UNIVERSITY OF MINNESOTA COMPUTER CENTER

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NOTICE OF CHANGES TO THE OPERATING SYSTEM

Marisa Riviere fixed a problem with RFM processing of the permanent file security parameter, FS. Marisa also repaired a nasty bug in MF501 which caused an infinite loop issuing dayfile messages.

Kevin Matthews repaired a timing problem in DUMPPF which arose when attempting to dump from a private pack.

N. L. Reddy added all the appropriate modifications to MSI, SET and COMSRSX, and provided a version of 6DJ for installation of double density disk drives. The 844-41 disk drives, 6DJ, differs only slightly from 6DI and will be maintained on MPL.

Alan Johnston supplied a new version of COMPUPS, a CDC product which has been substituted by one of our own.

PROPOSED CHANGES TO THE OPERATING SYSTEM

Level 11 Proposed Timesharing Changes - by Alan F. Johnston

1. In conjunction with the heavy use of brief mode, I propose that a VALIDUS entry called *TM* be added to automatically set the user into Brief mode or normal mode. The default would be normal, and optionally Brief. In brief mode most of the headers and messages are deleted or shortened to reduce time in printing and save paper. At log in time the mode would be set accordingly as specified in the VALIDUS entry. This mod requires only one bit added to the VALIDUS file and a minimal change to MODVAL.

2. Allow the ENQUIRE command or STATUS command to be shortened to E in all subsystems. Currently at least two character entries and up to seven in the BATCH subsystem are required to complete a command. The E command would do two things, one shorten the use of the ENQUIRE command to one character and replace the current C command. The C command has no meaning as far as ENQUIRE or STATUS goes but allowed the user to type in a one character command to find the status of his job (lazy user).

3. Change the format of the timesharing log in message. The new format would be:

```
 YY/MM/DD. HH/MM/SS.
TERMINAL:   NNN*
M E S S A G E
USER NUMBER:
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The * would be a single bell character. The only changes from the current format are that the terminal number is output before the user number has to

be entered, and the bell character. This new format is like MERITSS format in that the terminal number if printed, so that users who receive a rotary full, illegal port or have a general rotary algorithm problem can help UCC track down any problem that occurs. The bell character has been suggested by many people so that CRT users can be alerted as to when MIRJE is back up after a crash.

The CYBER LOADER/LINK Control Card - by T. W. Lanzatella

After considerable haggling in last week's system group meeting, we decided that the control card used to toggle between use of LINK to use of the CYBER LOADER on KRONOS 2.1.2 should be LOADER as it was under MOMS. The format of the command will be: LOADER (LINK) to invoke loading by LINK and LOADER (CYBER) to make loading by the CYBER LOADER. The default setting at job initiation will be LOADER (LINK).

Proposal - by K. C. Matthews

I want to add two changes to KRONOS Control Language.

1. Add a symbol called DW for the day of week. DW = 0 on Monday, DW = 1, on Tuesday, etc. One can write procedure files which check for weekends by doing things like:

   IF (DW. GT. 4) GOTO, 1 week.

2. Add the GOFO statement as implemented at Indiana University, GOFO acts like GOTO, except that one always goes forward from the current statement. For example, GOFO,REWIND will cause the next REWIND statement after the GOFO statement to be executed. GOTO, REWIND. causes the first REWIND statement in the control deck to be executed. Using GOFO may enable one to place conditional transfers in a procedure file, and the procedure file may then be used more than once per job.

Change of RFM Control Cards - by M. Riviere

I received a suggestion about replacing the several entry points that RFM produces in the System by only one entry and the use of a parameter for the requested option. [For example: The control card RFSAV (....) should be replaced by the control card RFM (OP = SAVE, ...)] The suggestion is from T. Lanzatella and A. Mickel in their campaign of matching control cards and documentation, as well as to reduce the System's entry points.

I designed the RFM control cards to be somehow similar to the KRONOS permanent files control cards. I personally like the actual format, but I have not a very strong opposition to the change. Anyway I would like to have the opinion of the System Group about it.

I want to avoid the nuisance that once the change is made the use of RFM may be threatened to be discontinued on the basis that it is too inconvenient to remember a new control card.

Express Tape Program Proposal - by Bill Elliott

As currently implemented, the express file (RESESEX) is cumbersome to maintain and not being used to its potential. Presently, the entire file must be recreated whenever new information is added or data is deleted from the file. Normally, the express library (and thus the express deck) are updated twice weekly. To effect this update, upwards of 8000 cards must be read in for analysis. This results in less than 30 cards of output which must then be physically inserted into the express deck. A few trial runs must be performed to weed out duplicate cards and other errors. When all looks in order, a final run creates the -RESEXEX- fast attach file and places it into use.

Due to the current express file structure, permanently removed tapes must be flagged by punching a card designating a message which results in a fatal error. Thus besides maintaining an express library deck a similar (and much larger) deck must be maintained detailing the status of tapes which do not exist in the library. Due to the limited amount of data maintained in the current express file (15 bits/VSN) and the manual methods employed to update the library status, the current format seems obsolete and in need of an upgrade.

The proposed format would associate 4 words of information with each VSN instead of just 15 bits. An increase to 8 words/VSN can be easily accomplished without major revision. The following information would be maintained for each VSN in the library. Absence of information (i.e., 4 words of zero) indicate an empty library tape slot.

Express Number
Message Number (as selected by the librarian)
Owner (designated by user index)
Date/Time of Last Assignment
Unit of Last Assignment
Total Number of Assignments
Date Placed in Library
Date Last Cleaned
Number of Assignments Since Last Cleaning
17 Character User Specified Comment Field

Flags to:

Prevent assignment as selected by librarian (lock)
Prevent entry to express library (for accounting tapes, etc.)
Indicate if backup tapes exist in off-site storage
Indicate access levels for non-owner accesses

In addition, the capability for the owner to permit a tape to a specific account number or group of account numbers is provided. Though this will not be immediately implemented.

As envisioned, this format along with minor revisions to RESEX could be used to provide enhanced security of unlabeled tapes as well as a means to override or strengthen file security (FA) options in effect for labeled tapes. The comment information coupled with the ownership designation associated with each VSN, could be used to good advantage by the user as a tape library management tool of his own.

The following implementation schedule is postulated:

1. Write an express file manager to create and update the express file (RESEXEX) and provide utility functions for library management.

2. Rewrite the express library management routine to handle the new express file format. This revision should be much simpler and more direct than the current version. (February)

3. Add code to -RESEX- to update the date/time and access count fields on assignment. This should be installed with level 11 to preclude a long period during which tape cleaning will be going on with no automatic records being kept. (March)

4. Implement user oriented control cards to permit tapes, catalog library content (much as CATLIST) and select options for specified VSN's. (Summer)

It is intended that all tapes stored in the UCC library (short of transient tapes) be logged into the RESEXEX file. This would mean augmenting the current groups (SN, UC) with others such as LB, LF, PA, PF, AC, DD and any which may be used in future. This would allow use statistics to be kept on all tapes while insuring a proper cleaning schedule.

SYSTEM MAINTENANCE: PEOPLE AND PROCEDURES

Bill Elliott says watch out for Level 11 COMCARM; it looks the same as the Level 9 version but what used to be B4 is now B3.

Use of the Computer Room During System Time - by T. W. Lanzatella

During last week's systems group meeting, Larry Liddiard revealed that a new set of rules regarding machine-room usage during system time is soon to be published. Briefly, the rules are as follows:

1. One person is always designated as site supervisor during system time.

2. When answering the door during system time, staff members should not admit non-staff.

3. Non-staff visiting during system time must sign in and wear a visitor's badge.

4. Soon, a new pamphlet will be published which outlines procedure to use when hardware fails during system time.

Using RFM on WRITEUP - by M. Riviere

I want to suggest the use of RFM for the handling of the WRITEUP files.

The last time that the WRITEUP account password was changed, several WRITEUP file owners were confused and somehow disturbed because they were not notified of the change. I don't want to have a similar situation taking place in the future.

It is quite inconvenient to inform everyone about the new account password each time that the password has to be changed, and the publishing of a password for general information obviously defeats the purpose of using a password at all. The use of RFM can avoid having to choose between these two not very sensible possibilities.

How's That Again? - R. T. Franta

The following corrections should be made to the WRITEUP proposal which was in the last issue (Vol. 2, No. 2) of the DSN. Correct the following lines (don't count blank lines):

1. Page 2, line 8

   "first card image of each record which is non-blank but contains a space in column one will be written to the output file."

2. Page 2, line 15

   "will be issued and processing will continue. The first card image (the one with the record name) will not be included in the printout."

3. Page 2, line 16

   "LFN = *"

4. Page 2, line 21

   "LFN = N1 - N2"

5. Page 2, line 34

   My apologies to M. Riviere for publishing the password for YZE6000 which was not only incorrect but against assumed policy. See M. Riviere for details on how to enter WRITEUP files.

6. Page 3, line 3

   "FS = SC"

7. Page 3, line 13

   "This would now allow the user to do a WRITEUP, UMST. OR WRITEUP, UMST = INDEX. to get

8. Page 3, line 15

   "then do a WRITEUP, UMST = UMST500/UMST600. to get more details on these two programs.

New Disk Drives - by K. C. Matthews

The three 844-41 drives are scheduled to arrive on 20 February, 1976. Hopefully by the first week in March we can have them up and running in our normal system. We will then have three 844-41's (DJ) and ten 844-21's (DI). Only three of the drives can have dual access from either channel 30 or 31. Here is my suggestion for the disk pack configuration until some more 844-41 drives arrive in June. Remember that one 844-41 pack is equivalent to two 844-21 packs so that a DJ1 equipment holds as much data as a DI2.

Unit #	Type	Device	Comments
0A	DI	SCRATCH,DEADSTART	DUAL ACCESS
1A	DJ	Pack SP	DUAL ACCESS
2A	DJ	Pack PF01	DUAL ACCESS
3A, 4A	DI-2	DN 10	Same as now
5A, 6A	DI-2	DN 11	Same as now
7A	DI	Removable or Scratch	Extra pack
3B	DJ	DN 12	Used to be a DI-2
4B	DI	Pack STF	
5B, 6B	DI-2	DN 13	Same as now
7B	DI	Removable	Same as now

Drives 0A, 1A, 2A can be accessed on channel 30 or 31. Drives 3A - 7A can be accessed on channel 30 only, while drives 3B - 7B can be accessed on channel 31 only.

The pack SP is moved from a DI to a DJ equipment. We still want to keep only CALLPRG and WRITEUP files on SP, so that most of the SP space will be free temporary storage. Then, if one DJ device is down for a day, we can reload the secured files to a DI pack called SP. It doesn't matter what sort of device SP is on, as long as all the files fit.

On the DI (844-21) drives, we have one spare pack. Also, if two packs are down, (or if one 844-21 and one 844-41 are down), we can simply not use the scratch pack normally on drive 0A, but we lose temporary file space.

Only if more than one DJ drive or two DI drives or one of each are down at the same time are we in trouble.

About the Franta-Lanzatella-Mickel Memo on CALLPRG - by M. Riviere

This is in response to the Franta-Lanzatella-Mickel memo about Callprg as a Black Hole published in the Deadstart Newsletter of January 27, 1976.

I neither have the linguistics nor the cosmological knowledge of said writers to respond in a similar style. I do not even have the same sense of humor for the response. I may say that the memo has a very descriptive introduction and that it reflects in many ways my own views of several aspects of Callprg. I hope that the main purpose of that memo is to obtain an improvement in the organization of Callprg that is quite necessary and I will be glad to see.

For some reason, however, I was neither included in the writing of said memo nor was I consulted concerning the decisions that it advises, some of which I disagree with. Therefore, I consider that it was written, among other things, with the purpose of criticizing my way of handling Callprg. I would have preferred a direct approach rather than the indirect attack of the Franta-Lanzatella-Mickel memo. This lack of sensitivity can only create larger communication gaps instead of closing the ones that already exist.

I want to state that several times I did question the existence of old and new packages in the Callprg index; but, since I did consider that each of our groups has a supervisor who is responsible for the group's production, I had to assume that whatever, or almost whatever, I was requested to place in the index had a valuable reason to be in there. Even so, I felt (and more than 19% of the time) that I was indeed feeding what is now a so well-defined black hole. At that time, however, no one seemed to be concerned about it. The few times that I questioned the Callprg or Library Tape contents at our System's meetings, I met with an apathetic response. The general attitude was that these matters should be discussed aside from the System's meeting. I include the Library Tape into this same discussion because I feel that both subjects possess a similar gravitational field and therefore they deserve the same consideration. I felt that all the modifications to the index should be of public UCC knowledge, and I created and maintained CPOPL for such purpose. CPOPL is described in the Deadstart Newsletter of April 16, 1975, and it is available to anyone interested in producing a list of the latest modifications to the index.

A few months later I decided that the information concerning the changes of the index and the Library Tape should be available before those changes took place. At that time I started to maintain two public files, SLFH and SCPH (Short Library Files History and Short Callprg History). These two files contain information about changes to be implemented in the index and the Library Tape. I described the existence and purpose of these files in a memo directed to L. Liddiard, M. Frisch, J. Mundstock, T. Hodge, B. Stahl, T. Lanzatella, and the Help Line Consultants in August, 1975. The above-mentioned people also receive a memo describing an impending change to the Callprg index and the Library Tape every time that a change is scheduled to occur. SCPH and SLFH are usually ready by Thursday afternoon, to allow

sufficient time for comments, questions and suggestions, should anyone have them. The actual change is usually implemented on Saturday afternoon. In that memo, I also suggested the possibility of making SLFH and SCPH fetch-type files and publicizing their existence. Currently, SLFH and SCPH are transferred to SYSMODS each time that changes take place. I did not receive any response to my suggestion and soon I had the feeling that these information files were also two light particles already absorbed by a gravitational force not necessarily generated only by the black hole of Callprg.

Now that I have described the process of publicizing information, not only "post facto" information on what goes on in Callprg and the Library Tapes, I would like to suggest that the Callprg review committee that is created by the Franta-Lanzatella-Mickel memo should consider using these files as a source of information when deciding what is to be included in the Callprg index and the Library Tape. I suggest that the review committee take the time to examine the information files rather than require authorization forms to be filled out. The procedure of requesting authorization forms should only be used for a possibly questionable package and in doubtful cases. Those that might object to this procedure on the assumption that the members of the review committee may forget or neglect to look at the proposed changes must understand that once the responsibilities are divided we have to assume that they are properly fulfilled. Let us make a contribution towards not converting UCC into a Kafkean castle, full of paper work and hardly any information!

In response to another part of the memo, that attempts to remove from the index whatever is not considered an "official UCC package," I want to point out that it was understood at the outset that Callprg was not intended to be an official source of UCC production. Part of the Callprg's purpose, besides providing the users with programs that for different reasons were not part of the System, was to make some unofficial UCC packages readily available among UCC programmers.

Although I found writing this response as much a source of aggravation as reading the Franta-Lanzatella-Mickel memo, I felt I had to present an explanation of my attitude and voice my concern about the points on which that memo censures me, whether intentional or not. I was also compelled to write it to show my opposition to the introduction of application forms for the routine maintenance of Callprg. I feel that some of my colleagues join me in this opposition.

More on CALLPRG - by D. Hotchkiss

First, an addendum to A. Mickel's article on CALLPRG in DSN 1, 3, p. 5, first paragraph. The real impetus for CALLPRG was the recommendation by the Statistics Subcommitte of the Computer Advisory Committee that UCC support SPSS, OMNTAB, and BMD and that these be made available by simple control card call, i.e., no tape requests, special disc files, etc. When this request was passed on to systems by Applications and User Services, CALLPRG was invented, but, at that time, primarily for applications programs.

Back to the current article and proposal. Simple guideline #1 needs to be more complex since we also put programs under CALLPRG because of user number limits, e.g., instructional accounts which can't use tapes.

I have doubts about the words "sensible" and "reasonable" in guidelines 3 and 4 since these words are very relative to the program area.

Such a review board as proposed on the next page must be only an advisory board since ultimate responsibility for UCC programs rests with the associate directors and above. Thus the request form should have a line UCC Section Responsible for Program _____ and after the review board list a line for Associate Director approval. Finally the procedure must recognize the necessity for emergency inclusions and changes. Speaking of changes, they don't seem to be covered, both changes in the CALLPRG card and changes in the associated files, are these to be reviewed?