New Reporting System to Bring Changes to UAH Business Units

Users to notice changes to new system

As almost everyone has heard by now, UAH will be changing over to the new administrative computer system in the very near future (an article about this change appears elsewhere in this issue). This will mean some pretty dramatic changes in the way most everyone will do business with the new system. Although the initial system to be converted will be financial reporting, this will affect everyone on campus who produces their own on-line budget statements.

Gone will be the old Sperry UTS-type terminals, and the PEP program that provides UTS emulation on PC's. Now, programs that provide VT100-type emulation are needed to talk to the new Digital Equipment Corporation (DEC) hardware. Already, new terminals capable of running Windows-based VT100 emulation programs are being installed on desktops all over Madison Hall, as well as other locations around the campus.

Although some quirks and bugs may be uncovered during the transition, personnel from all groups within Information Services have been working to ensure that the changes will be as smooth and painless as possible.

NEW HELP DESK IN SERVICE

Information Services recently added a new service, the Help Desk. This is a one-stop source for assistance in computer-related problems for the campus. Your call is logged into a support database, and then the call is dispatched to a field technician. An article elsewhere in this issue describes in more detail the services offered by the Help Desk.

The Help Desk is available by dialing 895-6347, option 1.
## Directory

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**@UAH.EDU**

**Editor:**

*James H. McCullars*

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University of Alabama in Huntsville
Information Services
Huntsville, AL 35899
Attn: @UAH.EDU Editor

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INFORMATION SERVICES ADDS MORE PHONE LINES

In response to increasing demand for dial-in modem service, Information Services has recently added additional phone lines to the modem pool, bringing the total number of lines to 22.

The proliferation of computer services available to users off-campus created an "unbearable situation", stated James McCullars, systems director for Information Services. "The original 16 lines simply could not support the demand for off-campus access," he said. With the introduction of the EMAIL machine, the College of Science Information Service, and the UAH Weather Underground, the 16 lines seemed to be constantly busy.

The 22 lines are on a single rotary group, starting with the number 895-6792. The sixteen original lines are connected to Multi-Tech MT224 modems which support 2400 bps connections, while the six additional lines are populated by Multi-Tech V.42bis modems capable of data rates of up to 14,400 bps. To ensure a high-speed connection from a compatible modem, you should dial 895-6303.

NEW FACES

Information Services welcomes the following new staff members:

Mike Edmonds - Student Assistant
Fruzzie Glover - Programmer/Analyst
Larry Lambert - Computer Operator
Chris Newby - Programmer Analyst

PREPARATIONS BEING MADE FOR NEW UAH COMPUTER SYSTEM

By: Gary Maddux

The long awaited and much anticipated UAH Administrative Computer System will be going online as of April 1, 1994†, according to a time schedule prepared by the UAH committee responsible for its implementation. Although the full implementation will be phased and will span a period of almost a year, a great deal of activity is already transpiring in preparation for this changeover. An executive steering committee, chaired by Mike Meyer, VP of Information Services, has directed a number of subcommittees to address the many diverse needs of the various schools, research units, and departments during this transitional period. "It's a big job," says Jean Greenwood, chair of the FRH/HRS Implementation Committee, "but unless the needs of the users are understood in the beginning, the system will not be fully functional."

Over the coming months, committees will be looking at the various implementation strategies for the Financial Records System (FRS), Human Resources System (HRS), Purchasing/Accounts Payable System, and the Budget System. These committees will be comprised of various staff members from different areas, but with one thing in common: the desire to help in the success of the new system. Plans are also being formulated to conduct an open forum, so that the particular needs of all individuals/departments may be addressed.

† The implementation date was changed to May 1 after this article was written — ed.
BITNET for the University

Until now the university community has received BITNET communication on ASNUAH, the VAX 8250 which formerly served as our connection to the supercomputer network. We now have a new link through Tuscaloosa which will be installed on the 3100 cluster known as EMAIL. Because our BITNET name should identify us, the BITNET address will be UAHIS. The software can be used through the process JNET or BITNET. Therefore if you have an account on the 3100 cluster, your address will be YOURNAME@UAHIS and you will send mail using the form JNET%"user@someaddress".

Please furnish a change of address to each of your BITNET correspondents, especially those of you subscribing to news services or list servers. New address tables are to be published to BITNET nodes the first week in April and sites will begin updating with our new address at that time. However we plan to allow forwarding until June to allow time for the changeover.

Please read your mail and delete or download messages in order to continue to have space for incoming messages. Bounced mail is inconvenient for everyone.

Also remember to insert a carriage return at the end of each line of your sending mail message. On the screen, your message appears to be continued on the next line if you continue to type but you will receive an error when the mail begins to send. For long messages, you may want to edit a file and then do a SEND FILENAME.

Our Internet addresses remains the same — EMAIL.UAH.EDU — and you will continue using SMTP for that process.

NEW GOPHER SERVER IN THE WORKS

Information Services is currently working on a new Internet Gopher server. This server will be patterned after the successful Gopher that was recently placed into operation by the College of Science. The Gopher operated by Information Services will, however, be more general in nature.

About Gopher

gopher n. 1. Any of various short tailed, burrowing mammals of the family Geomyidae, of North America. 2. (Amer. colloq.) Native or inhabitant of Minnesota: the Gopher State. 3. (Amer. colloq.) [also go-fer] One who runs errands, does odd-jobs, fetches or delivers documents for office staff. 4. (computer tech.) Software following a simple protocol for tunneling through a TCP/IP internet.

Our discussion will center around the fourth definition. Gopher is a protocol developed at the University of Minnesota for retrieval of information via the Internet. Gopher actually has two parts, the client and the server. The client software is run on the user's machine, and is the part that actually goes out searching for the information that the user desires. The server is what actually stores and offers the information to be retrieved. The server might be a machine in the next room, or it might be across the country. The client software makes the connections without any special action on the part of the user.

The Information Services Gopher

Information Services has recently purchased a Sun Microsystems SPARCstation LX on which to

(Continued on page 5)
operate a Gopher server. Initially, we plan to concentrate on offering information for internal users; i.e., a place for departments on campus to advertise their services, policies, and procedures to other campus departments. Each department would have an entry in the overall menu, then their entry would point to other department-specific menus, however they wish to advertise their services. For example, the accompanying graphic depicts one possible menu layout for Information Services.

```
Information Services

Support Services
  - Help Desk
  - Getting a Network Connection
  - Graphics Support

User Services
  - Computer Accounts
    - 2200/400 Accounts
    - Supercomputer Accounts
    - E-Mail Accounts
    - Software Available For Check-Out
  - Documentation

Administrative Applications
  - Getting Reports
  - Customized Applications
```

Each box that has one or more boxes under it is a menu. Each "final" box is a text file with the information the user needs. We also plan to offer an electronic campus phone book, that will be capable of performing online searches for names or departments.

For those academic departments that do not wish to operate their own Gopher server, we hope to eventually make space on the machine available for them to advertise their curricula in a manner similar to the information currently provided by the College of Science to prospective students.
New Service Offered By Information Services

Information Services has just started offering a new service. We call it the HELP DESK.

The purpose of the HELP DESK is provide the Students, Faculty and Staff of the University of Alabama in Huntsville with a central point of contact for questions/problems regarding to University purchased and approved software and hardware.

HELP!

This service is available Monday through Friday from 8:30 am 5:00 pm. (We close for a lunch break from 12:00 till 1:00) The HELP DESK can be reached at 895-6347. Select the HELP DESK option or extension 270 from the automated phone system message.

This service is already very popular. As a result you may be asked to leave a voice mail message. This is not a black hole. We will get back with you as soon as we can. Usually within an hour (during normal operational hours). If you do experience a problem after hours or on the weekend, please leave a message.

Below is a list of software and systems which we support. (This listing is subject to change.)

**Personal Computer Software:**

- Microsoft Windows 3.1
- Microsoft Windows for Workgroups 3.1 and 3.11. (including MS-Mail and Schedule +)
- Microsoft Office family of applications including Word for Windows 2.0, Excel 4.0, Power Point 3.0.
- Procomm version 1.1.B.
- WinQVT/Net version 3.9 and subsequent versions.

**Personal Computer Hardware:**

- Apple hardware purchased through UAH purchasing.
- IBM or IBM compatible computer hardware purchased through UAH purchasing.
- Printers and accessories purchased through UAH purchasing.

**Digital 3100 Cluster: (EMAIL System)**

- Password Problems.
- VMS mail services.

**Digital 7000 Alpha System: (UAHAXP System)**

- Password Problems.
- Telnet and FTP services residing on UAHAXP.
- Application software residing on UAHAXP.

**Unisys 2200: (UAH1100/UNIVAC System)**

- Password Problems.
- Application software residing on UAH1100.

**Campus Networking:**

- Terminal Server connections going to UAH systems.
- Ethernet connections going to UAH systems.
- Bridges and Gateways to the Alabama Supercomputer Network and UAH systems.

Thanks...

The following individuals contributed to this issue of @UAH.EDU: Jean Greenwood, Chad Hill, Gary Maddux, John Stanton, and Barbara Sweeney. In addition, thanks to former @UAH.EDU editor Michael Braudaway for his gracious assistance during the transition.
Or maybe the innocent. It is hard to tell when you fail to identify the issue over which guilt or innocence is being decided. The issue is name changes. We have had one. You must have noticed that Computer Services isn't around anymore but Information Services has sprung up out of nowhere. Like Cro-Magnon man, Information Services has replaced its predecessor without any bloody turnover of territories or noticeable change in dietary impact on the ecosystem. Phone numbers that got you your favorite programmer before will still access the same person. Our recordings still say dumb things like, "leave your name and number and a synopsis of your life-threatening problem, and if I don't get killed in an avalanche (I am away on vacation because I need it for my sanity), I will get back with you as soon as the planets are auspiciously aligned." Speaking of calling us, and I am not encouraging any such activity, get to know our HELP DESK extension, 270. Your favorite programmer may not be the best source for the assistance you may require. Let's face it. Programmers are not always hardware literate, many have no idea about your account, and we actually have someone who spends most of his/her waking hours giving you a new password 'cause you forgot the old one. As clever and resourceful as "your" programmer may be, your programmer does have a regular job to do, and there may be someone else on the premises better equipped to handle your call.

While we are on the subject of help, do you know the procedures for getting help out of those wonderful folks in Information Services? First, if you are having a system problem, call our help desk. The gentleman/lady who is on this end of the phone will know exactly who can best address your needs. Trust him/her. Share with him/her. Let him/her take some notes and get back with you. Frequently, he/she can handle your problem him/herself. Occasionally, he/she must get someone else to respond to your problem. And once, in a very great while, he/she must get answers from technical support from some far off-campus facility. Be patient, he/she will get back to you as soon as he/she can.

So, who are we and why did we change our name? I dunno. It seemed like a good idea at the time.

*this article has been deemed politically correct

Note: With this article, Mother has exceeded her pronoun quota for the next three issues of @UAH.EDU. Future articles should prove interesting. -ed. B

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**Around the Campus**

We here at Information Services are trying to figure out what is going on with the duck pond. As everyone knows, yet another automobile was dragged out of the pond a few weeks ago. There is even a rumor floating about (pun not intended) that administration officials are considering changing the name of the duck pond from the UAH Lake (as it is officially known) to the UAH Carpool.

Administration officials were unavailable for comment.

Note - In journalism parlance, this is known as a filler. We won't say what it is full of. -ed. B

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PROBLEMS WITH BINARY FILE TRANSFERS VIA DIAL-IN

Several users have experienced problems when attempting binary file transfers to a machine that they are accessing via the dial-in terminal server. Here is an explanation of the limitations inherent in performing file transfers via dial-in.

The basic problem is one of flow control. Since a computer may not be able to keep up with an incoming data stream, it must have a way of telling the sender to pause temporarily. The method in which this is done is referred to as flow control. There are basically two types of flow control in most asynchronous communications environments - software (XON/XOFF) and hardware (CTS/RTS).

Software flow control uses two control characters to tell a remote modem to halt and resume sending. The XOFF character, which is the Control-S character, is used by the modem to tell the computer (or remote modem) to stop sending data. The XON, or Control-Q character, is used to signal that the computer can resume sending data. This is one of the most basic types of flow control, and works quite well when doing character-based data transfers. The problem when performing a binary transfer is that the XON or XOFF character might be a part of the data stream. In that instance, a Control-S character that is part of the data might be interpreted by the modem as a signal to halt. When that happens on a terminal server port, the port gets hung.

A more reliable method of flow control is hardware, or CTS/RTS flow control. CTS stands for "clear-to-send", and RTS stands for "ready-to-send". These refer to signals which are carried in two of the pins on an RS-232 cable. In this manner, a modem may "raise" the CTS signal to indicate that it is ready to receive data. This method of flow control requires that most of the RS-232 signals be present, a condition known in terminal server parlance as full modem control.

Unfortunately, the ports in our dial-in modem pool are partial modem control ports. The physical connection between the server port and the modem is via an eight-wire telephone style adapter rather than the 25-wire RS-232 cable that usually connects the modem to a PC. Since the large, 25-pin connectors are not needed, the units can be made physically smaller and less expensive (the primary purpose of the dial-in modem pool was to provide interactive terminal access to systems on campus, and TCP/IP capable servers that had full modem control ports were simply unavailable when the equipment was installed). The bottom line of this arrangement is that since full modem control is not in place, the only flow control mechanism available is software flow control. This means that binary file transfers, such as XMODEM, YMODEM, and ZMODEM, should not be attempted over the dial-in phone lines. While such a transfer may work in some instances, should an XOFF character appear in the data stream, the result will be a hung port on the terminal server. If you wish to do file transfers via the dial-in modem pool, the safest way to do this is via a character-based protocol such as UUENCODE or Kermit.

Wanna See Your Name in Print?

If you have a story for @UAH.EDU that you’d like to contribute, or even an idea for one, we’d like to hear from you. We welcome ideas from our readers. Send your computer-related news to the @UAH.EDU editor at the address on the inside front cover of the newsletter. Or, you can send email to EDITOR@EMAIL.UAH.EDU from the network.
Is U Raining on the Information Superhighway?

By: Chad Hill

What's the weather like you say? If you use one of the multitude of services provided by the Earth System Science Laboratory, you won't have to wonder for long.

Southeast Weather Underground

The Southeast Weather Underground is a powerful tool for obtaining current weather information covering almost every major city in the United States. It also covers select cities abroad. You can obtain extended forecasts based on global atmospheric models, severe weather watches and warnings, heating and cooling degree days, and earthquake reports. Along with the textual products, graphical images produced by WXP are available, but you have to have access to an X Windows terminal on the network. Instructions for viewing the images are provided under the WXP option on the main menu. So if it's storming outside, or if you're wondering whether you should skip class (teachers included) and enjoy the sun, access the Underground. From any computer connected to the internet, simply type

telnet 146.229.8.2 3000

and you'll be on-line. If you aren't on the internet, but have a modem, set it to 8 bits, 1 stop bit, no parity, and dial 895-6792 (2400 Baud). After connection, which includes typing your name, enter the above telnet command.

Campus Weather Station

Recently, new meteorological sensing equipment was installed on campus. The initial funding for the UAH Campus Weather Station was provided by a Faculty Minigrant in 1992. The project is managed by Dr. Kevin Knupp and Scott Podgorny in Earth System Science Laboratory. This system, located behind the Research Institute, measures temperature, relative humidity, wind speed and direction, rainfall, and solar radiation on a continuous basis. Short term averages (1-5 minutes) of these parameters are archived on hard disk. A software interface has been written to derive additional parameters of interest to both the research and public sector. WLRH is currently using this service for their weather information, and we have plans that may carry this information campus-wide in the future. The system will continue to expand as data from additional sites and other instruments are accessed by ESSL.

What's Next

In response to the need of a severe weather notification system on campus, the Earth System Science Laboratory is experimenting with a new service called CampusWatch. The system would monitor special and severe weather statements from the National Weather Service. If threatening weather is detected, CampusWatch would notify users on main computer nodes throughout campus and relay the warning messages to WLRH for broadcast.

ESSL envisions real-time weather data displays in each building on campus. Through these displays, students and teachers will have access to current and severe weather information as well as forecasts and local campus news.

If anyone has suggestions or ideas for new services, write root@atmos.uah.edu.

QUOTA PROBLEMS CAUSE EMAIL Hangs

Information Services has encountered a problem with DEC's TCP/IP Services package that can cause mail queues to hang. Whenever the program (which handles Internet mail) tries to deposit a message into the mailbox of a user who has exceeded his disk quota, the mail queue will stop. The queue remains stopped until Systems staff can manually intervene. Recently, this has begun happening several times daily.

According to systems program manager Paul Youngblood, Digital is working on a fix; however, since this problem has been outstanding for several weeks, a fix may not be soon forthcoming. In the interim, there are several things EMAIL users can do to minimize the occurrences of the queue hangs:

- Purge files regularly. Each time you edit...
Refer to the Network Address Request Form for sections of the form described herein.

CONTACT INFORMATION:

Name: The name of the actual user of the workstation or the system administrator if the machine is a multi-user platform.
Department: Department to which the machine belongs. Be explicit as possible.
Mailing Address: The Campus mailing address of the user. Include room numbers.
E-Mail Address: The electronic mailing address of the primary user or system administrator.
Phone Number: Entire campus phone number including extension.

EQUIPMENT INFORMATION:

Type of Equipment: The manufacturer, make and model of the machine. Include any model numbers.
Equipment Location: The physical location of the machine. Include site, if off campus, building, room number, and section number if applicable.
Operating system: Type of operating system in use on the machine.
Comm. Hardware: Type of interface in use to connect to the network.
Comm. Software: Type of communications software used to access network.

CONNECTION INFORMATION:

Type of connection: Check appropriate selection. Give any additional information requested based on selection (i.e. give the ethernet address or serial connection scheme used to connect to the network.

NODE NAME INFORMATION:

Internet Node Name: The name by which the machine will be identified on the network. This name can be as long as desired. If any subdomain (i.e. CS.UAH.EDU) is desired, supply the information as part of the node name.
DECNET Nodename: The decnet node name desired (max of six characters).

The number will be assigned by Information Services personnel and the user listed in the contact information section will be notified by phone or E-mail of the assignment.
UAH Network Services
Network Address Request Form

SEND TO: Rich Hemphill
Information Services
Research Institute

DECNET: UAHAXP::HEMPHILLR
INTERNET: HEMPHILLR@EMAIL.UAH.EDU
VOICE: (205) 895-6347x231

CONTACT INFORMATION
Name: ________________________________
Department: __________________________
Mailing Address: _______________________
E-Mail Address: ________________________
Phone Number: ________________________

EQUIPMENT INFORMATION
Type of Equipment: ______________________
Equipment location: _____________________
Operating System: _______________________
Comm. Hardware: _______________________ 
Comm. Software: ________________________

CONNECTION INFORMATION
Type of connection:
Ethernet: ( ) Ethernet Address: _________
(e.g. 00-00-00-00-00-00)
Serial: ( ) Connected To: ________
Connection Speed: ____________
Other: ( ) Describe: ________________

NODE NAME INFORMATION
Internet Nodename: _____________________ (UAH.EDU)
DECNET Nodename: _____________________
(If applicable, 6 characters)

PROCESSING INFORMATION TO BE COMPLETED BY NETWORK SERVICES
IP ADDRESS: _______________ DECNET Address:_____ 
Date Completed: __________

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DEC 7000/610 COMPUTING FACILITIES

Major Hardware

The DEC 7000/610 unit processor (Alpha chip)
Clock Speed: 182 Megahertz
Memory: 128 Megabytes
Disc Storage: 16 Gigabytes of DASD

Peripheral Equipment

Two TZ867 tape drives; each capable of backing up 42 Gb of disc space unattended
One high-speed line printer (LP29): 2000 lines per minute

Software

Languages:
C
COBOL
Fortran

SCT Administrative software packages:
FRS - Accounting module
FPR - Purchasing module
BID - Bid module
FXX - Fixed Assets module
BDS - Budget Development module
HRS - Human Resources module

FOCUS
To be used as a report generator for the SCT software

VISAGE
A graphical user interface (GUI) for the SCT software

TÉK
A mainframe-based technical document preparation tool

IDL
An interactive graphics display language

IMSL
A mathematical and statistical subroutine library
UNISYS 2200/402 COMPUTING FACILITIES

The 2200/402 system is a mid-range computer system providing compatibility with the Unisys Series 1100 Operating System. It uses low power and cooling requirements with contemporary bus-structured architecture.

Major Hardware

Two Instruction Processors (IP). Perform logical, arithmetic and instruction sequencing operations and is sometimes referred to as a central processing unit.
Four Input/Output Processors (IOP) to control I/O operations between peripherals and the system.
Two Main Storage Units (MSU) each consisting of an interface, control logic and 4 megawords of random access storage.
One common I/O Processor (CIOP) to provide system initialization and microcode loading.

Peripheral Equipment

Two M9270 disk subsystems with a total 14.61 gigabytes of storage.
Two Uniservo 34 tape drives for 9-track, 1600/6250 BPI.
Four Uniservo 36 tape drives for 9-track, 1600/6250 BPI.
Four USR5073 SCSI cartridge tape drives (IBM 3480 type)
One USR2145 tape drive for 9-track, 1600/6250 BPI.
Two 9246-25B printers (2000 lines/min).
One Distributed Communications Processor (DCP-40) with 32 synchronous lines, two 9600 baud lines for graphics use plus 16 asynchronous lines connected to a DEC Reverse LAT terminal server.
One Bus-Tech, Inc. Ethernet control unit (HLC) for TCP/IP access.

Software

The software system is based on an Executive known as the 1100 Operating System. The resident OS1100 system includes:

- COBOL
- BASIC
- ED
- FAS
- FLIT
- PDP
- PASCAL
- DOC
- QLP-1100
- SSG
- MetaAssembler
- PMD
- FORPUR
- PALS
- DPS-1100
- CML
- SORT/MERGE
- FORTRAN
- KERMIT
- ELT
- SYSLIB
- PCIOS

Other available libraries include:
- Statistical Package for the Social Sciences (SPSSX).
- Tektronix PLOT 10 software, TCS, AG2, IGL, and Easygraph DISSPLA graphics.
- Unisys Mathematical Subroutines (Math Pack).
- Unisys Statistical Subroutines (Stat Pack).
- International Mathematical and Statistical Library (IMSL).
- Biomedical Statistical Library (BMDP).

(Continued on page 14)
Unisys 2200/400 Quota Problems with Email

(Continued from page 13)

Ordinary Differential Equations System (ODEPACK).
SYSTAT, SYSGRAPH, NCAR.
Harvard Graphics.
Campus Software Library Grant (DEC).

A User's Guide is available in machine-readable form. A @GUIDE processor is available to users for extracting and printing material from the Guide. The Information Services staff is available to consult with the University community on problems associated with use of the center.

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Quota Problems with Email

(Continued from page 9)

a file, a backup copy is placed in your directory, where it remains until deleted. If you edit a file five times, there will be four backup copies (in addition to the active copy) in your directory.

- Delete mail promptly after it has been read. If you use the COMPRESS command in Mail, be sure and delete the MAIL. OLD file.

- Remember to unsubscribe from any Internet mailing lists when you are no longer interested in them, or will be away for an extended period of time.

- Check your available disk quota regularly. In fact, we recommend putting the following DCL command in your LOGIN.COM file:

  $ SHOW QUOTA

This will cause your remaining available disk space to be displayed to you upon each login to the system.
Mailing List Update Form

Please delete my name from the Newsletter mailing list: 🔴

Please add my name to the Newsletter mailing list: 🔵

Please change the following information:

Name: ____________________________
Address: __________________________

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