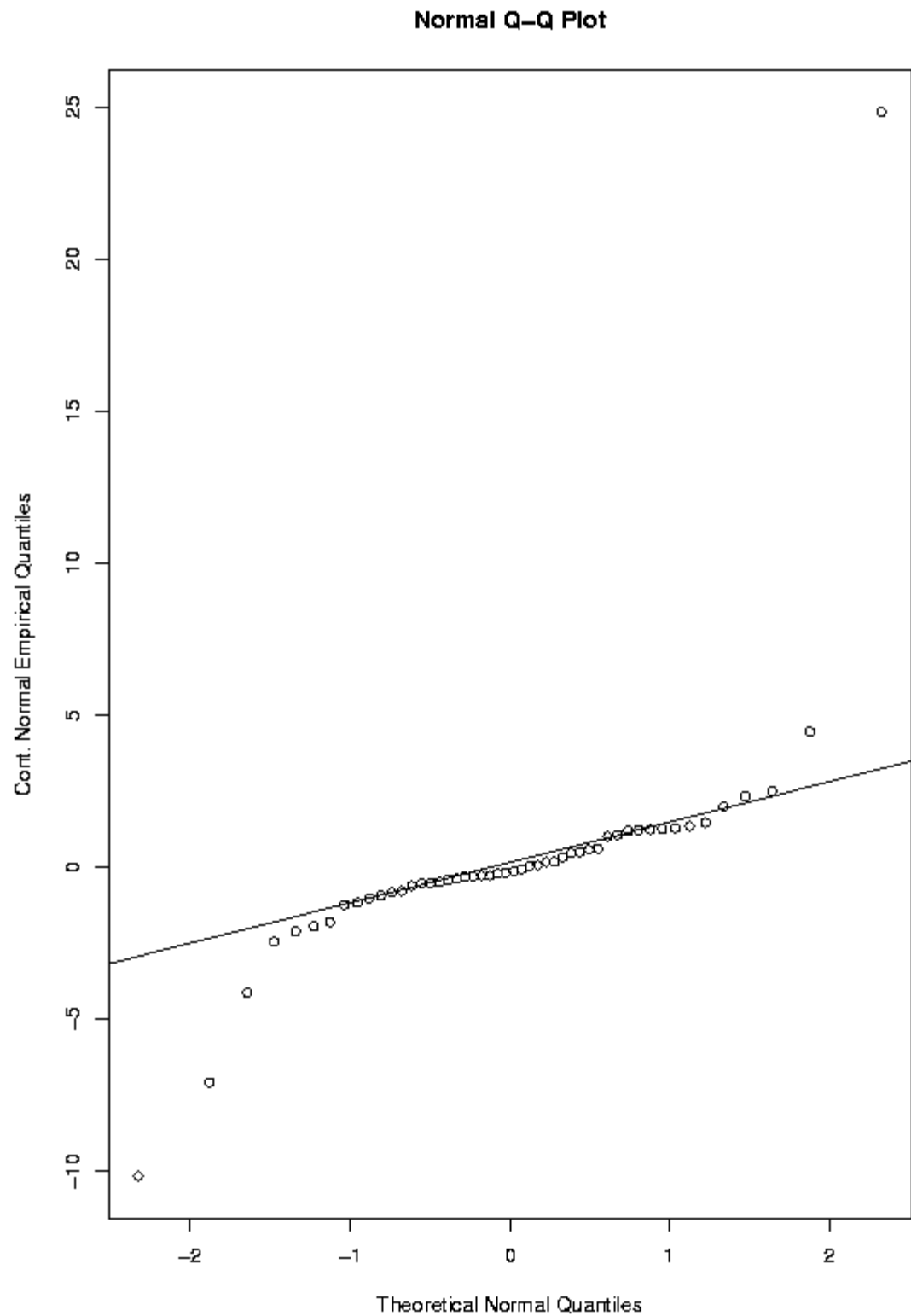
## Symmetric and Asymmetric Distributions

Historically, statisticians have focused on estimators that assume symmetry in the population. The reason for this is that estimators of location are best understood when a distribution's natural candidates for location all nearly coincide (e.g. mean, median, mode). Additionally, when a distribution is treated in a symmetric way so that no bias arises, a trade off is not needed between bias and variability (e.g. M-estimators with odd influence functions are unbiased estimators whenever the distribution is symmetric). Moreover, whenever a distribution is admitted as skew, there is some question as to what measure of location we are trying to estimate. That is, asymmetric distributions do not have a natural location parameter as the center of symmetry, of a symmetric distribution (Hoaglin, Mosteller, & Tukey, 1983). It is a common practice to re-express the data, such as in a functional transformation (e.g. log-transformation), so that the data more nearly resembles a symmetric distribution. Often, if the departure from symmetry is not too large, it is found that estimators that rely on symmetry are still satisfactory (Hoaglin, Mosteller, & Tukey, 1983). The use of quantile-quantile plots can aid in the assessment of skewness (see below). In the case of M-estimators for location, we would like the M-estimate to be an unbiased, robust estimate of the population mean. This goal can be realized in the case of a symmetric distribution.

## The Contaminated Normal

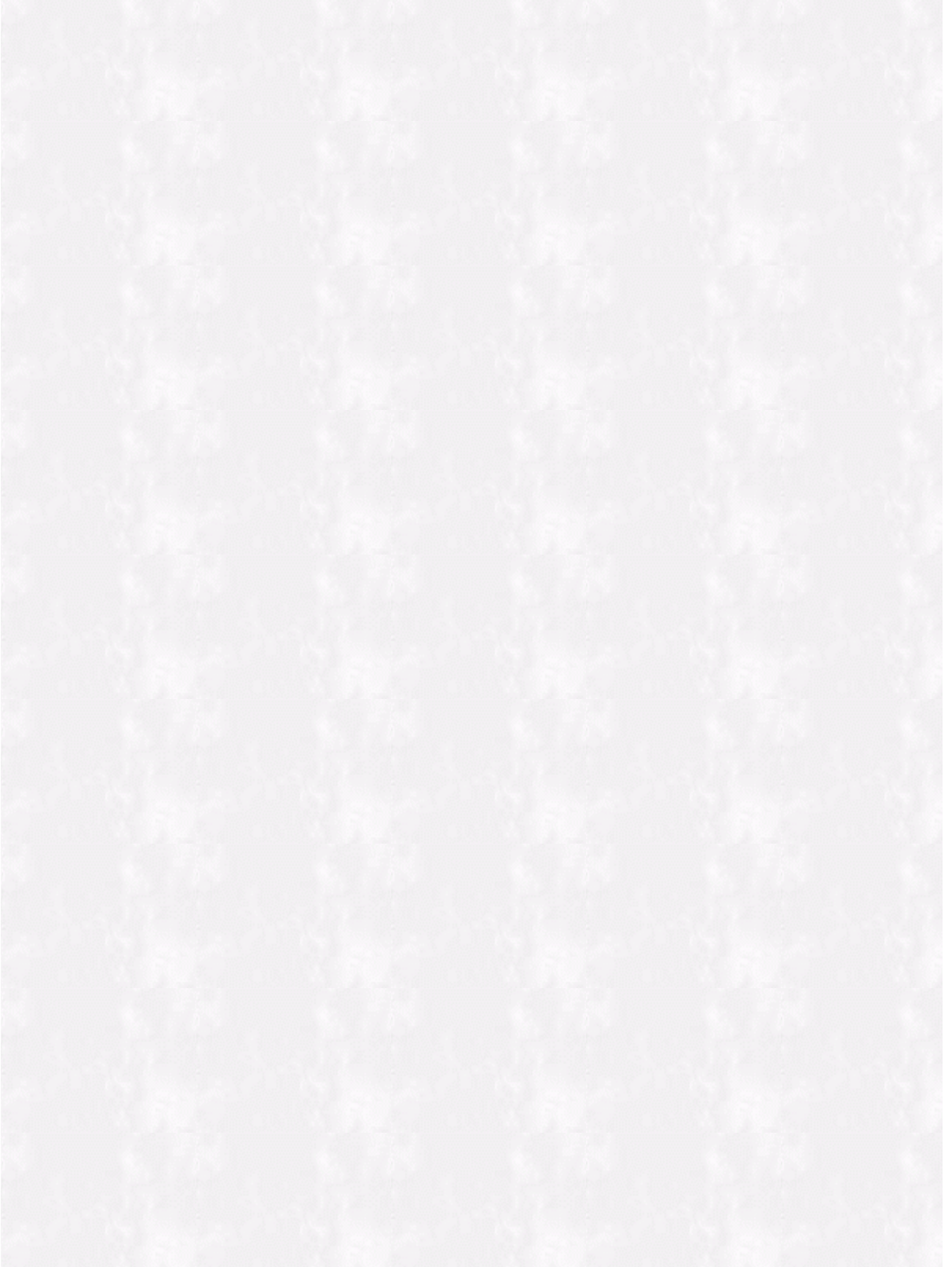
For example, Tukey (1960) showed that classical estimators are quite sensitive to distributions which have heavy tails. The approach Tukey took was to sample from a continuous distribution called the contaminated normal (CN). The contaminated normal is a mixture of two normal distributions, one of which has a large variance; the other distribution is standard normal. The contaminated normal has tails which are heavier, or thicker, than the normal distribution. This can be illustrated by the use of quantile-quantile plots. The empirical quantiles of a data set are graphed against the theoretical quantiles of a reference distribution (i.e. normal distribution). Deviations away from the straight line

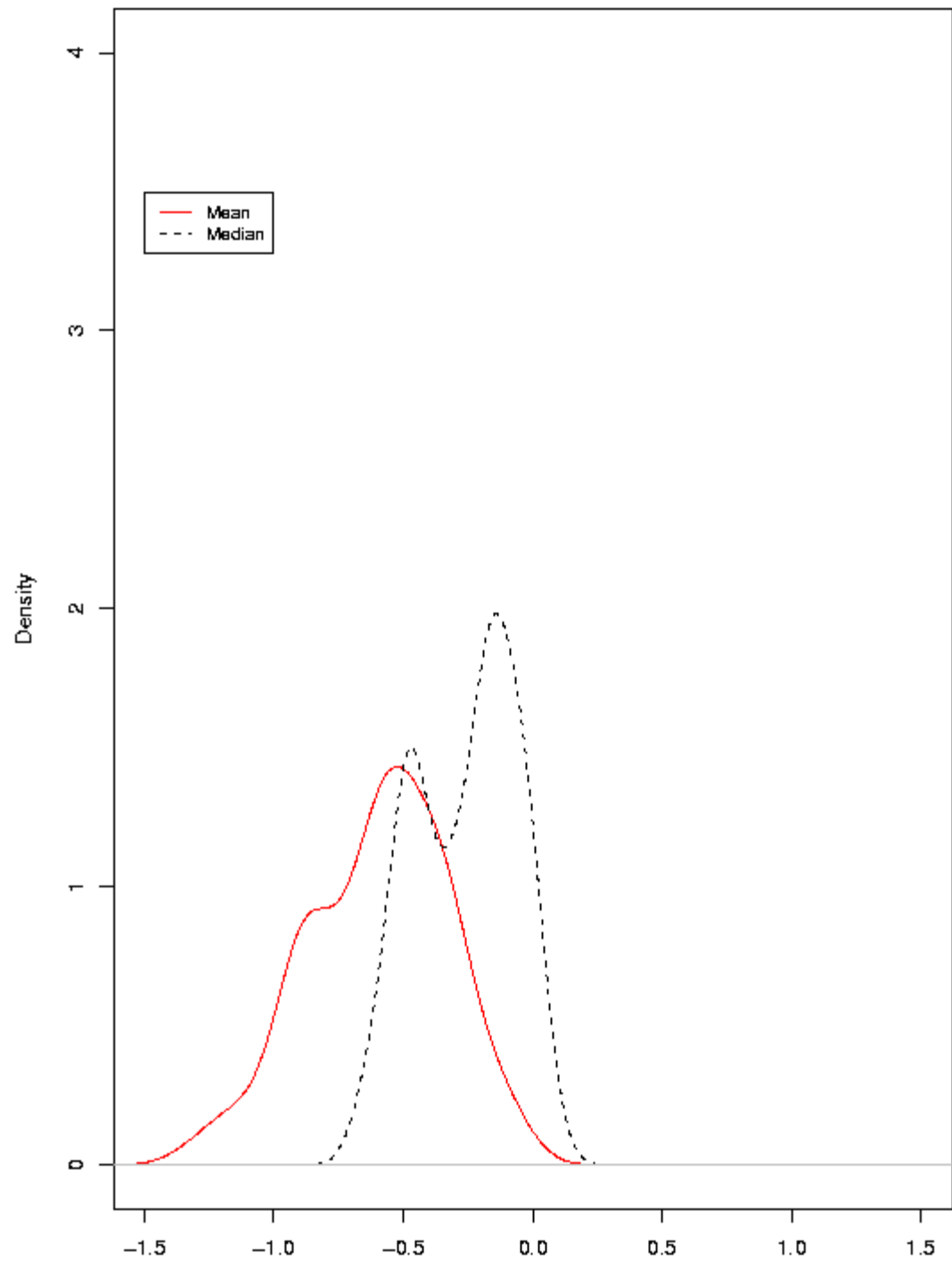
indicate deviations away from the reference distribution. In the figure below, the quantile-quantile plot illustrates a heavy-tailed distribution.



Robust estimators are considered resistant if small changes in many of the observations or large changes in only a few data points have a small effect on its value. For example, the

median is considered an example of a resistant measure of location, while the mean is not. In the figure below, the sampling distributions of the mean and median are plotted when sampling from the contaminated normal distribution (CN). Sampling occurred from the CN distribution where there is a 90% probability of sampling from  $N(0, 1)$  and 10% probability of sampling from  $N(0, 10)$  and the population mean for the CN is zero. Notice that there is substantially more variability in our estimate of the population mean when using the sample mean to estimate the population mean, than when using the sample median to estimate the population mean. Also, the sample median is closer to the population mean of zero, than is the sample mean.





## The Trimmed Mean

One problem with the median however is that its value is determined by only 1 or 2 values

in the data set information is lost. The trimmed mean represents a compromise between the mean and the median (Huber, 1981). The trimmed mean is computed by putting the observations in order. Next, trim the numbers by removing the  $d$  largest and  $d$  smallest observations, and then compute the average of the remaining numbers.  $d$  can be between 0 and  $n/2$ . Trimming enough data gives the sample median. Rules of thumb are that 20%-25% ( $d = .2 * n$ ) trimming works well in a wide range of settings (Wilcox, 1997). Another approach to selecting the trimming amount is to calculate the mean for 0, .10, .20 and then use the trimming value that corresponds to the smallest standard error (Leger and Romano, 1990).

## M-Estimators

The trimmed mean is based on a preset amount of trimming. A different approach is to determine empirically the amount of trimming necessary. If the data come from a normal distribution, then light or no trimming is necessary. If the data come from a heavy tailed distribution, then a heavier amount of trimming is desired in both tails. If the distribution has a heavy right tail, then more trimming might be desired from the right tail; or if the distribution has a heavy left tail, more trimming from the left tail might be appropriate. Essentially, M-estimators accomplish this appropriate amount of trimming by meeting certain statistical criterion for what is considered a good estimator (i.e. maximum-likelihood principle). For the M-estimator, the degree of trimming is determined by a trimming constant,  $k$ .

## Desirable Properties of a Robust Estimator

A good robust estimator is asymptotically consistent and unbiased (the estimator converges on the true population value as sample size increases). Additionally, a good robust estimator should be efficient when the underlying distribution is normal, but still be relatively efficient when the tails of the distribution deviate from normality. That is, the variance of the sampling distribution for the estimator should be small whether we are sampling from a normal or non-normal distribution. When sampling data from a normal distribution, the mean is a minimum variance estimator. That is, the mean is considered an optimal estimator because the variance of its sampling distribution is as small as possible assuming an underlying normal distribution. While the mean is an optimal estimator, it does not possess other characteristics which are associated with a good estimator. Whenever sampling from a non-normal distribution, the mean can lose many of the properties which make it an optimal estimator. Efficient estimators exist for situations where non-normality is present. These estimators are referred to as robust estimators.

## Comparing Estimators - Asymptotic Relative Efficiency

Efficiency refers to the variance of the sampling distribution for the estimator. High efficiency estimators have small variance in the sampling distribution for the estimator. Efficiency will affect the power of a test procedure in that less variance in the sampling distribution for the estimator being tested, will lead to higher power for the statistical test. Here are two ways of viewing efficiency. Finite sample efficiency refers to the variance of the sampling distribution for the estimator as it is applied in small sample settings. Asymptotic efficiency refers to the way an estimator performs as the sample size gets larger. It is a common practice to compare estimators to one another using Asymptotic Relative Efficiency (ARE). For a fixed underlying distribution, we define the Relative Efficiency (RE) of one estimator to another estimator as the ratio of the two variances of the estimators, and ARE is the asymptotic value of RE as the sample size goes to infinity. For



example, to compare the efficiencies of the mean and median, one would sample from a fixed underlying distribution and fixed sample size (i.e. normal distribution), then divide the variance of the median into the variance of the mean. As the sample size increases, this ratio will converge to the ARE of the two estimators. In this way, estimators can be compared with respect to the different types of non-normality that is found in data analysis settings.

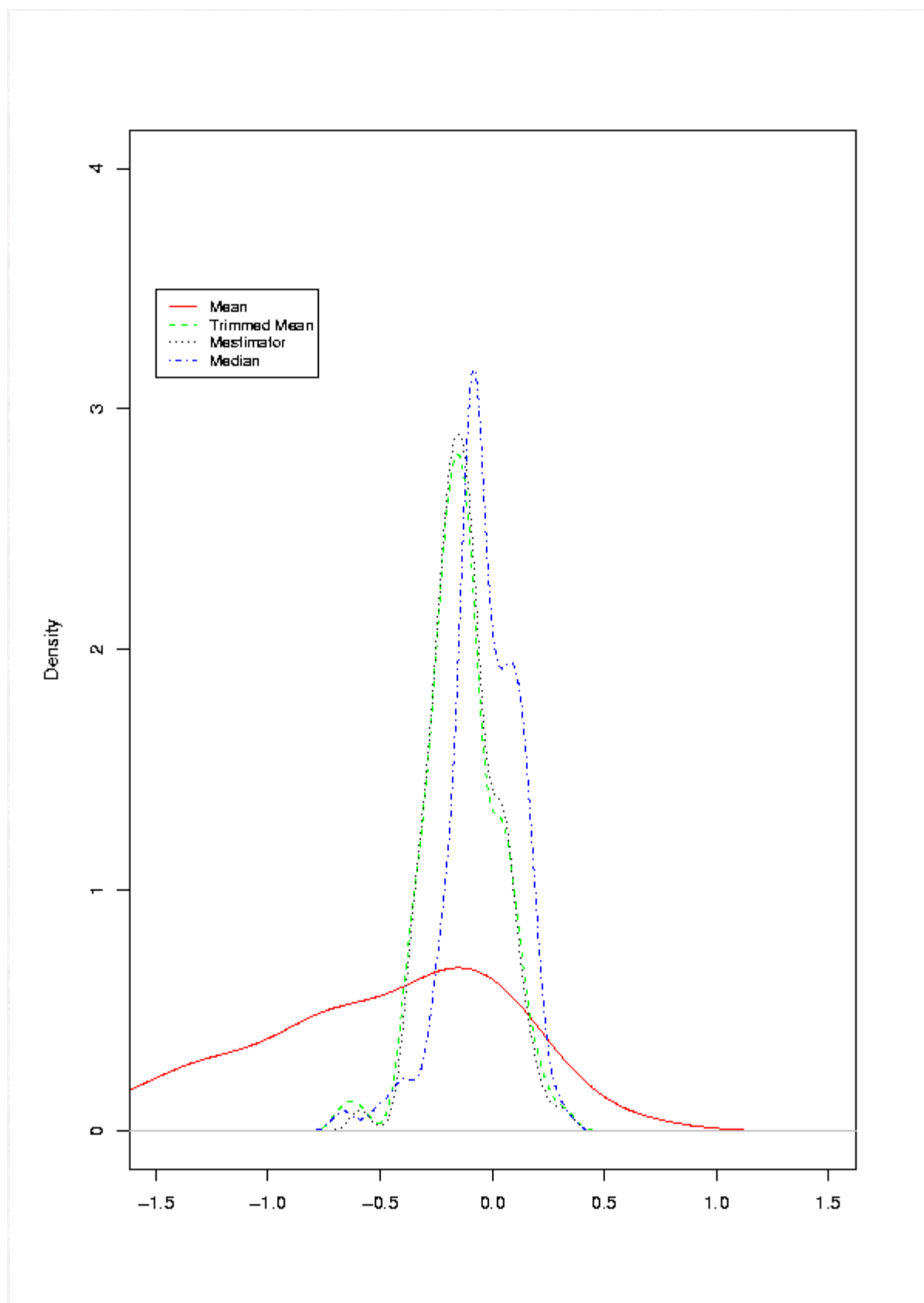
## **Robustness Properties: High Breakdown and Resistance**

High breakdown is the largest percentage of data points that can be arbitrarily changed and not unduly influence the estimator (e.g. location parameter). For example, the median has 50% breakdown. That is, for 100 rank ordered data points, the first 49 points can be changed arbitrarily such that the values are still less than the median, and the median will not change. The mean is not considered a robust estimator because changing one observation arbitrarily can greatly influence the mean. This implies that the mean has a breakdown of  $(1/n) \times 100$ . As  $n$  increases, the breakdown of the mean linearly decreases in an unbounded fashion. In comparison, the median has a much higher breakdown than the mean, and as such, is considered a more robust estimate of location.

## **A Comparison of Four Robust Estimators of Location**

The median has a breakdown of 50%. The trimmed mean has a breakdown that corresponds to the degree of trimming that is utilized. For example, a 20% trimmed mean has a breakdown of 20%. The mean has a breakdown of  $(1/n) \times 100$ , where  $n$  is the sample size. For Huber type estimators, the breakdown will depend on the trimming constant  $k$ . In the figure below, the sampling distributions of the sample mean, sample trimmed mean, sample M-estimator, and the sample median are plotted. Sampling occurred from the CN distribution where there is a 90% probability of sampling from  $N(0, 1)$  and 10% probability of sampling from  $N(0, 10)$  with a mean of zero. We see that the sample median, sample M-estimate and sample trimmed mean are all considerably closer to the population mean of zero. Additionally, there is less variability in these estimates, than the sample mean.





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# Research and Statistical Support

## University of North Texas

### SAS Corner

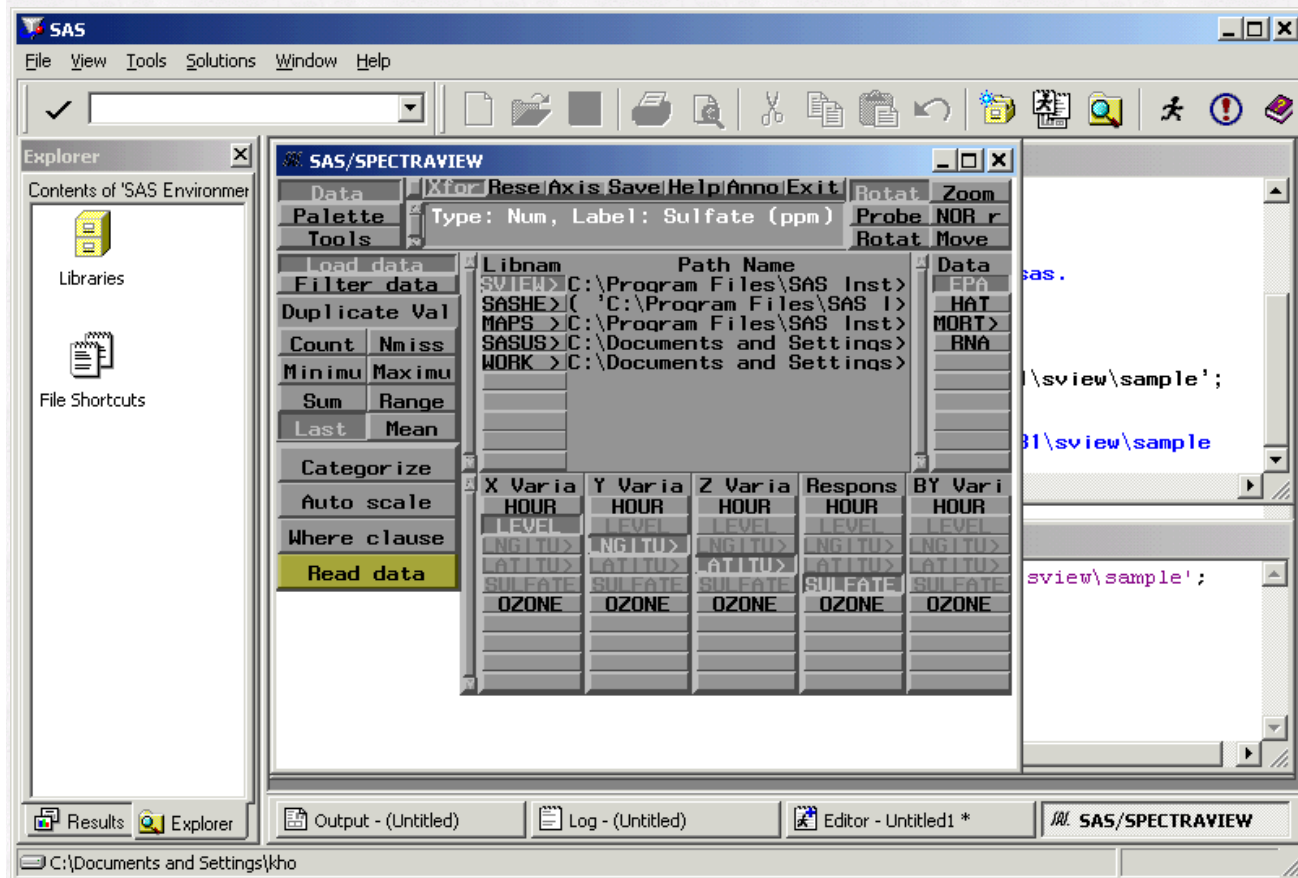
By [Dr. Karl Ho](#), Research and Statistical Support Services Manager

#### SAS/Spectraview

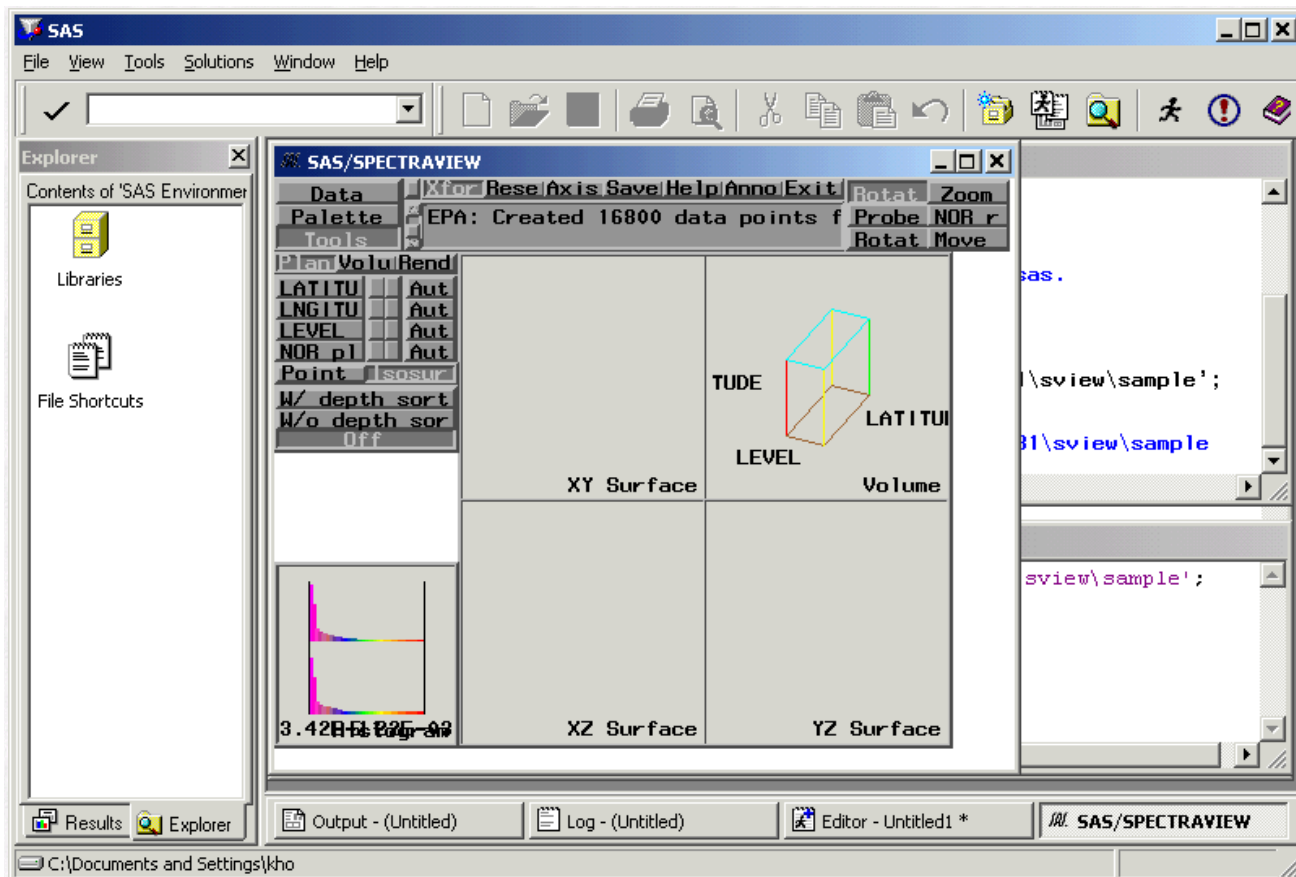
In this short article, I will introduce a tool that is rarely in the spotlight, but is a useful one for exploratory data analysis and data visualization. The Spectraview module is available in both the Windows and UNIX/ XWindows versions (version 8). The multiple window display interface of Spectraview enables users to visually explore trends and relationships represented by the data. For example, environmental scientists can use this tool to investigate and identify the level of sulfate concentrations at different longitudes and latitudes. Controlling for other variables, scientists can visualize and animate the changes of the dependent variable as caused by the independent variable. The following example illustrates a study of sulfate concentration as affected by layer above ground, latitude coordinate and longitude coordinate.

To activate the Spectraview module, select Solutions --> Analysis --> 3D Visual Analysis.

Before analysis can be conducted, data have to be loaded into Spectraview. It takes only SAS data sets. Click on the data button and select the data set from the SAS libraries:



Once a data set is chosen, variables in the data set will be displayed for selection. Click on the Read Data button after selecting the variables of interest.

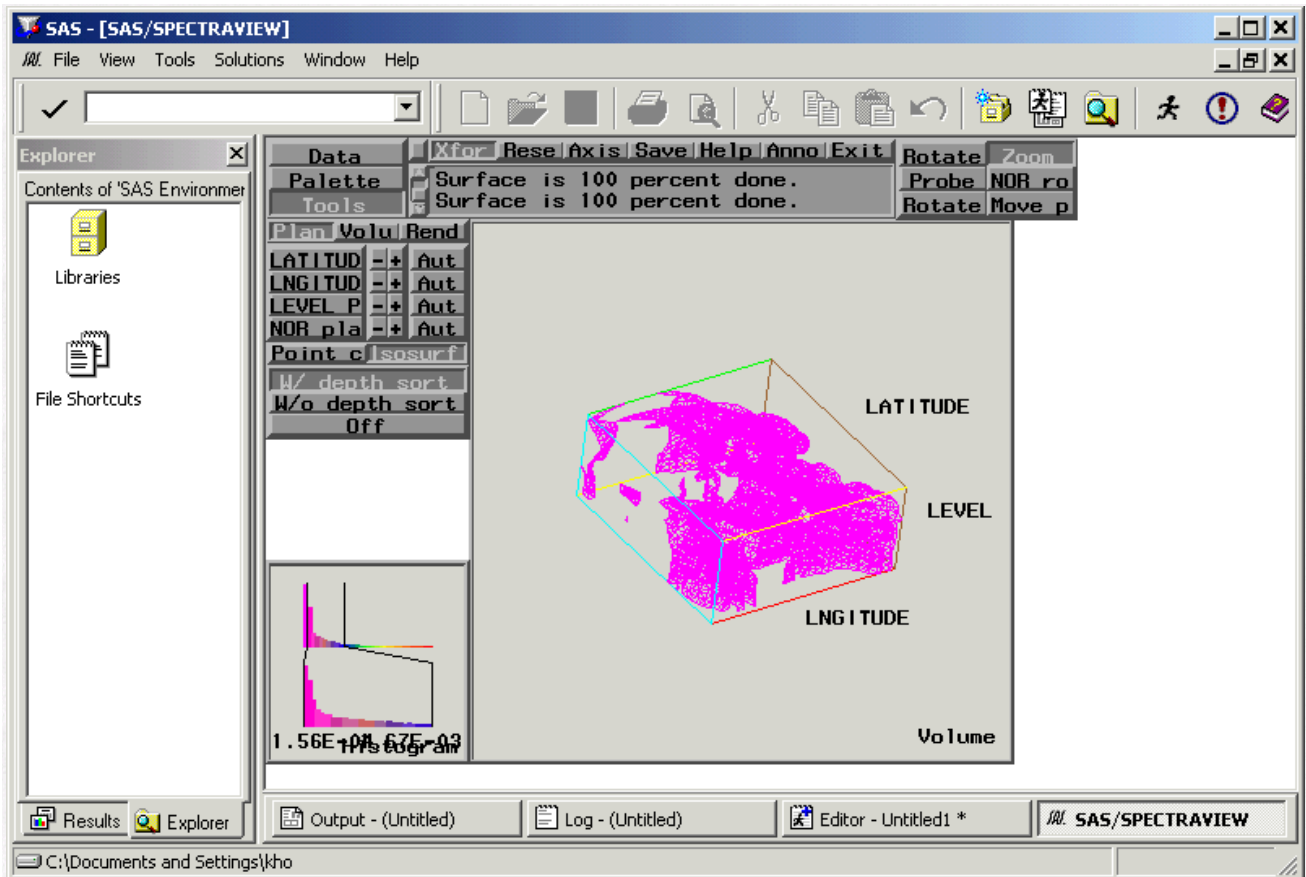


By default, Spectrview presents a four-window display, to accommodate simultaneously four variable interactions. The main response variable will be displayed at the upper right window. The rest of the windows present the relationship between any two independent variables.

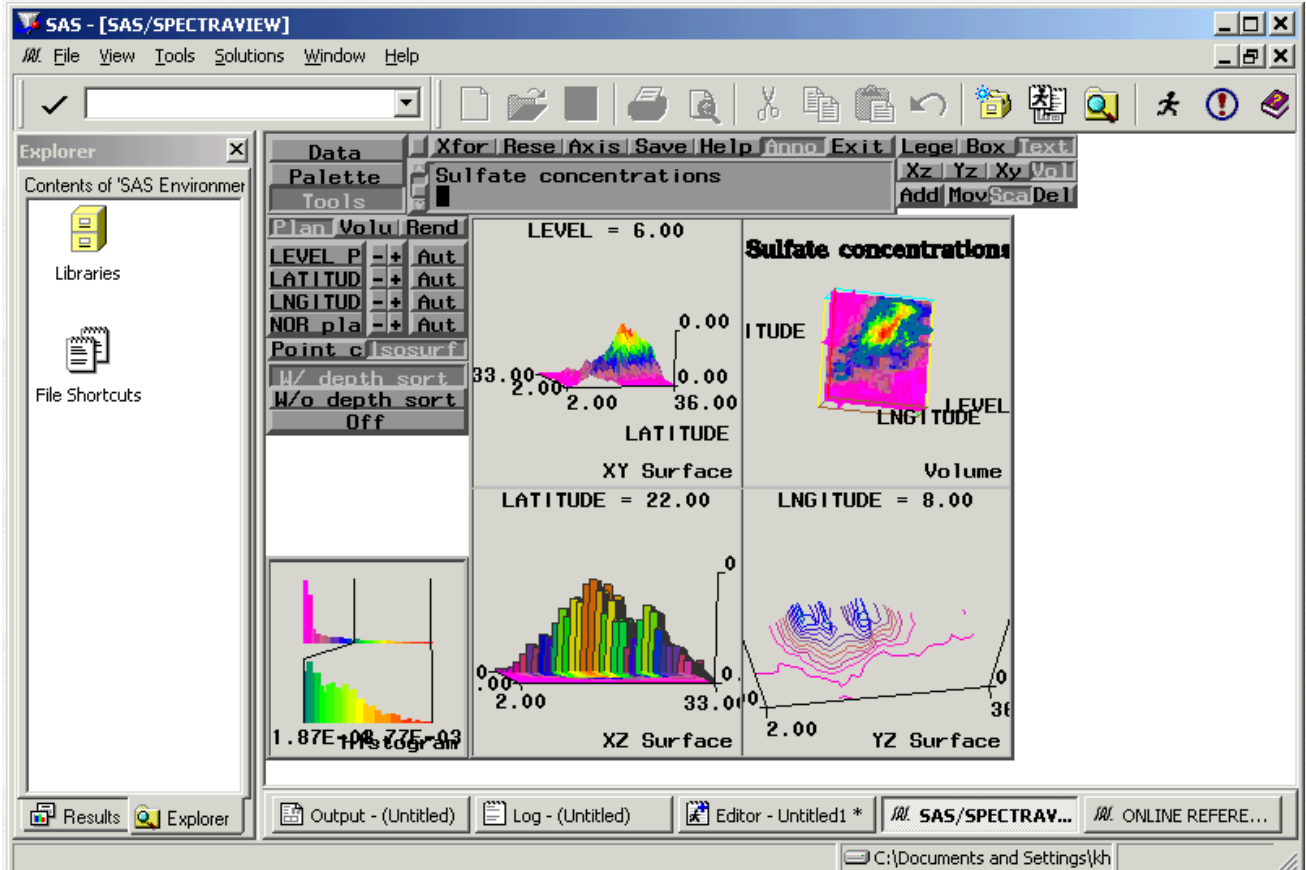
Spectrview provides a spectrum of visualization techniques including:

1. cutting planes - produces slices of spatial data
2. Direct volume rendering - creates a two-dimensional image of the entire volume of data points with transparency.
3. Isosurface - produces a three-dimensional surface by connecting all the data points with one response value; and
4. Point cloud - displays response values with colored markers, showing individual data points.

The following 3-D chart is created using the isosurface technique to plot the relationship between the three independent variables by identifying a range of values of the response variable (sulfate concentration):



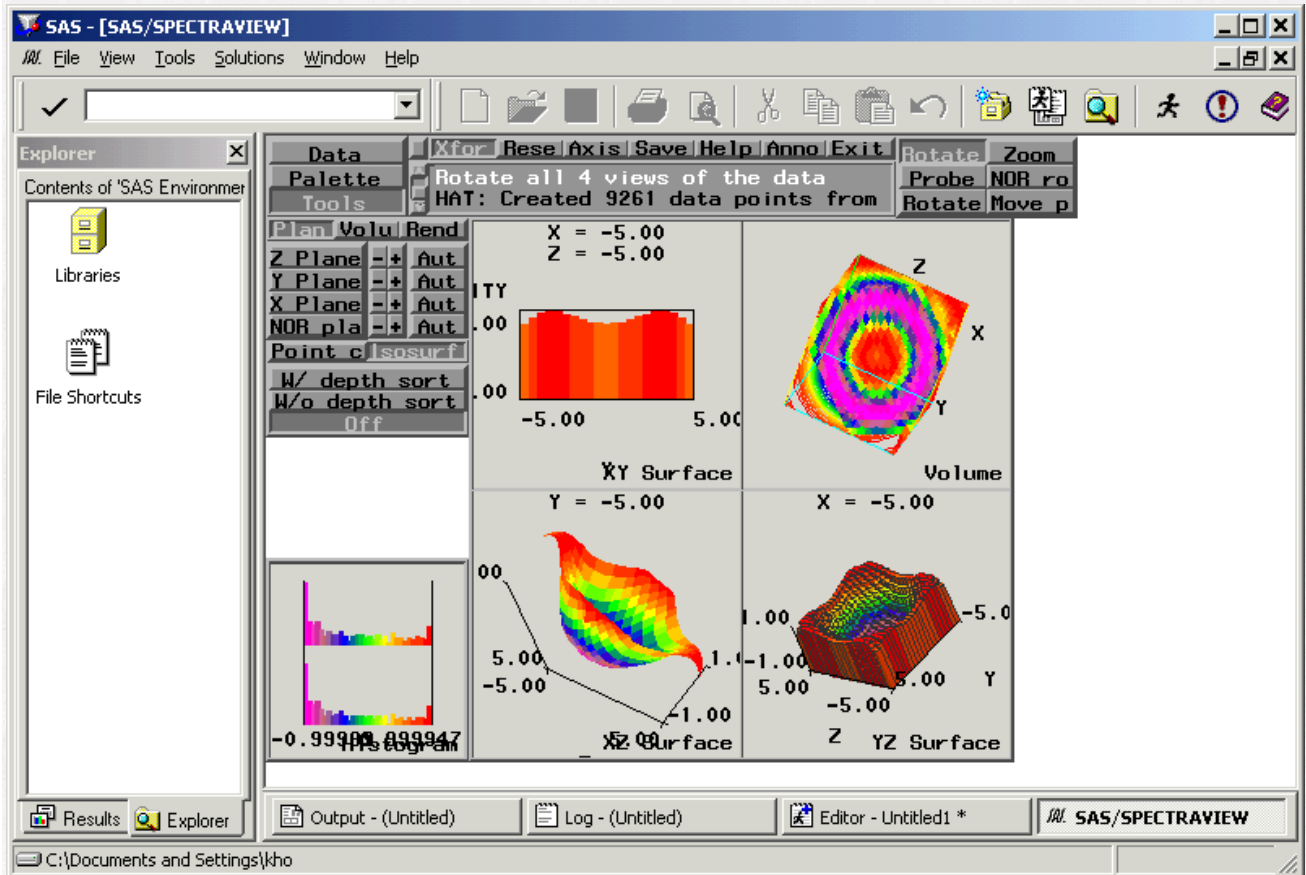
A full-fledged analysis can be conducted by plotting the relationship of all variables and their individual impact on the response variable.



The researcher can choose different levels of each of the independent variable to detect the highest and lowest level of

sulfate concentrations using the four-window interface.

Another advantage of this module is the availability of the preset data filtering options, that allows for smoothing or contrasting data. The following example illustrates another data exposition that animates the changes of data by changing one independent variable. Click on the chart to start the animation (or click [here](#) to download the AVI file):



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# Network Connection

By [Dr. Philip Baczewski](#), Associate Director of Academic Computing

## The need for speed

Those of us who have been lucky enough to work or participate in higher education over the last ten years have experienced the leading edge of wide area networking, in particular, access to the Internet before it became a common commodity in the commercial world. We've seen the network extended to offices, classrooms and dorms, and our network connection progress from a thick coaxial cable to a telephone-style connector attached to a thin cable. Network speed on campus has increased from a data transfer rate of around 56 Kilobits per second to 100 megabits per second. Connections to the outside world have increased from 9.6 kilobits per second to an aggregate 90 megabits per second.

Why this need for speed? The speed of a data connection determines how much data can be transferred in the specified amount of time (sometimes referred to as "bandwidth"). Even ten years ago, most information being transferred on a data network was in the form of encoded text, one byte or eight bits per character. These days, we are sending and receiving multiple digital images, sound clips, and even movies and video conferencing sessions. All of the latter types of content require much greater amounts of data to represent them in a digital format. Whereas a paragraph of text might be represented in 600 bytes of information, a small photograph might require 600,000 bytes. In other words, a picture really is worth a thousand words.

Higher education networks are among the best developed in any industry, and have grown to be an integral part of the educational experience. As networks have developed, their use has increased and become more comprehensive, to the point now that whole courses, or even degrees, can be completed via a network source of information and interaction. High-speed networking is not a curious luxury of the higher education experience, but a strategic component of it.

## Meanwhile, back at the ranch

Those of us who have access to the Internet at home have not experienced the same tremendous increase in operating speed that we've seen on campus. Many people are still using a dialup modem to access the Internet, and for a variety of reasons, that connection speed is frozen at a whopping 56 Kilobits per second. If you have a reasonably decent memory (just three paragraphs ago) you'll realize that 56 Kbps was our on-campus networking standard of 10-15 years ago. We are expecting picture content at word speed. There are several alternatives to dialup modem technology, but they cost quite a bit more and may not be available in your area.

### ISDN

The first tier up from a dialup modem is an ISDN (Integrated Services Digital Network) telephone line. In combination with an ISDN modem, such a line can carry data at upload and download speeds of up to 128 Kilobits per second. ISDN may or



may not be available from your local telephone company. It will cost as much as \$40 per month. ISDN is still a dialup connection. You will still need to have an Internet Service Provider which in many cases will carry an additional charge. In most large cities, there are a number of ISPs which can accept an ISDN dialup connection. So, for about \$50 a month or less you should be able to double your home Internet connection speed which can make quite a difference when you accessing those picture-laden web pages.

## **Cable modem**

Cable modem is another available technology which provides Internet access at a higher speed. This is done via the same wire which brings cable TV service to your living room. It requires a special modem to connect to the cable line (one of those thick black coaxial cables), and provides an Ethernet connection to your computer. This will require that you have Ethernet hardware installed in your computer. Cable modem speeds are up to about 1.5 Megabits per second on downloads, and 128 Kilobits per second for uploads. Your download speed is also influence by who else in your neighborhood is using the service. The more people on line, the more data is being carried on that 1.5 Megabit connection. You are also usually limited to using the cable company's Internet Service. Total cost can be as much as \$50 per month. The other catch is that if you don't have a cable company or your cable company cannot offer the service, you are out of luck.

## **DSL**

The third common option for a higher speed residential Internet connection is Digital Subscriber Line (DSL). DSL service can transfer data at up to 1.5 Megabits per second for downloads and 128 Kilobits per second for uploads. Of course there is a catch. DSL is only available if your telephone company offers it and if you are close enough to their telephone switching equipment. DSL may also require new telephone wiring in your house. It will utilize a DSL modem and provide an Ethernet connect which can be connected to your computer. You may have a choice of service providers with DSL, however, there may be an extra cost associated with using an ISP which is not the same as the company providing the DSL service. Still, you can have a fairly fast connection dedicated to your use for about \$50 per month.

## **Same song, different verse?**

You might notice some similarities in the services described above. For one thing, upload speeds are all limited to 128 Kilobits per second. This probably not because of any particular rule, however, it is more likely to save money for the company providing the connection. Cable modem companies in particular prohibit running servers from your home computer. If your web server became a hit, it could easily take up all of the bandwidth that a company is allowing for their residential connections. It is much easier for companies to anticipate download demand than upload demand. You can get faster upload speeds and the ability to run servers on your home connection, but you will pay considerably more for that "privilege."

To get any kind of reasonable Internet connection speed at home seems to cost about \$50 (give or take a little). In some cases, like ISDN and DSL, these costs are still government regulated. In Texas and elsewhere, however, there is starting to be competition allowed for local phone service. What seems to be missing is a lot of direct competition between various

connection technologies. In my case, DSL is not available, so I am left with Cable modem as the only choice for receiving a comparable download speed. I suspect that more direct competition would result in a lowering of prices for high-speed access.

The real problem, however, is that we lack up-to-date technology in residential areas. The phone and cable companies have been upgrading their distribution networks, but the line to your house is the same kind of copper wire that would have been easily recognized by Alexander Graham Bell himself. Add a little shielding from electromagnetic interference and you've got your basic cable TV wire. These 50-100 year old technologies have limits in our digital age. Houses are already being built that have fiber-optic cables run directly to them just like buildings on are college campuses are connected by a fiber-optic network. But, not all of us can move, just to get better networking. On the other hand, I can think of worse reasons to move.

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# List of the Month

*Each month we highlight an Internet, USENET Special Interest Group (SIG), or similar mailing list(s) or Website(s).*



Are you hooked on the [Sopranos](#)? If so, this site is for you. Point your browser to <http://www.wmob.com/> and you can listen to WMOB: the wiretap network. Hear about "Girl problems. Mafia beefs. High blood pressure. A difficult boss." You too can "listen to two real-life New York gangsters in these secret FBI wiretaps." What better way to wile away the rest of the summer? Be sure to start at the beginning of the series. Just click on [previous episodes](#) and you can hear "The Frank & Fritzy Show" from the beginning.

**Warning:** If the liberal use of explicatives offends you, DON'T visit this site.

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## The New UNT Website!

By [Claudia Lynch](#), *Benchmarks Online* Editor

By the time you read this the new UNT Website should be what you see when you visit <http://www.unt.edu> (if not, you can get there by clicking on the link "preview the new UNT web site" on the old homepage). This site represents untold hours of labor for many people, so make sure and check it out. Questions, comments, and corrections for this site can be sent to Kenn Moffitt, [moffitt@unt.edu](mailto:moffitt@unt.edu)

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# Short Courses

By [Claudia Lynch](#), *Benchmarks Online* Editor

ACS Short Courses are almost over for the summer. There are spaces left in all the Statistical Package/Research Courses. Please consult the [Short Courses](#) page to choose the classes that you would like to attend.

## Customized Short Courses

Faculty members can request customized short courses from ACS, geared to their class needs. Other groups can request special courses also. Contact ACS for more information (ISB 119, 565-4068, [lynch@unt.edu](mailto:lynch@unt.edu)).

## Especially for Faculty and Staff Members

In addition to the [ACS Short Courses](#), which are available to students, faculty and staff, staff and faculty members can take courses offered through the [Human Resources](#) Department, the [Center for Distributed Learning](#), and the UNT Libraries' [Multimedia Development Lab](#).

Andrew McGregor, Messaging Support Specialist ([amcgregor@unt.edu](mailto:amcgregor@unt.edu)) 940-369-7688 is currently offering monthly **Basic GroupWise** (BGW) and **Document Management** (DM) Classes. You can Sign up [on-line](#), or you can send an mail to [Lauren Sutherland](#) in Human Resources to sign up. Just remember to include your name and the class you would like to attend. All classes are from 10:00 to 12:00 in ESSC room 152. Following is the list of classes:

Class	Date
DM	Wednesday, July 25
BGW	Friday, August 17
DM	Tuesday, August 14

## Center for Distributed Learning

The Center for Distributed Learning offers courses especially for Faculty Members. A list of topics and further information can be found at [http://www.unt.edu/cdl/training\\_events/index.htm](http://www.unt.edu/cdl/training_events/index.htm) The center also offers a "Brown Bag" series which meets for lunch the first Thursday of each month at Noon in ISB 204. The purpose of this group is to bring faculty members together to share their experiences with distributed learning. One demonstration will be made at each meeting by a faculty member with experience in distributed learning. More information on these activities can be found at the [Center for Distributed Learning](#) Web site.

## UNT Libraries'

The UNT Libraries' Multimedia Development Lab has also offered free training to all University of North Texas faculty and staff in the basics of FrontPage and information architecture in the past. For more information see <http://www.library.unt.edu/media/services.htm#Distributed>.

## Technical Training

Technical Training for campus network managers is available, from time to time, through the [Campus-Wide Networks](#) division of the Computing Center. Check the CWN site to see if and when they are offering any training.

## UNT Mini-Courses

These are a variety of courses offered, for a fee, to UNT faculty, staff and students as well as the general public. For additional information surf over to [http://www.unt.edu/cccm/cont\\_ed/Minicourse/Courses/UNT\\_Minicourse\\_Page.htm](http://www.unt.edu/cccm/cont_ed/Minicourse/Courses/UNT_Minicourse_Page.htm).

## Alternate Forms of Training

The [Training](#) Web site has all sorts of information about alternate forms of training. Training tapes, Computer Based Training ([CBT](#)) and Web-based training are some of the alternatives offered. There are also handouts for computer training on the following topics:

- GroupWise 5.2 Handout for Win95/NT
- FAQ for GroupWise 5.2
- Computers - Back to the Basics
- Introduction to Windows 95 /98/NT
- Introduction to Word 97
- Advanced Word 97 - MailMerge It Together
- Introduction to PowerPoint 97 (Creating a Slide Show)
- Introduction to Remedy (THE Call-Tracking Program)
- 

[StudyWeb](#)

AND, the [award winning](#) Introduction to Excel 97

Adobe Acrobat Reader Format only for the following:

- Introduction to Microsoft Word 2000
- Introduction to Microsoft Excel 2000
- Creating a Slide Show with PowerPoint 2000
- Using Netscape Communicator & the UNT Home Page

Use the Internet to search for answers to Microsoft Office problems. See <http://www.zdnet.com/zdhelp/filters/office/> December 1999's "[List of the Month](#)" offers links to free Microsoft Word and Excel information also.



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# IRC News



Minutes provided by Sue Ellen Richey,  
Recording Secretary

**IRC Regular and Ex-officio Voting Members:** Judith Adkison, College of Education; Ginny Anderson, Fiscal Affairs; Donna Asher, Administrative Affairs; Craig Berry, School of Visual Arts; Sue Byron, Faculty Senate; Bobby Carter, UNT Health Science Center; Jim Curry, Academic Administration; VACANT, Student Association, Don Grose, Libraries; Jenny Jopling, Instruction Program Group; Joneel Harris, Administrative Program Group; Elizabeth Hinkle-Turner, Standards and Cooperation Program Group; Abraham John, Student Affairs; VACANT, Graduate Student Council; VACANT, University Planning Council; Ramu Muthiah, School of Community Services, GALMAC; Jon Nelson, College of Music; Robert Nimocks, Director, Information Technology, UNTHSC; Patrick Pluscht, Distributed Learning Team; Mark Rorvig, Research Program Group (Acting Chair); Paul Schlieve, Communications Program Group; Kathleen Swigger, College of Arts and Sciences; Philip Turner, School of Library and Information Science and University Planning Council (Chair, IRC);; Virginia Wheeless, Chancellor; John Windsor, College of Business. **IRC Ex-officio Nonvoting Members:** VACANT, Telecommunications; Bill Buntain, Computing Center Networking; Jim Curry, Microcomputer Maintenance Shop; Richard Harris, Computing Center; Coy Hoggard, Computing Center; Joel Lanpher, UNT Health Science Center; Maurice Leatherbury, Computing Center; Sue Ellen Richey, Computing Center (Recording Secretary). [As of 10/2000]

No new IRC minutes were available at publication time. To see past IRC minutes, consult our [back issues](#).

## IRC Meeting Schedule

The [IRC](#) generally meets on the third Tuesday of each month, from 2-4 p.m., in the Administration Building Board Room. From time to time there are planned exceptions to this schedule. All meetings of the IRC, its program groups, and other committees, are open to all faculty, staff, and students.



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# Staff Activities

## Transitions

The following are new employees:

- **Julie Cook**, Programmer Analyst on the Student Services team.
- **Gabrielle Jackson**, Campus Operator, Telecommunications (part-time).
- **Katricia Linthecum**, I/O Consultant (part-time).

The following people no longer work in the Computing Center:

- **Paul Koldjeski**, Programmer in Database & Central Programming Support.
- **Kenya Lockett**, Campus Operator, Telecommunications (part-time).

## Changes

- **Alana Baker** has moved from her position as a programmer on the Voice and Strategic Applications Team to a position as programmer/analyst for D-Base/Central Programming Support.

## Awards, Recognition, Performances

- **Dr. Elizabeth Hinkle-Turner**, Student Computing Services Manager, has received a 2001 ASCAP Composers' Fellowship grant.

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# Campus Computing News

By [Dr. Maurice Leatherbury](#), Senior Director of Academic Computing

## Jaws Screen Reading Software Available

A new service for persons with vision disabilities is now available on campus computers. That service is a software package called "JAWS." Quoting from the vendor of Jaws,

"JAWS (Job Access With Speech) provides speech technology that works with your Windows 95/98/Me or Windows NT/2000 operating system to provide access to today's popular software applications and the Internet. JAWS uses an integrated voice synthesizer and your computer's sound card to output the content of your computer screen to speakers. JAWS also outputs to refreshable Braille displays."

The software, purchased with funds made available by Dr. Kesterson, Provost and Vice President for Academic Affairs, may be installed on any computer on campus (however, we are not licensed to distribute it for home use.) If you or someone in your office needs the capability of having text on your screen read out loud by Jaws, contact your [network manager\\*](#) to get Jaws installed.

\***A reminder for Network Managers:** Some JAWS manuals have been placed in Willis library for checkout at the Reserve Desk. The Computing Center Helpdesk also has three manuals for their reference. Contact [Andrew McGregor](#) (x7688) if you would like a manual for your personal use or have other questions.

## RSS Wants *YOU!*

**Position:** Statistical Consultant

**Description:** The Computing Center is looking for a part-time Statistical Consultant in the Research and Statistical Support Office. The Statistical Consultant is responsible for providing consulting and software support services in the office. Duties include statistical consulting (supporting statistical packages including SPSS, SAS, S-Plus, LISREL and Eviews), supporting operating systems (including Windows, MacOS, CMS, OS/MVS and UNIX) and database management. S/he will also work on special projects as directed.

**Requirements:** Candidates must be able to speak excellent English and deal effectively with the public and have

experience in using two or more of the above-mentioned statistical packages and operating systems. S/he must have a Bachelor's degree and have completed upper level research method courses that involve statistical applications. Possession of a Master's Degree will be an advantage.



**Wage:** \$8.5 - 12 an hour, commensurate with working experience.

**Hours:** 15 hours per week.

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# Simeon Support to be Phased Out

By [Dr. Philip Baczewski](#), Associate Director of Academic Computing

Over the next year, starting September 1, 2001, support for the Simeon E-mail client will be gradually withdrawn. Those who wish to can continue to use Simeon as long as it will run on their computers, however, after September 1, Simeon will no longer be made available for download.

The company which produced Simeon has not continued to update the software. Its role as the primary student E-mail client has been replaced by the Web-based client available via [eaglemail.unt.edu](mailto:eaglemail.unt.edu). While it served its purpose well, it is time to move on to more contemporary and supportable e-mail software.

Questions or comments about Simeon can be directed to Dr. Philip Baczewski ([baczewski@unt.edu](mailto:baczewski@unt.edu)), Associate Director of Academic Computing.

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## The Force is just around the corner....really!

By [Dr. Elizabeth Hinkle-Turner](#), Student Computing Services Manager\*

The Smartforce Win2000 Webserver is currently in "testing production". All security checks have been positive so all remaining items can now be implemented for full production. All that must be done is the uploading of user accounts. A general announcement will be posted when this process is completed. Additionally, the August issue of *Benchmarks Online* will feature an article containing FAQs and other information needed to get started with Web-based training.

All UNT faculty, staff, and registered students will have access to Smartforce training materials. Users will log on to the server for Web-based training using their [EUID](#) and will use their ID card number as their password. The courses will be listed in a library clearly identifying their contents. Users will also want to take advantage of the features that will be available via our Smartforce Website including answers to many common questions and email contacts for comments and additional course requests.

Courses can also be transferred to CD-ROM for offline use. Please continue to contact Elizabeth Hinkle-Turner, Smartforce administrator, at [ehinkle@unt.edu](mailto:ehinkle@unt.edu) with CD-ROM requests. Turnaround time on CD requests is currently about two weeks, although the following topical training CDs are already compiled and can be duplicated more quickly if requested:

- Javascript and Java
- Office 2000
- UNIX
- Oracle
- Visual Interdev
- Visual Basic Scripting

We are also beginning our experimentation with making the courses available via [WebCT](#) - a feature which should be of great interest to faculty.

So, be on the lookout for a general announcement about Web-based training access very soon! The Force is getting closer and closer!

Missing "Lab-of-the Month"? Fans of the Lab-of-the-Month series can find an index with links to all the articles, so far, here:

<http://www.unt.edu/benchmarks/archives/GeneralAccessLabs/Glabs.htm>

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# Faculty/Staff NDS Directory Update

By [Travis Brown](#), Campus Wide Networks Computing Team

As was mentioned in a recent campus-wide E-mail message, the Campus Wide Networks Computing Team is currently working on updating some of the biographical account information stored in the campus NDS system. You may ask, "How does this affect me?" Well, the information stored in NDS is what powers our GroupWise E-mail system and provides E-mail addresses, phone numbers, and campus office information to the GroupWise address book. Since many of the office locations and telephone numbers for NDS users have changed since they were originally entered, this gives you a chance to update them. In addition to correcting expired information, this update is being used to place your Faculty/Staff EUID into NDS and other systems so that we can eventually synchronize information between GroupWise, NDS, LDAP and other campus directories and to allow each user to select his/her preferred E-mail address.

To obtain this information, every faculty and staff member of the university will receive an E-mail with a link to a form on a secured Webpage. This link is created only for your personal account, and the information you will enter will be secured using SSL encryption. The information required is:

- your full name
- your preferred E-mail address
- your office building and room number
- your office telephone number
- your University EUID (what is this?  
[http://www.unt.edu/benchmarks/archives/2000/march00/what\\_is\\_an\\_euid.htm](http://www.unt.edu/benchmarks/archives/2000/march00/what_is_an_euid.htm)  
)

Please take the time to update your information when you receive this E-mail. If you have any questions, there will be full instructions included in the E-mail and on the website along with a help contact if you need further assistance.

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## TODAY'S CARTOON



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**“Whenever something goes wrong,  
I just push this little button and restart.  
I wish my whole life was like that!”**

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