

**CONTENTS**

REPORT OF CENTER'S DEVELOPMENTS	p. 5
NEW COMPUTER SYSTEM HARDWARE	p. 6
NEW COMPUTER SYSTEM SOFTWARE	p. 6
FACILITY CONTACT INFORMATION	p. 7
USER MEETING	p. 7
STAFF CHANGES	p. 7
MISCELLANEOUS ITEMS	p. 7

SPCC USER SURVEY (attached)

NEWSLETTER MAILING LIST CHANGES  
(attached)

**SPCC NEWSLETTER**

<b>Volume 1</b>	<b>Number 2</b>	<b>February 1980</b>
-----------------	-----------------	----------------------

Director: David M. Nelson  
Asst Director: Mel Sauve  
Asst Director: Don Creighton

Comments about this newsletter and suggestions for future issues may be directed to Mel Sauve, Newsletter Editor.

This issue of the newsletter is being distributed more widely than usual to reach individuals who may be interested in continuing to receive it but who are not presently on our mailing list. We also ask people who receive this newsletter to pass it on to colleagues who may be interested in being added to our mailing list. Should you wish to be added to our mailing list please return the cutout portion in this newsletter to SPCC, 33 North Hall, St. Paul Campus. (If you have received more than one issue of this newsletter please pass it on to a colleague.)

The University of Minnesota adheres to the principle that all persons shall have equal opportunity and access to facilities in any phase of University activity without regard to race, creed, color, sex, or national origin.

**REPORT ON CENTER'S DEVELOPMENTS**

The St. Paul Computer Center's planning committee has been busy since its formation in April of 1979. The Committee was formed by Frank Verbrugge, Director of University Computer Services to help facilitate the transaction of the Center from its administrative home within the Institute of Agriculture, Forestry and Home Economics to its new home within University Computer Services. The committee was also given the responsibility of evaluating the facilities and services of the Center and recommending alternatives for improvements in the Center. For this purpose the committee was subdivided into four areas of concern. (1) Short and longterm needs of the user, (2) Computer hardware and systems software configuration, (3) user software and services, and (4) Center location and space requirements. Although the work of these subcommittees is not completed a brief review of their work to date will give an overview of developments within the Center.

**USER NEEDS IDENTIFICATION**

The St. Paul Computer Center planning committee views the Centers services as being available to all members of the University. However, the center will concentrate in serving the needs of those individuals preferring or requiring an IBM environment and will focus on the needs of the departments located on the St. Paul Campus. The committee has projected increased use of the Computer for instruction, research, administrative services, and extension. In this regard the committee has emphasized the importance of having an IBM 4331 computer. When the computer system is installed remote access for both timesharing and batch applications will be introduced on a limited basis and communication links will be established between the 4331, the CYBER systems of UCC and the 370/158 at Administrative Data Processing.

The second phase of the committees planning includes upgrading of the central processor and disk capacity to allow additional timesharing usage and to introduce data base management capability. These activities are planned for the last half of 1981.

## APPLICATIONS SOFTWARE

---

Applications software presently available on the 360/30 will continue to be available on the 4331. At the present time the center plans to support COBOL, FORTRAN and PL/1 software. Consideration is also being given to adding BASIC, PASCAL, and RPG. Adding these compilers will be dependent upon the interest users show in using these languages. Other application software that users have requested include SAS (Statistical Analysis System), SPSS (Statistical Package for the Social Sciences), and Query By Example for file management.

## COMPUTER CENTER LOCATION

---

The computer center will be moving to a new location on the St. Paul Campus in April. Plans are presently underway for the remodeling of Rooms 88 and 90 in Coffey Hall for the housing of the new computer system along with an adjoining user work area. Room 30 will also be renovated to become the office area for the computer center and Administrative Data Processing. The committee also stressed the importance of retaining within the center a high level of support for users, particularly in the area of consulting services.

## HARDWARE EQUIPMENT

---

From July through October, the hardware committee developed the specifications for a new computer system to replace the present IBM 360 model 30. A request for bids was released in late October. Following the committee's evaluation of the bid response and benchmark runs, IBM was selected as the most qualified vendor.

The planning committee looked at the hardware needs of the center in two phases. Phase one will begin approximately April 1, 1980 with the installation of an IBM 4331 central processor and its associated peripheral equipment. Both the present IBM 360/30 and the new system will be in operation for 1 to 3 months during which time programs and operations will be converted to the new system. It is the objective of the computer center to make this conversion as effective and cost efficient as possible and with a minimum of disruption to ongoing operations of the center. The center staff will be providing instructional courses and material to assist the user in the conversion process and some free computer time will be made available. Course offerings are also being developed on the operating systems that will be available from the Center's staff. The computer room should be completed in early April and the office area should be finished about 30 days later.

A shortage of available space in Coffey Hall requires that the data entry staff remain at their present location in North Hall. The new center is ideally located for easy access by students and faculty on the St. Paul Campus. The Center is located on the new heated corridor connecting Bailey Hall, the Student Center, Coffey Hall, Classroom Office Building and the Library.

## NEW COMPUTER SYSTEM HARDWARE

---

In early April the Center's IBM 360/30 will be replaced with an IBM 4331. Through the advanced technology of the 64K-bit chip, the processor and its memory are available at a competitively low price.

The 4331 that the Center is installing has 1 million bytes of memory (1 meg) which is 4 times the memory of our current 256K IBM 360/30. The instruction speed of the 4331 is up to 5.6 times that of the 360/30.

The Center is also getting 386 KB (386,000,000 bytes) of disk storage. The 3310 disk drives have a fixed and sealed disk and head assembly. The 3310 uses a fixed block architecture with 512 bytes/sector and 352 sectors per cylinder. The 3310 has an average rotation delay of 9.6 MS (it spins at 3120 RPM) and has a data rate of 1031 KB/sec (1,031,000 bytes per second). These disk drives give us an increase in our disk space of 357 million bytes or 13 times our existing space.

We are getting four 3420 tape drives to replace our existing three 2402 tape drives. These drives will handle 800 BPI and 1600 BPI tapes. The transfer rate of the tape drives are 120 KBS (moving at 6.25 ft/sec), where the current drives are 30KBS.

Our current 1403 line printer has a speed of 600 lpm (lines per minute). We are adding a 3203 printer which will print at 1200 lpm.

The 4331 also has eight ports for handling remote communications. The 4331 can also handle up to 15 local terminals.

In summary the new system has five times the CPU speed, 4 times the disk speed and 4 times the tape speed. This was proven out in a benchmark test on a sample job mix which ran 4 times faster.

## NEW COMPUTER SYSTEM SOFTWARE

---

Along with the new computer comes new software. Listed below are the software products we will have on the 4331.

DOS/VSE -- This operating system will replace our current version of DOS (Disk Operating

## SPCC USER SURVEY

The success we had with our survey in August has encouraged us to send out this survey asking for more detailed information about the type of software products users would like on our new system. We will determine which of the packages will be supported based on input from this survey, and student/staff groups.

1. How would you describe your use of the following software:

### DESIRED SOFTWARE

Languages	Would be heavy user	Would be occasional user	Would not use at all
FORTRAN			
COBOL			
PL/1			
BASIC			
APL			
PASCAL			
RPG			

Statistical Packages	Would be heavy user	Would be occasional user	Would not use at all
SAS			
SPSS			

Survey continued on back of sheet

Interactive Processing	Would be heavy user	Would be occasional user	Would not use at all
CMS			
WYLBUR			

Other	Would be heavy user	Would be occasional user	Would not use at all
Word Processing			
Data Base			

2. Please list any software products that you would be willing to work with SPCC on implementing:

---



---

Thank you for your input. Please return to SPCC, 33 North Hall by April 1, 1980, if possible.

Name/Dept. (optional) \_\_\_\_\_ Telephone \_\_\_\_\_

-----  
**NEWSLETTER MAILING LIST CHANGES**

If you are not already on our mailing list and wish to be added, please fill in the address area below and return to SPCC Secretary, 33 North Hall, St. Paul Campus.

Name _____	Name _____	Name _____
Department _____	Department _____	Department _____
Campus Address _____	Campus Address _____	Campus Address _____
_____	_____	_____

## STAFF CHANGES

---

System). DOS/VSE allows for multi programming and provides support for the new disk drives being installed.

VM/370 - VM (Virtual Machine) allows the system to emulate many different machines within one machine. We will start with one virtual machine which will look like our 360/30. We will have a second virtual machine defined which will look like a 4331. The VM facility will help the Center in its conversion from DOS R 26 to DOS/VSE.

POWER - POWER is the SPOOLER the system uses to process the card reader input and printer output.

CMS - CMS is the timesharing software being installed on the 4331.

SPSS and SAS - We are considering two different statistical packages on the 4331. They have several similar functions but also provide different capabilities. We will highlight these functions and capabilities in following newsletters.

## FACILITY CONTACT INFORMATION

---

<u>Function/Service</u>		<u>Location</u>	<u>Phone</u>
Director	David Nelson	415 Coffey Hall	376-7003
Assistant Director, System Hardware and Software	Don Creighton	35 North Hall	373-0987
Assistant Director, User Services	Mel Sauve	37 North Hall	373-0987
Computer Operations/Scheduling	Dick Rignell	24 North Hall	373-0994
Consulting:			
New 4331 Computer System	Dave Schempp	26 North Hall	373-0987
UCC Cyber Systems	Jim Colten	28 North Hall	373-0987
Existing 360/30 System	Mel Sauve	37 North Hall	373-0987
Data Entry	Jo Kuester	6 North Hall	373-0992

## USER MEETING

---

User meetings are being established, 1) to assist users by helping them keep up to date on whats happening in the Computer Center, and 2) provide an open forum by which users can voice their needs, opinions and suggestions. Generally user meetings will begin with a presentation made by members of the SPCC staff which will be followed by a question and answer period. The direction the Center takes in response to user needs will be determined by such things as user meetings. We hope they are well attended.

Next meeting date: February 28 (Thursday)  
Location: B-35 Classroom Office Building  
Time: 3:30 p.m.

1. Don Creighton, Hardware and Software specialist, has recently been added to the staff as an Assistant Director. Don has 10 years of IBM experience and most recently was Technical Support Manager in the Administrative Data Processing Department.
2. Dave Schempp, a member of the Center's staff for the last 13 years and formerly in the applications development area, has transferred to the position of Senior Systems Software Programmer. Dave will be working with Don in technical services, the section from which the new hardware and software systems will emerge.
3. David Savela, Analyst/Programmer, formerly from the Computer Services Center in Morris, was added to our program development staff in September. Users will find him well qualified from the broad experience he has brought with him on the University Cyber and IBM systems.
4. Mary Wrobel, Data Entry Supervisor, has recently taken a position with Conwed Corporation. We extend to her a special thanks for the many years of high quality service in the Center and wish her the best in her new position. Jo Kuester has been promoted to Data Entry Supervisor and Linda Pichner has been recently promoted to Assistant Data Entry Supervisor. Please contact the Data Entry Supervisors for submitting or scheduling your keypunching needs.

## MISCELLANEOUS ITEMS

---

1. Due to the unpredictability of user requirements, the Data Entry section frequently operates with a backlog of work. Accordingly this backlog varies greatly over the year. At this time, it is only moderate, but large scale jobs still could take as long as 4-6 weeks to complete. We ask that users submit their work as far ahead of designated deadlines as possible. Submitting work in small groups, rather than waiting until all source materials are ready, should help turnaround.
2. Due to the extensive training required by the Center's consultants in the next 6-8 months, there will be fewer hours available to our staff for user consulting needs. The following suggestions are provided in a step by step approach to reduce unnecessary consultant assistance:
  - a. Purchase the necessary reference manuals for the type of computing planned.

- b. Attend the appropriate short courses in the areas related to development interests.
  - c. Write the program and/or necessary controls cards following the examples shown and described in the manuals.
  - d. Key punch your program or have this done by a Data Entry service.
  - e. Run your program on the computer system that you have selected.
  - f. Debug your program using the reference manuals available.
  - g. Contact a consultant as the last resort, but make an honest effort to find the problem yourself. Remember a program rarely runs the first time and a serious attempt should be made to discover the problem before contacting a consultant. Should a consultant be required make sure to bring along all related materials (input and output).
3. An additional teletype is soon to be installed in room 10. This machine is set aside for research use only. Students are referred to the Interactive Instructional Lab in the Classroom Office Building.
  4. The results of the user survey contained in the last newsletter were found to be very positive and encouraging to the SPCC staff. As the new hardware and software emerges, we hope to maintain the same high level of service and responsiveness to users as demonstrated in the past. We thank everyone for taking the time to respond and for the many fine suggestions provided.

Shown below is a summary of user responses on a few of the items contained in the survey:

- 91% of the surveys returned indicated that users were satisfied with SPCC consulting services (67% were highly satisfied).
- 86% of the surveys returned indicated that users were satisfied with SPCC application programming services (45% were highly satisfied).
- 95% of the surveys returned indicated that users were satisfied with SPCC data entry services (53% were highly satisfied).
- 98% of the surveys returned indicated that users were satisfied with SPCC computer operations services (54% were highly satisfied).
- Users indicated that they were 96% satisfied with the overall services of SPCC (59% were highly satisfied).

- 100% of the responses indicated that SPCC services were rated the same or better than 2 years ago.
  - The lowest rated areas were that of user work areas and working conditions, where 39% indicated their dissatisfaction with the existing facilities.
5. The Center has a large number of steel storage racks and utility card files for sale. Interested parties should contact Dick Rignell, 373-0987.
  6. The University Computing Center has made a slight change to its courier service to North Hall. The pickup/delivery times are now 7:50 a.m., 9:30 a.m., 1:30 p.m. and 7:30 p.m. in room 24 North Hall.

UNIVERSITY ARCHIVES  
 11 WALTER LIBRARY  
 UNIVERSITY OF MINNESOTA  
 EAST BANK  
 117 PLEASANT STREET SE  
 MINNEAPOLIS MN 55455