

PROGRAMMING STAFF NOTE 39

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SUBJ: Proposed Minimum System Documentation

Purpose

Everyone seems to agree that system documentation, to the extent of listings, source files, and index of what is in the current system, should be available to all users. There appear to be two different user requirements which dictate two different kinds of documentation 1) the user who wants a complete listing of everything or at least a large volume of what is in the system, 2) the user who wishes to study or modify a relatively small section. To satisfy the first user, we are suggesting the maintenance of document tapes. To satisfy the second user, we are proposing on-line maintenance of source files which might be assembled or listed by the user at his console.

Assumptions

1. The new I/O routines.
2. The programming staff is responsible for public commands, system modules, library, and the quality of documentation; and a few staff members can take the responsibility of actually performing the mechanics of updating the system. If the following procedure is then followed by these few people, the uniformity of documentation is then insured.
3. The proposed MAIL command can be written.
4. COMMAND TSSDC. files may be pointed to rather than actually being in COMFIL 2.

User Procedure

All source files will be CRUNCHED without sequence numbers and placed in COMFIL 1. The system module BSS files will also be in COMFIL 1. The library BSS and command TSSDC. files will be in COMFIL 2. The listings and source files of modules, commands, and library routines will be maintained on document tapes which will be updated at least once a month. Between updating times, the listings of all modified files will be kept in COMFIL 3. Following the document tape update runs, these BCD listing files will be deleted from COMFIL 3. All of these files will be LINKABLE, READ-ONLY, AUTHOR protected files.

When a user modifies any component, the unmodified version (source and BSS) should be kept in his own file directory for a few days just as insurance since only the current version is maintained in the common files. All modifications should be documented to the extent of adding remarks to the front of the source file stating date, author, and purpose of modification.

PUBLIC COMMANDS:

When a new command is created, the SAVED file should be named 'COMAND TSSDC.'. The (MOVIE TABLE) file which is created by the loader should be named COMAND MOVIE) of permanent mode. The movie table will provide a table of contents and map of the command saved file since the saved file is made up of many subprograms. All of the source files which created the BSS files which were loaded (except the library) should be CRUNCHED without sequence numbers and ARCHIVED into a file COMAND CRUNCH. All of the BCD listing files which should have been created during the translation process should be ARCHIVED into a file COMAND BCD. The author may then submit a write-up to the manual editor and ask that the command be placed in the system as a public command. The responsible system programmer will then copy the above mentioned files into the common files and place the command in the system. If any of the required files is missing, the author will be notified and the command will not be entered in the system.

AUTHOR MAINTAINED COMMANDS:

The author may submit a write-up to the manual editor and ask that the command be placed in the system as a semi-public command. The documentation files are not required but it is strongly recommended that they be supplied as a courtesy. The documentation files may be author protected by the author rather than the system programmer so that the author may perform maintenance directly. The document files may either be copied into common files or linked to in the author's file directory from the common files (to be decided by the system programmer as a function of size and track quotas). The manual write-up will direct all criticism to the author and the users are protected only by the integrity of the author. User's remarks may be placed in the author's MAIL BOX and anything requiring documentation may be placed in the editor's MAIL BOX.

LIBRARY:

Any user may modify or submit a new library routine, but the mechanics of updating the library may be performed by only one or two people. Short library routines will be grouped into families in order to optimize track usage. A table of contents listing family names with the components file names and entry points will be maintained in COMFIL 1 as LIB INFO which may be PRINTFed. Each family will have a CRUNCHED ARCHIVED source file in COMFIL 1 called FAMILY CRUNCH. Any single large routines will have a CRUNCHED source file called ROUTIN CRUNCH. The BSS files will be COMBINED into the library file TSLIBn BSS. The listings will be maintained on document tapes and recently modified listings will be available in COMFIL 3. A user who wishes to modify a library routine must supply all of these requested files to the system programmer who is responsible for the library.

Additional information about the library routines, namely entry points, transfer vector, length and common, is available by the command PRBSS TSLIBn.

INFORMATION RETRIEVAL:

- 1) To retrieve a large volume of data as source decks or listings, requests may be submitted to the dispatcher's desk asking for off-line processing of the document tapes.
- 2) To obtain source files or listings of one or a few of the commands, system modules, or the library:

PRINTF LIB INFO

If the required routine is a library routine and the family name is unknown.

ARCHIV X FAMILY CRUNCH FILE
ARCHIV file called

If there is an FAMILY containing the required FILE. This extracts and creates FILE CRUNCH.

CRUNCH UN FILE KIND NUMBER

Will uncrunch and create FILE KIND with line numbers.

PRINTF FILE KIND

Will print the source file and thereby

disclose what KIND

should be, if unknown.

The source file FILE KIND may now be modified and translated with listing, if desired.

If a command is being inspected, the ARCHIV command may be used to print the table of contents of the COMAND CRUNCH file.

The MAIL Command

A new command should be written to allow a user to send a private message to another user which may be delivered at the receiver's convenience. This will be useful for the system to notify a user that some or all of his files have been backed-up. It will also be useful for users to send authors any criticisms.

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MAIL LETTER FILE USER1 USER2 USER3 ....
MAIL 'ME'
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LETTER FILE is the name of a BCD file which contains the message to be sent.

USERn is the designation of the user who is to receive the message. USERn may be a programmer's name or programmer number or the problem-programmer number. It may also be just the problem number if the message is to go to all users of the same problem number.

MAIL ME is the command given by the receiver when he wants the mail to be printed. The files will be left in permanent mode and should be deleted by the receiver at his convenience.

The MAIL command will create or append to the front of a file called MAIL BOX. System messages to the user will be placed in a file called URGENT MAIL. The LOGIN command will notify the user if he has either kind of mail. MAIL ME will always print URGENT MAIL before MAIL BOX.

Maintenance Procedure

A few people who take the responsibility of actually updating the system must follow a set procedure. Either obtain from the modifying - user or do the work necessary to have a CRUNCHED (without sequence numbers) source file(s). For commands and library families, ARCHIV these crunched files and place in COMFIL 1. Place the COMAND TSSDC. files in COMFIL 2. UPDBSS the library BSS files into TSLIBn BSS in COMFIL 2. Place the BCD listing files in COMFIL 3. The system module BSS files go in COMFIL 1. One thing the

responsible system programmer must do all the work for is maintaining the document tapes. The way to do this is to maintain three separate files of the format of REQUEST.FILE'S, i.e., one for commands, one for modules and one for library. Each time a routine is changed, place a PUNCH entry in the appropriate request file with a comment on it containing the date of modification. This date is important for retrieval purposes in case of machine or system failure. At the end of each month, uncrunch the necessary files as specified in the request files. Then run three separate and special request dump runs which will create input tapes which may be used by FMS FAP UPDATE in conjunction with the current source document tapes in order to produce new document source and listing tapes. Delete the n-2 document tapes and the listings from COMFIL 3.