CITC Proposes That UNT Move to Windows Servers and Microsoft Exchange

Thanksgiving Break Hours

'One CBT to Rule Them All': SkillSoft Acquires Netg

No-Hassle CBT: Library Online Tech Book Resources

EDUCAUSE 2007

Don't forget our monthly Columns!

TODAY'S CARTOON

Return to top
By Maurice Leatherbury, Associate Vice President and Chief Technology Officer

At the October 2006 meeting of the Information Resource Council (IRC), I made a presentation proposing that UNT move off of the Novell file and print server platform to the Microsoft Windows server platform and that we move off of the Novell GroupWise e-mail system to Microsoft Exchange/Outlook. The IRC will vote on those proposals at its November 21st meeting. I gave several reasons for the proposed moves, and this article expands on that presentation.

Novell/GroupWise on Campus

UNT is one of Novell’s largest customers in Texas and perhaps in the country, with over 100 file and print servers utilizing Netware and with GroupWise serving over 6,500 users on the Denton campus and an additional 1,000+ at the Health Science Center. The Novell products have served UNT well and the technology is generally reliable and has competitive features with other products such as Windows servers, Microsoft Exchange (and its client Outlook) and with Lotus Notes (for e-mail.) However, Novell has been losing market share to its competitors in the file and print server/e-mail business. The extent of the decline in market share in higher education is revealed in the results of a Texas Department of Information Resources (DIR) survey conducted among the state-supported universities this year. That survey shows that UNT and some of the UT System component institutions are the only universities still using Novell:

<table>
<thead>
<tr>
<th>DATA CENTERS GREATER THAN 1,000 SQUARE FEET</th>
<th>TOTAL ($)</th>
<th>PERCENT OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mainframe</td>
<td>1,189,204</td>
<td>10.73%</td>
</tr>
<tr>
<td>Unix</td>
<td>4,508,134</td>
<td>40.68%</td>
</tr>
<tr>
<td>Wintel</td>
<td>3,757,541</td>
<td>33.91%</td>
</tr>
<tr>
<td>Novell</td>
<td>303,569</td>
<td>2.74%</td>
</tr>
<tr>
<td>VAX/Alpha</td>
<td>106,928</td>
<td>0.96%</td>
</tr>
<tr>
<td>Other</td>
<td>1,215,623</td>
<td>10.97%</td>
</tr>
<tr>
<td>Total</td>
<td>$11,080,999</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

* Source: Higher Education Data Centers: Inventory and Data Analysis. Austin, Texas Department of Information Resources, 2006.

That same report also made the following recommendation:
Of the total server count, 94% of the systems are running on Unix or Wintel. This shows that the university environment appreciates the need to standardize the operating system environment. It is also important to note that only 12 mainframes are still in use. Universities should continue to standardize on two environments and, if applicable, develop plans to reduce the VMS, Novell, and mainframe environments in the future.

The consequences of Novell’s low market share are evident in the paucity of mainstream third-party software and hardware products that interoperate with Novell. Over the past year or so, the CITC has encountered the following problems with finding products needed to support UNT’s large IT infrastructure using Novell products:

- **Backup software.** We had to abandon one enterprise backup system software package because it no longer worked with Novell’s file and print servers. The replacement product did work (finally) but not without much difficulty in setting it up.

- **Network monitoring tools.** Several tools that tell us whether servers are operating properly (among other reports) that we’ve looked at don’t work with Novell. When we inquire about Novell interoperability, the vendors say that because of the low market share, they won’t be developing a Novell interface.

- **Storage Area Networks.** Enterprise-class SAN’s, of which UNT has three, increasingly won’t work with Novell. SAN’s are needed to support the 20+ TB of data in UNT’s various central systems (EIS, WebCT, etc.) as well as a number of the file and print servers that the CITC runs.

- **Imaging/content management software.** UNT is in the process of writing specifications for a centralized imaging system and, for the future, a content management system. Those systems by-and-large don’t support Novell.

In fact, the frustrations we’ve faced with finding products that work with Novell were and continue to be the primary reason that we started investigating alternatives to Novell’s products.

**Cost**

UNT pays over $200,000 to Novell annually for the suite of products that the company provides to us (Netware, GroupWise, Zen, eDir, etc.) Since the Novell license is per head count, our growing student and staff population means that our costs rise every year (on the order of $10,000+ increase per year.) Comparable products from Microsoft can be purchased for less than $35,000, with no annual payments (updates to the products would have to be purchased periodically, at about the same $35,000, but those updates are only made about every four or five years now.) Both Novell and Microsoft have similar hardware requirements, so there is no significant difference in hardware costs by moving to Microsoft.

There will be costs associated with making the migration to Microsoft’s products, primarily in implementation assistance from outside vendors, the effort needed to convert desktop software and files on the part of UNT’s network managers, and the costs associated with lost productivity of UNT’s employees as they learn the new software (primarily Microsoft’s Outlook.) Based on preliminary estimates we’ve gotten from several vendors, we’re estimating that the CITC’s out-of-pocket costs for making the transition will be approximately $350,000 to $400,000, meaning that the breakeven point on the Microsoft investment (i.e., the cost of the transition vs. the annual Novell costs) will be less than two years. The CITC will fund the colleges’ and departments’ Windows licenses to replace their Novell server software.

In addition, the CITC has asked for additional funding from the administration for the purchase of blade servers that we’d make available to the departments migrating to Microsoft file and print servers at an annual “subscription” cost. Our goal is to provide the hardware and services needed to operate Microsoft servers at a lower cost than the departments can operate those servers. The
services would include replicated servers (on the main campus and at the Research Park) for continuous operation if power fails or a server breaks, etc., backup of files on the server, and enterprise-level operation of the servers (redundant air conditioning, large uninterrupted power supply, backup generator, etc.) Departments would still be responsible for monitoring their servers and, more importantly, for continuing to provide the end-user support that they do now. If that funding is provided, we’ll develop a price list and a service level agreement for operation of the servers.

**Timeline for Moving to Microsoft**

One of the motivations that the CITC had for proposing the switch to Microsoft at this time is the mandate to cut our costs by 3% for fiscal year 2008 (the same as all other UNT departments.) Therefore, we need to drop (or at least reduce) our Novell license at the end of this fiscal year, August 2007. We want to start the transition to Exchange/Outlook in summer 2007, followed by the transition to Windows file and print servers in the fall of that year. We’re still developing project plans for those migrations, however, and those dates may shift.

We may have some flexibility in the need to cease our Novell licenses at the end of this fiscal year since a portion of our Novell payments have been going into a “perpetual license” buyout fund from which we can purchase licenses for the Novell products we want to keep for a while. We’ve asked Novell for an accounting of the amount of money in that fund and how we can use it, but we think that we have built up a big enough balance to purchase all of the products that we will need.

**Summary**

Many of us working at UNT remember the turmoil and anger among a significant portion of the campus community when the decision was made to adopt GroupWise as the faculty and staff e-mail system about 12 years ago. We certainly hope that similar emotions aren’t stirred up by the proposal to abandon that product at this time. Although we know that the switch to another e-mail system will be painful over the short term, we do believe that it’s in the best interests of the University over the long term. We welcome feedback on the proposal: please contact your representative to the IRC if you’d like to get your voice heard.
Thanksgiving Break Hours

By Claudia Lynch, Benchmarks Online Editor

The University is officially closed for Thanksgiving, November 23 & 24. Following are the hours for Computing and Information Technology Center-managed facilities during the break.

- The Helpdesk plans to be open as follows:
  
  Wednesday, November 22: Close at 8 p.m.
  Thursday, November 23 (Thanksgiving): Closed
  Friday, November 24: Phone/E-mail coverage 8 a.m.-5 p.m.
  Saturday, November 25: Resume normal hours.

- The ACS General Access/Adaptive Lab (ISB 110):
  
  Wednesday, November 22: 8 a.m. - 7:30 p.m.
  Thursday, November 23 (Thanksgiving): Closed
  Friday, November 24:  9 a.m. - 5 p.m.
  Saturday November 25: Resume normal hours.

Hours for Other Campus Facilities*

General Access Labs

- WILLIS:
  
  Wednesday, November 22: Close at 7:50 p.m.
  Thursday, November 23 (Thanksgiving): Closed
  Friday, November 24:  8 a.m. - 5:50 p.m.
  Saturday November 25: Open at 9 a.m. & return to 24hr schedule.

- SLIS:
  
  Wednesday, November 22: 10 a.m. - 6 p.m.
  Thursday, November 23 - Saturday, November 26: Closed
  Sunday, November 27: Resume normal hours (Noon -Midnight)

- MUSIC:
  
  Wednesday, November 22: 7:30 a.m. - 5 p.m.
  Thursday, November 23 - Sunday, November 27: Closed

- PACS Computing Center (formerly SCS & SMHM):
Thanksgiving Break Hours

Wednesday, November 22: 8 a.m. - 7:30 p.m.
Thursday, November 23 (Thanksgiving): Closed
Friday, November 24: 9 a.m. - 5 p.m.
Saturday November 25: Resume normal hours

- **SOVA:**
  - Thursday, November 23 - Friday, November 24: Closed
  - Saturday November 25: Resume normal hours

- **COE:**
  - Wednesday, November 22: Close at 5 p.m.
  - Thursday, November 23 - Sunday, November 27: Closed

- **COBA:**
  - Wednesday, November 22, 2006: Close at 8 p.m.
  - Thursday, November 23, 2006 - Friday, November 24, 2006: Closed
  - Saturday November 25: Resume normal hours

- **CAS:**
  - **GAB 550**
    - Wednesday, November 22: Close at 5 p.m.
    - Thursday, November 23 - Saturday, November 26: Closed
    - Sunday, November 27: Resume normal hours
  - **Terrill 220**
    - Wednesday, November 22: Close at 5 p.m.
    - Thursday, November 23 - Saturday, November 26: Closed
    - Sunday, November 27: Resume normal hours
  - **Wooten 120**
    - Wednesday, November 22: Close at 5 p.m.
    - Thursday, November 23 - Saturday, November 26: Closed
    - Sunday, November 27: Resume normal hours

- **UNT Dallas Campus - 155A**
  - Wednesday, November 22: 8 a.m. - 10 p.m.
  - Thursday, November 23, 2006 - Friday, November 24, 2006: Closed
  - Saturday November 25: 9 a.m. - 5 p.m.
  - Sunday, November 27: Closed

- **Engineering General Access Lab (englab@unt.edu, Research Park, B129, 891-6733)**
  - Wednesday, November 22: Close at 5 p.m.
  - Thursday, November 23 - Saturday, November 26: Closed
  - Sunday, November 27: Resume normal hours

*Hours for additional areas and services are discussed in this recent InHouse*
article, "Make preparations for Thanksgiving holiday closing."

Please note that information published in *Benchmarks Online* is likely to degrade over time, especially links to various Websites. To make sure you have the most current information on a specific topic, it may be best to search the UNT Website - [http://www.unt.edu](http://www.unt.edu). You can also search *Benchmarks Online* - [http://www.unt.edu/benchmarks/archives/back.htm](http://www.unt.edu/benchmarks/archives/back.htm) as well as consult the UNT Helpdesk - [http://www.unt.edu/helpdesk/](http://www.unt.edu/helpdesk/) Questions and comments should be directed to benchmarks@unt.edu

Return to top
'One CBT to Rule Them All': SkillSoft Acquires Thomson NETg

By Dr. Elizabeth Hinkle-Turner, Student Computing Services Manager

As regular readers know, UNT offers computer-based training from two major CBT companies: SkillSoft and Thomson NETg. In October 2006, SkillSoft announced that it has agreed to purchase all of Thomson Publishing's NETg holdings. SkillSoft explains in their press release about the acquisition:

"The acquisition will add to SkillSoft's existing offerings in e-learning content, Referenceware(TM) and learning platform technology, through the addition of NETg's complementary offerings in live virtual ILT, blended learning, content authoring/LCMS technology, learning content and custom development services. The acquisition supports the company's overall strategy to continually increase the quality and flexibility of learning solutions available to corporate, government, education, and small-to-medium size business customers from SkillSoft."

In other words, SkillSoft customers (that would be us) will have many more titles available to them.

What does this mean for UNT? Well, many good things. Our 'currently-in-legal-awaiting-approval' new contract with SkillSoft gives us access to its entire courseware holdings which have now expanded to literally thousands of titles. Once these offerings are added to our site by SkillSoft, UNT community members will be able to take online courses in topics ranging from 'how to deal with one's anger against one's boneheaded co-worker' to 'how to weave a basket while unstopping one's toilet' to 'how to change fonts in Microsoft Excel XP'. I fully expect that the answers to every question in the entire universe will be found in the future simply by going to the UNT SkillPort website and typing in the correct search term.... well, okay...maybe I am just a little too enthusiastic at the moment but UNT users WILL have a whole lotta of elearning at their fingertips!

As with all acquisitions of this sort, it is hard to gauge exactly when the additional content will become available. SkillSoft expects to close the deal during the first half of fiscal year 2007. I will keep you posted on all updates as they become available to me. In the meantime, UNT users should continue to go to the usual UNT SkillPort and KnowledgeNet websites for our currently-subscribed CBT content.
No-Hassle CBT: Library Online Tech Book Resources

By Dr. Elizabeth Hinkle-Turner, Student Computing Services Manager

Last month I noted that prospective computer-based training users at UNT needed to contact me for an online account. Well, if you are someone who would prefer to not deal with the hassle of emailing me, installing plug-ins etc. for your browser in order to get computer-based training to work or are just generally a person who likes to read straightforward instructions without the animated bells and whistles, the online technical books available from the UNT Library are probably the best 'CBT' resource for you.

The UNT Library has a wide range of electronic resources available in just about every subject area. So, whether you want to read the latest English Literature journals from the comfort of your laptop in your office or check out the masters thesis of your best friend who graduated in May, you can find links to those sources from the library home page. Since this is Benchmarks Online from the Computing and Information Technology Center, I will be concentrating only on technical titles and encourage everyone to check out this resource either in conjunction with your work in the SkillSoft or KnowledgeNet computer-based instruction programs or as an easy way to get to the tech manual you need to get your work done effectively.

In order to get to the library electronic resources, click on the Electronic Resource link from the UNT Library Home Page:

There are several places you can browse for technical titles and these places are indicated by the arrows on the picture below. You can look at all the E-books by clicking the E-books link in the upper right-hand corner of the page, you can browse the Physical Sciences, Computers, and Engineering texts only by selecting that option from the pull down menu or you can just go straight to the best source for computer books by selecting the alphabetical link. The primary source for computer books is Safari Tech Books Online and this is where I always go. The library description of the Safari offerings explains why:

Safari Tech Books online is a catalog of technical books available in electronic format. A number of titles are available in full text covering aspects of Information Technology and Computer Science. Titles can be saved or printed, though only a section at a time. Detailed search information can be found in the help section on the site. Access is limited to four users at a time, so please try again later if access is denied. Because UNT does not have full-text access to all titles, you will need to check the "My Books" button to assure full text access. UNT currently subscribes to about 600
Click on the Safari link to get to this resource.

You can get to the Safari Tech Books resource in several ways

Type your search term on the Safari site or you can browse the different publishers listed on the right if you have a preference for a particular companies' books:
Searching for a tech topic in Safari

You will get a listing of the books available online from Safari on your topic. Note that some indicate 'Add' and some indicate 'On Bookshelf'. The ones that say 'On Bookshelf' are already available for immediate reading. If the title you want says 'Add', you will need to contact Librarian Randy Wallace to get the book placed into the UNT Safari area. The approximate turnaround time for getting a book added is usually just a matter of minutes from the time he receives the notification during normal business hours according to Randy.
Once you select your title by clicking on its link, you can immediately start to read it!

Personally, I use these books all the time for my work and it is certainly less expensive than going to the local bookstore to get them and less time-consuming than physically searching through the Science and Technology Library to find them. And, you don't have to worry about library fines for overdue books! For more information about Safari Tech Books online or online books on any other topics, you can contact any of the UNT librarians at the reference desk.

Please note that information published in Benchmarks Online is likely to degrade over time, especially links to various Websites. To make sure you have the most current information on a specific topic, it may be best to search the UNT Website - http://www.unt.edu. You can also search Benchmarks Online - http://www.unt.edu/benchmarks/archives/back.htm as well as consult the UNT Helpdesk - http://www.unt.edu/helpdesk.

Questions and comments should be directed to benchmarks@unt.edu.
EDUCAUSE 2007

The EDUCAUSE annual conference will be in Seattle, Washington next year. Presentation proposals are now being accepted. The theme next year is "Information Futures: Aligning Our Missions." You can submit a proposal online now for an EDUCAUSE 2007 pre-conference seminar or conference session by completing the submission form:

- EDUCAUSE 2007 Home Page
- Call For Proposals
- Call For Seminar Proposals

Please note that information published in Benchmarks Online is likely to degrade over time, especially links to various Websites. To make sure you have the most current information on a specific topic, it may be best to search the UNT Website - http://www.unt.edu. You can also search Benchmarks Online - http://www.unt.edu/benchmarks/archives/back.htm as well as consult the UNT Helpdesk - http://www.unt.edu/helpdesk/. Questions and comments should be directed to benchmarks@unt.edu
"My computer freezes up 3 times a day! That’s why I don’t believe in global warming."

From "Today's Cartoon by Randy Glasbergen", posted with special permission. For many more cartoons, please visit www.glasbergen.com.
Peace Breaks Out in Redmond

A small portion of the world was bemused on November 2, 2006, when Microsoft Corp. and Novell Inc. announced an agreement which would allow Microsoft to resell the SUSE distribution of Linux that Novell supports and distributes. Previously, Linux and other open source software programs were mostly ignored or derided by Microsoft, so its apparent sudden embrace of Novell's open source offerings is a bit surprising. Novell had previously depicted Microsoft as an uncontrollable monopoly. Now we have executives from Microsoft and Novell on the same stage shaking hands without Jimmy Carter ever being involved.

One has to wonder what motivated this latest peace agreement in the software world. As it turns out, the agreement is mostly about not suing--either one another, or each other's customers (the rest of the world is on its own). This follows several years of legal wrangling by SCO against most of the Linux world, primarily targeting IBM and Novell with, if not outright, at least tacit support by Microsoft. So, it's understandable if a number of us are left scratching our heads after this announcement.

It's hard to find anyone outside of Redmond or Waltham who is excited or even pleased by this deal. Open source advocate Bruce Perens sees the deal as yet another impediment to the innovation that has been fostered by the open source development community. Others see the possible establishment of a two-tier Linux market, with the Microsoft "approved" users at one level and the rest of the Linux world open to whatever lawsuits seem appropriate to Microsoft. The group that develops Samba, software which allows Linux computers to connect to Microsoft servers, has stated that the deal is "divisive" and that Novell is "exchanging the long term interests of the entire Free Software community for a short term advantage for Novell." It appears that peace on one front doesn't mean peace on all fronts.

So why would Novell take this action; why would Microsoft make this deal?

For Novell, there's the matter of the reported $348 million that they are getting up front in this deal. Novell doesn't exactly have a sales person on every block so it's not a stretch to believe that its revenues are declining.

For Microsoft, that answer is more complex. Microsoft has established a pattern of suddenly embracing a concept after years of denial. This pattern is seen in its shattering of the 640K barrier after many years, its sudden discovery of the Internet after Netscape became a software phenomenon, and more recently, it awakening to the importance of security. Suddenly, Linux can't be ignored any longer. It seems that Microsoft may finally be conscious that open source software is real competition, with moves like apparently inviting
the Firefox team into the Vista testing lab.

Microsoft now has to accept the GPL if it wants to do development within the Linux world, which is a significant change. But, this runs counter to its tendency to patent whatever they can get away with. And there's also the fact that Microsoft is founded on the idea that software should not be free. Bill Gates made this very clear back in the days of the Carter administration, when he stated, "Who can afford to do professional work for nothing?"

One thing to keep in mind is that Novell doesn't own Linux and can't sell Linux to Microsoft. They can only make agreements in regard to their own distribution package of the Linux operating system. If Linux (AKA the Linux Kernel and the many GNU and other open source contributions) remains community supported software, then it is inconsequential that corporations like Microsoft, Novell, Oracle, or even Redhat try to make money from it. They just become (even if only temporarily) part of, or interlopers in, the community.

I don't see Microsoft adopting SUSE for its kernel OS as Novell has for the "new Netware" (OES). But it's interesting to think of the possibilities. It's possible that Steve Ballmer has finally embraced software communism. If this is the case, then I'd suggest that the Microsoft/SUSE Linux be called "Redflag Linux." After all, it already comes in a red box. But that name is already taken, so we'll just have to be content with the red flags that have already been raised.
The UNT Events Calendar is a good resource to be aware of this time of year. Lots of things are going on and a quick check of the UNT Events Calendar can keep you up-to-date and in-the-know.

For example, taking a look at the current November calendar reveals that there are weekly Tuesday Night Student Jazz Combos and Wednesday Night Jazz Lab Band sessions. Looking toward the end of the month (links for further information are provided for each event at the calendar site) reveals:

<table>
<thead>
<tr>
<th>Date</th>
<th>Events</th>
</tr>
</thead>
</table>
| 27   | • NT Toastmasters  
      | • National Novel Writing Month (NaNoWriMo) Weekly Write-ins |
| 28   | • Eagle Idol III Auditions  
      | • Vipassana Meditation  
      | • Tuesday Night Student Jazz Combos  
      | • Eagles For Life Weekly Meeting  
      | • Film: Their Brothers' Keepers: Orphaned by AIDS  
      | • Women's Basketball vs. Prairie View A&M |
| 29   | • Union Tree Lighting Ceremony  
      | • Celtic Christmas  
      | • Film: Their Brothers' Keepers: Orphaned by AIDS  
      | • Disney College Program Presentation  
      | • Speechmasters Club |
| 30   | • Film: Their Brothers' Keepers: Orphaned by AIDS |

Check it out: [http://web3.unt.edu/calendar/newindex.cfm](http://web3.unt.edu/calendar/newindex.cfm)
Helpdesk FYI

By Jonathan "Mac" Edwards, Assistant Manager of the CITC Helpdesk

Welcome to the new monthly feature from the CITC Helpdesk. Each month they will tackle a topic that has been of particular interest to callers/visitors to the Helpdesk. -- Ed.

Your Eaglemail Quota

All Eaglemail users are granted 50 MB of storage. Once you have reached this quota you will no longer be able to accept mail. This, of course, can be a great inconvenience when you are waiting on an important email. Luckily its easy to check your quota to help you stay under it.

To check your quota all you need to do is go to http://ams.unt.edu. Log-in using your EUID, and click on the E-Mail link located on the left hand side of the page. This will take you to a new screen detailing your Email Preferences. Your quota will be listed under “Usage of your Eaglemail space;” Mine shows 33.56 MB/ 50.00 MB, so it looks like I might want to clear out some messages to be sure that there is plenty of room in my inbox.

When you log-in to Eaglemail you should see the Delete option near the upper left corner. Select the email you want to delete, and select “Delete.” Those messages are still there though. Now click Purge Deleted and the deleted email messages will be gone.

Be sure to check all your folders, especially your Sent Mail folder, for large emails that may be adding to your quota. Finally, keep in mind that messages in your Official Mail folder do not count towards your Quota and cannot be deleted.

For more information about managing your Eaglemail account, go to www.unt.edu/helpdesk/Eaglemail.

Please note that information published in Benchmarks Online is likely to degrade over time, especially links to various Websites. To make sure you have the most current information on a specific topic, it may be best to search the UNT Website - http://www.unt.edu. You can also search Benchmarks Online - http://www.unt.edu/benchmarks/archives/back.htm as well as consult the UNT Helpdesk - http://www.unt.edu/helpdesk/ . Questions and comments should be directed to benchmarks@unt.edu.
October 17, 2006

Distributed Computing Support Management Team**

Philip Baczewski reported for the Distributed Computing Support Management Team that they had met on October 6. Yancey Yeargan reported on planned security changes for the ID Management LDAP servers. In order to increase the protection level for those servers and the data they contain, they will be moved behind a firewall and only authorized systems and individuals will have access to those servers in order to query data. Related to this discussion, Charlotte Russell stated that UNT's general council’s office had issued a ruling that EUIDs are protected information and are subject to additional protections from public release. DCSMT passed a motion to express to the IRC the negative impact that this ruling may have on UNT's ability to conduct its mission. EUIDs are currently used as student e-mail addresses, and access IDs, but are not useful for obtaining information without an accompanying password. DCSMT would like the IRC to seek clarification on this ruling to determine if an alternate or compromise position is possible.

The Chair asked for a copy of the official ruling by the general council’s office and asked Philip Baczewski to bring as much information as possible to the next IRC meeting.

Minutes Approved

Jon Nelson moved that the minutes of the September 19, 2006, meeting be approved as distributed; Elizabeth Hinkle-Turner seconded the motion and the minutes were approved.

Learning Enhancement Planning Group

Patrick Pluscht reported for the Learning Enhancement Planning Group that the contract for the purchase of Live Classroom is still in Legal. He said he plans to bring this up to the
Attorneys when they visit the IRC in November. The Chair asked that any IRC member who has had an issue with the Legal office bring specific questions to the next IRC meeting so that they can be addressed by the Attorneys. Patrick continued that when Live Classroom is finally purchased it will be used with WebCT and as soon as the product is available they will send out an announcement and will plan for training classes to be provided. They have begun to identify their preliminary LMS (Learning Management System) selection criteria to see what their next migration path is … whether it’s the next version of WebCT, whether it’s a fused product by BlackBoard or another of several primary options which include Desire to Learn, Angel and Sakai. They anticipate that once they look at some of the constraints they are facing, regarding the hardware we already have in place, and the expertise we have to support it (which are primarily Unix-based, with at least two of those programs being windows-based programs), they will have to consider a great deal of input from various constituencies. This process may take 12 months, he acknowledged that they have to decide where they need to be in the next 18 months, which may be the time they will be forced to migrate. Patrick stated that he didn’t have figures for distance learning enrollments but expects them next week.

EIS Planning Group

John Hooper reported for the EIS Planning Group and explained that the outage on Friday morning was related to a Brocade switch and then the Saturday morning power outage caused more problems. All of the staff worked long hours over the weekend to get everything back up, and there is more work planned for tonight. There are still issues to be resolved concerning the Brocade switches on campus. John reported that they are close to awarding a contract to a vendor to install the CRM product to use for graduate admissions and prospecting. They are also working on an RFP for the implementation of new budget software they purchased. They are also working on trying to figure out what a hardware refreshment cycle should be, and hope to be able to consolidate some of their equipment needs with newer equipment and technology. Uwe Rossbach asked how much the refreshment of the equipment will cost. John stated that he wasn’t sure of the cost at this time. Maurice interjected that the initial cost of the EIS equipment was around $4 million and they don’t anticipate the refreshment would cost that much.

Darwin/Oracle issue

Regarding the Darwin/Oracle issue, John Hooper distributed a handout showing an outline of the system components and connections and who they are managed by. He explained that David Meek is the DARS Coordinator. The current issue arose after a crash of a server in CITC that contained pointers to the Oracle database that supports DARwin. The crash was not recoverable so it was moved to a new server and instructions were given on changes that needed to be made on the DARwin clients to use the new address during business hours. John explained that this was an unusual event, and information about it was communicated by CITC to NETMAN and by David Meek to his contacts. Diligent efforts were made to get things back up as quickly as they could. In discussion that followed, Uwe Rossbach asked that it be communicated to users just who they should contact if there is a problem, in the future. John stated that David Meek in the Registrar’s office is the lead in this area and would be the one to call. John also commented that they hope to see some improvement to the entire system when the new version of DARwin becomes available.

There was further discussion regarding the timing of planned changes to the DARS system and it was pointed out that there is a DARS advisory group that meets with David Meek.

Novell Netware and GroupWise move proposed
Maurice Leatherbury announced that CITC is considering moving the campus off of Novell Netware and GroupWise. There has been a sub-committee in DCSMT studying the technical issues involved in a Novell to Microsoft Windows migration. Maurice made a power-point presentation which outlined the reasons for considering this change. Maurice explained that he is pushing for a decision on this because he, like all other UNT departments, has been asked to make a 3% cut in the CITC budget. One point made was that the State Department of Information Resources is encouraging state universities to have interoperable systems and therefore recommends the use of a standardized network operating system and DIR specifically said that universities should consider moving off of Novell. In addition, Maurice explained that it is difficult to find third party software that will work with Novell and CITC has run into this problem repeatedly as they have sought to acquire new backup software, network monitoring tools and Email archiving and retention tools. He pointed out that the Novell Netware product costs UNT/HSC around $220,000 per year and that comparable licensing of Microsoft Exchange would cost less than $30,000 for the first year only. He stated that the number of Exchange servers that would be needed would be about the same or less than the number of GroupWise servers being used now. He explained that since using Novell for many years, UNT has accumulated funds in an escrow account with Novell which will allow a buy-out of the Novell products that UNT will need to continue using. CITC will operate the Exchange servers and will fund replacement licenses of Windows server software. CITC will offer host servers for servers migrating from Novell to Windows, including back-up, at a fee of about $1500 per year per server. Plans would be to migrate to Exchange next summer and to Windows servers next fall.

Maurice stated that Active Directory is key to all of this migration and CITC is working on it at the present time. Bids have been requested from implementation services companies to help with this migration. Cengiz Capan asked if the decision had already been made and commented that if it had, then he believed there should have been more communication about this before a decision was made. Robert Nimmocks remarked that the bottom line is “money,” with a move like this being a result of the DIR’s directive for universities to cut costs. In further discussion, Maurice explained that the problems with using other software with Novell has become a big factor in deciding to move off of the Novell Netware platform. Some other comments about the proposed change were concerns about the loss of skill sets that have been developed over past years of using Novell. Other concerns expressed concerned the interface of Active Directory with the new system, the need for coordinated timing and training. The Chair urged members to send their questions and comments to Maurice Leatherbury and asked him to post his answers to everyone.

There being no further business the meeting was adjourned.

* For a list of IRC Regular and Ex-officio Members click [here](#).

**DCSMT Minutes can be found [here](#).**

**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. The schedule can be found [here](#). All meetings of the IRC, its program
groups, and other committees, are open to all faculty, staff, and students.
Using Statistical Software in Classroom

Instruction: S-Plus/R, An Accessible, Low Cost Alternative

By Dr. Rich Herrington, Research and Statistical Support Services Manager

The choice of which statistical package to use in an introductory statistics or advanced statistics course can be determined by a number of considerations:

1. Which statistics package is the instructor most comfortable with?
2. Popularity of the statistics package
3. Goals of the intended student user - will the student be doing more involved research and development, or will they be engaging in intermittent cursory usage?
4. Ease of use - are there drop down menus? How easy is the syntax/language to learn?
5. Flexibility
6. Cost for the student
7. Will the student be using modern, advanced statistical technologies, or will they be relying mostly on well known classical methods?
8. How important is high quality, publication ready graphics (both exploratory and classical)?
9. Availability of the software during course work, and after the student leaves the academic institution
10. Is there an active, supportive community of users?
11. How available are documentation, tutorials, and books?
12. Are there statistics textbooks that cover software usage along with theory?

These are only a few of the considerations involved in selecting a statistics package for a statistics course.

In this article, we bring two data analysis/statistical systems to the attention of educators: "S-Plus" (the commercial version of the "S" language) and the public domain "R" (free version of the "S" language). We discuss the cost and availability of S-Plus and R to the community of UNT researchers, instructors, and students.
S-Plus incorporates the object-oriented language S, developed at AT&T Bell Labs statistics research group (Lucent Technologies). Marketed by Insightful Corp., S-Plus fits statistical models as "objects", making data analysis much more flexible than the older, procedural language approach (e.g. SPSS, SAS). S-Plus incorporates a highly useable graphical user interface (see this online tutorial for examples), along with the capability of script based processing. Additionally, S-Plus allows the user to "interact" with data and graphics through a command line interface. The figure below provides an example of the S-Plus GUI interface:

S-Plus has an active world-wide user community - S-NEWS. Additionally, Insightful Corp. provides online versions of all S-Plus documentation (this documentation is also installed locally upon software installation). Students, instructors and researchers will be glad to know that many books and tutorials have been published on the S-Plus system. Advanced researchers should be excited about the continuing expansion of the S-Plus system with the newest statistical technologies available. Insightful Corp. provides numerous "experimental" research libraries at no-charge for download. Currently, these libraries include: S+CorrelatedData (mixed effects generalized linear models), S+Best (B-Spline methods), S+Resample (bootstrap library), S+Bayes (bayesian analysis), S+FDA (functional data analysis). Many of the libraries utilize both a "drop-down" GUI menu system and a command line interface approach. One particular library that could be particularly useful to introductory statistics instructors is the S+Resample library. A current trend in statistics education is to use resampling methods (e.g. bootstrap & permutation methods) to illustrate empirical sampling distributions and non-parametric confidence intervals based on the empirical sampling distribution. One notable example: Tim Hesterberg
and co-authors have teamed up with the authors of the highly acclaimed
"Introduction to the Practice of Statistics, Fifth Edition" by David Moore and George McCabe, to produce a book chapter that integrates the bootstrap into the statistics curriculum at an elementary level. This book chapter utilizes the S+Resample library to provide easy accessibility to resampling methods at an introductory statistics level. Tim Hesterberg has also written about using resampling and simulation methods in teaching statistics. Researchers who are interested in "data-mining" methodologies can use S-Plus in conjunction with Insightful Corp.'s "Insightful Miner" product to explore undetected patterns in massive datasets. A quick search on Google search engine demonstrates that S-Plus is a popular system for research and instruction (e.g., a search on "S-Plus" returned 482,000 hits).

Pricing and Availability of S-Plus at the University of North Texas

Students can purchase an "Academic" version of S-Plus at the UNT University Bookstore for $25. This is a specially licensed copy of S-Plus (for UNT campus) that expires one year after installation (Microsoft Windows version). This academic version has all the features of S-Plus "Professional," except that it expires one year after installation. Insightful Corp. also provides a "Student" version of S-Plus that is freely available at [http://els03.e-academy.com/splus/](http://els03.e-academy.com/splus/). This version of S-Plus is free, and has full statistical functionality of the academic version, but: 1) Has a 20,000 cell or 1,000 row limitation; 2) Is only for educational use; 3) Expires after one year; 4) Has a large download (more than 100 meg). Students register at the website, download the software, and are given a license code that enables the software. The "Student" version of S-Plus is an attractive alternative to the "Academic" version of S-Plus for those instructors teaching a "long distance" learning course where students are incapable of purchasing S-Plus from the bookstore. For full-time faculty, S-Plus can be obtained at no cost from the Research and Statistical Support Office (RSS) at UNT.

S-Plus is gaining in popularity (it is already a favorite amongst professional statisticians); S-Plus excels in incorporating modern statistical methodology while maintaining a large inventory of classical statistical methodologies; there are many tutorials, advanced methodology books, and introductory statistics textbooks that incorporate S-Plus. S-Plus compares favorably on the all software-choice considerations enumerated above. That is, S-Plus can accommodate both novice users and heavily research oriented practitioners of statistics.

R

R is an open-source initiative whose aim is to create and distribute the same high quality, "cutting-edge" statistical technology that S-Plus is known for (see the R homepage). Quoting from the R homepage:

R is a language and environment for statistical computing and graphics. It is a GNU project which is similar to the S language and environment which was developed at Bell Laboratories (formerly AT&T, now Lucent Technologies) by John Chambers and colleagues. R can be considered as a different implementation of S. There are some important differences, but much code written for S runs unaltered under R.

R provides a wide variety of statistical (linear and nonlinear modeling, classical statistical tests, time-series analysis, classification, clustering, ...) and graphical techniques, and is highly extensible.

The S language is often the vehicle of choice for research in statistical methodology, and R provides an Open Source route to participation in that activity.

One of R's strengths is the ease with which well-designed publication-quality plots can be produced, including mathematical symbols and formulae where needed. Great care has been taken over the defaults for the minor design choices in graphics, but the user retains full control.

R is available as Free Software under the terms of the GNU General Public License in source code form. It compiles and runs on a wide variety of UNIX platforms and similar systems (including FreeBSD and Linux), Windows and MacOS.

As a free alternative to S-Plus, R cannot be beat. Available to the R system are hundreds of user contributed libraries that cover large areas of both classical and modern statistics (see UNT's R server help page on installed packages). While S-Plus excels at providing advanced functionality through a menu system, R excels in providing breadth in statistical functionality (e.g., our own RSS R Server has 587 libraries installed). Much of this statistical functionality is not duplicated for the S-Plus environment. Partly, this is a result of the R system being an open-source project. Since the R source code is available to developers of statistical technology, much integration of R with existing statistical tools, databases, and operating systems has occurred. The "Omegahat" project being the prime example of such efforts. From the Omegahat website:
Omega is a joint project with the goal of providing a variety of open-source software for statistical applications. The Omega project began in July, 1998, with discussions among designers responsible for three current statistical languages (S, R, and Lisp-Stat), with the idea of working together on new directions with special emphasis on web-based software, Java, the Java virtual machine, and distributed computing. We encourage participation by anyone wanting to extend computing capabilities in one of the existing languages, to those interested in distributed or web-based statistical software, and to those interested in the design of new statistical languages.

R's integration with web servers should be of particular interest to instructors who are interested in web-based statistics courses. For a number of years now, I have been using a modified version of Rcgi to create online, interactive tutorials for Benchmarks articles and introductory statistics courses. Our RSS Matters column has a number of examples of using R to create interactive tutorials: robust statistics, kernel density estimation, false detection rate, robust correlation, bootstrap, too name a few. If, as an instructor, you are concerned about the lack of a default drop-down menu system for R, some efforts have gone toward developing a GUI system for the R system. The most notable of these efforts is John Fox's R Commander (see our past Benchmarks articles on this GUI - Article1; Article2; Article3 - these articles are somewhat dated). See the main R Commander website for the most recent updates. R Commander uses both a drop down menu system and a script window. Similar to other statistical packages, R Commander pastes syntax into a syntax editor whenever the contents of a menu system window have been submitted. This allows easy access to default syntax (via a GUI), but allows the user to see the syntax, change the syntax, and save the syntax, for later submission. This facilitates learning to program in the "S" language. A couple of examples of R Commander's interface is presented below:
Like the S-Plus user community, the R user community is highly active as well - R-HELP. In addition, the R developers publish a high quality, edited newsletter that covers software development news, R package development and usage, as well as the usual tips and hints about using R. The user community is also quite generous in providing free tutorials, books, and documents on R. R's documentation is very high quality as well.
The basic R language is well documented with examples that can be executed as is, then modified as the user needs. For example, fitting a regression, ANOVA, or ANCOVA model can be fit with the "lm" function. The help function for lm gives the user an example that can be executed by pasting the text into the R console, then altered as needed. The "foreign" package gives users the ability to import other file formats: SAS, SPSS, Stata, Minitab, SYSTAT, to mention some of the more common formats available. R's base language is mostly compatible with the S-Plus base language (greater than 95%). That is, most code written with the base R language will run unaltered in S-Plus and vice-versa. It is not inconceivable that a student or researcher would use both R and S-Plus in conjunction with one another. A "task" view of the organization of R packages can be found at task view.

Conclusion

In summary, R compares favorably with S-Plus (and is arguably superior in some ways). In regards to some of the statistical-software choices enumerated at the beginning of this article: 1) Both S-Plus and R are readily available and inexpensive to the student and instructor; 2) Both S-Plus and R are readily available to instructor and student; 3) Both S-Plus and R are inexpensive alternatives to more popular statistical packages (e.g. SAS, SPSS, Stata); 4) Both S-Plus and R excel at providing a broad range of classical and modern statistical methodologies; 5) S-Plus utilizes an advanced menu system that is more accessible to students, however, R is gaining some ground on that issue; 6) Both S-Plus and R can accommodate a range of users from novice to advanced, that is, both cursory users and researchers; 7) Both S-Plus and R have high quality documentation and textbook usage; 8) The user communities of both S-Plus and R are highly active and accessible to both student and researcher; 9) S-Plus and R are already favorites amongst theoretical and applied statisticians, and both of these systems are becoming increasingly important in the environmental, biological, medical, and social sciences, as evidenced by the increase in classes being taught utilizing these environments and the increase in statistical texts being published (for example, Bayesian Methods have become increasingly important and R has many supporting packages for teaching Bayesian methods); 10) And most importantly - THE PRICE IS RIGHT!

Resources

Special Announcements: RSS will be maintaining a blog devoted to research and statistics related news - RSS-Blogs; Additionally, RSS will be maintaining a Zope/Plone website devoted organizing communities and resources involved in survey research - RSS-Surveys.

Please note that information published in Benchmarks Online is likely to degrade over time, especially links to various Websites. To make sure you have the most current information on a specific topic, it may be best to search the UNT Website - http://www.unt.edu. You can also search Benchmarks Online - http://www.unt.edu/benchmarks/archives/back.htm as well as consult the UNT Helpdesk - http://www.unt.edu/helpdesk. Questions and comments should be directed to benchmarks@unt.edu

Return to top
Zope Pluggable Auth Service: Adding Users to Groups

By Shannon Eric Peevey, UNT Central Web Support

There is very little documentation on the Pluggable Auth Service, which has replaced the old-style UserFolders in Zope2.9, so I wanted to write up a how-to on getting PAS acl_user folders to act like UserFolders in both Zope and Plone.

ZOPE PAS:

In zope2.9/plone2.5 the UserFolder has been replaced with PlonePAS. The following image shows the contents of the acl_user folder for a Plone site which was upgraded from plone2.0 to plone2.5:

The important objects for UserFolder like authentication are the "ZODB Role Manager" and "ZODB User Manager" objects. Let's create a user first:

Add ZODB User Manager:

1. Add a ZODB User Manager object from the drop-down menu, and give it a name. (i.e. user)
2. Click on the new "user" object.
3. Choose the "Activate" tab from the top menu.

4. Click the checkboxes for "Authentication", "User_Enumeration", and "User_Adder", and click "update". (This activates the ZODB User Manager object).

Add ZODB Role Manager:

1. Add a ZODB Role Manager object from the drop-down menu, and give it a name. (i.e. groups)
2. Click on the new "groups" object.
3. Choose the "Activate" tab from the top menu.
4. Click the checkboxes for "Roles", "Role_Enumeration", and "Role_Assigner", and click "update". (This activates the ZODB Role Manager object).

Add User:

1. Click on "user".
2. Click on (Add a User).
3. Fill in the User ID, Login name, Password, and Confirm Password fields and click "Add User".

   (NOTE: Make sure that you fill in the Login name field, as this will be set as the username for the user).

4. Now click on the "acl_user" hyperlink on the breadcrumb trail at the top of the screen, and you should return to the screen that you see above.

Add User To Group:

Next, we want to add our user to the Zope Manager role:

1. Click on "groups".
2. Click on the "?" under Assignments for the Manager role.
3. Search for the username by using the Principal ID form, which will populate the "Available" users form with usernames matching your search criteria.
4. Highlight the appropriate username in the "Available" form field and click the right arrow to make that username an "Active" member of the Administrators role.
5. Open a new browser, (or close your current browser, (and all browser windows), and try to login to your Plone site with the new user.

PLONEPAS:

In zope2.9/plone2.5 the GRUF has been replaced with PlonePAS. The following image shows the contents of the acl_user folder for a Plone site which was upgraded from plone2.0 to plone2.5:
The important objects for UserFolder like authentication are the "source_groups" and "source_users" objects. Let's create a user first:

**Add User:**

1. Click on source_users.
2. Click on (Add a User).
3. Fill in the User ID, Login name, Password, and Confirm Password fields and click "Add User".

   (NOTE: Make sure that you fill in the Login name field, as this will be set as the username for the user).

4. Now click on the "acl_user" hyperlink on the breadcrumb trail at the top of the screen, and you should return to the screen that you see above.

**Add User To Group:**

Next, we want to add our user to the Plone Administrators role:

1. Click on source_groups.
2. Click on the "?" under Assignments for the Administrators role.
3. Search for the username by using the Principal ID form, which will populate the "Available" users form with usernames matching your search criteria.

4. Highlight the appropriate username in the "Available" form field and click the right arrow to make that username an "Active" member of the Administrators role.
5. Open a new browser, (or close your current browser, (and all browser windows), and try to login to your Plone site with the new user.

**Conclusion**

Simple stuff, but a real pain without documentation. I didn't realize that I needed to search for "Available" users before I could see the usernames in the "Available" form field, so was clicking on "Activate" for every object that I could find... It wasn't until later that I learned that "Activate" actually activated the authentication plugin, not the user or group itself... :(
Short Courses

By Claudia Lynch, Benchmarks Online Editor

Short Courses are over for the fall. Surf over to the Short Courses page for a sample of the sorts of courses that will be offered for the spring semester (starting, probably, at the beginning of February).

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 (ISBN 119, 565-4068, 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. Additionally, the Center for Continuing Education and Conference Management offers a variety of courses to both UNT and the general community, usually for a small fee.

EIS Training

Questions or comments relating to EIS training should be sent to the EISTRN GroupWise account. Upcoming EIS training events may be found at the links below:

- Learning to Use EIS
- EIS Timekeeper Training Schedule:
- EIS ePro Training Calendar
- Ongoing training is available on WebCT

GroupWise Training

Information about GroupWise training can be found at the GroupWise Support site. A list of GroupWise 7.0 "Tutorial Topics" can be found here: http://ncs.unt.edu/gw/howto/index.htm See "What's New in GroupWise 7" here: http://ncs.unt.edu/gw/howto/info/whatsnew/index.htm also.
GroupWise 7.0 Seminars

If you would like to have a Basic GroupWise seminar for your area, please contact Jason Gutierrez, Network Computing Services, jasong@unt.edu.

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 here.

The center also offers a "Brown Bag" series which meets for lunch the first Thursday of each month at Noon in Chilton 245. 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 Website.

Technical Training

Technical Training for campus network managers is available, from time to time, through the Network Computing Services (NCS) division of the Computing and Information Technology Center. Check the NCS site to see if and when they are offering any training.

UNT Mini-Courses

There 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/minicourses/

Alternate Forms of Training

Many of the General Access Labs around campus have tutorials installed on their computers. The Library has a Computer Training Resources webpage with lots of resources listed. The Training website also has all sorts of information about alternate forms of training. Computer Based Training (CBT) is one of the alternatives offered.

For further information on CBT at UNT, see the CBT website. Note, also, the articles in this months issue of Benchmarks Online, "'One CBT to Rule Them All': SkillSoft Acquires Thomson NETg" and "No-Hassle CBT: Library Online Tech Book Resources".
Transitions

New Employees:

- **Kok-Chuan Koh**, Programmer, Admissions/Financial Aid Integration, AIS.


No longer working in the Computing and Information Technology Center:


Changes

As was reported in the September, 2006 issue of *Benchmarks Online*, CITC Desktop Support is now called **Distributed Computing and Imaging Services** and reports directly to **Tom McElwee**, Enterprise Systems Technical Service Director.

**Brenda Kirk** is the team leader, and the team is responsible for the CC and CITC Novell servers, as well as the Windows desktops for CITC, Internal Audit and Center for Distributed Learning. In addition to those duties, Kirk is responsible for the Dell desktop project. **Tracy Hansen** is responsible for the Document Imaging Retention Management project, although she is still available to provide service in critical situations when someone else cannot be reached. Two student workers, **Graham Pocta** and **James Holloway**, assist in providing server and desktop support.

In order to continue to provide good customer service, Distributed Computing and Imaging Services has come up with a Service Level Agreement (SLA) accessible on their new web page [http://dcis.unt.edu/](http://dcis.unt.edu/). Important updates will be posted to the website, so check it regularly if this is an area of concern to you.

Awards, Recognition, Publications, etc.

**InHouse Prize Winners**

- Congratulations to **Masha Aziz**, Programmer, Student Records Data Systems. She won a random drawing for a pair of tickets to see the
Symphonic Band perform October 31.

- **Claudia Lynch**, Documentation Services Manager, Academic Computing Services, won a random drawing for a free registration for the Diverse Women’s Seminar.

- **Tammy Sprabary**, Campus Information Operator Supervisor, Telecommunications was featured in the *InHouse Portrait Gallery* on October 18.

- **Dr. Elizabeth Hinkle-Turner**, Student Computing Services Manager, Academic Computing Services, gave a talk and presented her music as a distinguished alumna at Trinity University (San Antonio) during the university's alumni weekend in October.

  Hinkle-Turner also presented the paper: 'Hear Me Now: the implication and significance of the female composer's voice as sound source in her electroacoustic music' at the International Computer Music Conference on November 7, 2006 at Tulane University. The juried paper was published in the conference proceedings and is also available online at [http://cec.concordia.ca/econtact/8_2/index.html](http://cec.concordia.ca/econtact/8_2/index.html)

Please note that information published in *Benchmarks Online* is likely to degrade over time, especially links to various Websites. To make sure you have the most current information on a specific topic, it may be best to search the UNT Website - [http://www.unt.edu](http://www.unt.edu). You can also search *Benchmarks Online* - [http://www.unt.edu/benchmarks/archives/back.htm](http://www.unt.edu/benchmarks/archives/back.htm) as well as consult the UNT Helpdesk - [http://www.unt.edu/helpdesk/](http://www.unt.edu/helpdesk/). Questions and comments should be directed to benchmarks@unt.edu
Don't Forget Our Monthly Columns!

By Claudia Lynch, Benchmarks Online Editor

In addition to our feature articles, Benchmarks Online publishes monthly columns that are focused on specific aspects of computing here at UNT (and beyond, in some cases). Check out what is waiting for you this month:

- **RSS Matters** - "RSS Matters" is the monthly column written by the Research and Statistical Support Group in Academic Computing Services. Their articles focus on topics of a statistical and/or research methods nature. This month, Dr. Rich Herrington reminds everyone about "Using Statistical Software in Classroom Instruction: S-Plus/R, An Accessible, Low Cost Alternative ."

- **The Network Connection** - "The Network Connection" may well be the longest running column in computer publishing history. Certainly in University of North Texas computer publishing history. This month, Dr. Baczewski talks about the possible implications of a deal between Microsoft and Novell in his article "Peace Breaks Out in Redmond."

- **Link of the Month** - As it says on the top of the "Link of the Month" page, "each month we highlight an Internet, USENET Special Interest Group (SIG), or similar mailing list(s) or Website(s)." Lately we have been confining ourselves to featuring UNT specific sites. This month's focus is on the UNT Events Calendar.

- **Helpdesk FYI** - A new monthly feature from the CITC Helpdesk. Each month they will tackle a topic that has been of particular interest to callers/visitors to the Helpdesk. This month find out "Your Eaglemail Quota."

- **WWW@UNT.EDU** - "WWW@UNT.EDU" is a monthly column written by the Central Web Support Group in Academic Computing Services. The topics usually focus, in some way, on World-Wide-Web-related issues. This month Shannon Eric Peevey continues his discussion of Zope with "Zope Pluggable Auth Service: Adding Users to Groups."

- **Short Courses** - Every semester, Academic Computing Services (ACS) offers short courses on computer-related topics, many of them having to do with statistical research. This column keeps you up-to-date on what is being offered and when as well as other training opportunities. Short Courses are over for the fall, but there are still other training opportunities. Check it out!
- **IRC News** - As their Webpage says, "the IRC is an advisory and oversight body created to foster communication and cooperation between and among UNT information resources providers and users." We publish the minutes of the IRC meetings each month, when they are available. **The October 17, 2006 minutes are included this time.**

- **Staff Activities** - This column focuses on new employees, people who are no longer employed at the Computing and Information Technology Center, awards and recognitions and other items of interest featured here.

Please note that information published in Benchmarks Online is likely to degrade over time, especially links to various Websites. To make sure you have the most current information on a specific topic, it may be best to search the UNT Website - [http://www.unt.edu](http://www.unt.edu). You can also search Benchmarks Online - [http://www.unt.edu/benchmarks/archives/back.htm](http://www.unt.edu/benchmarks/archives/back.htm) as well as consult the UNT Helpdesk - [http://www.unt.edu/helpdesk](http://www.unt.edu/helpdesk). Questions and comments should be directed to benchmarks@unt.edu.