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NEW COPY COMMAND RELEASED

A new version of COPY is now available. The new version has the following changes:

1. The shift parameter now specifies the number of characters to shift instead of the number of words. The shift parameter may also be negative.

2. A record count parameter (C) has been added. A user may now specify the number of records to copy. If the parameter is not used, COPY works the same as it does now.

3. If COPY discovers any kind of an error, it will abort the job if batch.

4. If COPY is being used from a teletype or a TV, the users terminal (lun 100) will be the default input and output units (not luns 60 and 61).

A REMINDER ABOUT FILE STORAGE BILLING

File storage is billed on the basis of 1/2¢ per day per block and is calculated on the basis of the maximum file blocks used during each day.

INTERPRETING FORTRAN CARD DECKS

Beginning February 1, unless the user specifies that all 80 columns be interpreted, FORTRAN programs will be interpreted only in columns 1-55 and 76-80.

COMPUTER ACTIVITY DURING THE LAST WEEK OF FALL TERM

It is no surprise to Center users that the last week of each term is a lousy computing period. Here are the actual computer usage statistics for the last week of Fall term.

Instructional Jobs	9,341
Research, Administrative, and Other Jobs	4,548
Computer Center Development and Maintenance	1,308
Total Jobs Submitted	15,197

Batch Jobs	3,986
TTY LOGONS	11,211
Total Jobs Submitted	15,197

System Available	115	Hours
TTY Usage	2,340	Hours
Print Lines	1,946	Thousand
Punched Cards	152	Thousand
Cards Read	818	Thousand
Plot Jobs	144	
Tape Jobs	260	

Averages: 10.4 seconds CPU time used per job.

An average of 128 lines printed per job.

CAI EXTENSION PROGRAMS

The Extension Service at OSU has two CAI programs in use. The programs, written in the DIALOG language by Jerry Paulsen, Systems Coordinator for the Extension Service, are used to train staff members in the use of the Extension Management Information System. County Extension staff members will use terminals located at universities and colleges in their areas by arranging with Campus Coordinators of the Oregon Regional Network Schools.

Lou Oester, Oregon Extension State Training Leader, is working with Paulsen in developing and implementing the new programs.

Recent demonstrations of the two programs for staff members of the Extension Service, USDA, in Washington, D. C. brought favorable response. The Extension Service will encourage development of CAI programs to help solve the problem of providing training for widely-scattered staff.

REPORTING SUSPECTED SYSTEM MALFUNCTIONS

Users who think they have found bugs in the OS-3 operating system
or any of the compilers or assemblers please notify Dave Skinner
(extension 2494) and supply him with examples of suspected
"bugs." Many times complaints about problems are not reported
or do not reach the systems programmers. Examples of suspected
system malfunctions will allow the Center to take the appro-
priate corrective action.

NEW VERSION OF THE OS-3 EDITOR BEING DEVELOPED

The Computer Center is working on a new version of the OS-3
Editor with many improved features. See the next Computer Center
newsletter for details.

INSTRUCTIONAL TIME USED, FALL 1972-73

SCHOOL OF AGRICULTURE

Ag Economics	607.21	
Ag Engineering	129.94	
Animal Science	24.47	
Fisheries & Wildlife	721.32	1,482.94

SCHOOL OF BUSINESS & TECHNOLOGY	3,721.33

EDUCATION	10.96

ENGINEERING

Chemical Engineering	2,800.45	
Civil Engineering	1,366.09	
Electrical Engineering	2,970.29	
Industrial Engineering	3,784.87	
Nuclear Engineering	1,934.55	
Mechanical Engineering	732.33	13,588.58

FORESTRY	1,547.75

HOME ECONOMICS   1.00

HUMANITIES & SOCIAL SCIENCE
        Economics   124.04
        Psychology   154.88
        Sociology   71.82   350.74

OCEANOGRAPHY   78.25

SCIENCE
        Atmospheric Sciences   178.12
        Biochemistry & Biophysics   54.73
        Chemistry   556.95
        Computer Science   13,075.86
        Mathematics   2,375.00
        Physics   770.26
        Statistics   7,209.84
        Zoology   400.87   24,621.63

        TOTAL   45,403.18

COMPUTER CENTER USER SURVEY RESULTS

The Center would like to thank users for their assistance in
completing the Computer Center User Survey questionnaire and
for the many suggestions that we received. These suggestions
will be useful to the Center in improving Computer Center
services.

From the 167 questionnaires that were returned, the following
results were tabulated using the *SIPS system. The values
of the rating scale were: 1=very poor, 2=poor, 3=average,
4=good, 5=excellent. The overall mean for Computer Center
services was 3.6.

The mean of the questionnaire responses rated the Center good
to excellent in the following areas: availability of staff
terminals, adequacy of teletype response time, batch turn-around
time, adequacy of the program library, adequacy of operating

hours, keypunching service, production programming services, staff consulting, adequacy of instructional and communication services, ease of learning the OS-3 system, and in the responsiveness and helpfulness of Center staff regarding user problems.

Users rated the following areas lower: availability of student keypunches, availability of student teletypes, adequacy of program documentation, accessibility of program library, and paper tape reading and punching.

For any questions regarding this survey, contact Kay Porter at extension 2494.

CONDUIT SOCIAL SCIENCE WORKSHOP TO BE HELD MARCH 1-2

CONDUIT WORKSHOP FOR THE SOCIAL SCIENCES

"Data Analysis Systems for Processing
Large Social Data Bases"
March 1-2, 1973

CONDUIT is an organization whose purpose is to stimulate, test, and evaluate the use of computers in education and to encourage the exchange of computer-related curricular materials among institutions of higher learning. Supported by the National Science Foundation's Office of Computing Activities, CONDUIT was formed by a consortium of five regional computer networks; the acronym stands for Computers at Oregon State University, North Carolina Educational Computing Service, Dartmouth College, and the Universities of Iowa and Texas.

The Social Science workshop to be held March 1-2 will train instructors of political science and sociology in the use of six "computing kits" aimed at introductory courses for undergraduates:

Political Science:
1. Voting Behavior in the United States, 1952-1968
2. Voting Behavior in Western Europe: Great Britain and Germany
3. Citizens and the Political System

Sociology:
4. Public Reaction to Civil Disobedience
5. Changing Attitude Toward Integration, 1946-1966
6. Individual in Society

If you are interested, contact your campus coordinator or
Jo Ann Baughman at the OSU Computer Center.

NEW INSTRUCTIONAL PROGRAMS TO BE AVAILABLE FROM CONDUIT

A major activity of CONDUIT is the creation of a Library for
Undergraduate Education which will contain computer-related
curriculum materials for the use of the faculty of member
schools of the regional computer networks forming CONDUIT.
Other past and planned activities of CONDUIT include national
and regional workshops in various disciplines, video-taped
seminars, and the development of self-instructional computer-
related curriculum materials.

In order to maintain its ties with the academic community,
CONDUIT is continuing to work closely with seven Disciplinary
Committees. These committees review materials for the Library
and also assist with advice in the development of standards for
documentation and technical verification of such materials.
The Committees identify transportation problems which exist
and/or may be unique to their fields, select promising new
materials, and suggest activities appropriate to the CONDUIT
experiment.

The following CONDUIT programs are to be implemented soon on
the CDC 3300 OS-3 system at OSU:

PSYCHOLOGY

1. PSY01   FORTRAN

    This program was written by the staff of the Social Sciences
    Instructional Programming Project, Beloit College, Beloit,

Wisconsin, 53511, by Janeille C. Roberts and Michael A. Hall. (August, 1970)

Purpose of Program: CAI (drill-and-practice) in elementary probability and experimental method for psychology students.

2. PSY03   FORTRAN

This program was written by the staff of the Social Sciences Instructional Programming Project, Beloit College, Beloit Wisconsin, 53511, by Michael A. Hall. (June, 1970)

Purpose of Program: First program in the "Master Experimenter" series, computer-assisted instruction (tutorial plus demonstration and open-ended questions) in elementary experimental design and analysis of experimental data. PSY03 emphasizes logic of design and analysis of variance (one-way).

3. PSY05   FORTRAN

This program was written by the staff of the Social Sciences Instructional Programming Project, Beloit College, Beloit, Wisconsin, 53511, by Michael A. Hall. (June, 1970)

Purpose of Program: Second program in the "Master Experimenter" series, computer-assisted instruction (tutorial plus demonstration and open-ended questions) in elementary experimental design and analysis of experimental data. PSY05 emphasizes interpretation of results and tests based on student's t.

4. PSY07   FORTRAN

This program was written by the staff of the Social Sciences Instructional Programming Project, Beloit College, Beloit, Wisconsin, 53511, by Michael A. Hall. (June, 1970)

Purpose of Program: Third program in the "Master Experimenter" series, computer-assisted instruction (tutorial plus demonstration and open-ended questions) in elementary

experimental design and analysis of experimental data.
PSY07 emphasizes correlation.

5. EXPER-SIM   PL/I

An explanation of simulation--gaming as a teaching device
for learning the logic of experimental design. This pro-
gram was developed by Dana Main at the University of
Michigan. It is also known as VERBDOM or DATACALL.

SOCIOLOGY

1. CONFLICT   FORTRAN

A model of Dahrendorf's Conflict Theory. This game allows
role playing in competition for power base based on
authority, economic, and group size factors. Each round
produces a map (of the groups under conflict) which indicates
the relative power base of each. Coalescence of groups is
provided for.

Adapted from NCECS system.

2. DOMIN(TMO)   FORTRAN

Three Man Dominance. A model of statistically determined
dominance patterns in a three-man group and the effects of
fights on these patterns. Developed by D. Garside, Illinois
Institute of Technology; adapted from University of Texas
documentation.

3. HOMANS   PL/I

A model based on a simplified version of Homans' propositions
on human interaction. This dynamic model contains a sample
data base on the "College Four," interactions between
students in five situations. Developed by D. Garside,
Illinois Institute of Technology; adapted from NCECS
documentation.

POLITICAL SCIENCE

1. CLUG   FORTRAN

    Community Land Use Game--A model which seeks to abstract a very
    few of the more fundamental factors affecting land use
    decisions in a community and its environs and to force the
    player to operate within the constraints offered by these
    factors. Complexity in a growing community makes the computer's
    bookkeeping role a big asset. Developed at Cornell Univer-
    sity; adapted from NCECS documentation.

2. INS   FORTRAN

    Inter-Nation Simulation--A simplified representation of a
    system of nations and international organizations. Parti-
    cipants make decisions in a miniature prototype of the
    complicated international world. During the simulation,
    model nations trade, form coalitions, and even wage war.
    The simulated nations are distinguished by such features
    as their varied forms of government, population, resources,
    and technical achievements. Developed by H. Guetzkow and
    C. Cherryholmes, Northwestern; adapted from NCECS docu-
    mentation.

3. SIMSTATE   FORTRAN

    A simulation of state government developed by Thomas Naylor,
    Duke University and adapted from NCECS documentation.

Oregon State University
Computer Center
Corvallis, OR 97331

OREGON STATE UNIVERSITY
COMPUTER CENTER NEWSLETTER

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PLANNED CDC 3300 SYSTEM EXPANSIONS

The Computer Center is planning to install, by next fall, 841 magnetic disks to replace the 814. The new disk drives (12 spindles) will give approximately 50% more file capacity and will be about four times as fast as the 814. It is also planned to add 32K more core to the present 98K core storage capacity sometime during the summer of 1973. The new disks and additional storage will significantly improve response time under heavy loading. The additional file storage will be a welcome relief from the critical shortage of saved file space which has existed for the last year.

During fall term two more tape drives and a second line printer will be installed. The two tape drives will enable user disk files to be backed up on-line rather than having to bring the system down, thereby extending the time the system can continuously operate. The second line printer will enable us to double printed output and will thereby help reduce batch turn-around time.

SCHEDULE OF VIDEOTAPE SERIES, SPRING, 1973

The "Introduction to OS-3" videotapes and the "Introduction to FORTRAN" videotapes will be shown beginning Monday, April 2. Any student or faculty member may attend the showings. The tapes will be shown twice a day on cable TV at 3:30 p.m. and 10:00 p.m. on Channel 5 and Kidder 128 on campus.

The schedule is:

Introduction to OS-3

April 2, 3, 4	3:30-4:30 p.m.
April 5	3:30-5:30 p.m.
April 2, 3, 4, 5, 9	10:00-11:00 p.m.

Introduction to FORTRAN

April 9, 10, 11	3:30-4:30 p.m.
April 12	3:30-5:30 p.m.
April 16, 17, 18	3:30-4:30 p.m.
April 19	3:30-5:30 p.m.
April 10, 11, 12, 16, 17, 18, 19, 23, 24, 25	10:00-11:00 p.m.

DOUBLE PRECISION AND COMPLEX ARITHMETIC PACKAGES BEING REWRITTEN

The double precision and complex arithmetic packages for the FORTRAN run-time support routines are currently being modified.

Users with suggestions for modifications should contact Gil Bachelor at extension 1726 or Dave Skinner at extension 2494.

META REFERENCE MANUAL

The reference manual for META (a compiler-writing system) is now available in the Math/Computer Science Office (Kidder 368). The price is $1.00.

OPTICAL SCANNER

The purchase of an optical scanning device (OPSCAN 17) has been approved for use by faculty and staff for instructional use. The scanner can read mark sense documents ranging in size from 2 x 4 inches to 8 1/2 x 11 inches. It will read hand printed numeric characters, ordinary pencil marks, and machine generated printing.

The scanner will be located in the OSU Computer Center and initially will be connected to the 029 keypunch in order to produce computer readable input data. Thanks are due Dr. Ben Purvis, IRAM for his interest and for seeking approval of this purchase.

OPERATING STATISTICS (TELETYPE AND BATCH UTILIZATION)

	November 1972		December 1972	
Batch LOGONS		13357		7771
Teletype LOGONS		37403		28079
Total TTY Console Hours		8722		6132
Total CPU Hours		182.01		162.65
Batch CPU Seconds	133542.58		120322.26	
TTY CPU Seconds	521695.31		465222.37	
OS-3 Hours		354		366
Average Number of Console Users		24.6		16.8
CPU/Hour/TTY User		59.8		75.9

	January 1973		February 1973	
Batch LOGONS		9372		14690
Teletype LOGONS		29058		36370
Total TTY Console Hours		7099		8307
Total CPU Hours		169.22		172.61
Batch CPU Seconds	111580.52		119122.19	
TTY CPU Seconds	497614.64		502285.68	

	January 1973	February 1973
OS-3 Hours	463	418
Average Number of Console Users	15.3	19.9
CPU/Hour/TTY User	70.1	60.5

March 1973

Batch LOGONS		11851
Teletype LOGONS		38357
Total TTY Console Hours		9016
Total CPU Hours		216.68
Batch CPU Seconds	152911.59	
TTY CPU Seconds	627141.79	
OS-3 Hours		463
Average Number of Console Users		19.5
CPU/Hour/TTY User		69.6

INSTRUCTIONAL USE OF THE COMPUTER, WINTER TERM, 1973

School/Department		Amount Used
SCHOOL OF AGRICULTURE		
Ag Economics	$ 331.82	
Crop Science	379.21	
Fisheries + Wildlife	410.92	$ 1,121.95
SCHOOL OF BUSINESS + TECHNOLOGY		7,564.43
SCHOOL OF EDUCATION		261.91
SCHOOL OF ENGINEERING		
Chemical Engineering	1,948.59	
Civil Engineering	669.31	
Electrical Engineering	6,667.39	
Industrial Engineering	4,025.68	
Mechanical Engineering	1,541.14	
Nuclear Engineering	4,428.69	19,280.80
SCHOOL OF FORESTRY		
Forestry	953.61	
Forest Products	133.46	1,087.07
SCHOOL OF HOME ECONOMICS		26.36
COLLEGE OF LIBERAL ARTS		
Economics	96.48	
Psychology	383.80	480.28

COLLEGE OF SCIENCE

Atmospheric Sciences	102.58	
Biochemistry/Biophysics	453.13	
Botany	75.22	
Chemistry	192.59	
Computer Science	9,440.29	
Entomology	78.19	
General Science	4.96	
Mathematics	1,269.05	
Physics	291.01	
Statistics	11,913.76	
Zoology	98.53	23,919.31
TOTAL		$53,742.11

*GRAFIT--AN INTERACTIVE GRAPHICS SYSTEM

A highly interactive graphics system, developed for use on a
Tektronix display terminal at the OSU Computer Center, has opened
a new and exciting approach to problem investigation, not only for
researchers, but also for students in undergraduate education.
A number of mnemonic commands exist in the system to allow numeric
or graphic output, modification, and labeling of displays.
GRAFIT has capabilities for handling: A) arrays of data, B)
functions defined by formula, C) systems of differential equations,
D) systems of difference equations, and E) special numerical
computations such as integration, differentiation, summation,
etc. In addition, the user may at any time define his own command
by supplying a FORTRAN subroutine to do the desired operation.
For example, the user-defined commands may be for filtering,
spectral analysis, creating special displays such as perspective
views of surfaces, contour plots, or any other operation speci-
fically tailored to the requirements of the user.

GRAFIT is designed to produce plots on the Tektronix T-4002 or
T-4010 graphics terminals, Calcomp x-y plotter, Hewlett-Packard
teletype plotter, or certain combinations of these. Manuals
describing the use of the system are available in Room 126 of
the Computer Center. Any questions about GRAFIT may be
directed to Jeff Ballance or Jo Ann Baughman at extension 2494.

OSU COMPUTER CENTER SUMMER FACULTY WORKSHOP IN THE USE OF INSTRUCTIONAL SYSTEMS SCHEDULED

The annual faculty computer workshop in the use of instructional
systems will be held either the week of August 27-31 or
September 4-7. The workshop will include classes in the use of
SIPS, FORTRAN, BASIC, DIALOG, and various curriculum materials

implemented by the NSF funded CONDUIT project. The workshop is open to any interested faculty member at OSU or at other Oregon institutions of higher education.

If you are interested in attending this workshop, please return the form on the last page of this newsletter to the Computer Center. This is not a formal registration form, but an indication of interest.

USERS OF *HI AND *SCOOP

Various users have asked about *HI and *SCOOP. *SCOOP gives the following information:

```
#*SCOOP
 MAR 30, 1973  11:18 AM
MAXTIME      6139
MAX $      511.58
SFBLKS         103
SFBLKLIM      1500
NO. USERS       35
```

Although these programs give a fair approximation of time left on the system, this information should not be confused with exact time and charges contained in the Computer Center Accounts Receivable file. *SCOOP and *HI do not take into account charges incurred by saved files and thereby do not reflect completely accurate information about money left in a user's account. These programs are helpful to ascertain approximate information, but only the Accounts Receivable billing has the exact file charges.

REVISED COMPUTER CENTER USER SURVEY

Last fall we sent out a Computer Center User Services questionnaire to newsletter subscribers. In order to follow up on user reactions to our services, we would again like to solicit your assistance in evaluating our system. We have added a few new questions about system reliability, response time, costs, and the consulting desk service, as well as adding some questions which will give us a more complete user description to use in analyzing the results.

The University of Oregon Computing Center sent out a users' survey in February, and we added to our questionnaire some of their questions, which hopefully have improved the comprehensiveness of our survey. This revised survey will be mailed out to users about May 1st, and we hope that you will help us out by taking a moment to complete and return the form to us. Kay Porter will be in charge of the survey and its analysis. Any questions about it should be directed to her at extension 2494.

QUESTIONS AND ANSWERS

The following questions were submitted to the suggestion box
located in the I/O room of the Center. We have received many
excellent suggestions and hope that users will continue to give
us additional feedback and comments.

1. Q. How about a night slot for turning in decks?

    A. The Center is open two nights a week all night, and on
        other evenings the doors are left open for a period of time
        after 11 p.m. closing for users to submit jobs to be run
        the next morning. These services seem to be sufficient
        for servicing late night users at the present time. A
        night slot would create some unnecessary security and
        deck handling problems.

2. Q. Why not convert the "dead space" in the viewing room
        into a user work area?

    A. The Center conducts many tours during the year and needs
        this open area for viewing purposes. Visitors and
        guests of both the Computer Center and OSU drop in
        frequently to see the computer system. The Center has
        provided tables and standing work areas for users in
        the I/O room.

3. Q. Why not disable the "auto-feed" switch in the keypunches
        in the student keypunch room to keep from wasting blank
        cards?

    A. Many knowledgeable staff and student users have a need
        for this feature of the keypunch. These users, however,
        should turn off this switch when they are finished to
        prevent wasting cards.

4. Q. Why not post a list of teletypes and keypunches and their
        locations on campus?

    A. Such a list has been compiled and is available from the
        Computer Center. Many of these terminals are owned by
        individual departments and are for their own use. These
        terminals are not under Computer Center control.

5. Q. I would like to know what the current carriage control
        characters are.

    A. You will find them in the back of the current OS-3
        Reference Manual.

6. Q. I have heard that a course of study, Computer Technology, is offered in which you learn programming and operation of the computer system. Is this true? If yes, how do I get into it?

   A. You need to talk to the Computer Science Department about computer courses. The Computer Center is separate from the teaching departments.

7. Q. We need more student keypunches.

   A. These keypunches are used heavily only during the last four weeks or so of the term. Unfortunately, they seem to be used only at certain times and not all the time the room is open. We are unable to rent additional keypunches for short periods of time, and purchasing additional keypunches which would stand idle for half the term is not economically feasible. Early morning use is generally low even when usage is at its highest peak.

8. Q. Institute a control something like

   $_8^7$LUNLIMIT,62=20 records.

   Output loops can be costly and wasteful. If you need lots of room for $_8^7$LOAD, for example, you cannot always set a scratch file block limit... I wanted 20 cards last night, and due to a program error, got 1500.

   A. Much the same effect can be obtained by inserting a card:

   $_8^7$MFBLKS + 2

9. Q. I suggest you save an area on the disks for names of files to be run on a "delayed task" basis (to be run after computer hours at a savings to the user).

   A. Set up your file as usual for remote batch and leave the following job:

   $_8^7$JOB,<Job Number>,<User Code>

   $_8^7$COPY,I=<name of remote batch job>, O=TASK

   $_8^7$LOGOFF

   with a yellow cover card at the I/O desk. A yellow cover card indicates that the deck be run during late night hours at 5/8 of the regular cost. Our systems programmers are checking into the feasibility of implementing your suggestion, however.

10. Q. Is there some way to update the file space and time limits on a job number without waiting a day?

   A. We are working on this change. It involves considerable restructuring or rethinking of the ramifications to the system and maybe ready in six months or less. Since the machine has been running so continuously (in terms of hours/day), it has been fairly difficult for the systems programmers to make major changes in the system because the changes cannot be thoroughly checked out. The summer months are usually slower, and we will attempt to make more changes, such as this one, at that time.

In response to suggestions put in the suggestion box in the I/O room, the Center has done the following:

1) For student jobs we post the last sequence number out and the approximate turn-around time.

2) We have installed stand-up work areas in the I/O room.

3) We raised the express keypunch to standing level so it will not be monopolized by someone punching an entire program rather than a few cards.

4) We keep the door open for a while after 11 p.m. closing hours in order to accept decks or deliver output to users.

5) We keep the Center open and the system up all night, two nights a week, with a reduced rate structure for 11 p.m. - 8 a.m. users.

6) A set of reference manuals were placed in the I/O room for users.

COMPUTER CENTER FACULTY WORKSHOP

Oregon State University
1973
(This is not a registration form)

Name_____ Date_____

Institution _____

Department _____

Summer Mailing Address _____

_____

_____

I am interested in the following areas:

☐   How to use the OS-3 system
☐   FORTRAN
☐   BASIC
☐   EDITOR
☐   OSCAR
☐   Plotting
☐   SIPS - interactive statistics package
☐   DIALOG - a computer assisted instructional package
☐   GROPE - an interactive graphics language
☐   DRAFT - a system for mechanical drawing and drafting
☐   GPSS - a simulation package
☐   ARAND - a modeling and prediction package

I would also be interested in the use of materials in:

☐   Chemistry   ☐   Sociology, Psychology
☐   Biology   ☐   Political Science
☐   Accounting/Business   ☐   Physics
☐   Economics   ☐   Mathematics

Please indicate your preference of dates you would like to attend:

☐   August 27 - 31   ☐   September 4 - 7

Return this form to: Jo Ann Baughman
                      OSU Computer Center
                      Corvallis, OR 97331

Oregon State University
Computer Center
Corvallis, OR 97331

ADDRESS CORRECTION REQUESTED

OREGON STATE UNIVERSITY
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SEARCH COMMITTEE FORMED TO SELECT A NETWORK DIRECTOR

The Oregon State Department of Higher Education has announced
the formation of a search committee to select a director for
the nine-institution Oregon computer network. The director
of the network will lead a three-person planning staff.

The screening committee includes:

Ray Hawk, University of Oregon
William Zimmerman, University of Oregon Medical School
Tim Kelley, Southern Oregon College
Curtis Cook, Oregon State University
Freeman Holmer, Office of Administration

The Director's responsibilities of Network Computing Services
are expected to include:

1) Assumption of a leadership role in development of effective
   and equitably available academic, research, and administra-
   tive computing and data processing resources in the Oregon

Department of Higher Education and undertaking studies
and preparing recommendations relating to the establish-
ment and operation of the computing network, which has
received approval in principle by the state legislature.

2) Making long-range plans for provision of computing services
in consultation with users and other policy-makers to
insure implementation of derived plans.

3) Monitoring performance of the network facility. Working
with user institutions and user groups to define appro-
priate levels of service, including systems development.
Supervising network facility operations. Making recommen-
dations to an inter-institutional Computer Policy Council
and the Vice Chancellor for Administration regarding net-
work service plans and operations.

4) Monitoring expenditures and income of the computer network
budget and making recommendations when necessary to main-
tain a balanced budget. Monitoring needs and use of com-
puting facilities by institutions and making recommenda-
tions to the Computer Policy Council on computing budget
allocations to the institutions.

5) Directing other related operations that may be established
under control of the director.

6) Reviewing institution requests for additional computing
equipment for consistency with department plans and
periodically reviewing status of existing equipment and
making recommendations.

7) Reviewing grant requests to insure consistency with the
data processing plans and to plan to meet computing needs
of grant projects in an equitable fashion.

The qualifications for this position are:

1) Professional stature in data processing management and
planning.

2) Academic stature and understanding of the role of computing
in higher education: instructional, research, and adminis-
trative.

A salary in the $27,000 to $30,000 range is contemplated. It
is hoped that the screening process can be completed by
August 1, 1973.

For further information about the position and in providing
resumes, write to: Mr. Freeman Holmer
                   Vice Chancellor for Administration
                   Oregon Department of Higher Education
                   P. O. Box 3175
                   Eugene, OR 97403

OSU COMPUTER CENTER SUMMER FACULTY WORKSHOP TO BE HELD

The annual faculty computer workshop in the use of instructional
systems will be held either the week of August 27-31 or
September 4-7. The workshop will include classes in the use
of SIPS, FORTRAN, BASIC, DIALOG, and various curriculum materials
implemented by the NSF-funded CONDUIT project. The workshop is
open to any interested faculty member at OSU or at other
Oregon institutions of higher education.

If you are interested in attending this workshop, contact
Jo Ann Baughman for details.

SHORT TUTORIALS HELD FOR SOCIOLOGY AND PSYCHOLOGY DEPARTMENTS

Two two-hour tutorials were held in May by the Computer Center
for the Sociology and the Psychology departments at OSU. The
purpose of the tutorials was to make sociology and psychology
instructors aware of 1) the CONDUIT project, 2) the availa-
bility of the CONDUIT social science data sets, 3) the
availability of new social science simulation programs on the
OS-3 system, 4) how to apply for instructional and unsponsored
research time, and 5) how to use *SIPS to evaluate the social
science data sets or any other set of data. The seminars were
conducted by Kay Porter and Keith Avery.

SCHEDULE OF VIDEOTAPE SERIES, SUMMER, 1973

The Computer Center videotape series for summer session is
as follows:

Introduction to OS-3

June 25, 26, 27	3:30-4:30 p.m.
June 28	3:30-5:30 p.m.

Introduction to FORTRAN

July 2, 3	3:30-4:30 p.m.
July 5	3:30-5:30 p.m.
July 9, 10, 11	3:30-4:30 p.m.
July 12	3:30-5:30 p.m.
July 16	3:30-4:30 p.m.

These tapes will be shown on Channel 5 and at Kidder 108E.

OPERATING STATISTICS

Teletype and Batch Utilization

	April	May
Batch LOGONS	11523	15654
Teletype LOGONS	32517	49026

Total TTY Console Hours	7803	11160
Total CPU Hours	179.96	236.60
Batch CPU Sec.	118854.89	182819.51
TTY CPU Sec.	529000.09	668957.93
OS-3 Hours	448	449.50
Average Number of Console Users	17.4	24.8
CPU/Hour/TTY User	67.8	59.9

TWO PRESENTATIONS MADE TO COMPUTER CENTER STAFF

Representatives from two computer manufacturers, UNIVAC and
IBM, made presentations in May to Computer Center staff members
and other interested people. IBM discussed their new virtual
memory operating system, VS-2, while UNIVAC discussed their
operating system, EXEC8, and its use on the 1106, 1108, and
1110 computers.

4-H SUMMER SCHOOL HELD JUNE 12-15

Jerry Paulsen will teach an introductory short computer course
for 4-H summer school participants June 12-15. About 75 high
school students will enroll in the course. Activities will
include an introduction to computers lecture, a tour of the
Computer Center, a film about computers, and instruction in
how to write a program in BASIC. The students will run and
debug their programs using the Computer Center teletypes and
the OS-3 time-sharing system.

CONDUIT HOLDS TWO MEETINGS

A large meeting was held by CONDUIT in Chicago for all members
of the Policy Board (which includes the Computer Center direc-
tors at the five schools), the director of CONDUIT/Central,
Ron Blum, the five curriculum coordinators, and the chairmen
of all the discipline committees. The purpose of the meeting
was to furnish the policy board members with information about
the various activities at the CONDUIT schools and at CONDUIT/
Central. The curriculum coordinators held a round-table dis-
cussion, and each discipline chairman described the accom-
plishments in his discipline over the past two years.

A June meeting was held in Washington, D. C. in order to make
a presentation to NSF on the accomplishments of the past two
years' activities of CONDUIT and to discuss CONDUIT's plans
for the next two years. The policy board members, the CONDUIT/
Central director, Ron Blum, and HumRRO, the evaluation group,
attended the June meeting with representatives from the section,
"Technological Innovation in Education" (a section formerly
in the Office of Computing Activities), at NSF.

Oregon State University
Computer Center
Corvallis, OR 97331

ADDRESS CORRECTION REQUESTED

OREGON STATE UNIVERSITY
COMPUTER CENTER NEWSLETTER

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NEW OPERATING SCHEDULE FOR THE SUMMER

Starting from July 16 until September 21, the Computer Center
will be open from 7:30 a.m. until 12 midnight, Monday through
Friday. Saturday and Sunday operating hours will remain unchanged
(Saturday, 7:30 a.m. - 5 p.m.; Sunday, 1 p.m. - 5 p.m.). Reduced
rates will then be offered Monday through Friday from 7 p.m. -
12 midnight (37 1/2 percent reduction in all costs).

NOTICE: The Computer Center will be closed August 18 and 19 for
         air conditioning repair and maintenance.

OPERATING STATISTICS, JUNE 1973

Teletype and Batch Utilization

Batch LOGONS		7411
Teletype LOGONS		26099
Total TTY Console Hours		6356
Total CPU Hours		177.49
Batch CPU Seconds	140,979.08	
TTY CPU Seconds	498,012.19	
OS-3 Hours		448
Average Number of Console Users		14.2
CPU/Hour/TTY User		78.6

CONSULTING DESK

The consulting desk will be closed from August 13 to September 16. When it opens on Monday, September 17, the hours will be from 1 p.m. to 4 p.m., Monday through Friday.

RAPIDOGRAPH PEN ON X-Y PLOTTER

The rapidograph pen on the X-Y plotter has not been operating properly. We will continue to try to repair it; but if we cannot get it to work, users will have to use it at their own risk and will not receive accounting credit for any malfunctions. We will announce any change of support in subsequent newsletters.

OPTICAL SCANNER

The optical scanner (OPSCAN^{17}) has arrived and has been installed. The scanner can read mark sense documents ranging in size from 2 x 4 inches to 8 1/2 x 11 inches. It will read hand printed numeric characters, ordinary pencil marks, and machine generated printing.

The scanner is connected to an 029 keypunch to produce machine readable input data. In order for users to use this machine, considerable planning time must be allotted for designing of forms and programming of output.

WHITE LINED PAPER WINS

In response to the Computer Center Users Survey question concerning paper type, we will start using white lined paper again when the green bar paper supply is depleted. After depleting the current supply, green bar paper will no longer be available to users.

BURSTING AND DELEAVING OF REPORTS

All bursting and deleaving received by the I/O room during the normal working day (8 a.m.-5 p.m.) will be out within three hours.

Bursting and deleaving received between 5 p.m. and 8 a.m. will be out by 10 a.m. the next morning.

Bursting and deleaving received on weekends will be out by 10 a.m. Monday.

If circumstances are such that the volume of work is extremely large or faster turn around is needed, please contact Glenn Wolfe at the Computer Center

SIPS ERROR CORRECTED

An error was discovered in the Mann-Whitney routine of the *SIPS system around June 1. The problem has been corrected. However, any user who used the routine before June 1 should re-examine the results if the data observations contained equal values (ties). Further questions about this problem should be directed to the Department of Statistics.

NEW BILLING PROCEDURES ON TERMINAL MAINTENANCE EFFECTIVE
AUGUST 1, 1973

The following terminal maintenance billing procedures will become
effective August 1, 1973. These procedures will apply to off-
OSU-campus terminals as well as to OSU terminals which are not
available to the general student population.

I. OSU Campus Terminals

    Teletype maintenance and preventive maintenance will be billed
    to the owner at the rate of eight dollars ($8.00) an hour for
    labor, plus parts. Maintenance on CRT terminals will be
    billed to the owner at the rate of ten dollars ($10.00) an
    hour for labor, plus parts.

    There will be some terminals exempt from these charges.
    They are as follows:

    A. Any machine on the OS-3 system will be exempt from charges
        for preventive maintenance, which consists of a six-month
        periodic lubrication and cleaning.

    B. Any machine on the OS-3 system and available to all OSU
        students for their use from 7:30 a.m. until the closing
        time of the building in which it is located will be
        exempt from charges. To meet this criterion all of the
        following conditions must be met:

        1. The terminal be either in an unlocked room or the
            key to that room be readily available and its
            location posted during the times above.

        2. There be a campus telephone available on the same
            terms as in 1 above. (This will not be necessary
            on dedicated terminals.)

        3. The terminal will be included on a listing indicating
            availability to all students. This listing will be
            posted at various locations throughout the campus
            for the convenience of all students.

II. Terminals Located Off the OSU Campus

    A. Teletype maintenance and preventive maintenance for
        terminals located off campus will be billed at eight
        dollars ($8.00) an hour for labor (portal-to-portal),
        plus parts, plus transportation costs (OSU car-pool rates).

    B. Maintenance costs for alphanumeric CRT display terminals
        and alphanumeric/graphics display terminals will be
        billed as in A but at $10 per hour, portal-to-portal,
        plus transportation costs (OSU car-pool rates).

III. The costs that one should plan on for maintenance of a
      teletype terminal is a function of usage. A terminal that
      is used for interactive computation and has an average usage
      duty cycle should plan for a maintenance cost of nominally
      $50/year/terminal, providing the terminal is initially in
      good condition. Costs will be considerably higher where

terminals are used excessively relative to the manufacturer-recommended usage duty cycle.

USERS PLEASE RELEASE SOME FILE SPACE

We would like to encourage users to destroy any old or unused files which they do not intend to use. These can be written on magnetic tape, punched on paper tape or listed. The system is running short of file space, so we would appreciate your eliminating old data files or programs wherever possible. Thanks!

GRANT FOR COMPUTER GRAPHICS USE IN SCIENCE EDUCATION ENDS

A two-year grant from the National Science Foundation for the study of computer graphics uses in Science Education was completed in June. Dr. Larry Hunter, Computer Center, and Dr. James Brady, Physics Department, were the principal investigators for the project which had as its primary objective the development of computer graphic techniques for the enrichment of the quality of undergraduate Science Education.

One area of the investigation was the development of a high-level interactive graphics language which would allow instructors with little computer background to use computer graphics as a demonstration aid in their classes. This effort has been quite successful and rewarding. During the two-year project, computer graphics has been used regularly to augment lectures in many of the undergraduate Physics classes and as an aid in some Physics and Chemistry undergraduate laboratory experiments.

As a result of the study done for the development of a suitable high-level graphics language, the GRAFIT system was written and has been widely used for research and instructional applications. The language of the GRAFIT system while easy to learn is powerful and flexible. One very attractive feature is the ability to extend the language to include commands for a specific application.

The Computer Center plans to continue support of research in interactive graphics for instruction and research and has submitted a proposal to the National Science Foundation for continued research using interactive color graphics terminals.

Questions concerning GRAFIT should be directed to Jeff Ballance, extension 2494.

INSTRUCTIONAL TIME USED FOR SPRING TERM 1973

Department	April	May	June	Total
AGRICULTURE				
Ag Economics	$ 25.16	$ 909.93	$ 500.27	$ 1,435.36
SCHOOL OF BUSINESS	1,141.30	3,313.22	589.12	5,043.64
SCHOOL OF EDUCATION	2.78	11.65	---	14.43

Department	April	May	June	Total
SCHOOL OF ENGINEERING				
Chemical	$ 789.51	$ 1,187.16	$ 109.56	$ 2,086.23
Civil	832.09	2,500.90	540.43	3,873.42
Electrical	1,013.80	2,627.27	161.89	3,802.96
General	2.14	44.69	---	46.83
Industrial	1,009.53	2,729.25	99.68	— 3,838.46
Mechanical	1,264.50	1,004.12	454.03	2,722.65
Nuclear	146.48	1,803.23	425.57	2,375.28
	5,058.05	11,896.62	1,791.16	18,745.83
FORESTRY	99.88	1,048.58	71.93	1,220.39
HEALTH AND PE				
Health Ed.	---	---	15.31	15.31
Physical Ed.	1.00	---	---	1.00
	1.00		15.31	16.31
HUMANITIES AND SS				
Economics	4.22	26.39	9.00	39.61
Geography	1.00	---	---	1.00
Psychology	23.66	226.08	45.93	295.67
Sociology	1.10	251.70	---	252.80
	29.98	504.17	54.93	589.08
OCEANOGRAPHY	60.48	156.63	69.30	286.41
SCHOOL OF SCIENCE				
Atmospheric Sci.	---	2,094.74	628.56	2,723.30
Biochemistry	31.42	46.13	---	77.55
Chemistry	100.84	322.15	82.48	505.47
Computer Science	3,251.05	7,762.39	2,367.26	13,380.70
Fisheries	507.56	681.23	377.37	1,566.16
General Science	1.65	1.76	---	3.41
Math	695.45	1,558.93	534.73	2,789.11
Physics	916.45	448.46	50.16	1,415.07
Statistics	1,883.56	3,161.62	652.19	5,697.37
Zoology	203.19	220.07	191.05	614.31
	7,591.17	16,297.48	4,883.80	28,772.45
HONORS PROGRAM	---	76.90	---	76.90

COMPLETE TOTAL OF AMOUNT USED IS $56,200.80.

OSU COMPUTER CENTER ANNUAL SUMMUER INSTITUTE TO BE HELD SEPTEMBER 4-7

The annual OSU Computer Center Summer Institute will be held
September 4-7 at the Computer Center.

This institute is open to any faculty member at OSU or other
institutions who use or will be using the CDC 3300 computer and

the OS-3 system. There will be a registration fee of $10 to cover the cost of materials. Computer time will be provided.

This workshop will provide instruction and computer time in the following areas:

I. Computer Skills

    A. FORTRAN
    B. BASIC
    C. OSCAR
    D. EDITOR
    E. Plotting

II. Instructional Systems

    A. SIPS A - use of SIPS in Statistics and Math, Biology Physical Sciences
    SIPS B - use of SIPS in Social Science, Humanities, Education and Economics
    B. GRAFIT - use of interactive graphics in instruction
    C. DRAFT - interactive mechanical drawing and drafting system
    D. GPSS   - a simulation language
    E. ARAND - a modeling and prediction package applicable in Oceanography, Atmospheric Sciences and Physical Chemistry

III. Instructional Programs in Academic Areas (If enrollment for an instructional program class is less than eight, it may be cancelled.)

    A. Linear Algebra - CONDUIT Math materials; computer-related problems and programs in linear and modern algebra
    B. Biology - CONDUIT programs; computer-related programs and problems in biology, ecology, and population growth
    C. Chemistry - CONDUIT programs; computer-related programs in general chemistry
    D. Accounting and Business - CONDUIT programs in accounting and business
    E. Political Science - use of CONDUIT Social Science data sets in political science
    F. Sociology, Psychology - use of CONDUIT Social Science data sets and simulation programs

To register for this workshop, please complete the registration form at the end of this newsletter and return to:

        Dr. Kay Porter
        Computer Center
        Oregon State University
        Corvallis, OR 97331

An attempt will be made to schedule courses to allow participants to take as many courses as they wish.

REGISTRATION FORM FOR
SUMMER COMPUTER INSTITUTE

Oregon State University
September 4-7, 1973

Name _____   Date _____

Institution _____

Department _____

Summer Mailing Address _____

_____

_____

For scheduling purposes, please indicate which sessions you would like to attend. Registration fee is $10.00. It can be sent with this form or paid on September 4th.

☐ Running Programs on the OS-3 System (CONTROL MODE & EDIT)--3 hours

☐ Beginning FORTRAN--3 hours

☐ Intermediate FORTRAN--3 hours

☐ BASIC--2 hours

☐ OSCAR--2 hours

☐ Beginning Plotting--1 hour

☐ Intermediate Plotting--2 hours

☐ ARAND--3 hours

☐ GPSS--3 hours

☐ DRAFT--2 hours

☐ GRAFIT (use of interactive graphics in instruction)--3 hours

☐ SIPS A (use of SIPS in Stat., Math, Biology, Physical Sci.)--2 hours

☐ SIPS B (use of SIPS in Social Science, Humanities, Education, Economics)--2 hours

☐ Accounting and Business (CONDUIT materials)--3 hours

☐ Biology (CONDUIT materials)--3 hours

☐ Chemistry (CONDUIT Chem. materials)--3 hours

☐ Linear Algebra (CONDUIT Math materials)--3 hours

☐ Political Science (CONDUIT data sets)--3 hours

☐ Sociology and Psychology (CONDUIT materials)--3 hours

Please return this form by August 1, 1973 to:

Dr. Kay Porter
Computer Center
Oregon State University
Corvallis, OR 97331

Oregon State University
Computer Center
Corvallis, OR 97331

OREGON STATE UNIVERSITY
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NEW COMPUTER CENTER HOURS

Effective October 1, 1973, the OSU Computer Center hours for
the OS-3 time-sharing service will be divided into prime-time
and non-prime-time periods. Non-prime time computer rates are
substantially lower than prime-time charges (see rate schedule
below). The new hours are:

Prime time:

Monday through Friday	7:30 a.m. - 6:00 p.m.

Non-prime time:

Monday through Friday	6:00 p.m. - 2:00 a.m.
Saturday	7:30 a.m. - 5:00 p.m.
Sunday	1:00 p.m. - 5:00 p.m.

COMPUTER RATES EFFECTIVE OCTOBER 1, 1973

Prime-Time Rates - OS-3 Charges:

CPU time	$5.00/CPU minute
Tape	$.03/sec. channel time (.50 handling charge)
Elapsed time at teletype	$2.00/hour
Elapsed time at high-speed terminal	$7.50/hour
On-line disk storage	$.15/block/month (512 words/block)
Punch cards	$.25/100 records
Input cards	$.15/100 records
High-speed input	$.50/100 records ($1.00 handling charge)
Paper tape punch (PDP-8)	$.50/100 records ($1.00 handling charge)
Remote line printer	$.05/100 records
Line printer	$.125/100 records ($1.00 special forms charge)
Plotter	360 blocks/hour @ $10.00/hour
User Disk Pack	$7.50/hour ($5.00 mount charge)

Non-Prime-Time Rates - OS-3 Charges: 37.5% of prime-time rates

Other Services	Without Operator Per Hour Charge	With Operator Per Hour Charge
CALMA 302 Digitizer	$7.50	$10.00
IBM 407 Tabulator	6.00	10.00
IBM 083 Sorter	2.00	6.00
Keypunching	no charge	6.00
Verifying	not available	6.00
Interpreter		5.00
Burster & Decollator		5.00

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Programming                                        $6.00  Programmer
                                                    9.00  Senior Prog.
                                                   12.00  Prog. Analyst
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Magnetic Tape Reels
   Rental $1.00/month
                            (.25 minimum)
Disk Pack Rental $15.00/month

Industrial users charged additional 25%

Minimum Charge

$1.00 monthly minimum charge for computational services.

NEW USERS

Any new user who wishes to receive a copy of the newsletter should
contact Sue McGaughey at extension 2494 and request that his name
and department be added to the newsletter mailing list. Users
with job numbers automatically receive the newsletter.

CONSULTING SERVICE OPEN TO STUDENTS AND FACULTY

The Computer Center consulting service is located in the viewing
room of the Center. The phone number is 1650; the consultant
is Shawn Ayromloo. Consulting hours are Monday through Friday
from 1 p.m. to 4 p.m.

This service is available to students also. However, help for
students does not include consulting on logic errors but only
assistance in the interpretation of error messages and errors in
programming languages and the use of the operating system.

SIXTY DAY OR OLDER FILES ARE STILL PURGED

Users should remember that saved files which have not been
accessed for 60 days are periodically transferred to a back-up
tape. This is necessary in order to allow the most efficient use
of the currently available on-line storage.

SCHEDULE OF VIDEOTAPE SERIES, FALL 1973

The "Introduction to OS-3" and the "Introduction to FORTRAN"
videotapes will be shown beginning Monday, October 15. Any
student or faculty member may attend the showings. The tapes
will be shown twice a day on cable TV (channel 5) and in
Kidder 108E on campus at 3:30 p.m. and 10:00 p.m.

The schedule is:

Introduction to OS-3

Oct. 15, 16, 17	3:30-4:30 p.m.
Oct. 18	3:30-5:30 p.m.
Oct. 15, 16, 17, 18, 22	10:00-11:00 p.m.

Introduction to FORTRAN

Oct. 22, 23, 24	3:30-4:30 p.m.
Oct. 25	3:30-5:30 p.m.
Oct. 29, 30, 31	3:30-4:30 p.m.
Nov. 1	3:30-5:30 p.m.
Oct. 23, 24, 25, 29, 30, 31 Nov. 1, 5, 6, 7,	10:00-11:00 p.m.

INTRODUCTION TO OS-3 VIDEOTAPE SERIES SEQUENCE

No.	Name of Tape	Instructor	Length (min:sec)
1	Tour of Computer Center	Bob Pinneo	11:10
2	TTY Operations	Bob Pinneo	17:14
3	Introduction to On-line Operations	Tom Mahan	28:28
4	OS-3 Editor from Remote Terminals	Fred Dayton	27:35
5	BASIC	Pete Murray	23:08
6	OSCAR	Gil Bachelor Mary Berryman	29:30
7	FORTRAN from Remote Terminals	Lyle Ochs	32:07
8	*CATALOG	Keith Avery	27:45
9	Debugging with RADAR	Mark Ebersole	28:30
10	The OS-3 Time-Sharing System	George Rose	47:00

FORTRAN VIDEOTAPE SERIES SEQUENCE

Instructor: Jim Sasser

No.	Name of Tape	Length (min:sec)
1	Introduction to Computers	30:30
2	Bit Structure, Part I	29:35
3	Bit Structure, Part II	31:25
4	Assignment Statements Input/Output	31:10
5	Input/Output - Format	30:30
6	Starting, Stopping, Transfer of Control	30:00
7	Arithmetic IF: OS-3 Control Statements	32:00
8	Program Ex. 1; Summation and Counting	30:00
9	Summation and Counting: Logic Concepts	32:00
10	Logical IF; Prog. Ex. 2	32:00

If an instructor wishes to show the videotapes in his class at another time, the tapes can be scheduled through Classroom TV, extension 1905. These tapes are shown as a service to the university community.

A booklet, Introduction to the OS-3 Videotape Series (CCM-71-04), and a manual to accompany the FORTRAN videotapes, FORTRAN Programming on the CDC 3300 Under OS-3 (CCM-73-04), can be purchased in room 126 of the Computer Center.

WHOM TO CALL FOR WHAT COMPUTER CENTER SERVICE

Type of Question	Person
Validating or obtaining job user numbers	Milli Wohlers--CC 126
Program Consulting	Shawn Ayromloo--Viewing Room
Questions on Program Library	Les Richey--CC 125
Operations	Ron Davis--CC 224B
Obtaining Manuals	Milli Wohlers--CC 126
Obtaining Magnetic Tapes	I/O Desk
Dev. Curr. Materials	Kay Porter--CC 203 / JoAnn Baughman--CC 146
Using Computer in Instruction	Kay Porter--CC 203 / JoAnn Baughman--CC 146
Arranging for Tours	Ron Davis--CC 224B
Renting or Repairing Terminals	Doug West--CC 118
Other User Services	Ron Davis--CC 224B

A FALL TUTORIAL FOR NEW USERS TO BE HELD WEDNESDAY, OCTOBER 24

Introduction to the Computer Center, a one-hour Computer Center tutorial, will be held on Wednesday, October 24, for new users and other staff members at OSU who wish to know something about Computer Center services. There will be four sections:

```
Section 1:   10:00 a.m. - 11:00 a.m.  ⎫
Section 2:   11:00 a.m. - 12:00 noon  ⎪   Computer Center
Section 3:    1:00 p.m. -  2:00 p.m.  ⎬   Conference Room
Section 4:    2:00 p.m. -  3:00 p.m.  ⎭      (CC 223)
```

The tutorial will be a general introduction to the services offered by the Computer Center. Topics to be covered are: the types of services, service hours, and locations of these services; how to establish a Computer Center job number; how to submit batch jobs; the use of time-sharing terminals; how to rent or purchase magnetic tapes; how to use the keypunching services; and how to use the forms provided for obtaining services.

Although there will be no registration fee, advanced registration is required. Please call the office at extension 2494 to register. Each session will have a maximum of 25 people enrolled. We thank the University of Texas Computation Center for their ideas for a series of fall tutorials. This tutorial follows their outline for an introductory course.

SOME INFORMATION ABOUT INSTRUCTIONAL COMPUTER TIME

Although instructional computer time has already been allocated for the Fall term, 1973, adjustments or new requests for computer time can still be submitted by instructors.

Application forms for requesting instructional computer time can be obtained at the Computer Center Office, room 217.

This explanation about the process of obtaining instructional computer time might be helpful to new faculty members:

Ordinarily the Dean in each school appoints a coordinator for his school. The coordinator is responsible for collecting requests for instructional computing time from each faculty member in the school. The request forms are then submitted to the Computer Center. The campus Computer Committee reviews the collected applications and distributes computer time for the whole school year. The Computer Committee is appointed by the Dean of Administration and is normally composed of at least one representative from each school. Sometimes the department head, rather than the school coordinator, will submit these requests.

Adjustments or new requests are accepted for each new term if, for some reason, the instructor did not apply for instructional computing time at an earlier date. The Computer Committee then reviews each new adjustment or request and approves or disapproves the application at the beginning of each term.

REQUESTS FOR COMPUTER TIME FOR UNSPONSORED RESEARCH

The Computer Center has a limited amount of funds available for unsponsored research computing in order to support faculty and graduate students in research activities which are not supported by other sources.

Application forms for unsponsored research are available in room 217 (office) of the Computer Center.

TELETYPE RENTALS FOR DEMONSTRATIONS

The Computer Center will rent teletypes and/or acoustic couplers to users associated with the University for demonstrations, etc.

The rate schedule includes equipment rental and maintenance:

    33KSR Pro-rated @ $45/month
    33ASR Pro-rated @ $50/month
    Acoustic Coupler Pro-rated @ $15/month

There is a minimum charge of $10.

If the above equipment is not to be located on the OSU campus, a fee of $8/hour for travel time will be charged for the off-campus maintenance.

If you have any questions, please call Doug West at extension 2494.

OPERATING STATISTICS FOR JULY AND AUGUST, 1973

		July		August
Batch Logons		6223		4437
Teletype Logons		22727		20733
Total TTY Console Hours		5910		5264
Total CPU Hours		177.64		169.99
Batch CPU Sec.	111923.59		124656.83	
TTY CPU Sec.	527583.97		487319.52	
OS-3 Hours		417		425
Average Number of Console Users		14.2		12.4
CPU Sec./Hour/TTY User		89.3		92.6

CHARGES FOR PRIVATE DISK PACKS

Private disk packs are available to Computer Center users. The rates for private disk packs are:

$15 per month rental
$5 mounting charge for each time a disk is used
$7.50 per hour wall clock time charge (connect time)

A user can purchase a disk pack for $180 rather than renting it. Mounting and connect charges are still the same, however.

Private disk packs are sector addressable with up to 32,480 sectors on each disk pack. A user program has to recover from disk errors and other hardware malfunctions.

RECYCLE PAPER AND CARDS

The Computer Center recycles all used printer paper and punched cards. Users may turn in recyclable paper and cards to the I/O room in the Computer Center building.

*SCOOP AND *HI

*SCOOP and *HI are public files which give the user a current list of the maximum amount of money left on his job number and validity code, the maximum time left on the number, the number of scratch file blocks actually being used, and the SFBLK limit.

Example:

```
#*SCOOP
SEPT 20, 1973    2:26 PM
MAXTIME      2794
MAX $      232.83
SFBLKS          61
SFBLKLIM       150
NO. USERS       52
```

OSU COMPUTER CENTER ANNUAL SUMMER WORKSHOP HELD

The annual Computer Center Summer Workshop for faculty training was held September 4-7. The workshop had 94 participants, including faculty and employees from OSU, Linn Benton Community College, Portland Community College, Southern Oregon College, Portland State University, Lane Community College, State Department of Education, Oregon State Game Commission, U.S. Bureau of Mines, and the U.S. Forest Service.

Classes offered to participants included computer skills classes such as FORTRAN, BASIC, OSCAR, EDIT, and plotting; classes in instructional systems running on the OS-3 system such as SIPS, GRAFIT, GPSS, and ARAND; and special classes which discussed the instructional programs developed for the academic areas of Business/Accounting, Mathematics, Biology, Chemistry, Sociology/Psychology, and Political Science from the NSF CONDUIT project, currently underway at OSU.

The annual summer institute was begun in 1969. Its purpose was to instruct faculty and update their skills in computer usage in instruction and research.

We hope that users will feel free to call or come by the Center to discuss any problems they might have. Ron Davis is Manager of Operations. The instructional staff at the Center includes: JoAnn Baughman, Kay Porter, Dave Fuhrer, and Janis Hubbert.

CONDUIT WORKSHOPS TO BE HELD FALL TERM

Two CONDUIT workshops will be held during fall term in the areas of Social Science and Biology. A third workshop in DIALOG (a CAI language developed at UC, Irvine) will also be held. These workshops are open to any interested faculty and staff at OSU or other institutions in the OSSHE. Dates for the workshops have not yet been set, but for details, contact JoAnn Baughman at extension 2494.

CONDUIT CURRICULUM COORDINATORS MEET IN OREGON

The fall meeting of CONDUIT curriculum coordinators from OSU, Dartmouth, North Carolina, University of Texas, and University of Iowa will be held in Oregon on September 27-28. The group will discuss the plans for the third-year grant.

CONDUIT is an NSF project which is studying dissemination strategies for computer based instructional materials in the undergraduate curriculum. The above five schools form the CONDUIT network. For information about CONDUIT and its activities, contact JoAnn Baughman or Kay Porter at extension 2494.

COMPUTER CENTER OPEN HOUSE HELD

An open house was held September 14 from 2:00 p.m. - 4:00 p.m. for new faculty members. Computer Center personnel were on hand to answer questions and discuss the Center's services.

OPTIMIZATION SOFTWARE (OPERATIONS RESEARCH)

The following OPTIMIZATION software has been developed by the operations research system group at the OSU Computer Center and is available under the OS-3 operating system.

*REX - A revised product-form, composite, bounded variable, multi-pricing, simplex, linear programming system which can be used to minimize or maximize a linear function, subject to linear constraints.

User's Manual: REX (Version 1), Linear Programming System, ccm-70-16, by Lynn Scheurman.

*OPTIMAL - A nonlinear programming system with six promising nonlinear programming solution techniques to minimize or maximize $f(x)$ subject to $g_j(x) \geq 0$, for $j=1,\ldots,m$, and $h_j(x)=0$, for $j=m+1,\ldots,m+p$, where f, g_j, and h_j may be nonlinear functions.

User's Manual: OPTIMAL (Version 1), ccm-73-02, by Billy S. Chou.

For information about these systems, call Billy Chou, extension 2494.

OS-3 ARAND SYSTEM

A number of new routines and capabilities have been added to the ARAND system since the appearance of Volume II documentation in August of 1971. In addition, a few final programs are currently under development, and documentation for the entire group will be prepared and ready for typing towards the end of October. This documentation will comprise the third (and possibly last) volume on the ARAND system and should be available for distribution about the first of the year.

The new additions include:

- Estimation of the gain and phase of open loop linear systems.
- Another autospectral estimation technique; this one a direct approach based on the fast Fourier transform.
- Modified graphics routines that allow plotting on the Tektronix graphics terminal and the Calcomp plotter simultaneously.
- Generation of realizations of stationary autoregressive-moving average processes, plus a more general purpose routine suitable for generation of a wide variety of time series and extensive simulations.
- Modeling of stationary/nonstationary, seasonal/nonseasonal time series following the approach of Box and Jenkins detailed in the Time Series Analysis, Forecasting and Control. This group of routines includes the primary

subroutines for model identification, parameter esti-
mation, diagnostic checking, and forecasting with
the fitted model, plus some conversational calling
programs and support graphics.
- Generation and profile or contour plotting of "time varying"
spectra computed from time consecutive segments of a
long record via a fast Fourier transform technique.

For questions regarding these new ARAND routines, call Lyle Ochs
at extension 2494.

Oregon State University
Computer Center
Corvallis, OR 97331

ADDRESS CORRECTION REQUESTED
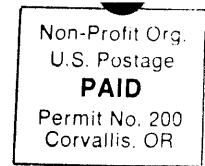
OREGON STATE UNIVERSITY
COMPUTER CENTER NEWSLETTER

Corvallis, Oregon
(503)   754-2494

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November/December, 1973

Director: Larry C. Hunter

Editor: Kay Porter

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HOURS FOR HOLIDAYS

Christmas Eve (December 24) - Closed at 5:00 p.m.

Christmas Day (December 25) - Closed

New Years Eve (December 31) - Closed at 5:00 p.m.

New Years (January 1) - Closed

A MISSING LETTER CAN BE IMPORTANT

Well folks, the Computer Center newsletter for September/October, 1973 has a little error in it. On page 2 regarding non-prime rates, the letter says "37.5% of prime time rates." This should read officially "37.5% off prime time rates." That is, discount rates are 62.5% of prime time rates. Sorry for the temporary ecstasy we caused for some users!

CHANGES TO OS-3

"RUN-ONLY" FILES

A new type of file has been implemented under OS-3. This file is called a "run-only" file.

The purpose of the "run-only" file type is to give users the ability to have a publicly usable program while maintaining private the internal nature of the program.

This type of program can only be "run." The file cannot be equipped or examined (even by its owner); and if the program is running, an attempt to examine it will cause all program memory to be zeroed and luns in the 50's (excluding 56) to be unequipped.

This file type is specified by saving a file with a name having a dollar sign ($) as the first character. For example, to change a scratch file containing an OS-3 overlay to a run-only file, do the following:

```
EQUIP,1=FILE           (Equip scratch file)
LOAD,BINARY,O=1        Put overlay on scratch file
FINIS
SAVE,1=$NAME           Make file type run-only
FP,1                   File protect since it is a public
                            file, and you do not want some-
                            body else destroying it
```

$NAME now has the status of a run-only file.

This run-only file would have the following specifications:

1) The file is public.

2) The file cannot be equipped with an EQUIP statement.

3) The file cannot be equipped by any user program.

4) If the file contains an OS-3 overlay, it can be run by typing the file name ($NAME). If any attempt is made to examine this running program (BREAK, STATUS, LUNLIST, etc.), the lower 32K of memory will be zeroed, all luns in the 50's excluding 56 will be unequipped, and all program status will be reset. The same happens if the running program executes a "STOP" or "SBJP" from FORTRAN or Assembler.

The DELETE, DESTROY, RENAME, FP, RFP, and SAVE commands are legal with $ files. This allows for easy creation and change or deletion of $ files.

For an owner to destroy a run-only file, the procedure is the same as that for a normal OS-3 file. For example:

```
DESTROY,$NAME1,$NAME2       etc.
RFP,$NAME3
DELETE,$NAME3,$HI
DELETE,$FORK
```

To change a run-only to a normal file, the RENAME command can be used.

```
RENAME,$ZIPP=ZIPP
RENAME,$SEXY=SEXY
RENAME,$DATA1=SAVEDATA
```

or vice versa

```
RENAME,GREG=$KILL+
RENAME,MOUSE=$RAT+
```

Commands that may be executed without destroying your program status while in run-only mode are listed below:

```
CC
DELETE,<NAME>
DESTROY,<NAME>
GO
MI
MFBLKS
SFBLKS
TIME
TRAFFIC
UNABORT
XABORT
```

SET DESTRUCTIVE READ (SDR)

```
#SDR,<LUN>,<LUN>,<LUN>
```

This is a file control command that will rewind the LUN(s) specified and cause the specified LUN(s) to be set in destructive read mode.

Destructive read mode on a file is best described by the use of an analogy: Imagine for a moment that Control Data Corporation received a request from the defense department to build a number of destructive read tape drives.

The defense department has a large number of top secret tapes and needs to process them only once. Immediately thereafter, the tapes are to be destroyed (in such a manner to satisfy environmental specs, of course).

Control Data Corporation quickly responded to this request and assigned two of their best engineers, Gene Walter and Roman Baltram, to the developmental task.

These gentlemen designed the following device:
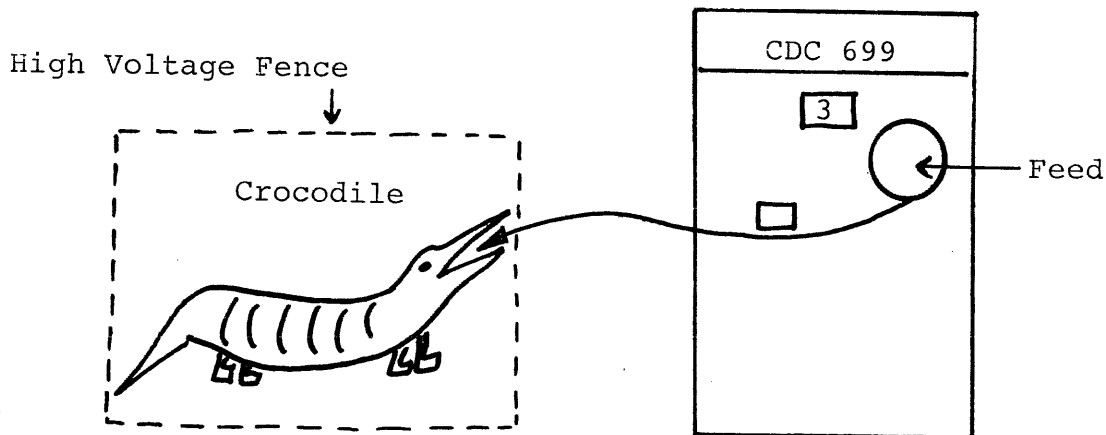
This device consists of a feed reel, capstan, read head, and Crocodile. The tape passes over the read head on a request from the computer. After reading, the tape passes into the innards of the specially designed Crocodile (to be described in another paper) accomplishing destruction.

Now, dear reader, you may wonder why anyone, outside of the defense department, would want a destructive read file. There are a number of situations where this might be applicable.

    1)   Suppose you had a large scratch file and wish to copy it to printer. If your scratch file limit on your job number is less than twice the size of the previously mentioned file, two copies cannot exist simultaneously. The obvious solution is to set destructive read on the input file and copy it to the printer. The operating system will automatically reduce the size of the input

file as copying proceeds, resulting in much less file space being used.

2) Another example would be the case where you had a large file to sort. Normally, when sorting is done, you would have two copies of your data--the unsorted input and the sorted output.

Using destructive read on the input file would again save file space.

Some warnings and restrictions should be mentioned:

1) When reading a destructive read file, there is no turning back. Once information is read, it is lost. So be careful when using it.

2) Only four file commands are available for files in destructive read mode.

   a) STATUS
   b) CLEAR
   c) RELEASE
   d) UNEQUIP

3) This command is illegal for RAFS.

4) The command performs only a rewind if the specified LUN is a saved file, file-protected scratch file, or magnetic tape.

A HELP IS A HELP IS A HELP!   (HELP command)

HELP is a new OS-3 command to aid a user in finding out about a particular program overlay. The command is

     HELP,<OVERLAY NAME>

If the overlay has been prepared with HELP information, the information will be listed. Provisions have been made for keywords to be incorporated into the information. If keywords have been provided, they will be listed. By entering the desired keyword, the associated information will be printed. A null (all blank) response will cause all of the information available to be listed.

The control mode command MI may be used to restart the execution of HELP after having interrupted it with a CNTL A or BREAK command.

Information may be attached to an overlay by using the routine *CHELP. Information about this routine may be obtained by using HELP.

NOTE: WE WOULD LIKE TO ENCOURAGE USERS WITH POPULAR OVERLAYS TO USE THE "HELP" SYSTEM TO DESCRIBE THEIR OVERLAYS FOR OTHER USERS' REFERENCE AND INFORMATION.

*CHELP

*CHELP may be used to attach documentation to program overlays for use with the HELP command. The calling statement is

    *CHELP,I=<FILE NAME OR LUN>,O=<OVERLAY NAME>

The input file must be BCD and have records of 20 words or less in length. If this file is created in the editor, it must be placed on file with the OUT command. The overlay must not be file protected.

The information may contain keywords which will be used by HELP to retrieve selected portions of the information. A keyword must appear as the first item on a record with the percentage character (%) preceding and following it, e.g.,

    %PARAMETERS%

Keywords may be up to 20 characters in length. All records following a keyword until the next keyword are associated with it and will be printed when the keyword is requested.

If the first record of the information is not a keyword, all records until a keyword will be printed when accessed. This allows a structure of the form:

    GENERAL INFORMATION
    KEYWORD
       INFORMATION
    KEYWORD
       .
       .
       .

*CHELP appends all information to the overlay file in a COSY format such that it may be retrieved in the editor for modifications with the following sequence:

    EQUIP,LUN=<OVERLAY NAME>
    SEFF,<LUN>,<LUN>
    CIN,<LUN>

After changes have been made, *CHELP must be called to attach the new file to the overlay.

OS-3 SYSTEM REPORT OR REQUEST FORM

The OS-3 Software Group has designed an OS-3 System Report Request form to be filled out by users 1) who wish to report a suspected bug or 2) who have a suggestion for a new feature on the OS-3

system. A copy of this form is on the last page of this news-
letter. If you have any suggestions or requests, please
complete the form and return to

> OS-3 Systems Group
> OSU Computer Center
> Corvallis, OR 97331

STUDENT GRADE REPORTER PROGRAM AVAILABLE

The Student Grade Reporter (SGR)[1] is a computer program designed
to record, summarize, and report grades on a periodic basis.
The chief purpose of this student-oriented system is to provide
the student with a frequent and accurate feedback on his class
performance throughout the term. This can be accomplished
with less time and effort for the instructor than with conven-
tional record-keeping systems.

The SGR program can handle up to five different types of scores
(quizzes, problems, exams, etc.) with up to six scores of each
type. Each type of score can be weighted according to any
scheme the instructor may choose. SGR will accommodate excused
absences; it will also drop the one or two lowest scores within
each type if the instructor so desires. The program is presently
designed for classes of up to 200 students.

Any persons interested in using this program should contact
Jo Ann Baughman or Dave Fuhrer at extension 2494.

NOTE TO USERS OF THE RANDOM FUNCTION ON THE FORTRAN LIBRARY

The function RANDOM on the FORTRAN library (*LIB) will be
replaced on the first of January, 1974, by a new random number
generator that generates a better uniform pseudo-random sequence
over the closed interval [0,1]. The call of the routine is
roughly the same except that the parameter is an integer rather
than a double-precision integer. This should cause no compata-
bility problems with the old RANDOM. If anyone has any qualms
about this conversion or any questions about the new RANDOM,
please contact Robert Adams in room 129 in the Computer Center
(extension 2063).

---

1. This program was developed at Purdue University by
W. D. Downey, Department of Agricultural Economics. See W. D.
Downey and R. W. Taylor, "Feedback for Students on Class Per-
formance," American Journal of Agricultural Economics (Novem-
ber, 1969), pp. 946-947. It was revised and adapted at Oregon
State University by Doyle Eiler, Research Assistant in
Agricultural Economics.

SOME NEW MANUALS ARE NOW AVAILABLE

Available in the Computer Center:

CCM-70-8R   OS-3 Reference Manual for OS-3, Version 4.3,
             July, 1973

CCM-73-03   FORTRAN Programming on the CDC 3300 Under OS-3,
             July, 1973

CCM-73-04   FORTRAN Reference Manual, August, 1973

Available in the Math/Computer Science Office (K 368):

ASSEM Notes, November, 1973

*SYSLIB Notes, September, 1973

*SYS

The file *SYS which can be copied to the line printer, gives information about recent system changes.

PLANNED CHANGE

About January 1, 1974, the upper three bits of register 37B will no longer be 0 but will contain the day of the week (0=Sunday, 1=Monday, etc.).

*OSCNEWS

The file *OSCNEWS, which can be copied to the line printer, contains information about OSCAR, Version 59, and about OSCAR programs available in public files.

*SIPS CAN NOW BE CALLED BY TYPING SIPS

SIPS calls the statistical interactive processing system. This is now a library program, which can be called by a user program, and is no longer an overlay.

*ASSEM

A new version of the OS-3 Assembler was released under the name *ASSEM. It has two new features of interest to users:

1) The address field of the list PSEUDO-OP may have two
    new words which change the number of lines per inch on
    the listing, i.e.,

            LIST   SIX
            LIST   EIGHT

    These may occur anywhere within the program.

2) If a lun is specified for the I parameter, it may be followed by a "/" and a symbol starting with "D" to specify that the unit is to be treated as unit 50 is treated, i.e., rewind and set destructive read and unequip it when finished.

TELETYPE AND BATCH UTILIZATION

	September	October
Batch Logons	3739	9041
Teletype Logons	19181	28669
Total TTY Console Hours	4429	6477
Total CPU Hours	170.37	175.71
Batch CPU Sec.	111758.34	133507.44
TTY CPU Sec.	501556.00	499031.21
OS-3 Hours	448	455
Average Number of Console Users	9.9	14.2
CPU/Hour/TTY User	113.2	77.1

CONDUIT

In the past year CONDUIT has defined major factors involved in the movement of Computer-Related Curriculum Materials, established hypotheses related to these factors, engaged in activities to collect data and evaluate these hypotheses and published preliminary findings and guidelines. One major activity has been the selection, movement, and dissemination of 87 program modules, two integrated courses, and nine data bases in seven disciplines for use by over 20 classroom instructors in Oregon alone.

Booklets are available describing the CONDUIT materials in Biology, Business, Accounting, Chemistry, Economics, Social Science, Linear Algebra, and Physics.

For information contact Jo Ann Baughman, Curriculum Coordinator or Kay Porter, Information Officer.

COMPUTER CENTER NOW HAS SIPS CONSULTANT

Michael LeJeune, a graduate student in statistics, is available to Computer Center users for consulting on the SIPS system. He will be in CC 142 from 2:00 p.m. - 4:30 p.m. Monday through Friday.

SUGGESTION BOX

The Computer Center has a suggestion box located across from the I/O counter. Any users with suggestions or comments are

urged to drop their suggestions in the box or to mail them to
Ron Davis at the Computer Center.

RESULTS OF COMPUTER CENTER USER SERVICES SURVEY

This survey was distributed in May, 1973, to approximately 1,400
users in Oregon (list compiled from Computer Center newsletter
mailing list). One hundred and ninety-five questionnaires were
returned and tabulated using the *SIPS system. The following
results were obtained:

User Type	Time Used (in Minutes/Month)				
	0-5	6-10	11-20	21-60	61+
OSU Faculty (119 - 61%)	20.00%	11.28%	8.72%	8.21%	12.82%
Graduate Students (33 - 16.9%)	5.64	4.62	3.59	2.05	1.03
Undergraduate Students (9 - 4.0%)	2.05	2.05	.51	0	0
Non-university Users (14 - 7.2%)	3.08	1.03	.51	2.05	.51
Computer Center Staff (18 - 9.2%)	1.03	0	.51	2.05	5.64
Other (2 - 1.08%)	0	0	0	.51	.51

Mode(s) used by you:
     Batch: 127 - 65%
     Time sharing: 167 - 86%

Involved in:
     Instruction: 52 - 26.6%
     Research: 139 - 71%
     Administration: 27 - 13.8%
     Course Work: 33 - 16.9%

How long have you used computers in your work?

At OSU

less than one year: 23 - 12%
1-2 years: 40 - 20.8%
3-5 years: 82 - 42.7%
6 years or more: 47 - 24.5%

Elsewhere

have not used: 87 - 44.6%
less than one year: 17 - 8.7%
1-2 years: 30 - 15.4%
3-5 years: 36 - 18.5%
6 years or more: 25 - 12.8%

Have you used computer facilities at another college or university?

Yes: 98 - 54.7%
No: 81 - 45.3%

Batch or time sharing?

Batch: 78 - 75%
Time sharing: 6 - 5.8%
Both: 20 - 19.2%

How does our system reliability (up-time) compare overall with that of the other institution?

OSU much better: 27 - 22.7%   } 38.7%
OSU somewhat better: 19 - 16%
OSU about the same: 29 - 24.4%   } 13.4%
OSU somewhat worse: 10 - 8.4%
OSU much worse: 6 - 5%
no opinion: 28 - 23%

How do OSU's costs for equivalent service compare to those of the other insitution?

Batch

higher: 30 - 29.4%
about the same: 17 - 16.7%
lower: 5 - 4.9%
don't know: 50 - 49%

Time sharing

higher: 14 - 16.5%
about the same: 7 - 8.2%
lower: 7 - 8.2%
don't know: 57 - 67.1%

How does our system response compare to that of the other institution?

OSU much better: 29 - 25.2%
OSU somewhat better: 17 - 14.8%

OSU about the same: 19 - 16.5%
OSU somewhat worse: 10 - 8.7%
OSU much worse: 5 - 4.3%
no opinion: 35 - 30.4%

What is the upper time limit on good response?

6 seconds

What is the upper time limit on acceptable response?

18 seconds

What percent of the time do you get good response?

57 percent

What percent of the time do you get acceptable response?

60 percent

The values of the rating scale were: 1=poor, 2=fair, 3=satisfactory, 4=good, 5=excellent. The means of the questionnaire responses rated the Center good to excellent (3.6-5.0) in the following areas: adequacy of CDC 3300 to accomplish work, adequacy of operating hours, keypunching service, production programming, consulting with staff, availability of unsponsored research computer time, availability of instructional computer time, quality of Computer Center Summer Institute for faculty, quality of Computer Center Newsletter and ease of learning the OS-3 system.

Users rated the Center fair to satisfactory (2.6-3.5) on the following: availability of student teletypes, availability of staff terminals, adequacy of response time, adequacy of turnaround time, adequacy of program library, I/O desk procedures, data conversion service, digitizing, papertape reading and punching, consulting with students, fairness of charges for computing, and quality of video tapes and manuals.

Users rated the Center poor to fair (1-2.5) in the following categories: availability of student keypunches and adequacy of program documentation.

For any questions regarding the results of this survey, call Kay Porter at extension 2494.

A NOTE ON *SCOOP AND *HI

We failed to mention in the last newsletter that the dollar amounts given by these two public files on a job number are only approximates and do not calculate charges for saved file space, etc. They are only a rough approximation of the actual amount of time or money left on a number.

ERTS COMPUTER PROCESSING

On November 9-10 the Computer Center was a participant in a symposium held at Oregon Museum of Science and Industry (OMSI) under the joint sponsorship of NASA and Senator Mark Hatfield's office. The theme of the symposium was the application of Earth Resources Technology Satellite (ERTS-1) data in problem solving, and in particular, how such information might be used in Oregon.

The ERTS-1 satellite was launched in July, 1972. It passes the same geographic location every 18 days at the same time. From an altitude of 570 miles, the satellite records digitally on a scale of about 0-63 the reflected sun radiation in four wave length ranges--"blue," red," and two "near IR" (photographic infrared)--for an area of about one acre. The recorded intensities can be used to create a photographic image, or used directly as "digital imagery." For instance, at the OMSI symposium a direct teletype hook up to the 3300 was used to demonstrate the classification of an area into water bodies, pine stands, or irrigated lands by pattern recognition techniques with digital imagery as input.

The Computer Center has been involved in a NASA-funded ERTS-1 multidiscipline investigation using both satellite and high-flight aircraft (U-2) imagery as an aid in land-use planning and natural resource inventory, and this project was the basis for the programs and techniques demonstrated during the OMSI symposium.

During the course of the ERTS-1 investigation, digital imagery over most of Oregon has been recorded and could be made available to anyone interested in its use. For further information contact RJay Murray, extension 2494.

OS-3 SYSTEM REPORT OR REQUEST FORM

Name _____

Extension No. _____

Date ___/___/___

Is this regarding a

☐ bug

☐ suggestion for system feature

What part of the system does this refer to?

☐ ALGOL   ☐ ASSEM   ☐ BASIC   ☐ COBOL   ☐ COMPASS

☐ CONTROL MODE   ☐ COSY   ☐ EDIT   ☐ FORTRAN   ☐ LOADER

☐ MERGE   ☐ OSCAR   ☐ RADAR   ☐ SIPS   ☐ SORT

☐ UTILITY (Copy, Date, Dump, Label)   ☐ Miscellaneous

If this is a bug, include one or more of the following:

☐ Program deck or file (for FORTRAN, ALGOL, COBOL, etc.)

☐ Listing (should be included if possible)

☐ Data (if applicable)

☐ Core dump

Description of bug or suggestion:

Return to:

OS-3 Systems Group
OSU Computer Center
Corvallis, OR 97331

September, 1973
GL:sam

Oregon State University
Computer Center
Corvallis, OR 97331

ADDRESS CORRECTION REQUESTED