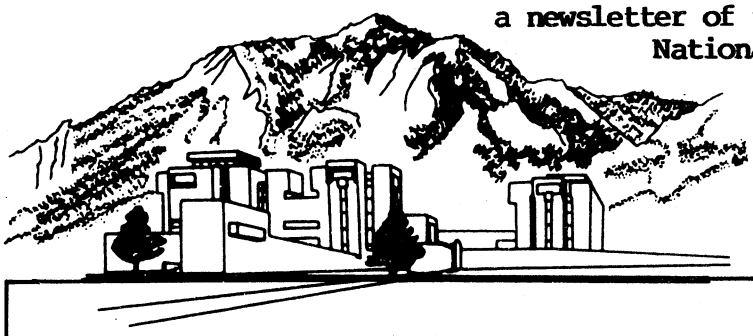
Volume 6, Number 4
April 1, 1985

The Record

a newsletter of the Scientific Computing Division,
National Center for Atmospheric Research



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CONSULTING OFFICE

Information on the Consulting Office schedule for this month may be found on page 3. For your convenience, this schedule has been placed on a separate page for easy removal. The schedule will change each month and will be included in The Record.

SCHEDULE OF MACHINE UNAVAILABILITY

All machines may be down from 07:00 until 08:30 daily for Systems Checkout. In addition, some machines will be down for Preventive Maintenance as follows: CRAY,CA, 06:00-08:00 (T Th); CRAY,C1, 06:00-08:00 (M W); TBM, 06:00-07:00 (daily); MODCOMP, 08:00-12:00 (1st Monday of month).

The Record is published monthly by the Scientific Computing Division of the National Center for Atmospheric Research. NCAR is operated by the University Corporation for Atmospheric Research and is sponsored by the National Science Foundation. Reference to a company or product name does not imply approval or recommendation of the product to the exclusion of others. Robert Nicol, Editor; Ann Cowley, Head, Information Services; Astrik Deirmendjian, Trouble/Design Reports; Ken Walton, Summary of NCAR Computer Use; Mary Bartels, Computer Resources Allocated.

CONSULTING OFFICE SCHEDULE FOR APRIL 1985

Consulting Office hours are 08:30-12:30 and 13:00-17:00 daily, Monday through Friday. The Consulting Office is closed every Wednesday from 13:30-14:30 for staff meetings. Consultants may be reached by calling (303) 497-1278. Messages may also be sent to the CONSULT1 virtual machine on the IBM 4341 computers.

Consultants for April are: Dan Anderson, Ann Cowley, Mike Ernst, Ken Hansen, Barb Horner, Harsh Passi, Michael Pernice, and Erich Thanhardt.

Schedule for the week of:					
	Apr. 1	Apr. 8	Apr. 15	Apr. 22	Apr. 29
Mon AM	A Cowley	E Thanhardt	A Cowley	A Cowley	A Cowley
Mon PM	D Anderson	B Horner	D Anderson	D Anderson	D Anderson
Tue AM	E Thanhardt	E Thanhardt	E Thanhardt	K Hansen	E Thanhardt
Tue PM	H Passi	H Passi	H Passi	H Passi	H Passi
Wed AM	M Ernst	M Pernice	M Ernst	M Pernice	
Wed PM	D Anderson	D Anderson	D Anderson	D Anderson	
Thu AM	B Horner	B Horner	B Horner	K Hansen	
Thu PM	K Hansen	H Passi	H Passi	H Passi	
Fri AM	E Thanhardt	E Thanhardt	E Thanhardt	E Thanhardt	
Fri PM	B Horner	D Anderson	B Horner	K Hansen	

Fourth Annual SCD User Conference

Planning has begun for SCD's Fourth Annual User Conference, to be held July 11 and 12 on the campus of the University of Colorado in Boulder. Since 1981, SCD has convened an annual meeting with its users to discuss new and important events which affect the computing resources furnished to support atmospheric research. This summer marks the fourth year that users from around the country will travel to Boulder to share insights and information vital to the continued growth of scientific computing at NCAR. SCD's User Conference is an execellent opportunity to bring together the community of scientists and researchers who use NCAR's computers. This two-day series of discussions permits you to assist SCD in formulating future plans and, simultaneously, to learn what SCD is doing now with existing capabilities, as well as the division's immediate and long-term plans to meet expanding user needs.

This year's conference will focus on four issues concerning future access to high-speed supercomputing capabilities at NCAR. Topics to be discussed include:

- High-speed, high-bandwidth data communications
- A variety of issues related to the acquisition of a CRAY X-MP/48 supercomputer, scheduled for 1986
- Front-end access strategies for the X-MP/48
- Options for managing both the quality and quantity of output that can be produced by a vigorous user base on such a machine

In the next few weeks, you will be receiving registration and other pertinent conference information. An agenda for the two day conference will also be included. Please watch for this packet in your mail and plan on joining us for a few days during the summer in Boulder.

by Greg McArthur

UNINET 2400 bps and Error Correcting Service Soon Available

UNINET is now offering 2400 bits per second (bps) asynchronous service and an error-correcting transmission facility for both 2400 bps and 1200 bps in the following cities:

Currently in place:

Atlanta	Boston	Chicago	Dallas
Houston	Kansas City	Newport Beach	New York
San Francisco	Washington, DC		

Planned in future:

Baltimore	Hartford	Philadelphia	San Jose
Charlotte, NC	Indianapolis	Phoenix	Seattle
Cleveland	Miami	Roseland, NJ	St. Louis
Denver	Minneapolis	Salt Lake City	Tulsa
Detroit	Orlando	San Diego	

UNINET will support users with 2400 bps asynchronous modem models supplied by most vendors. The service will be identical to that now supplied to 300 bps and 1200 bps modem users except that the data transmission rate will be faster.

However, with the 2400 bps feature UNINET is also offering extended service with an error-correcting protocol system between the user's terminal and the user's local node. This facility should guarantee error-free communication between the user's terminal and the NCAR host machines. In order to use this error-correcting feature, MICROCOM modems with the error-correcting firmware are required for the user's terminal. These can be purchased from UNINET or from other sources. In addition, for certain IBM and Apple PC models, a complete communications package that includes unattended uploading and downloading of files is included in the modem price. The error-correcting facility is also available at 1200 bps with the MICROCOM modems at the cities listed above.

The 2400 bps modems are priced under $1000 and discounts up to 22% are offered for bulk purchases. 1200 bps error-correcting modems are also available for under $700. The 1200 bps modems can later be upgraded to 2400 bps.

Only the cities listed above are scheduled to receive the error-correcting service at this time. However, a timetable has not been established for the addition of 1200 bps and 2400 bps error-correcting service to those cities. For further information, contact Don Morris at (303) 497-1282 or send electronic mail to userid MORRIS.

by Don Morris

Film Users: Please Return Film Boxes

SCD's film production group is experiencing a severe shortage of the plastic boxes used to mail film output to remote film users. The cost of these boxes has increased dramatically, so the film group would greatly appreciate it if you could return the plastic boxes you have received. Increased costs and the box shortage may necessitate the mailing of film output in cardboard boxes in the future, which increases the chances of damage to your output in the mail. To prevent this unfortunate possibility, please return any boxes you may have to:

National Center for Atmospheric Research
ATTN: Film Room
Scientific Computing Division
P.O. Box 3000
Boulder, CO 80307-3000

by Vickie Pinedo

Software Usage Statistics for the CRAY-1 Computers

The following tables show the ranking of the most heavily used software libraries and packages on the NCAR CRAY-1 computers over the last 3 months of calendar year 1984. These statistics were compiled from raw usage statistics accumulated by Richard Valent from the CRAY-1 system logs (Q8QST4). Considering the two CRAY-1 computers for one quarter means that a total of 6 machine months of statistics (3 months per machine) are included in the tables.

Table 1 shows the usage ranking of the major software libraries accessed during the quarter. Since the statistics presented in this table include normal library maintenance accesses, Table 2 was further compiled to represent more typical use by scientific users. In this table, entries are logged when accessed more than 16 times. In future quarters an attempt will be made to remove maintenance accesses from the statistics in a more precise fashion.

Local libraries such as CRAYLIB, ULIB, XLIB, CRAY1, GENPRO, and PSTORE tend to contain software packages in the areas of file management, input/output, graphics, data processing, and general mathematics and computer related utility functions. The packages in these libraries often contain multiple entries. Each entry typically contains numerous subroutines for which individual statistics are not gathered. On the other hand, commercial libraries such as NAG and IMSL tend to have only one entry per package, and each entry is often only a single subroutine or a small number of subroutines. This explains why the NAG and IMSL libraries tend to have such a large number of entries reported in the tables even though the number of accesses is less than that of a number of the local libraries.

The local libraries tend to have more accesses per entry because the functions served by the local libraries are useful for the entire community, whereas the commercial libraries provide support in specialized areas of mathematics. This is reflected in Table 3 which shows the 50 most frequently used packages. Please contact Bob Lackman or the NCAR consulting office if you would like a more comprehensive list.

Caveat

In the compilation of the following tables, multiple versions of a package utilized in a single machine month were summed into a single usage statistic. For example, AUTOGRAPH statistics for versions 6 and 7 were combined. On the other hand, when a package such as VELVCT occurred on two libraries, CRAYLIB and ULIB, both statistics are presented. Only the first call to an entry is logged in the statistics from an IFTRAN, FORTRAN, or CAL program, whereas each call to a utility from the CRAY operating system is logged.

Future Developments

One responsibility of the Multi-User Software (MUS) Group is to estimate user needs not acceptably addressed by currently existing software. Since limited manpower is available for local software development, the MUS Group attempts to direct efforts toward packages which are useful for a broad user base. Usage statistics such as those presented in this article are helpful in determining whether the MUS products are achieving this goal. Some packages currently supported by the MUS Group include PSTORE, IFTRAN, EDITOR, GENPRO, and AUTOGRAPH.

Any user who is aware of a missing or deficient software utility which would be of general benefit to the NCAR user community is encouraged to send a description of the need to Bob Lackman (see below). In addition, users who desire a more detailed listing of software use may send a request to the same address:

National Center for Atmospheric Research
ATTN: Bob Lackman
MUS Group Head
Scientific Computing Division
P.O Box 3000
Boulder, Co. 80307-3000

The frequency of requests will be an important consideration in the acquisition or development of future software products. Requests concerning other groups within SCD will be forwarded to the parties concerned.

by Bob Lackman

Table 1
Total Library Usage on the CRAY-1 computers
during the fourth quarter of calendar year 1984

	LIBRARY	PACKAGES	ENTRIES	CALLS
	CRAYLIB	27	59	187601
	PSTORE	3	6	84801
%	ULIB	101	165	70669
&	CRAY1	2	2	33602
*	IMSL	608	608	17035
	NAG	205	205	13169
	XLIB	21	32	8050
	STARPAC	138	138	6309
#	GENPRO	7	44	4769
	PORT	24	24	3013
	ECMFFT	2	2	1977
	ITPACK	93	93	1132
	CRABSBI	1	1	639
	LINPACK	14	14	539
	PCHIP	12	12	374
	EISPACK	23	23	367
	SLATEC	11	11	334
	AMOSLIB	13	13	310
	STATLIB	1	17	300
	LACKMAN	1	1	172
	PORTLIB	1	1	54
	FUNPACK	2	2	17
	DASHW	4	4	8

Notes:

% These statistics are the summary of library usage labeled both ULIB and NSSL.

& EDITOR and IFTRAN

* The large number of entries does not reflect actual scientific use on this and other libraries. Normal library maintenance and testing calls are included in this summary. (Compare with Table 2.)

The GENPRO library is the sum of DRVL01, DRVL02, DRVL03, and OPRL01, OPRL02, OPRL03, OPRL04.

Table 2
Library usage on the CRAY-1 computers during the fourth quarter of calendar year 1984. This summary is based upon those entries which received more than 16 calls during the quarter.

LIBRARY	PACKAGES	ENTRIES	CALLS
CRAYLIB	24	50	187563
PSTORE	3	6	84801
ULIB	95	156	70619
CRAY1	2	2	33602
IMSL	111	111	16300
NAG	158	158	12920
XLIB	13	18	7962
STARPAC	84	84	6172
GENPRO	5	32	4707
PORT	13	13	2962
ECMFFT	2	2	1977
CRABSBI	1	1	639
LINPACK	4	4	492
SLATEC	11	11	334
PCHIP	5	5	329
EISPACK	6	6	296
AMOSLIB	7	7	288
STATLIB	1	5	233
LACKMAN	1	1	172
PORTLIB	1	1	54

Table 3
Ranking of library packages by most frequently accessed entry from October through December, 1984

LIBRARY	PACKAGE	ENTRY	TOTAL CALLS	RANK	FUNCTION
PSTORE	PCOPY	PCOPY	82889	1	File Management
CRAYLIB	PLOT.8.8	PREOUT	28898	2	Graphics
CRAY1	EDITOR	EDITOR	25352	3	Batch Editor
ULIB	DASHCHAR	DASHD	18328	4	Graphics
CRAYLIB	IOPROC	RDTAPE	12236	5	I/O
CRAYLIB	ENCD	ENCD	11995	6	Encode/Decode
CRAYLIB	BYTES	GBYTES	11260	7	Bit Manipulation
CRAYLIB	CONREC	CONREC	11066	8	Graphics
ULIB	AUTOGRAP	AGSTUP	8756	8	Graphics
CRAY1	IFTRAN	IFTRAN	8250	10	FORTRAN Preprocessor

Table 3 (cont.)
Ranking of library packages by most frequently accessed entry from October through December, 1984

LIBRARY	PACKAGE	ENTRY	TOTAL CALLS	RANK	FUNCTION
CRAYLIB	EZMAP	MAPROJ	6076	11	Graphics
CRAYLIB	READLX	READLX	5490	12	Free Form Input
ULIB	PWRITY	PWRY	5239	13	Graphics
XLIB	FFT99F	FFT991	3018	14	FFTs
ULIB	VELVCT	VELVCT	2629	15	Graphics
CRAYLIB	FPACKER	UNPKB	2586	16	I/O Utility
ECMFFT	FFT991	FFT991	1648	17	FFTs
IMSL	VTRAN	VTRAN	1619	18	Transpose Matrix
IMSL	VDCPS	VDCPS	1356	19	Factor Integer
ULIB	BSL1NT	BSL1NT	907	20	Bessel Interpolation
PORT	SRTPAR	SRTPAR	903	21	Sorters
ULIB	CUBSPL	TERP1	882	22	Cubic Splines
XLIB	FILL	FILLNC	835	23	Graphics
ULIB	INVMTX	INVMTX	801	24	Invert Matrix
DRVLXX	GENPRO	GENPRO	742	25	Data Processing
CRAYLIB	LCMREQ	LCMREQ	734	26	I/O Utility
NAG	X02AAF	X02AAF	734	27	Utilities
ULIB	CURV	CURV1	714	28	Interp/Approx
ULIB	LSPOLY	LSPOLY	675	29	Lst Sq Polynomials
CRABSBI	PRSIM	PRSIM	639	30	Print File on DICOMED
ULIB	FFT	FFTRC	630	31	FFTs
ULIB	TRDI	TRDI	609	32	Lin Sys Solver
CRAYLIB	VELVCT	VELVCT	602	33	Graphics
IMSL	UGETIO	UGETIO	601	34	I/O Utilities
ULIB	EIGRG1	EIGRG1	591	35	Eigenvalues
IMSL	ICSICU	ICSICU	531	36	Spline Interpolation
ULIB	HOURS	HOURS	509	37	Elapsed Hrs
ULIB	GAUSL	GAUSL1	498	38	Gaussian Quadrature
ULIB	SURF	SURF1	489	39	2-D Interpolation
ULIB	LINEQSV	DECOMP	484	40	Lin Sys Solver
ULIB	CONRAN	CONRAN	468	41	Graphics
ULIB	GENBUN	GENBUN	457	42	Lin Sys Solver
ULIB	BLKTRI	BLKTRI	395	43	PDE Solver
PORT	SNRM2	SNRM2	372	44	Linear Algebra
ULIB	LSODI	LSODI	367	45	ODE Solver
ULIB	THREED	SET3	357	46	Graphics
ULIB	HWSCRT	HWSCRT	338	47	Elliptic Solver
ULIB	SEPELI	SEPELI	337	48	Elliptic Solver
PORT	SETI	SETI	327	49	Utility
ULIB	SRFACE	SRFACE	314	50	Graphics

PLT and Metacode Translators to be Updated on the IBM 4341 Computers

On July 1, 1985, the metacode translators and the PLT EXEC on the NCARLIBS 460/K/GRAPH disk on the IBM 4341 computers will be updated. The user interface to the metacode translators will change, causing a change in PLT's usage of the new translator. To aid users in migrating to the new translators and the new PLT, versions of these new utilities have been placed on the NCARLIBS 460/K/GRAPH disk (hereinafter called the GRAPH disk) on the IBM 4341 machines under temporary names. This article describes the new utilities and how to use them. If users have not converted to use of the new utilities by July 1, they will be required to do so at that time.

New Metacode Translator

The new translator is table-driven and will allow for public support of a much wider class of devices. The new translator will also support translation of both the current NCAR metacode as well as the new International Standard Computer Graphics Metafile (CGM) metacode which will be used in conjunction with NCAR's new Graphical Kernal System (GKS) graphics package (to be released to friendly users in the near future). The new translator can determine automatically whether it is translating NCAR metacode, or CGM metacode.

Prior to the development of the new metacode translator, if one wanted to translate metacode for a given graphic output device, it was necessary to modify a master translator shell to produce a device driver specifically for the given output device. The new translator will serve almost all graphic output devices without a single code change (changes may be necessary to utilize the translator on graphics workstations such as the Sun or Apollo products). Upon invocation, the new translator reads in a description table for the desired graphic output device and proceeds accordingly.

The description tables for graphic output devices are called "graphcap" files. To implement the translator for a given device, one must merely create the appropriate graphcap file for that device. This approach has a couple of very distinct advantages over the old approach. First, it is relatively easy to produce a graphcap file for a given device - it is simply a matter of filling in the blanks in a table. Secondly, this method allows public support of many devices, since developing and maintaining the relatively small graphcap files is all that is necessary.

Several graphcap files are already available on the GRAPH disk, and more will be added. All graphcap files on the IBM 4341 machines must have file type GRAPHCAP. To find out which devices currently have publically-supported graphcaps, issue the CMS command "HELP GRPHCAPS". Within the next few months a document will be available describing how to write your own graphcap files.

The new master metacode translater is on the GRAPH disk in file GTRANS MODULE. The supported graphcap files are also on the GRAPH disk. The translator can be invoked by the call

GTRANS GCAPN GRAPHCAP GCAPM MCN MCT MCM

where the arguments are:

GCAPN -- File name of graphcap file

GRAPHCAP -- Mandatory file type of graphcap file

GCAPM -- File mode of graphcap file

MCN -- File name of metacode file

MCT -- File type of metacode file

MCN -- File mode of metacode file

Invoked in this manner, GTRANS will translate the entire metafile. A more useful tool for examining and manipulating metafiles is the PLT EXEC described below.

New PLT EXEC

PLT has been revised to accommodate the use of the new metacode translator (described above), as well as to make a few small corrections and improvements. The new version of PLT is currently on the GRAPH disk under the name of NEWPLT, and this version will become the default PLT on July 1, 1985. Users are encouraged to convert to the new EXEC. The only change which must be made is in the specification of the metacode translator either on the *TRANS card in the user's PROFILE EXEC, or via the SPECIFY command from within NEWPLT.

Following is a summary of the changes made to PLT to produce NEWPLT:

- The specification of the metacode translator has been changed to require specification of the appropriate graphcap. If one was specifying the translator name on a *TRANS statement in the PROFILE EXEC, this name will have to be changed to the appropriate graphcap file name. The graphcap file name must be supplied in its entirety. For example, if one previously had a *TRANS H statement in the PROFILE EXEC specifying the HP2648A translator, this statement should be replaced with *TRANS HPB.

  There is no default GRAPHCAP, and this represents a change from having the VT100 as the default translator in the old PLT. Thus if one invokes NEWPLT and has not specified a graphcap file name on a *TRANS statement in the PROFILE EXEC, it will be necessary to specify a graphcap file name by using the SPECIFY command from within PLT. A "HELP SPECIFY" in PLT will produce a list of the current publically-supported graphcaps.

- In order for NEWPLT to behave properly in all situations, it is necessary for the user to be linked to the GRAPH disk. This warning is for those who may want to copy NEWPLT and modify it for their own use.

- When NEWPLT does its bookkeeping and reports the number of frames in the input file, it will also report what type of metafile is being processed (either NCAR metacode, or the international standard CGM metacode.)

- NEWPLT will not allow mixing of metacode types. For example, it will not allow one to append a frame from a CGM metafile to a previously existing NCAR metafile. However, it will allow for switching back and forth between metafile types using the NEWINPUT command.

- Two new arguments have been added to the INQUIRE command. One allows you to interrogate the name of the current GRAPHCAP file, and the other allows you to determine the meaning of error numbers issued from the translator.

- In searching for a *TRANS statement in the user's PROFILE EXEC file, NEWPLT searches for the PROFILE EXEC with highest disk priority as opposed to insisting, as previously, that the profile be on the user's A disk.

For full details on NEWPLT, issue the CMS command "HELP NEWPLT" on the IBM 4341 computers; for details on GTRANS, issue the CMS command "HELP GTRANS".

by Fred Clare

ZOT - The May Mass Store Purge will occur on May 4, 1985

The May purge of datasets (VSNs) from the TBM will take place on May 4, 1985, and will affect VSNs not accessed since February 1, 1985. The subsequent purge of datasets will occur on June 1, 1985, and will affect VSNs not accessed since March 1, 1985.

Documentation Update

The purpose of this column is to announce revisions, updates and new documents of interest to the user of SCD's computers. Included at various times will be documents issued by SCD, by other NCAR divisions, by IBM, and by Cray Research, Inc. Directions for obtaining the documents are included.

Please note that manuals ordered from SCD will take approximately two weeks to reach you.

SCD Documents

SCD documents are available from Sal Farfan; contact him at (303) 497-1292 or via electronic mail by typing "TO SAL" on the IBM 4341 computers.

"Autograph: The Unabridged Write-up", by David J. Kennison, January 1985, is now available as a supplement to the NCAR Graphics Manuals.

Consulting Office Documentation:

GETDOC, GETSRC, GETBIN: Locally Developed Commands - March, 1985

Suggestion Notebook

Users are encouraged to enter items in the suggestion notebook either by sending mail to CONSULT1, using the Your Turn page of The Record, or writing in the notebook in the Consulting Office. The suggestions and responses will be published in The Record.

Suggestion: 3/5/85
Why doesn't SCD stagger computer resource reallocation periods? It seems that everyone's accounts get renewed at the same time, causing system overload (look at BKG queues in February).

Response: 3/5/85
Historically the allocations within NCAR are renewed once a year by the Director of NCAR beginning March 1. (This year the present monthly allocation has been extended through March 31). As noted this does seem to cause an annual mid-winter crisis. The problem has been a matter of concern and discussion between Dr. Macintyre and Dr. Hess. The new Division allocations this year begin April 1st and will be 18 month allocations, running through FY 86. By the time these allocations run out, the CRAY X-MP/48 sould be available and will hopefully be able to handle the crunch. The allocation method will undergo extensive re-evaluation at that time.

Summary of Daily Bulletin Items

CRAY-1 COMPUTERS

February 21, 1985
CRAY-1 COMPUTERS: The CRAY Release 1.13 products and libraries will be installed as the default products and libraries on the CRAY-1 computers on Monday, March 4. Please note that the NEWSEQ procedure will no longer be available after installation.

February 22, 1985
CRAY-1 COMPUTERS: Beginning Tuesday, February 19, and until further notice, the Systems testing group will be using the CRAY,CA computer when necessary from 12:00-13:00 for testing CRAY Release 1.13. Testing of 1.13 will alternate between each CRAY-1 computer from 06:00-07:00 each morning while PM is done on the other machine.

March 1, 1985
CRAY-1 COMPUTERS: CRAY Release 1.13 products and libraries will be installed as the default products and libraries on the CRAY-1 computers on Monday, March 4. Users should expect the following changes on Monday, March 4:

- The default libraries will be 1.13 versions. CRAY procedures CFT113 and PSCL113 will exist, but will have no effect on the user's job.

- The 1.11 new calling sequence environment will be available via the CFT111 procedure. NEWSEQ will print a message and abort.

- The 1.11 old calling sequence environment will be available, but only until March 25. Users must write their own JCL accessing these old utilities and libraries. Consultants will keep a list of the correct JCL. The OLDSEQ utility will print a message and abort.

- The 1.09 and 1.10 libraries and products will no longer be available. Procedures CFT109 and CFT110 will issue a message and abort.

March 8, 1985
CRAY-1 COMPUTERS: CRAY Release 1.13 FORTRAN and PASCAL products and libraries were installed as the default products and libraries on the CRAY-1 computers as of March 4. The estimated date for installation of COS 1.13 as the default operating system is March 25 on the CRAY,CA computer and approximately one week later on the CRAY,C1 machine. The old calling sequence will no longer be available after installation. If you have questions or problems concerning the items listed, call the Consulting Office at (303) 497-1278.

The following changes and recommendations have been made since March 4:

- The default libraries are 1.13 versions. CRAY procedures CFT113 and PSCL113 do exist, but have no effect on the user's job.

- Since there may be problems with the 1.13 DEBUG utility, the Consulting Office recommends that DEBUG 1.13 not be used until further notice.

- When using any libraries other than the default library, call the old loader with the following JCL:

```
RELEASE,DN=LDR.
ACCESS,DN=LDR,ID=V112B3PN.
```

- Recompile binary libraries using CFT 1.13.

- The 1.11 new calling sequence environment is available via the CFT111 procedure. NEWSEQ prints a message and aborts.

- The 1.11 old calling sequence environment is available, but only until installation of COS 1.13. Users must write their own JCL accessing these old utilities and libraries. Consultants will keep a list of the correct JCL. The OLDSEQ utility prints a message and aborts.

- The 1.09 and 1.10 libraries and products are no longer available. Procedures CFT109 and CFT110 issue a message and abort.

March 20, 1985
CRAY-1 COMPUTERS: The target date for installation of COS 1.13 as the default operating system is this Monday, March 25, on the CRAY,CA computer, and approximately one week later on the CRAY,C1 machine.

IBM 4341 COMPUTERS

February 20, 1985
IBM 4341 COMPUTERS: Starting Monday, February 25, all entry to the IBM 4341 computers through the PACX will be consolidated under the new IBM 7171 controller. Entry through the IBM Series/1 and DEC PDP 11/34 computers will no longer be available. Logons to PACX classes IA, IO, and IE will all be directed to this new controller. Users who anticipate problems should contact Gil Green at (303) 497-1270.

February 21, 1985
IBM 4341 COMPUTERS: A new EXEC has been added to the User Exec Library on the IBM 4341 computers. The QDATASET EXEC enables users to list particular datasets currently on the CRAY disks by project number, or by specific ID. Use the HELP QDATASET command for details on using this EXEC. Please refer problems or comments to Mike Ernst at (303) 497-1236 or send mail to MIKE on the IBM 4341 system.

February 26, 1985
IBM 4341 COMPUTERS: As of today, Tuesday, February 26, all entry to the IBM 4341 computers through the PACX has been consolidated under the IBM SERIES/1 computer. Entry through the DEC PDP 11/34 computer will no longer be available. Logons to PACX classes IA, IO, and IE will all be directed through the IBM SERIES/1. Users who anticipate problems should contact Gil Green at (303) 497-1270.

February 28, 1985
IBM 4341 COMPUTERS: A bug fix for the PSTORE EXECs PCOPY, PDEL and PDIR was installed this morning. Previously, a test to verify that the user's virtual machine had SET ECMODE ON would fail if the user had SET TIMER REAL.

MODCOMP

March 18, 1985
MODCOMP: The MODCOMP job retention time (the amount of time a job will stay in the site output queue "OQ") will be changed from 100 hours to 150 hours. After 150 hours, the job will be dropped from the MODCOMP system, instead of being printed at NCAR as previously. These changes will be instituted as of March 25 at 08:30.

TBM

February 26, 1985
TBM: Starting Wednesday, February 27, the /D option for TBMVSN will list datasets by creation date (date most recently written to the TBM). Datasets followed by a plus (+) have been read at least once. Those followed by a minus (-) have never been read. The other TBMVSN listing options have not been changed. Please contact the Consulting Office at (303) 497-1278 with any questions.

DICOMED PROCESSORS

February 20, 1985
DICOMED: Tests indicate that 35mm frames shot on the DICOMED cameras have not changed in size since recalibration of the cameras. If any users have evidence that the film output itself has changed in size, please contact Andy Robertson at (303) 497-1249.

SOFTWARE

March 7, 1985
SOFTWARE NOTICE: As previously announced in the February issue of The Record, an extensive overhaul of CRAYLIB was begun on February 26. As of March 6, a new version of $NCARLB was installed. It should not affect users, but if it does, please notify Stu Henderson immediately at (303) 497-1295. This morning the new source version of CRAYLIB will be installed. If you use source for any FORTRAN CRAYLIB routine except for LCMREQ, RUGRID, or DUMPLT, you will be affected as line numbers have changed - in some cases extensively. See the February issue of The Record for details.

March 14, 1985
PSTORE: An intermittent problem occurs when the User Master File is accessed using PSTORE: error message number 73 is returned and the job aborts. When the job is re-run, it usually executes normally. Please inform the consultants at (303) 497-1278 when this problem occurs to aid in tracking down this problem.

March 20, 1985
GRAPHICS USERS: On July 1, 1985 the PLT EXEC and metacode translators on the IBM 4341 computers will be upgraded. The user interfaces will change. The upgraded utilities are currently in place on the NCAR-LIBS 460/K/GRAPH disk under temporary names. They will become the default on July 1. Users are encouraged to convert to the new products. For details, issue the CMS command "NEWS NCARLIBS" on the IBM 4341 machines, or see the forthcoming article in the April issue of The Record.

MISCELLANEOUS

March 6, 1985
SUBSCRIBERS TO THE RECORD: Please include your name and address on the PC Questionnaire in the March issue of The Record.

Computer Resources Allocated in February 1985

SCIENTIST	PROJECT TITLE	GAU	
		Request	Alloc.
Ken-Ichi Nishakawa Univ. of Iowa	Particle simulations in magnetospheric plasma	10.0	10.0
John Walsh Univ. of Illinois	Effects of snow cover on model forecasts	8.0	8.0
Shyh-Chin Chen Univ. of Illin.	Forced planetary waves and mean zonal flow	5.0	5.0
Wm. Cotton CSU	Nuclear winter studies	10.0	10.0
Xin-Min Hua Univ. of CA/SD	Solar neutrons and gamma rays	5.0	5.0
Janet G. Luhmann UCLA	Lower thermosphere dynamics at high latitudes	6.3	6.3
Mark D. Borges Univ. of Wash.	Two-level GCM development	8.0	8.0
Anne K. Smith Univ. of Colo	Structure of transient planetary waves	8.0	8.0
Eric B. Kraus CIRES/CU	Forcing of S. Oscillation by S. Pacific Ocean	6.0	6.0
J.E. Hart Univ. of Colo.	Non-linear baroclinic instability: transition to chaos	5.0	5.0
V.L. Patel Univ. of Denver	Plasma waves	3.3	3.3

Note: A request may be supported at a lower level than requested because:

a. It exceeds the five-hour limit above which Panel review is required; or

b. Reviewers consider the amount of time requested to be excessive.

Summary of NCAR Computer Use for February 1985

CRAY,CA COMPUTER	FEB		FISCAL YTD	
	Total	Day Avg.	Total	Day Avg.
Clock Hours in the Month	672.00	24.000	3624.00	24.000
less Scheduled PM	16.05	0.573	84.57	0.560
less Hardware Downtime	7.78	0.278	58.11	0.385
less Software Downtime	0.78	0.028	7.71	0.051
less Environmental Downtime	2.12	0.076	18.82	0.125
less Operations Use	0.95	0.034	3.08	0.020
less Other Causes	0.25	0.009	4.36	0.029
Clock Hours Up	644.07	23.003	3447.35	22.830
less Systems Checkout	7.02	0.251	9.74	0.065
Clock Hours Avail. to Users	637.05	22.752	3437.61	22.766
less Idle Time	0.28	0.010	11.02	0.073
Clock Hours in Use	636.77	22.742	3426.59	22.693
% Available Hours Used	99.96 %		99.68 %	

CRAY,C1 COMPUTER	FEB		FISCAL YTD	
	Total	Day Avg.	Total	Day Avg.
Clock Hours in the Month	672.00	24.000	3624.00	24.000
less Scheduled PM	15.98	0.571	84.75	0.561
less Hardware Downtime	9.65	0.345	45.16	0.299
less Software Downtime	3.33	0.119	8.05	0.053
less Environmental Downtime	0.20	0.007	7.17	0.047
less Operations Use	0.00	0.000	2.92	0.019
less Other Causes	0.07	0.002	3.95	0.026
Clock Hours Up	642.77	22.956	3472.00	22.993
less Systems Checkout	5.75	0.205	8.65	0.057
Clock Hours Avail. to Users	637.02	22.751	3463.35	22.936
less Idle Time	0.80	0.029	16.32	0.108
Clock Hours in Use	636.22	22.722	3447.03	22.828
% Available Hours Used	99.87 %		99.53 %	

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