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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

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

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

JCL & DEBUGGING PROBLEMS - Help Desk

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

DATA ENTRY & KEYPUNCH - Betty Grise

TEST SCORING & ANALYSIS - Betty Grise

PASSWORD AND DISK SPACE PROBLEMS - Carolyn Goodman

OPERATING SYSTEM PROBLEMS - Help Desk

ADMINISTRATIVE APPLICATIONS - Coy Hoggard

COMMUNICATION/Terminal PROBLEMS - Help Desk

PRINTOUT RETRIEVAL - RJE Operators

Summer Computing Hours

Computing facilities will be open during the following hours throughout the Summer Semesters (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, 8:30 a.m. - 7 p.m.
Sunday, 2 p.m. - 10 p.m.

College of Business:
Monday - Saturday, 8:15 - Midnight
Sunday, 12:15 p.m. - Midnight

Room 550C, GAB:
Monday - Thursday, 8 a.m. - 11 p.m.
Friday, 8 a.m. - 8 p.m.
Saturday, Noon - 5 p.m.
Sunday, 2 p.m. - 10 p.m.
Exceptions to Summer Computing Schedules

The following are exceptions to the announced computing schedules for the summer.

GAB 550 C: 8/18 - 9/3 : CLOSED

College of Business : Room 153 is to be closed.
All computing will continue as usual in room 152.

More Dial-Up Lines Available

Twenty-four new 300/1200 dial-up modems have been installed and can be reached by dialing 565-3300. If you experience any problems with these modems, hang up and try the number again. This should cause the telephone to ringer to another port. If you still cannot access the proper system, please report the problem to the Computing Center (565-2324).

ID-Codes Expire

User-ID Codes for all systems expire on August 31. If you have not completed a new user-ID request form to renew your account(s), you will be unable to access any system on September 1. If you have not completed a new user-ID request form by September 15, your account(s) will be purged from the system(s). User-ID request forms are available from the Computing Center Reception area, ISB 119.

MUSIC class ID-codes (ID codes greater than J400) will no longer exist after August 20. You may grovel for restoration of data stored in a class ID-code by calling 565-2324.

SHORT COURSES

The Computing Center is offering a series of short courses during the fall semester. These courses will be held in Room 110 of the Science and Technology Library (ISB) unless otherwise noted. Following are the dates and times for each course. Please pre-
register to attend. Only 20 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.

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

   Monday, September 17 : 2 - 4 p.m. Instructor: Janice Green
   Tuesday, September 18 : 9 - 11 a.m. Instructor: Panu Sittiwong
   Wednesday, September 19 : 6 - 8 p.m. Instructor: Janice Green
   Thursday, September 20 : 6 - 8 p.m. Instructor: Panu Sittiwong

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

   Tuesday, September 18 : 2 - 3 p.m. Instructor: Dave Molta
   Thursday, September 20 : 3 - 4 p.m. Instructor: Dave Molta

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

3. Two separate 1-hour introductory sessions on the VAX minicomputers.**

   Friday, September 21 : 1 - 2 p.m. Instructor: Kim Stickney
   Friday, October 19 : 1 - 2 p.m. Instructor: Kim Stickney

4. Two separate 2-hour introductory sessions on SPSS-X.*

   Wednesday, September 19 : 1 - 3 p.m. Instructor: Dave Molta
   Thursday, October 18 : 3 - 5 p.m. Instructor: Dave Molta

5. Two separate 2-hour introductory sessions on SAS.*

   Monday, September 17 : 10 - 12 noon Instructor: Scott Barber
   Thursday, October 18 : 9 - 11 a.m. Instructor: Scott Barber

6. Two separate 2-hour introductory sessions on Waterloo SCRIPT.*

   Friday, September 21 : 2 - 4 p.m. Instructor: Dave Molta
   Wednesday, October 17 : 2 - 4 p.m. Instructor: Dave Molta

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

   Monday, October 15 : 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 July

<table>
<thead>
<tr>
<th>SYSTEM OPERATING HOURS</th>
<th>SCHEDULED MAINT. HOURS</th>
<th>PLANNED PRODUCTION HOURS</th>
<th>PLANNED MAINT. HOURS</th>
<th>UNPLANNED PRODUCTION HOURS</th>
<th>SYSTEM UPTIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM/SP2 744</td>
<td>2.28</td>
<td>741.72</td>
<td>4.03</td>
<td>737.69</td>
<td>99.5%</td>
</tr>
<tr>
<td>MUSIC 744</td>
<td>20.92</td>
<td>723.08</td>
<td>7.88</td>
<td>715.20</td>
<td>98.9%</td>
</tr>
<tr>
<td>MVS/JES2 744</td>
<td>2.47</td>
<td>741.53</td>
<td>7.20</td>
<td>734.33</td>
<td>99.0%</td>
</tr>
<tr>
<td>COMPLETEA 744</td>
<td>4.15</td>
<td>739.85</td>
<td>8.93</td>
<td>730.92</td>
<td>98.8%</td>
</tr>
</tbody>
</table>

CPU availability equals approximately 100% 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 18.67 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:

Terminal Control Systems (MEMOREX)
1. 1270 TCU Line Failures 0.57 HOURS

Miscellaneous
1. Undetermined Causes for Systems Restarts 4.27 HOURS
2. MVS/JES2 System Tuning/Improvements 0.67
3. MUSIC Program Tuning/Improvements 0.67
4. COMPLETEA Program Tuning/Improvements 0.67
5. VM/SP2 System Tuning/Improvements 0.85
6. Recabling/Testing AP-190L Array Processor 0.74
7. COMTEN 3690 TCU Instillation 2.65
8. Main Blower Failure on 5th Floor of GAB 3.27

TOTAL 13.84 HOURS

GRAND TOTAL 14.41 HOURS
More Personnel Changes

Victor Loos, part-time research programmer and full-time nice
guy, resigned his position at the end of July. He is finishing
up his dissertation, and will begin his internship in Houston (he
is getting a Ph.D. in Psychology) in the fall. His replacement
has already been hired and comes to us from the Political Science
department here at NTSU where he is a graduate student. His name
is Panu Sittiwong. Rumor has it that Panu is a SAS whiz, so if
you've been saving up your SAS questions, now's the time to ask
them.

Correction on the SPSSX Article in the Last Issue

In describing the installation of SPSSX Version 2.0, it was noted
that:

... if you want to produce any of the PROCEDURES
documentation with INFO you need to insert the
following line directly below your JOB card:

//FT06F001 DD SYSOUT=(A,,TNS1)

You will also need to route your output to
the laser printer.

This should be changed so that the //FT06F001 ... line is
inserted below the // EXEC SPSSX line, not the JOB card line.

BMDP Upgraded

BMDP has been upgraded to BMDP 83. This release is primarily a
maintenance release, and does not include any new programs. It
fixes some errors and adds some new features. To find out what
is new with a given BMDP procedure, you can state NEWS in the
/PRINT paragraph.
Use of STATPAK 5.0 on MUSIC at NTSU
By Scott Barber, Academic Computing Staff

Among the packages available at North Texas is STATPAK, a conversational system for persons with little experience with statistical packages or with computers. The conversational nature of the program provides for easy access to the analyses of data.

The package offers a wide variety of statistical procedures including such bivariate statistics as crosstabs, correlations, simple regression, one-way ANOVA, and associated tests of significance. It also supports several multivariate procedures including factor analysis, canonical correlation, discriminant analysis, various regression procedures and probit analysis.

All data read by STATPAK are in the form of matrices. To aid with preparation of your data, STATPAK 5.0 provides several data manipulation procedures. You can edit your raw data directly using the EDIT DATA MATRIX procedure or the MUSIC context editor. You can perform more complex transformations such as computing logs of variables, taking square roots and combining variables using the TRANSFORMATION procedure. STATPAK will also invert square matrices and produce eigenvalues and eigenvectors for symmetric matrices.

The new version of STATPAK (5.0) is easier to use and provides better facilities for interacting with MUSIC than the older version. Save files can easily be used for input and the results can be saved in another MUSIC save file 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 for new users.

From the *GO mode, enter STATPAK.X to load STATPAK 5.0 into your environment. You will be prompted with "WHICH PROCEDURE DO YOU WISH TO PERFORM?" New users are encouraged to type INTRODUCTION (or, more briefly, INTR) to access the documentation for this package. You may request information on your terminal mode by typing 4 from the introduction menu. You should also request the rest of the introduction options. If you are on the 3270, the computer will respond with a menu containing a list of the available statistical procedures immediately after your STATPAK.X command. By typing in the first four letters of the desired procedure, you access that procedure and are prompted with the appropriate questions. You can also type "intr" for basic information. When the system gives a PFn/mm prompt for accessing a certain menu or environment, depress the <esc> n keys for that purpose.

All users should be aware that typing HELP at most any stage of the procedure gives more specific information.
Personnel Movement in Technical Support

Several additions have been made to the Technical Support staff this summer. Steve Glick, as was reported earlier, transferred over from Academic Computing, where he was MUSIC Coordinator. He continues to work with MUSIC, but on its technical support aspects.

Paul Weissman, another new staff member, comes from the U.T. Health Sciences Center in San Antonio. His primary responsibility is MVS/JES2. Paul’s wife Ellen, recently joined the Administrative Computing staff here.

Some of you old-timers may remember Jerry Waldon. He left in 1981 after 18 years of service to NTSU, and has now rejoined the Technical Support staff. His primary responsibility is VM/CMS. Welcome back, Jerry!

Communications

Dialing Up NTSU Computers Over the Telephone

Phone numbers for the local area network are:

(817) 565 - 3300
3499
3899
3900
3966
3989
4025
4026
4030
D/FW METRO 429 - 6006

The numbers 565-3300, 565-3499, 565-3899, 565-3966, 565-4026, and 565-4030, will accept either 1200 or 300 baud communications. They 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 rest of the telephone numbers are 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:

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>3 a.m. (for about 3 hours)</td>
<td>Weekly backup</td>
</tr>
<tr>
<td>Wednesday - Saturday</td>
<td>4 a.m. (for about 2 hours)</td>
<td>Daily backup</td>
</tr>
<tr>
<td>Saturday</td>
<td>Midnight (for about 2 hours)</td>
<td>Daily backup</td>
</tr>
</tbody>
</table>

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.

"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 July**

<table>
<thead>
<tr>
<th>SYSTEM OPERATING HOURS</th>
<th>SCHEDULED MAINT. HOURS</th>
<th>PLANNED PRODUCTION HOURS</th>
<th>PLANNED MAINT. HOURS</th>
<th>UNPLANNED PRODUCTION HOURS</th>
<th>SYSTEM UPTIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVS/JES2 744</td>
<td>1.66</td>
<td>742.34</td>
<td>6.51</td>
<td>735.83</td>
<td>99.1%</td>
</tr>
<tr>
<td>COMPLETEA 275</td>
<td>0.00</td>
<td>275.00</td>
<td>8.10</td>
<td>266.90</td>
<td>97.1%</td>
</tr>
<tr>
<td>ADABASA 744</td>
<td>5.22</td>
<td>738.78</td>
<td>8.28</td>
<td>730.50</td>
<td>98.9%</td>
</tr>
</tbody>
</table>

CPU availability equals approximately 99.9% 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**
- **T. Single Bit Failures in CPU Control Storage** 0.68 HOURS
Terminal Control Systems (IBM)
1. 3272 TCU Failure 1.42 HOURS

Miscellaneous
1. Main Blower Failure on the 5th Floor GAB 3.25 HOURS
2. Power Failure in ISB on I/O Equipment 0.25
3. COMTEN 3690 TCU Installation 1.66
4. MVS/JES2 System Tuning/Improvements 3.07
5. COMPLETA Program Tuning/Improvements 2.80

TOTAL 11.03 HOURS

GRAND TOTAL 13.13 HOURS

Computing Center Move

By the time this issue is "on the street" the Computing Center remodeling activity should be complete and the associated moves accomplished. The Information Systems group will be officed on the second floor of the Information Sciences Building (North Wing) and the Computer Services Group on the first floor (also North Wing.)

Personnel Changes:

Sandy Franklin has been promoted effective August 1 to the position of Office Automation Specialist. Congratulations are in order. Telka Clem has been hired as a programmer effective August 1 to work in the Student Records Data Systems team.

INDEX TO PAST ISSUES

In order to utilize BENCHMARKS to its fullest capacity and avoid redundancies, an index of issues containing information considered still pertinent to the NTSU Computing Center is included once a semester, referencing articles that appeared the previous semester.
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<th>MONTH/YEAR</th>
<th>PG</th>
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<td>VSAM Comes to NTSU</td>
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<td>May/84</td>
<td>2</td>
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<tr>
<td>User Help Desk a Reality</td>
<td>5/5</td>
<td>June/84</td>
<td>2</td>
</tr>
<tr>
<td>Keeping Up With the Latest in Computing at NTSU</td>
<td>5/5</td>
<td>June/84</td>
<td>3</td>
</tr>
<tr>
<td>Keeping Track of All Those Computers</td>
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<td></td>
</tr>
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<td>Troubleshooting, Who to Call When You Have Problems</td>
<td>5/6</td>
<td>July/84</td>
<td>2</td>
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<tr>
<td>MVS Overview Available</td>
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<tr>
<td>Using the Impact Printer on the HP 3000 RJE</td>
<td>5/6</td>
<td>July/84</td>
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</tr>
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<td>New Blood for Academic Computing Services</td>
<td>5/5</td>
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<td>5</td>
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<tr>
<td>More New Blood for Academic Computing Services</td>
<td>5/6</td>
<td>July/84</td>
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<td>Manager's Article Featured in ISSUES</td>
<td>5/6</td>
<td>July/84</td>
<td>5</td>
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<tr>
<td>Personnel Movement in Information Systems</td>
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<td>July/84</td>
<td>9</td>
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<td><strong>4. SOFTWARE</strong></td>
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<td><strong>A) MUSIC</strong></td>
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<td>Notes on Using Direct Access COBOL Programs</td>
<td>5/4</td>
<td>May/84</td>
<td>6</td>
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<td><strong>B) SPSSX</strong></td>
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<tr>
<td>New Release of SPSSX Installed</td>
<td>5/6</td>
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<tr>
<td>SPSSX System Files Installed</td>
<td>5/6</td>
<td>July/84</td>
<td>6</td>
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<td><strong>C) BMDP</strong></td>
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<tr>
<td>Contrasts in BMDP</td>
<td>5/5</td>
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<td>6</td>
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<td><strong>D) The VAX 11/780s</strong></td>
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<tr>
<td>Intersystem Data Transfers</td>
<td>5/3</td>
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<td>8</td>
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<td><strong>E) Microcomputers</strong></td>
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<td>Communications Programs for Micros</td>
<td>5/4</td>
<td>May/84</td>
<td>9</td>
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<td><strong>5. PERFORMANCE STATISTICS</strong></td>
<td></td>
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<tr>
<td><strong>A) NAS/8040</strong></td>
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<tr>
<td>April</td>
<td>5/4</td>
<td>May/84</td>
<td>4</td>
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<tr>
<td>May</td>
<td>5/5</td>
<td>June/84</td>
<td>4</td>
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<td>June</td>
<td>5/6</td>
<td>July/84</td>
<td>4</td>
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<tr>
<td><strong>B) NAS/6650</strong></td>
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<td>April</td>
<td>5/4</td>
<td>May/84</td>
<td>11</td>
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<tr>
<td>May</td>
<td>5/5</td>
<td>June/84</td>
<td>14</td>
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<tr>
<td>June</td>
<td>5/6</td>
<td>July/84</td>
<td>9</td>
</tr>
</tbody>
</table>
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. You may also register by phone by calling 565-2324.

NAME: __________________________ PHONE: ________

DEPT: __________________________

I wish to attend:

Introduction to MUSIC
____ Monday, September 17, 2-4 p.m.
____ Tuesday, September 18, 9-11 a.m.
____ Wednesday, September 19, 6-8 p.m.
____ Thursday, September 20, 6-8 p.m.
____ 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, September 18, 2-3 p.m.
____ Thursday, September 20, 3-4 p.m.
____ Tuesday, October 16, 4-5 p.m.
____ Friday, October 19, 2-3 p.m.

Introduction to SAS
____ Monday, September 17, 10 a.m. - 12 noon
____ Thursday, October 18, 9-11 a.m.

Introduction to SPSS-X
____ Wednesday, September 19, 1-3 p.m.
____ Thursday, October 18, 3-5 p.m.

Introduction to Waterloo SCRIPT
____ Friday, September 21, 2-4 p.m.
____ Wednesday, October 17, 2-4 p.m.

Introduction to VAX
____ Friday, September 21, 1-2 p.m.
____ Friday, October 19, 1-2 p.m.

Advanced SAS
____ Monday, October 15, 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!!