TABLE OF CONTENTS

PAGE

NEW POLICIES AND PROCEDURES
2 Computing Center Open House Scheduled
2 Dial-Up Access Telephone Numbers Changed
2 Help Available in ISB 110
2 Television Monitors Provide Information
3 Time/Lines Rule Being Enforced Again
3 ABC Arrives at NTSU
4 Staff Events
4 Computers for Rent
5 NTSU Computing Center Organization - September 1984

BITS AND BYTES
5

SHORT COURSES
6

OPERATIONS
7 NAS/8040 Performance Statistics for August

COMMUNICATIONS
8 Dialing Up NTSU Over the Telephone

MUSIC
9 MUSIC Backup Hours
9 School of Music Terminal Moved
9 Change in STATPAK Access

MINICOMPUTERS
10

ADMINISTRATIVE COMPUTING

Claudia Lynch, BENCHMARKS Editor
Richard Harris
Director of Computer Systems
Thomas Wm. Madron
Manager, Computer Services
Robert G. Brookshire
Manager,
Academic Computing Services

BENCHMARKS Reader/User feedback is encouraged.
Send all letters, suggestions, etc., to:
North Texas State University
The Computing Center
NT Station, Box 13495
Denton, Texas 76203
Services Available to Users of the NTSU Computing Facilities

The NTSU Computing Center is located in the Information Sciences Building, Room 119. Telephone: (817) 565-2324. HELP DESK phone: 565-4050.

INFORMATION AND ID CODES - Carolyn Goodman

BENCHMARKS QUESTIONS/CONTRIBUTIONS, ETC. - Claudia Lynch

STATISTICAL/RESEARCH SUPPORT - George Morrow, Scott Barber, Dave Molta, Panu Sittiwong

STUDENT PROGRAMMING PROBLEMS - CSCI Department, Room 550C, GAB
                          BCIS Department, Room 152, BA

PASSWORD AND OPERATING SYSTEM PROBLEMS - Help Desk

COMMUNICATION/TERMINAL PROBLEMS

JCL & DEBUGGING PROBLEMS

PRE-RESEARCH COUNSELING - George Morrow, Scott Barber, Dave Molta, Panu Sittiwong

DATA ENTRY & KEYPUNCH - Betty Grise

TEST SCORING & ANALYSIS - Betty Grise

DISK SPACE PROBLEMS - Carolyn Goodman

ADMINISTRATIVE APPLICATIONS - Coy Hoggard

PRINTOUT RETRIEVAL - RJE Operators

Fall Computing Hours

Computing facilities will be open during the following hours throughout the Fall Semester (not applicable to holidays):

Computing Center RJE: 7 a.m. Monday - Midnight Saturday
                        Sunday, Noon - Midnight
ISB 110 Terminal Area: Monday - Thursday, 7:30 a.m. - Midnight
                        Friday, 7:30 a.m. - 6 p.m.
                        Saturday, 9:00 a.m. - 7 p.m.
                        Sunday, 2 p.m. - 10 p.m.
College of Business:   Monday - Thursday, 8:15 - Midnight
                        Friday, 8:15 - 8 p.m.
                        Saturday, Sunday, 12:15 p.m. - Midnight
Room 550C, GAB:        Monday - Thursday, 8 a.m. - 12 p.m.
                        Friday, 8 a.m. - 10 p.m.
                        Saturday, 10 a.m.- 8 p.m.
                        Sunday, 2 p.m. - 11 p.m.
Computing Center Open House Scheduled

The semi-annual Computing Center open house is scheduled for Wednesday, October 3 from 9 am to 7 pm. There is a limit of 15 people per tour, and pre-registration is required. For more information, and to pre-register, contact the Computing Center, 565-2324.

Dial-Up Access Telephone Numbers Changed

The dial-up telephone numbers to reach the various computer systems here at NTSU have been changed so that they can be reached by calling one of three numbers. See the COMMUNICATIONS section of this newsletter for more information.

Help Available in ISB 110!

This past summer saw the establishment of a help desk in ISB 110 for users with computing problems ranging from logon and communications difficulties to JCL and programming riddles. Help desk personnel are available anytime the ISB library is open. While they are not authorized to help students with classroom programming assignments, they will provide assistance with any other problems associated with the computing systems at NTSU. The help desk phone number is 565-4050.

The expanded schedule for the help desk is as follows:

- Sunday
  - 2:00 pm - 10:00 pm
- Monday-Thursday
  - 7:30 am - 12:00 midnight
- Friday
  - 7:30 am - 6:00 pm
- Saturday
  - 9:00 am - 7:00 pm

Television Monitors Provide Information

You may have noticed television monitors placed in various locations throughout the campus. There are three channels that may be received on these monitors. Channel 10 broadcasts the NTSU Computing Center’s System Status Monitor, which offers up to the minute information on the status of the various computer systems supported by the NTSU Computing Center (see the June 1984 issue of BENCHMARKS, “Keeping Track of All Those Computers,” for more information on this topic). Channel 8 broadcasts news
supplied by the NT DAILY, and channel 12 broadcasts news from the 
Cable News Network (CNN). Channel 12 may be scheduled for 
broadcasts other than the one from CNN by contacting the Media 
Library.

Time/Lines Rule Being Enforced Again

You may not have known it, but for awhile, the time/lines rule 
for JOB classes was not enforced. This is no longer true, 
however. Until further notice, the following rules are in 
effect:

<table>
<thead>
<tr>
<th>CLASS:</th>
<th>TIME/LINES RESTRICTIONS:</th>
<th>NO. OF TAPES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3*Time + (Lines/1000) &lt;= 45</td>
<td>None</td>
</tr>
<tr>
<td>B</td>
<td>same</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>same</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td>same</td>
<td>2</td>
</tr>
<tr>
<td>J, K, N</td>
<td>3*Time + (Lines/1000) &gt; 45</td>
<td>0, 1, or 2</td>
</tr>
<tr>
<td>M</td>
<td>same</td>
<td>3</td>
</tr>
<tr>
<td>L</td>
<td>same</td>
<td>0, 1, 2, or 3</td>
</tr>
</tbody>
</table>

Class C, D, J, K, N, and M jobs must have a 'SURF' special 
handling request submitted to the operator, stating time, lines, 
and device requirements before the job can be processed. Enter
HELP SURF while logged-on to MUSIC for information on sending 
special handling messages to the main console operator.

Class L is reserved for jobs requiring over 650K. Permission to 
runt such jobs must be obtained from Academic Computing and 
certified by an Academic Computing Staff member's initials on a 
special handling card stating estimated elapsed CPU time, lines, 
and device requirements, if any. The special handling card 
should be given to Rabon Sanders or Lynne Adkins in Operations, 
who will schedule the job to run, usually over a weekend.

ABC Arrives at NTSU

Academic Computing has recently acquired a site license for ABC, 
a microcomputer statistical analysis package developed by 
Consortium Software at the University of Michigan. The package is 
written to run under MS-DOS and requires a minimum of 256K RAM. 
The latest version has been tested to run on the IBM PC, the TI 
PC, the TRS80 Model 2000, and the Compaq micros. Consortium 
Software suggests that it should run on most other MS-DOS systems 
provided they have sufficient memory.

ABC is highly interactive and provides several of the most 
commonly used statistical analyses including univariate 
statistics, contingency table analysis, correlation, and 
regression. While ABC lacks the sophistication of mainframe
packages such as SPSS, SAS, and BMDP, most will find it to be extremely user-friendly since it was developed using good "human factors" design. The program is menu driven and offers extensive on-line help facilities. In addition, there are provisions for bypassing the menus once the user acquires a certain level of familiarity, thereby speeding up repetitive tasks. ABC appears particularly appropriate for introductory statistics classes.

Academic Computing will distribute ABC to faculty and staff at NTSU for a nominal fee to cover the cost of duplicating the documentation. In addition, interested parties must provide four blank diskettes onto which ABC can be transferred. For further information contact Dave Molta at 565-2324.

**Staff Events**

Tom Madron, Manager of Computer Services; Neal Tate, Chairman of the Political Science Department; and Bob Brookshire, Manager of Academic Computing, participated in a panel at the recent annual meeting of the American Political Science Association in Washington, D.C. The panel, *Demonstrations of Microcomputer Applications: Research and Teaching*, included demonstrations of Texas Instruments, IBM, Zenith, Tandy, COMPAQ, and APPLE microcomputers, and software for word processing, statistical analysis, computer-aided telephone interviewing (CATI), tax policy teaching and mathematical modeling.

Dr. Madron has also recently published a new book entitled *Local Area Networks in Large Organizations: A Managers Briefing,* (Hayden Book Company, Hasbrouck Heights, New Jersey). The book reflects Madron's experiences in designing and implementing local area networks, in evaluating competing networking technologies, contracting for cable television systems, and managing the NTSU network, among others.

**Computers for Rent**

A company called COMPUTERINN will rent computers by the hour for either stand-alone use or as communications equipment with NTSU computers. This item is published as a service to readers and does not reflect an endorsement or recommendation by the Computing Center or North Texas State University. COMPUTERINN is located at 1011 Peak street here in Denton, and can be reached at 565-0623.
Sign seen on Russian Electronics Factory: "Soviet Microchips -- World's Largest Microchips!" (Courtesy of Milan Reban, Political Science Faculty).

Did You Know? -- The world's largest computer program is IBM's OS/MVS operating system, with 520 million characters and 13 million instructions. It occupies two 3350 disk drives. And the documentation fills over 25 linear feet of shelf space! (Compiled from various sources)
The Computing Center is offering a series of short courses during the fall semester in Room 110 of the Science and Technology Library (ISB). Please pre-register according to the following dates and times. Only 25 people will be admitted per section. Courses marked with * require knowledge of the MUSIC Context Editor. Courses marked with ** require familiarity with VMS and EDT gained from the computer assisted instruction courses VMSCAI and EDTCAI. (#) denotes a change from the August BENCHMARKS.

1. Four separate 2-hour introductory sessions on the MUSIC interactive operating system.

   Monday, October 15 : 3 - 5 p.m. Instructor: Janice Green
   Tuesday, October 16 : 2 - 4 p.m. Instructor: Janice Green
   Wednesday, October 17 : 6 - 8 p.m. Instructor: Janice Green
   Thursday, October 18 : 6 - 8 p.m. Instructor: Janice Green

2. Two separate 1-hour sessions on the use of the 3270 Protocol Converter and full screen editing in MUSIC.*

   Tuesday, October 16 : 4 - 5 p.m. Instructor: Dave Molta
   Friday, October 19 : 2 - 3 p.m. Instructor: Dave Molta

3. A 1-hour introductory session on the VAX minicomputers.**

   Friday, October 19 : 1 - 2 p.m. Instructor: Kim Stickney

4. A 2-hour introductory session on SPSS-X.*

   Thursday, October 18 : 3 - 5 p.m. Instructor: Dave Molta

5. A 2-hour introductory session on SAS.*

   Thursday, October 18 : 9 - 11 a.m. Instructor: Scott Barber

6. A 2-hour introductory session on Waterloo SCRIPT.*

   Wednesday, October 17 : 2 - 4 p.m. Instructor: Dave Molta

7. A 2-hour advanced session on SAS.*

   Monday, October 22 (#) : 6 - 8 p.m. Instructor: Panu Sittiwong

A sign-up sheet for these short courses is included at the end of this issue.
Backup Schedule for OS/MVS

OS/MVS disk packs (academic and administrative) are backed up daily, Tuesday through Saturday, from 4-6:30 a.m., and Sunday from Midnight to 3 a.m. A backup of all the operating systems and their contents is done once every two weeks at some low activity period over a weekend.

NAS/8040 Performance Statistics for August

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>SCHEDULED OPERATING HOURS</th>
<th>PLANNED MAINT. HOURS</th>
<th>PLANNED PRODUCTION HOURS</th>
<th>UNPLANNED MAINT. HOURS</th>
<th>PRODUCTION SYSTEM HOURS</th>
<th>UPTIME ACHIEVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM/SP2</td>
<td>744</td>
<td>3.40</td>
<td>740.60</td>
<td>23.28</td>
<td>717.32</td>
<td>96.9%</td>
</tr>
<tr>
<td>MUSIC</td>
<td>744</td>
<td>21.69</td>
<td>722.31</td>
<td>25.42</td>
<td>696.89</td>
<td>96.5%</td>
</tr>
<tr>
<td>MVS/JES2</td>
<td>744</td>
<td>3.53</td>
<td>740.47</td>
<td>27.59</td>
<td>712.88</td>
<td>96.3%</td>
</tr>
<tr>
<td>COMPLETEA</td>
<td>744</td>
<td>3.62</td>
<td>740.38</td>
<td>32.04</td>
<td>708.34</td>
<td>95.7%</td>
</tr>
</tbody>
</table>

CPU availability equals approximately 99.6% uptime.
System Uptime = (Production Hrs Achieved)/(Planned Production Hrs)
Production Hrs Achieved = (Planned Production) - (Unplanned Maint.)
Scheduled Operating Hrs = (Planned Maint.) + (Planned Production)
MUSIC Planned Maintenance Hours include 17.86 hrs system backup.

Lost productivity is calculated as the greatest amount of elapsed time that any one of the production systems was unavailable for scheduled operation. Lost productivity hours were contributed to by the following key causes:

CPU, Tape, and Disk Subsystems (NAS)
1. 7350 DASD Failure                          3.23 HOURS
2. Faulty SVP IMPL Floppy                     2.70
   ------
   TOTAL 5.93 HOURS

Terminal Control Systems (MEMOREX)
1. 1270 TCU Line Failures                     1.66 HOURS
   ------
**Miscellaneous**

1. Undetermined Causes for Systems Restarts 1.24 HOURS
2. Air-Conditioning Chiller Failure 18.50 HOURS
3. Student Program Exceeded JES2 Job Q Space 3.32 HOURS
4. MVS/JES2 System Tuning/Improvements 0.92 HOURS
5. Testing VM/370 Release 3.1 3.83 HOURS
6. Accidental Trip of CPU Power 0.58 HOURS
7. Deinstallation of HyDra II Protocol Converter 0.17 HOURS

---

**TOTAL 28.56 HOURS**

---

**GRAND TOTAL 36.15 HOURS**

---

**COMMUNICATIONS**

---

**Dialing Up NTSU Computers Over the Telephone**

Phone numbers for the local area network are:

- **300/1200 BAUD:**
  - (817) 565 - 3300
  - 3499

- **300 BAUD:**
  - D/FW METRO 429 - 6006

The numbers that will accept either 300 or 1200 baud communications have an autobaud feature that requires the user to hit the <RETURN> key repeatedly until the receiving modem can determine the appropriate baud rate. The METRO telephone number is for 300 baud communications only. After a communications link has been successfully established, the user will receive the "#" prompt. At this point, it will be necessary to issue the appropriate CALL command to connect with a computer.

- **CALL 8040** will connect with the 8040 (on which you can access MUSIC)
- **CALL 8300** will connect with the 8040 at 300 baud
- **CALL 3270** will connect with the 8040 through the 3270 protocol converter
- **CALL A780** will connect with VAX system A
- **CALL B780** will connect with VAX system B
- **CALL 2000** will connect with the HP-2000 computer
MUSIC Backup Hours

A message will be sent to all users signed on to MUSIC approximately 10 minutes before backups are begun. It will be in the form "MUSIC SHUT DOWN AT xxxx AM - SCHEDULED BACKUP **. To find out the backup hours while signed on to MUSIC, enter HELP HOURS. The following backup schedule is currently in effect:

Tuesday  
3 a.m. (for about 3 hours)  
Weekly backup

Wednesday - Saturday  
4 a.m. (for about 2 hours)  
Daily backup

Saturday  
Midnight (for about 2 hours)  
Daily backup

School of Music Terminal Moved

The public computer terminal located in the NTSU School of Music has been moved from room 2011 to room 2013.

Change in STATPAK Access

Effective October 15, the "old" version of the STATPAK statistical package will no longer be available. After that date, users will need to enter STATPAK rather than STATPAK.X from the #GO mode to access the new version (5.0) of this package. As described in the September BENCHMARKS, STATPAK is a conversational system for those with little experience with statistical packages or computers. The conversational nature of the program provides for easy access to the analyses of data.

The new version of STATPAK (5.0) is easier to use and provides better facilities for interacting with MUSIC than the older version. MUSIC save files can easily be used for input and the results can be saved in other MUSIC save files using the RESULTS procedure. STATPAK also has the capability to operate in full-screen mode using 3270 terminals. The HELP and INTRODUCTION facilities have also been improved in the new version to make the package more accessible to new users.

All users should be aware that typing HELP at most any stage of the procedure gives more specific information.
**VAX Backup Schedule**

Incremental backups of both VAX systems are performed Monday through Thursday at 5 p.m. Any files that have been created or changed are backed up. Users do not have to log out, but any files that are open at the time of the backup will NOT be backed up.

Full backups of both systems are done every Friday at 5 p.m. Again, users do not have to log out, but any files that are open will NOT be backed up.

A "stand alone" backup of both systems is done on the last working day of the month. During this time, all system software, as well as user files, are backed up. The systems must be taken down for this backup, which will usually not last more than 1/2 hour. All users that are logged on will be warned of the impending backup, and must log out.

**NOTE:** No backups are taken on the weekends. Requests for restoration of files should be made via MAIL to the username OPERATOR.

**HP-2000 Backup Schedule**

Routine system backups are scheduled to be performed at the following times:

- 8 a.m. Monday through Friday for approximately 20 minutes;
- 4 p.m. Friday for approximately 1.5 hours.
NAS/6650 Performance Statistics for August

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>SCHEDULED OPERATING HOURS</th>
<th>PLANNED MAINT. HOURS</th>
<th>PLANNED PRODUCTION HOURS</th>
<th>UNPLANNED MAINT. HOURS</th>
<th>PRODUCTION HOURS</th>
<th>SYSTEM UPTIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVS/JES2</td>
<td>744</td>
<td>7.02</td>
<td>736.98</td>
<td>18.30</td>
<td>718.68</td>
<td>97.5%</td>
</tr>
<tr>
<td>COMPLETEA</td>
<td>336</td>
<td>0.00</td>
<td>336.00</td>
<td>5.01</td>
<td>330.99</td>
<td>98.5%</td>
</tr>
<tr>
<td>ADABASA</td>
<td>744</td>
<td>11.40</td>
<td>732.60</td>
<td>21.17</td>
<td>711.43</td>
<td>97.1%</td>
</tr>
</tbody>
</table>

CPU availability equals approximately 100% uptime. Please consult the NAS/8040 Performance Summary for an explanation of cell entries. It can be found under the OPERATIONS section of this newsletter.

Lost productivity is calculated as the greatest amount of elapsed time that any one of the production systems was unavailable for scheduled operation. Lost productivity hours were contributed to by the following key causes:

CPU, Tape, and Disk Subsystems
   1. Attach STC 8650 Cables to CPU .......................... 0.35 HOURS

DASD Subsystem (STC)
   1. Install and Test 8650 Disks ......................... 6.57 HOURS

Miscellaneous
   1. Undetermined Causes for Systems Restarts ........... 1.08 HOURS
   2. Air Conditioning Chiller Failure .................... 17.55
   3. Phase COMTEN 3690 TCU into Production ............. 0.32
   4. MVS/JES2 System Tuning/Improvements ............... 1.95
   5. ADABASA Program Tuning/Improvements .............. 0.94
   6. Reinstallation of HyDra II Protocol Converter .... 0.17

TOTAL .................................................. 22.01 HOURS

GRAND TOTAL ........................................... 28.93 HOURS

Administrative Micro-computer Users Group Forming

A micro-computer users group for administrative users is being formed. The first meeting will be Thursday, September 27 at noon in room 410 of the University Union. Contact Chuck Fuller of Business Services for more information.
Office Automation Analyst Resigns, Replacement Sought

Paul Buchanan, Office Automation Analyst with the Computing Center for the past 7 months, resigned effective September 7 to accept a new position in Washington State. Applications are currently being taken for a new Office Automation Analyst. The job description for this position follows:

OFFICE AUTOMATION ANALYST

NORTH TEXAS STATE UNIVERSITY, located 35 miles north of Dallas, seeks analyst to be responsible for developing plans and implementing solutions to meet office automation needs.

QUALIFICATIONS:

Required:
  2 yrs. experience as a programmer analyst and Bachelor's degree (or equivalent additional experience).

Preferred:
  Experience applying microcomputer and mainframe-based products in the office environment.
  Experience in developing and presenting formal training programs.
  Additional data processing or office management experience or a graduate-level degree will be considered a plus.

For full consideration, we need your application by Oct. 8.

Send resume and salary requirements to:

NTSU Personnel Office
N.T. Box 13497
Denton, TX 76203

Or call Mr. Coy Hoggard at 817-565-2324 for additional information.

An Equal Opportunity/Affirmative Action Employer.
Registration Form for Computing Center Short Courses

Please complete this form and return it AS SOON AS POSSIBLE if you wish to attend any of the short courses listed below. Additional forms may be obtained in ISB 119.

NAME: ____________________________ PHONE: ______

DEPT: ____________________________

I wish to attend:

Introduction to MUSIC

___ Monday, October 15, 3-5 p.m.
___ Tuesday, October 16, 2-4 p.m.
___ Wednesday, October 17, 6-8 p.m.
___ Thursday, October 18, 6-8 p.m.

Introduction to the 3270 Protocol Converter

___ Tuesday, October 16, 4-5 p.m.
___ Friday, October 19, 2-3 p.m.

Introduction to SAS

___ Thursday, October 18, 9-11 a.m.

Introduction to SPSS-X

___ Thursday, October 18, 3-5 p.m.

Introduction to Waterloo SCRIPT

___ Wednesday, October 17, 2-4 p.m.

Introduction to VAX

___ Friday, October 19, 1-2 p.m.

Advanced SAS

___ Monday, October 22, 6-8 p.m.
PLEASE RETURN TO:
Academic Computing Services
The Computing Center
NT Box 13495
North Texas State University
Denton, TX 76203
Get a "Subscription" to BENCHMARKS

BENCHMARKS is a vital link between the NTSU Computing Center and the users of our facilities. It is important for all users of the computing facilities to maintain a file of these newsletters because they contain materials which will periodically update existing documents as well as information and suggestions on uses of OS/MVS, MUSIC, the VAX 11/780's, the HP-2000, and other resources available to NTSU students and faculty. To facilitate the dispersal of BENCHMARKS, *** FREE *** subscriptions are now available. To receive yours, send the following information to us either by "snail mail" (the post office or campus mail) or electronically, through the MAIL facility on MUSIC.

Name

Mailing Address


PLEASE GIVE A CAMPUS ADDRESS (NOT BOX) IF POSSIBLE! - It's Cheaper!!
PLEASE RETURN TO:
Academic Computing Services
The Computing Center
NT Box 13495
North Texas State University
Denton, TX 76203