





## .....Information, please!

**3 - Food Service** is the University Food Services Bulletin Board. It includes catering rates and menus as well as news of upcoming services and events.

**4 - Research News/Deadlines (ORTTA)** is the Office of Research and Technology Transfer Administration's Bulletin Board. It includes recent program announcements, deadline information, names and phone numbers of ORTTA staff, proposal development information, funding opportunities, sponsor deadlines, and the weekly NIH Guide.

**5 - Student Support Services (Twin Cities)** is the Student Support Services (SSS) Bulletin Board. It is designed to inform students, staff, and faculty about SSS procedures, policies, and other information relating to admissions, registration, records, and financial aid.

**6 - Public Access General Info** is the AIS Publisher Information Bulletin Board. Its purpose is to electronically relay information about current publishers and to list contacts for becoming a publisher on this system.

On-line help is available from within any application. Please note that you may access this system in several ways (see box on the right). For more information, please contact our Help Desk (624-6235).

*This article was adapted from the Fall and Winter AIS Newsletters.▲*

# Suggest It

We're still waiting to hear from you! In the September 1990 issue of the SPCS Newsletter, we announced a new EXEC called SUGGEST that allows our users to send us their suggestions while their logged on to our system. This EXEC resides on the PSST disk, and is easily accessible. To use it, first make sure you've entered the command:

```
GETPROD PSST
```

That done, enter:

```
SUGGEST
```

as though it were a CMS command. SUGGEST will present you with an XEDIT screen of a file of blank lines. Type in your complaint or suggestion, and VOILA! It all gets sent to us when you finish editing the file.

Just because we've called it SUGGEST, don't feel as though you can't use it to complain. Please tell us what is wrong, where we've screwed up, what you'd like to see, how they ran the system where you used to be, or whatever. We want you to give us some heat so we can put out the fires. Tell us how we can improve our service. Please feel free to tell us ANYthing, and use SUGGEST as often as you'd like.

We could have called it COMPLAIN, but complaints always seem ready at hand, so we wanted to encourage suggestions, too. Sure, we might even hear a congratulatory word or two, or an occasional 'thanks', but we won't count on it.

SPCS will respond by sending a file or files back to you, unless you choose to put your phone number or address in the file. Only one SPCS staff member will know your identity and will protect your anonymity unless we have your permission to do otherwise. ▲

### Alternate access methods for Public Access Information

- ☒ Dial-up connection to the Public Access Menu @ 625-6009.
- ☒ Computer terminals in the University Libraries.
- ☒ Option PA on the AIS network (if you have a SecurID card).
- ☒ University's Internet (PUBINFO.AIS.UMN.EDU). For a connection to the campus Internet, contact Telecommunications Services (626-0260).

# New and Improved



## System Upgrade

In the last SPCS Newsletter, we announced that we were planning a computer upgrade. We are pleased to announce that we installed an IBM 9121 system on January 13, 1991. The commands that you use on our system haven't changed, and we do not anticipate any other user-visible changes with the new system. The same operating system (IBM VM/CMS HPO release 5) will continue to be used.

## SPSSx Release 4

In our last newsletter (September 1990), we announced the installation of the newest version of SPSSx: Release 4. As mentioned in the article, Release 4 includes four new facilities: EXAMINE, FLIP, LOGISTIC REGRESSION, and MATRIX. Release 4 of SPSSx is now the *current* version. Thus, when you enter GETPROD SPSSX, you will automatically have access to version 4. If you wish to use release 2.1 of SPSSx, enter GETPROD SPSSX PAST>. Manuals for both versions are available for reference at the Help Desk.

## New Statistics Notes

There are three new Statistics Notes available from our Help Desk. The entire series now consists of:

- Stat Note 1 Proc CATMOD for Maximum Likelihood Fitting of Log-linear Models
- Stat Note 2 Crossover Designs as Replicated Latin Squares
- Stat Note 3 Unbiased Parameter Estimation for Unbalanced Factorial Experiments
- Stat Note 4 Regression with Both Qualitative and Quantitative Variables



**Interested in the SAS System under OS2?**  
If so, please leave your name and phone number with the Help Desk (624-6235) and we'll contact you.

## Data Entry

Our Data Entry Department (located in 6 North Hall) is open 8 am to 4:30 pm Monday through Friday.

### Data Entry

- Data entry and verification from most types of source documents (i.e., coding sheets, questionnaires, and surveys). On request, we'll provide you with 80-column coding sheets.
- Assistance in preparing your questionnaire or survey (for optimum efficiency).
- Output on 1600 or 6250 bpi tape (compatible with all University mainframes), 3-1/2" or 5-1/4" diskettes, or paper (laser optional).
- Online interactive access to any mainframe within the University system.
- Remote job entry file transfer.

### Word Processing

- Professional quality.
- Accuracy.
- Speed.
- Several formats, including WordPerfect and Microsoft Word.
- Output on 1600 or 6250 bpi tape, 3-1/3" or 5-1/4" diskettes, or paper (laser optional).



# Consulting Corner

**Q.** Will SAS/GRAPH produce a graphic that can be included in my Macintosh PageMaker document?

**A.** Yes, there are several ways to include images produced by SAS/GRAPH in various microcomputer packages. For many people, the easiest method is to specify that SAS/GRAPH create an Encapsulated PostScript (EPS) file. Many microcomputer software packages, including PageMaker on the Macintosh, will import an EPS file very easily.

If the following two lines are added to your PC SAS/GRAPH program, an Encapsulated PostScript file called `state.eps` will be created in the `/mysas` directory on your `c:` disk drive:

```
filename psfile 'c:/mysas/state.eps';
goptions device=psepsf gsfname=psfile gsfmode=replace nodisplay;
```

Then transfer the file `STATE.EPS` to your Macintosh, and use the **Place** command from the File menu in PageMaker to bring the EPS file into PageMaker. Once the graphic is in PageMaker, you can modify it as you would most other graphics (crop it, resize it, apply color to it, and so on).

If you are using the SPCS mainframe, you must use SAS Version 6.06. To gain access to SAS Version 6.06, enter the command:

```
GETPROD SAS TEST
```

Include the following two lines in your SAS/GRAPH program:

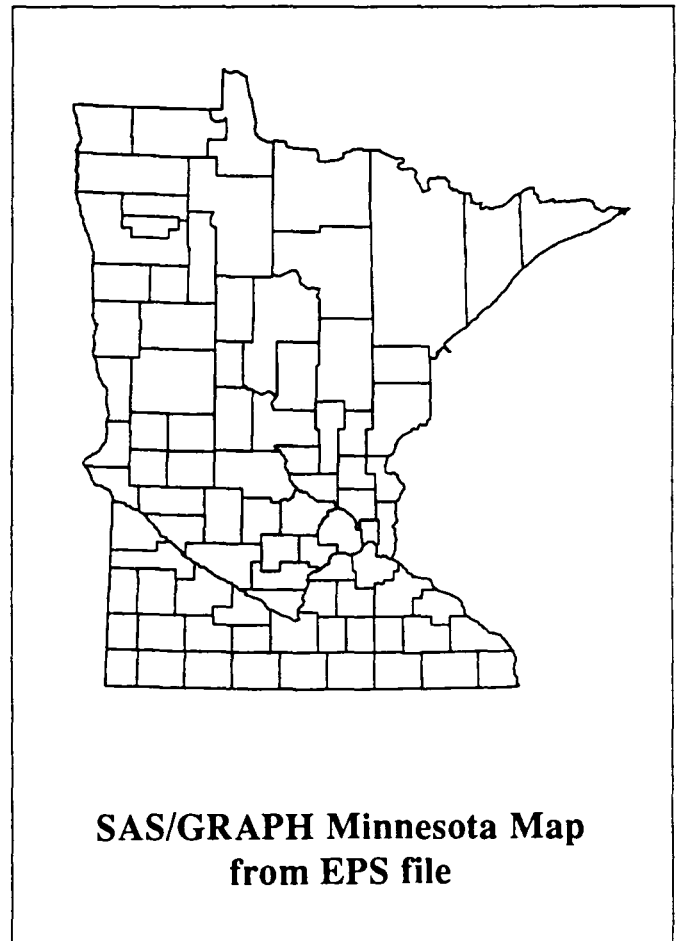
```
FILENAME PSFILE 'STATE.EPS.A';
GOPTIONS DEVICE=PSEPSF GSFNAME=PSFILE
          GSFMODE=REPLACE NODISPLAY;
```

This will create a text file called `STATE.EPS` on your A disk. Transfer this file to your Macintosh and use the **Place** command from the File menu in PageMaker to bring the EPS file into PageMaker.

If you're using PC SAS, add the following two lines to your SAS/GRAPH program to create an EPS file called `state.eps`:

```
filename psfile 'c:/mysas/state.eps';
goptions device=psepsf gsfname=psfile
          gsfmode=replace nodisplay;
```

The graphic on the right was created as an EPS file with SAS/GRAPH Version 6.06, and included in PageMaker 4.0 for this article.



**SAS/GRAPH Minnesota Map  
from EPS file**



# Consulting Corner

**Q.** I am using SPSSx and would like to sort my dataset. When I include the SORT CASES statement in my job and run it, I get an error. What do I need to do?

**A.** You must issue a GLOBAL TXTLIB statement before running an SPSSx job that includes a sort step. The current version of SPSSx and the sort program also require more than the default amount of memory, so you need to increase the buffer space and perhaps the storage available for your userid. To increase the buffer space, enter the following sequence of statements from CMS mode:

```
global txtlib vmslib
spssx fn (200k
```

If your job abends with a message that more storage is required, you may also need to increase the memory for your userid. In a BATCH job, this is done in the /SET SIZE= statement. If you are running the program from your userid, enter these statements:


```
define storage 3M
ipl cms
```

If you have any further questions, please call the Help Desk (624-6235). ▲


## Macintosh Software Available

The SPCS Help Desk has Macintosh software that is available for users to copy using the Mac in our user room. If you'd like to make a copy of one of the items listed below, bring a formatted standard density diskette to the Help Desk.


### Disinfectant

 a free Macintosh anti-viral utility from John Norstad and others at Northwestern university.


### Meta

 free software from SAS Institute, used to convert a SAS/GRAPH-produced Graphics Stream File to a Macintosh PICT (MacDraw) document. The PICT file can be included in documents created by many word processing, desktop publishing, and graphics software packages.

### SendPS


 free software from Adobe to send a Postscript file from your Macintosh to your Apple LaserWriter. This software can be used to print graphics created with SAS/GRAPH software. PostScript files can be created with SAS/GRAPH on both the mainframe and the PC. See the March, 1990 SPCS Newsletter for more information.

### TinCan


 software from Yale University to make your Macintosh act like a terminal. You can use TinCan along with your Macintosh, phone line and modem, or data line to log on to the SPCS, Carlson School of Management, or LUMINA. Since the University has a site license for TinCan software, it is

available at no cost to University of Minnesota students, staff, and faculty. An individual must sign a license agreement to make a copy of TinCan.

### TinCan configuration files

 files used to configure TinCan to connect to SPCS, Carlson School of Management, and LUMINA with various phone, modem, and data line combinations.

### TN3270

 free telnet software from Brown University that makes your Macintosh act like an IBM 3270 terminal. This software is recommended for network connections to many IBM mainframes including SPCS. ▲

# Other St. Paul Services

## SPCS Statistician

We have a resident statistician at SPCS: Julie Buckel. She's available by appointment for consultation on your projects. To arrange an appointment, stop by or call our Help Desk (624-6235).

## Stat Clinic

The Statistical Clinic, staffed by graduate students of the School of Statistics and supervised by faculty members of the Applied Statistics Department, aids researchers on questions of experimental design, analysis, and interpretation.

The main Clinic is located in 133 Classroom Office Building on the St. Paul campus (625-3121), with a branch office in the SSRFC at 25 Blegen Hall on the West Bank (625-8313). Facilities are ordinarily available on a walk-in basis, although appointments are recommended. Call 625-7030 to obtain exact hours.

## St. Paul Microcomputer Lab

The St. Paul Microcomputer Lab is open to all students, staff, and faculty members of the University of Minnesota who possess an ACS Microcomputer Access Card (available from the St. Paul Bursar's Office for \$30/quarter). A Microcomputer Access Card is only valid during the quarter in which it is purchased. High quality printing is available on the Apple LaserWriter Plus, an HP LaserJet Plus, and an HP ColorPro Plotter. To use one of these printers, you'll need a Laser Printer Access Card, available for \$1.00 from the Bursar's Office. Each Printer Access Card is good for ten pages of manuscript-quality print and can be used any time. The lab is operated on a first-come, first-served basis, and each user is limited to 2 hours per session.

### SOFTWARE

#### IBM PS/2

Bitstream Fonts  
dBase IV  
Lotus 123 rel. 2.2 & 3.0  
PC SAS  
Turbo Pascal 4.0  
WordPerfect 4.2, 5.0, 5.1  
WordStar Release 4  
(GLIM, Minitab, Statostix)

#### Apple IIe

AppleWorks  
MousePaint

#### Macintosh

Claris CAD  
Cricket Graph  
Freehand  
HyperCard  
MacDraw II  
MacPaint II  
MacWrite 5.0 & II  
MS BASIC  
MS Excel 2.2  
MS Word 3.01 & 4.0  
PageMaker 3.02 & 4.0  
SuperPaint 1.1 & 2.0

### SYSTEM CONFIGURATION

6 IBM PS/2 model 55 with 5mb memory  
2 IBM PS/2 model 50 with 1mb memory  
2 IBM PS/2 model 30 with 1mb memory  
1 Macintosh II with 5mb memory  
1 Macintosh IIcx with 5mb memory  
8 Macintosh SE/30 with 1mb memory  
3 Macintosh SE with 2.5mb memory  
1 Apple IIe with 128k memory

### HOURS

Monday - Friday 8 am - 10 pm  
Saturday 10 am - 2 pm  
Sunday 6 pm - 10 pm









# Microcomputer Hints

## Disk Density

*excerpted from CONNECT, the Kent State University newsletter, vol. 2, no. 3 Winter 1990; the article is "Clearing up the Confusion Over Disk Density" by A.L. Plastow, page 26-28*

Currently, floppy disks come in two sizes and two densities or capacities. The sizes, based on disk diameter, are 3-1/2" and 5-1/4". The densities, based on storage capacity, are double-sided/double-density and high density. There are also older, singled-sided disks, but you won't often come across them.

In descending order of capacity, high-density 3-1/2" disks store 1.44 MB (million bytes) of data, high-density 5-1/4" disks store 1.2 MB, double-density 3-1/2" disks store 720 KB (thousand bytes), and double-density 5-1/4" disks store 360 KB. Single-sided 5-1/4" disks hold about 180 KB.

-  DD drives will not format HD disks.
-  DD drives will not read from or write to HD disks.
-  HD drives will read DD disks formatted in DD drives. HD drives of more recent manufacture should both read from and write to DD disks formatted in DD drives.
-  HD drives can format DD disks as DD disks using the command, `FORMAT d:/4`, where d: is the drive in which the disk is being formatted. Both HD and DD drives should be able to read from and write to DD disks formatted with the /4 switch. If they can't, it is because the formatting drive and the drive to be used are not aligned closely enough to be the same specifications. This can often be a problem with older model HD drives and there is no practical solution to it.
-  The way to know if your HD drive and DD drive are compatible is to experiment using data you don't need.
-  HD drives can format DD disks as HD disks but will probably lose some capacity, so you might end up with 1 megabyte of usable storage instead of 1.2 megabytes. Such formatting is not recommended, unless you are desperate for short-term storage, because data deteriorates more quickly with such formatting.
-  HD drives will sometimes format HD disks as DD disks using the /4 switch, but there is no point in it since DD drives will not reliably read them.
-  To format DD disks in HD drives requires DOS 3.1 or higher for 5-1/4" drives, DOS 3.3 or higher for 3-1/2" drives. The command for 3-1/2" drives is `FORMAT d:/n:9/t:80`, where d: is the drive in which the disk is being formatted. ▲

## Grants Available


The University of Minnesota Commission on Women has begun a Special Grants Program to support projects which further the Commission's goals: to improve and enhance the working and learning environment for University women. For further information call Beth Mingo at 624-9547. ▲

# Assortment

## SAS Seminars

Here's a list of the SAS seminars that will be conducted in 1991 at the St. Paul Companies facility. If you're interested in any of these courses, please contact Dave Weible at 222-2131. All courses involve hands-on experience utilizing the St. Paul Companies IBM 3090 mainframe.

<b>Fundamentals of the SAS System</b>	Feb 12-14	\$336
	May 12-16	
	Aug 13-15	
	Nov 12-14	
<b>SAS Programming</b>	April 8-11	\$560
	Oct 22-25	
<b>SAS Report Writing</b>	June 18-20	\$420
	Dec 10-12	

  
**Be on the  
lookout...**

Watch your mailbox for the SPCS User Survey, scheduled for mailing in early February. We're looking for an evaluation of our services as well as suggestions for improvement. Please fill out and return your survey as soon as you're able.

## Feedback

Which articles did you find most useful?

- Information, please
- Suggest It
- System Upgrade
- SPSSx Release 4
- New Statistics Notes
- Data Entry
- Consulting Corner
- Macintosh Software Available
- Other St. Paul Services
- Disk Density
- Winter 1991 Short Courses
- Newsletter Index

What topics would you like to see in the future?

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Additional comments:

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*Fold and return to SPCS*

*1/91*

**SPCS**  
University of Minnesota  
50 Coffey Hall  
1420 Eckles Avenue  
St. Paul, MN 55108



# Winter 1991 Short Courses

Offered by St. Paul Computing Services (SPCS), Academic Computing Services (ACS), and Health Sciences Computing Services (HSCS).

Our courses teach you the operating systems and software on central system computers, large systems used by many people at the same time. These courses do not cover microcomputer software, unless otherwise indicated in the descriptions.

## How to Register

To register, call 626-0032, 8:00 am to noon and 1:00 to 4:30 pm, Monday through Friday.

Registration is located at the Computing Information Center, 1 Nicholson Hall. Mail registrations are accepted or you can also register by electronic mail to [classes@umnacvx](mailto:classes@umnacvx) or [classes@vx.acs.umn.edu](mailto:classes@vx.acs.umn.edu). Include a day-time phone number. Please call to cancel if you later decide not to attend, so we know how many to expect. Deadline for registering is 4:30 pm on the last working day before the class begins.

## General Courses

### User Orientation (SPCS)

*January 29, 9:30-11:30 am*  
Overview of SPCS's hardware, software, and services.

## Operating Systems

### CMS Introduction (SPCS)

*Section 1: January 30 (W) and February 1 (F), 9:30-11:30 am*  
*Section 2: January 30 (W) and February 1 (F), 1:30-3:30 pm*  
Hands-on training in CMS, the operating system on the SPCS and Carlson School of Management machines.

### CMS BATCH (SPCS)

*February 6, 9:30-11:30 am*  
Why, when, and how to submit programs to BATCH. You must know the CMS operating system.

### CMS Tapes (SPCS)

*February 20, 9:30-11:30 am*  
Specifying, reading, and writing tapes. You must know the CMS operating system.

### Introduction to VAX/VMS Operating System (ACS)

*Tuesdays and Thursdays, January 22-31, 2:30-4:30 pm*  
An extensive introduction to the VMS operating system, including files, editing, mail, DCL commands, and procedures.

### UNIX Overview (ACS)

*Section 2: February 5 (T), 2:30-5 pm*  
A beginning look at the UNIX operating system: structure, commands, utilities, and editing.

### vi: UNIX Editor (ACS)

*Section 1: January 23, 2:30-5 pm*  
*Section 2: February 7, 2:30-5 pm*  
Editing files in UNIX in line mode (ex) or screen mode (vi): commands and setup. You must know the UNIX operating system.

### Introduction to NOS/VE Part 1 (HSCS)

*Section 2: February 20, 2:00-4:00 pm*  
Connecting to NOS/VE, entering commands, managing files, obtaining output, and on-line help.

### Introduction to NOS/VE Part 2 (HSCS)

*Section 2: February 27, 2:00-4:00 pm*  
Batch jobs, printing options, job/command control, special files, and file transfers.

### NOS/VE Full Screen Editor (HSCS)

*Section 1: January 29, 10:00 am-noon*  
*Section 2: March 19, 2:00-4:00 pm*  
Creating and editing NOS/VE files, expanded on-line help for each function, and customized functions. You must know the NOS/VE operating system.

## Communications

### CMS Electronic Mail (SPCS)

*Section 1: January 31, 9:30-11:30 am*  
*Section 2: March 5, 9:30-11:30 am*  
Corresponding with other computer users locally and worldwide, via BITNET.

### Internet Overview (SPCS)

*February 21, 10:30-11:30 am*  
Using the CMS central system to log on to and transfer files to/from other computers on the Internet.

### YTERM (SPCS)

*February 12, 10:30-11:30 am*  
Demonstration of the YTERM terminal emulation package, as used with the CMS operating system.

### ProComm (SPCS)

*February 19, 10:30-11:30 am*  
Demonstration of the ProComm terminal emulation package, as used with the CMS operating system.

### TinCan (SPCS)

*February 26, 10:30-11:30 am*  
Demonstration of the TinCan terminal emulation package, as used with the CMS operating system.

# Winter 1991 Short Courses

## Electronic Mail & Networks (ACS)

February 12 and 14, 2:30-4:30 pm  
Descriptions of the BITNET and Internet networks, and how to use them for electronic mail and transferring files, with emphasis on the VAX VMS system. You must know a central computing system.

## Electronic Mail on NOS/VE (HSCS)

Section 1: January 30, 2:00-4:00 pm  
Section 2: March 14, 10 am-noon  
Using the E-mail system on NOS/VE to send and receive mail, transfer microcomputer files, and use bulletin boards and networks.

## Statistics

### SAS/Base (SPCS and ACS)

February 5 and 7, 9:30-11:30 am  
The essentials of the SAS statistical package for analysis, data storage and retrieval, report writing, graphics, and more. You must know either the CMS or VMS operating system.

### SAS/Stat (SPCS and ACS)

February 14, 9:30-11:30 am  
The statistical analysis features of SAS, such as correlation, regression, and analysis of variance. You must know either the CMS or VMS operating system.

### Using SPSS (SPCS, ACS, and HSCS)

Monday, Wednesday, and Friday, January 28-February 1, 2:30-4:30 pm  
How to use the SPSS statistical package available on several central computing systems. You must know a central computing system.

### PC SAS Overview (SPCS)

March 7, 9:30-11:30 am  
Discussion of features specific to the IBM-PC version of SAS.

## Databases

### NOMAD2 (SPCS)

February 22, 9:30-11:30 am  
Demonstration of NOMAD2, a database management system on the CMS operating system.

### INGRES (ACS)

February 11-20, 2:30-4:30 pm  
Creating databases and retrieving information from the INGRES database package. You must know the VMS operating system.

## Graphics

### SAS/GRAPH (SPCS)

February 28, 9:30-11:30 am  
Exploring SAS graphics for presentation of your data as plots, charts, maps, and contour plots. You must know the CMS operating system.

### PicSure Interactive Graphics (HSCS)

Section 2: March 26, 2:00-4:30 pm  
Using PicSure to create bar charts, scattergrams, line charts, pie charts, and combinations. You must know the NOS/VE operating system.

## Other

### PROFS Calendars (SPCS)

February 15, 9:30-11:00 am  
Viewing, maintaining, and changing your electronic calendar on the CMS operating system.

### C Programming (ACS)

Monday, Wednesday, and Friday, February 25-March 1, 2:30-4:30 pm  
Introduction to syntax, style, and structure of C programming language. Requires some programming background. You must know the UNIX operating system.

## MinnesotaMEDLINE

Call the Bio-Medical Library  
at  
626-5808  
for more information  
and registration

### Basics of MinnesotaMEDLINE Searching (HSCS)

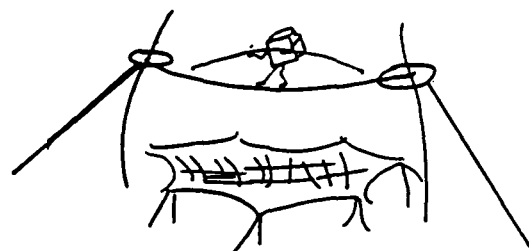
Section 2: January 23, 2:00-3:45 pm  
Section 3: February 7, 5:00-6:45 pm  
Section 4: February 19, 1:00-2:45 pm  
Section 5: March 4, 10:00-11:45 am  
Section 6: March 19, 9:00-10:45 am  
Basic commands and the use of Medical Subject Headings (MeSH) in on-line medical literature searching.

### MinnesotaMEDLINE Workshop (HSCS)

Section 2: January 30, 1:00-2:30 pm  
The more advanced and powerful searching capabilities of the MinnesotaMEDLINE system.

Monday, Wednesday, and Friday, February 25-March 1, 2:30-4:30 pm  
Introduction to syntax, style, and structure of the C programming language. Requires some programming background. You must know the UNIX operating system. ▲

## Stat Humour



BALANCED INCOMPLETE  
BLOCK



# Newsletter Index

We've compiled a list of still-current articles published in past newsletters. Most of these files are available on the SPCS Bulletin Board through the Project-Group Menu. Remember, you may read, print, and/or download files from the Bulletin Board. A limited number of back issues of SPCS newsletters are available at the Main Office (50 Coffey Hall).

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# General Information

<b>Main Office</b>	50 Coffey Hall	M-F	8 am - 4:30 pm	624-7788
<b>Help Desk</b>	90 Coffey Hall	M-F	8 am - 5 pm	624-6235
<b>Stat Clinic</b>	133 COB	M-F	call for hours	625-3121
<b>Micro Lab</b>	B50 Central Library	M-F	8 am - 10 pm	624-3269
		Sat	10 am - 2 pm	
		Sun	6 pm - 10 pm	
<b>Data Entry</b>	6 North Hall	M-F	8 am - 4:30 pm	624-7297
<b>Operations</b>				624-3482
<b>Interactive Dialup</b>				624-4220
<b>Computer Hours</b>	24 hours/day except 5 - 5:30 am Tu - Sat; reduced service from 4 pm Sat until 2:40 pm Sun and 10 pm Sun until 6 am Mon			

*User rooms (90 Coffey Hall) are open during Computer Hours, but after 6 pm weekdays and on Saturday and Sunday, the outside doors to Coffey Hall are locked. To gain access after hours, enter the tunnel system through the St. Paul Central Library or through the St. Paul Student Center.*

**St. Paul Computing Services**  
University of Minnesota  
50 Coffey Hall  
1420 Eckles Avenue  
St. Paul, MN 55108

WALTER LIBRARY  
UNIVERSITY ARCHIVES  
10 WALTER LIBRARY  
MPLS CAMPUS