

NORD SOFTWARE LIBRARY DISKETTE

CONTAINING : SUBSYSTEM PACKAGE  
32 BITS FLOATING FORMAT

DIRECTORY NAME : ND-10005T  
USER NAME : FLOPPY-USER

FILE 0 : (ND-10005T:FLOPPY-USER)NRL-1935I:BFUN#1  
FILE 1 : (ND-10005T:FLOPPY-USER)GPM-2365B:BFUN#1  
FILE 2 : (ND-10005T:FLOPPY-USER)GPM-LIBR-2366B:SYMB#1  
FILE 3 : (ND-10005T:FLOPPY-USER)PERFORM-LIBRARY:MCRO#1  
FILE 4 : (ND-10005T:FLOPPY-USER)PERFORM-E:BFUN#1  
FILE 5 : (ND-10005T:FLOPPY-USER)BRF-EDITOR-1858E:6FUN#1  
FILE 6 : (ND-10005T:FLOPPY-USER)F32-EXTR-2232B:BFUN#1  
FILE 7 : (ND-10005T:FLOPPY-USER)LOOK-FILE-2244D:BFUN#1

17 MARCH 1982

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PROGRAM DESCRIPTION					
PRODUCT	NAME			ND-NUMBER	CATEGORY
	NRL			10005T	P
				10044R	
				ND-NUMBER FOR SOURCE	
				10170D	
ISSUED	DATE 82.02.26			BY (INITIALS) JKL	
COMPUTERS	X 10 ! . 12 ! . 50 ! X 100!			. 500!	. ...!
INSTR.SET	. 48 BIT FL.!	. 32 BIT FL.!		. COMMERCIAL!	
OP.SYSTEM	X SIN III VS!	. SIN III RT!		. ALONE	. .....
DOCUMENTATION	NUMBER: 60.066.02				
	TITLE: ND Relocating Loader				
PURPOSE	Builds programs/data out of the NORD-10/ND-100 BRF-format in memory/memory-image/overlays.				
PROGRAMS (FILES)	PROG.NUMB. NAME			TYPE CONTAINING	
	LDR-1935I	NRL		BPUN ND Relocating Loader	

LOADING/OPERATING PROCEDURE, USE

Procedure for generating a standard subsystem:

```
@PLACE-BINARY (ND:FLOPPY-USER)NRL-1935I
@DUMP "NRL-1935I",0,1
```

Procedure for generating a reentrant subsystem:

```
@DUMP-REENTRANT NRL-1935I,0,1,(ND:FLOPPY-USER)NRL-1935I
```

NOTE: The following applies until the two-bank RECOVER command is implemented in the operating system:

The file name in the loader commands PROG-FILE and DUMP can only be 15 characters when loading routines compiled with the compiler command SEPARATE-DATA ON.

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		! REVISION LOG			
! PRODUCT	! NAME	! ND-NUMBER			
	! NRL	! 10005T, 10044R			
! ISSUED	! DATE 82.02.26	! BY (INITIALS) JKL			
! REASON	! X ERROR CORRECTION	! . DIFFERENT ENVIRONMENT			
	! X CHANGE/ADDITION	! . . . . .			
! FILES	! PROG.NUMB. NAME				
! CHANGED	! LDR-1935I NRL				
! OR NEW	!				
! FILES	!				

1. ERRORS CORRECTED

- 1.1 The loader commands SIZE and UPPER-LIMIT will accept octal digits only.
- 1.2 The loader command REFERENCE <symbol>, , will be performed correctly.
- 1.3 An error concerning loading of library files into an overlay has been corrected.

2. CHANGES

- 2.1 A warning message will be given if mixing routines compiled with the compiler command SEPARATE-DATA OFF with routines compiled with SEPARATE-DATA ON.
- 2.2 The loader commands BUILD-SEGMENT, SEGMENT-ENTRY and SET-COMMON-ADDRESS have been implemented. See ND Relocating Loader version 60.066.02.



## PROGRAM DESCRIPTION

PROGRAM	NAME GPM	PROGRAM NUMBER SUT-2365 B PART OF NO NUMBER 10124 B 10005T 10044R
COMPUTERS	<input checked="" type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 50 <input checked="" type="checkbox"/> 100 <input type="checkbox"/> 500 <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___	
INSTRUCTION SET	<input checked="" type="checkbox"/> 48 BIT FL. <input checked="" type="checkbox"/> 32 BIT FL. <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> ___	
OPERATING SYSTEMS	<input checked="" type="checkbox"/> SIN III VS <input type="checkbox"/> SIN III RT <input type="checkbox"/> ALONE <input type="checkbox"/> ___	
PROGRAM TYPE	<input checked="" type="checkbox"/> BINARY <input type="checkbox"/> BRJ <input type="checkbox"/> SYMBOLIC <input type="checkbox"/> ___	
DOCUMENTATION	NUMBER ND-60.151.01 TITLE SINTRAN III Utilities Manual	
ADDRESS SPACE (For Binary Programs)	BOUNDARIES 0 < 3153	
	START ADDRESS 0	RESTART ADDRESS 0
PURPOSE	Macroprocessing	

## LOADING/OPERATING PROCEDURE, USE

Non-reentrant load :

```
@PLACE <input file>  
@DUMP "GPM-2365B" 0 0
```

Reentrant load :

```
@DUMP-REENTRANT GPM,0,0,<input file>
```

Warning :

ND is fully aware that this GPM-version contains the following error :

A temporary definition made by DEF does not leave a null value.

This error will not be corrected since this would require a complete redesign of the data structure. The problem may be avoided by making all temporary definitions in redundant parameter-positions.



## PROGRAM DESCRIPTION

PROGRAM	NAME GPM-LIB	PROGRAM NUMBER	SUT-2366B	
		PART OF ND NUMBER	10124B	10005T 10044R
COMPUTERS	<input checked="" type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 50 <input checked="" type="checkbox"/> 100 <input type="checkbox"/> 500 <input type="checkbox"/> _____			
INSTRUCTION SET	<input checked="" type="checkbox"/> 48 BIT FL. <input checked="" type="checkbox"/> 32 BIT FL. <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> _____			
OPERATING SYSTEMS	<input checked="" type="checkbox"/> SIN III VS <input type="checkbox"/> SIN III RT <input type="checkbox"/> ALONE <input type="checkbox"/> _____			
PROGRAM TYPE	<input type="checkbox"/> BINARY <input type="checkbox"/> BRJ <input checked="" type="checkbox"/> SYMBOLIC <input type="checkbox"/> _____			
DOCUMENTATION	NUMBER <u>ND-60.151.01</u>			
	TITLE <u>SINTRAN III Utilities Manual</u>			
ADDRESS SPACE (For Binary Programs)	BOUNDARIES		<	
	START ADDRESS		RESTART ADDRESS	
PURPOSE	Library of macro-definitions for GPM			

LOADING/OPERATING PROCEDURE, USE

Installation :

@ COPY-FILE "GPM-LIB-2366B" <input-file>

@ SET-FILE-ACCESS GPM-LIB-2366B R R RD

Use :

Let GPM read this library before calling it :

@GPM

CR/LF TO BE IGNORED ON INPUT ? Y

OUTPUT FILE NAME : WHATEVER

INPUT FILE NAME : GPM-LIB

INPUT FILE NAME :

GPM is in "ignore CR/LF"-mode when the GPM-LIBRARY has been read.

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		! REVISION LOG			
! PRODUCT	! NAME	! ND-NUMBER			
	! GPM	! 10124B 10005T			
		! 10044R			
! ISSUED	! DATE 82.01.05	! BY (INITIALS) SN			
! REASON	! X ERROR CORRECTION	! X DIFFERENT ENVIRONMENT			
	! . CHANGE/ADDITION	! BOTH 48 and 32 BITS FL.P.			
! FILES	! PROG.NUMB. NAME				
! CHANGED	! SUT-2365B GPM				
! OR NEW	! SUT-2366B GPM-LIBR				
! FILES	!				

CHANGES

The new GPM-version can be executed on NORD-10/ND-100 regardless of floating-point hardware version (48 or 32 bits). The previous version failed when any sort of integer division was attempted on CPUs with 32-bits floating point hardware.

The GPM-LIB now includes a DO-LOOP macro-definition that allows other step-lengths than the default value.

PRODUCT	NAME	ND-NUMBER	CATEGORY
	SINTRAN UTILITY PROGRAMS	10022R	P
		ND-NUMBER FOR SOURCE	
		10166E	
ISSUED	DATE 81.11.24	BY (INITIALS)	BR
COMPUTERS	X 10 ! . 12 ! . 50 ! X 100 !	. 500 ! . . . . !	
INSTR.SET	. 48 BIT FL. ! . 32 BIT FL. !	. COMMERCIAL !	
CP.SYSTEM	X SIN III VS ! . SIN III RT !	. ALONE	. . . . .
DOCUMEN- TATION	TITLE: SINTRAN III REFERENCE MANUAL	NUMBER: ND-60.128.02	
PURPOSE	SUBMITS PARAMETERS INTO MODE FILES		
PROGRAMS (FILES)	PROG.NUMB. NAME	TYPE CONTAINING	
	SUT-2412E PERFORM	BPUN PROGRAM PERFORM	
	SUT-2439C PERFORM-LIBRARY	MCRO PERFORM MACROS	

1. LOADING

Under user SYSTEM, do following:

- @DELETE-REENTRANT PERFORM
- @DUMP-REENTRANT PERFORM,C,C,PERFORM-2412E:BPUN

This will dump PERFORM as a reentrant subsystem.

- @DELETE-FILE PERFORM-LIBRARY:MCRC
- @CCPY-FILE "PERFORM-LIBRARY:MCRO", (ND:FLOPPY)PERFORM-LIBRARY:MCRC

This will install the standard release of the default macros.

2. USE

Use of PERFORM is described in SINTRAN III REFERENCE MANUAL (ND-60.128.02).

PRODUCT	NAME	ND-NUMBER
	SINTRAN UTILITY PROGRAMS	10022R
ISSUED	DATE 81.11.24	BY (INITIALS) BR
REASON	. ERROR CORRECTION	. DIFFERENT ENVIRONMENT
	X CHANGE/ADDITION	.....
FILES	PROG.NUMB. NAME	
CHANGED	SUT-2412E PERFORM	
OR NEW		
FILES		

CHANGES:

PERFORM will now use TERMINAL as default filename when commas are used.

Example:

MCDE MACRO1:MCDE,TERMINAL  
May now be written:  
MCDE MACRO1:MCDE,,



PRODUCT	NAME	ND-NUMBER	CATEGORY
	Subsystem Package.	10044Q, P	P
		10005S, P	
		ND-NUMBER FOR SOURCE	
		10153B	
ISSUED	DATE 81.07.02	BY (INITIALS) HKD.	
COMPUTERS	X 10 ! . 12 ! . 50 ! X 100 ! . 500 ! . ... !		
INSTR.SET	. 48 BIT FL. ! . 32 BIT FL. ! . COMMERCIAL !		
OP.SYSTEM	X SIN III VS ! . SIN III RT ! . ALONE ! . . . . .		
DOCUMEN- TATION	NUMBER: ND-60.085.01		
	TITLE: BRF-EDITOR.		
PURPOSE	Handle files containing BRF-information.		
PROGRAMS (FILES)	PROG.NUMB. NAME	TYPE CONTAINING	
	SUT-1858E BRF-EDITOR	BPUN	

LOADING/OPERATING PROCEDURE, USE

@PLACE-BINARY BRF-EDITOR  
 @DUMP BRF-EDITOR 0 0

OR

@DUMP-REENTRANT BRF-EDITOR 0 0 BRF-EDITOR

! NORSK DATA A/S		NORD SOFTWARE LIBRARY		PAGE 1 OF 1	
		REVISION LOG			
! PRODUCT	! NAME			! ND-NUMBER	
	! Subsystem Package.			! 10044Q,R 10005S,I	
! ISSUED	! DATE 81.07.02	! BY (INITIALS) HKD.			
! REASON	! . ERROR CORRECTION	! . DIFFERENT ENVIRONMENT			
	! X CHANGE/ADDITION	! . . . . .			
! FILES	! PROG.NUMB. NAME				
! CHANGED	! SUT-1858E BRF-EDITOR				
! OR NEW	! . . . . .				
! FILES	! . . . . .				

CHANGES

New command MAKE-LIBRARY-FILE implemented.



NORD SOFTWARE LIBRARY  
OBJECT DESCRIPTION

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PROGRAM	NAME FILE-EXTRACT-F32	PROGRAM NUMBER SUT-2232B
REFERENCE	DATE 78.12.19	NAME SR
REVISED	DATE	NAME
EXPIRED	DATE	NAME
COMPUTERS	<input type="checkbox"/> 1 <input type="checkbox"/> 2B <input type="checkbox"/> 5 <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 20 <input type="checkbox"/> 50 <input checked="" type="checkbox"/> 10-32	
OPERATING SYSTEMS	<input type="checkbox"/> TSS <input checked="" type="checkbox"/> SIN III M <input type="checkbox"/> SIN III C <input type="checkbox"/> ALONE <input type="checkbox"/> _____	
TYPE	<input checked="" type="checkbox"/> BINARY <input type="checkbox"/> OCTAL <input type="checkbox"/> BRP <input type="checkbox"/> RB <input type="checkbox"/> _____	
DOCUMENTATION	<input type="checkbox"/> SYSTEM DESCRIPTION <input checked="" type="checkbox"/> USER DESCRIPTION <input type="checkbox"/> MANUAL TITLE <u>NORD FILE EXTRACT UTILITY COMMAND User's Guide ND-60.1</u>	
ADDRESS SPACE	SIZE	BOUNDARIES 16000 < 63102
	START ADDRESS 16000	RESTART ADDRESS 16000
PURPOSE	Extract records from one file and write to another	

LOADING/OPERATING PROCEDURE, USE

Standard subsystem

PLACE-BINARY < input file >

DUMP "FILE-EXT-2221B", < sa >, < ra >

Reentrant subsystem

DUMP-REENTRANT FILE-EXT-2221B < sa >, < ra >, < input file >



PROGRAM	NAME(S) FILE-EXTRACT		PROGRAM NUMBER(S) SUT-2221B SUT-2232B					
REFERENCE	DATE	NAME	SR					
REASONS	<input checked="" type="checkbox"/> ERROR CORRECTION <input type="checkbox"/> DIFFERENT ENVIRONMENT <input checked="" type="checkbox"/> CHANGE/ADDITION			CORRECTED SSRS				
COMPUTERS	<input type="checkbox"/> 1	<input type="checkbox"/> 28	<input type="checkbox"/> 5	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 12	<input type="checkbox"/> 20	<input type="checkbox"/> 50	<input checked="" type="checkbox"/> 10-32
OPERATING SYSTEMS	<input type="checkbox"/> TSS	<input checked="" type="checkbox"/> SIN III M	<input type="checkbox"/> SIN III C	<input type="checkbox"/> ALONE	<input type="checkbox"/> _____			
LANGUAGE (SOURCE)	<input type="checkbox"/> MAC	<input type="checkbox"/> NPL	<input checked="" type="checkbox"/> FORTRAN	<input type="checkbox"/> BASIC	<input type="checkbox"/> _____			
TYPE (OBJECT)	<input checked="" type="checkbox"/> BINARY	<input type="checkbox"/> OCTAL	<input type="checkbox"/> BRP	<input type="checkbox"/> RB	<input type="checkbox"/> _____			

CHANGES

Errors corrected:

- The LO-option line numbering start number changed from 0 to 1.
- Extract criteria pointing behind End Of Record in variable record length files is now evaluated as if filled with spaces instead of automatic record skip.

Changes made:

- Non existing output file names must be surrounded by double quotes according to standard SINTRAN syntax.
- Any WAIT option input character will now cause a new screen of information, except for X (eXit) which will abort the program.

New options:

- Indexed access via a KEY file generated by the Random Key inclusion option is implemented. This KEY-file may be sorted on any field by the NORD SORT Package, and then used to retrieve data from the larger file in the new sorted order. Input via a KEY-file is indicated by typing \$KEY in response to INPUT FILE.
- A T[, ] in the output specification will invoke the new Skip Output Record Trailing Spaces option. This option may be useful when generating variable record length output.

Further documentation is found in the new version of the FILE EXTRACT User's Guide.



## PROGRAM DESCRIPTION

PROGRAM	NAME LOOK-FILE	PROGRAM NUMBER	SUT-2244D					
		PART OF ND NUMBER	10044N,P,Q,R 10005Q,R,S,T					
COMPUTERS	<input checked="" type="checkbox"/> 10	<input type="checkbox"/> 12	<input type="checkbox"/> 50	<input checked="" type="checkbox"/> 100	<input type="checkbox"/> 500	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
INSTRUCTION SET	<input type="checkbox"/> 48 BIT FL.	<input type="checkbox"/> 32 BIT FL.	<input type="checkbox"/> COMMERCIAL		<input type="checkbox"/> _____			
OPERATING SYSTEMS	<input checked="" type="checkbox"/> SIN III VS	<input type="checkbox"/> SIN III RT	<input type="checkbox"/> ALONE		<input type="checkbox"/> _____			
PROGRAM TYPE	<input checked="" type="checkbox"/> BINARY	<input type="checkbox"/> BRJ	<input type="checkbox"/> SYMBOLIC		<input type="checkbox"/> _____			
DOCUMENTATION	NUMBER _____							
	TITLE _____							
ADDRESS SPACE (For Binary Programs)	BOUNDARIES	0	<	50000				
	START ADDRESS	0			RESTART ADDRESS	0		
PURPOSE	DUMP/PATCH SINTRAN FILES							

LOADING/OPERATING PROCEDURE, USE

@PLACE &lt;input-file&gt;

@DUMP "LOOK-FILE 2244",0,0 or

@DUMP-REE LOOK-FILE,0,0,&lt;input-file&gt;

! NORSK DATA A/S		! NORD SOFTWARE LIBRARY		! PAGE 1 OF 1	
		! REVISION LOG			
! PROGRAM	! NAME	! PROGRAM NUMBER			
	! LOOK-FILE	! SUT-2244D			
		! PART OF ND-NUMBER			
		! 10044N, P, Q, R			
		! 10005Q, R, S, T			
! ISSUED	! DATE 80.09.09	! BY (INITIALS) LVS			
! REASON	! X ERROR CORRECTION	! . DIFFERENT ENVIRONMENT			
	! X CHANGE/ADDITION	! . . . . .			

CHANGES

1. ERROR IN >>MOVE CORRECTED
2. NEW COMMAND : >>SEARCH

\$LOOK-FILE : a utility program to print, modify or "look around" files as desired.

Various print layouts are available under the command DUMP-?.

The commands are :

```
HELP          <COMMAND>
EXIT
CALCULATE     <VALUE><OPER><VALUE>
DUMP-WORDS    <BLOCK-NR><WORD-NR><LENGTH>
DUMP-BYTES    <BLOCK-NR><WORD-NR><LENGTH>
DUMP-ALL      <BLOCK-NR><WORD-NR><LENGTH>
PATCH        <BLOCK-NR><WORD-NR>
OPEN-FILE     <FILE-NAME><BLOCK-SIZE>
ZERO          <BLOCK-NR>
MOVE-BLOCK    <FROM-FILE><NO-OF-BLOCK(S)><FROM-BLK-NR><TO-BLK-NR>
CLOSE-FILE
BACK
FORWARD
COMPARE-BLOCK <COMP-FILE><NO-OF-BLOCK(S)><FROM-BLK-NR>
LIST-FILE     <LISTING FILE>
ON-LIST
OFF-LIST
SEARCH        <FROM-BLK-NR><NO-OF-BLOCK(S)>
```

The commands may be abbreviated like SINTRAN, parameters may appear on the same line or be auto prompted.  
Parameters may be given as decimal numbers , octal numbers terminated by a B (ie 77B) or a character between quotes ("CH" ) or ('CH').  
For commands acting on a file , the file must have been opened by OPEN-FILE.

The display (print) format usually consists of :

- 1) decimal word number.
- 2) octal word number.
- 3) single character code for current line mode.  
ie: B = byte , W = word mode.
- 4) 5 words displayed in selected mode.
- 5) character format of the 5 words displayed.

NOTE : "control characters" , ie: those with a octal value less than 40B are printed as the character "&".  
40B are printed as the character "&". Using the DUMP-ALL command will also print the ASCII char below the "&".

Command usage :

```
HELP          : lists all or part of the possible commands under LOOK-FILE.
EXIT          : returns to SINTRAN,(all files are closed).
```

- OPEN-FILE** : opens the named file as "global" file for further operations. (Other files are opened/closed automatically by the command being used).  
The default block-size is 512 words, the max. allowed block-size is 2048 words.
- NOTE: The current global file is closed before the open.  
The file is opened for WRITE access.
- CLOSE** : closes all currently opened files, does not return to SINTRAN.
- CALCULATE** : Simple calculations on dec. or oct. values are performed, the results are displayed in dec. and octal.  
Operations are : + - \* /  
Octal values are followed by a B ( 12B )  
eg : CALCULATE 12 \* 14B
- DUMP-WORDS,  
DUMP-BYTES,  
DUMP-ALL** : displays a "block" from the current opened global file on the user terminal (and optionally a LIST-FILE ). Format depends on command used . DUMP-ALL is a combination of the available formats. NOTE : Block no. starts at 0,  
Word no. starts at 1,  
Length not greater than opened block-size.
- If length less than block-size then the user should note that the DUMP-? will only show length words, however a FORWARD/BACK command will move block-size words for the next block, and therefore some of the block will NOT be printed.
- BACK,  
FORWARD** : used with DUMP-?, enables the user to move forward/backward from the current block-no. Uses the previous DUMP-? parameters as default and only changes the block-no.
- PATCH** : allows the user to modify any word in any block. The PATCH will continue to modify successive words until a STOP (.) is typed. NOTE : it is the users responsibility to ensure correct parity in Byte positions !
- ZERO** : clears to " binary zeros " the complete block specified on the global file. Uses the open block-size .
- MOVE-BLOCK** : moves block(s) from the named file onto the global file, using the same block-size as the global file.
- COMPARE-BLOCK**: Compares the named file with the global file, printing out those blocks that have differences. The COMP-FILE is opened/closed automatically.



LIST-FILE : the named file is opened for write to receive the same output as the DUMP-? , COMPARE-BLOCK and SEARCH commands. The file remains open until a CLOSE or EXIT command. Use ON-LIST / OFF-LIST to control which blocks you desire to print.

ON-LIST : sets the listing mode for LIST-FILE to ON. (list).  
OFF-LIST : sets the listing mode for LIST-FILE to OFF. (no list).  
SEARCH : allows the user to search for one or several words between any blocks. When the words you search for are found, the content will be printed on your terminal and the list-file, if ON-LIST is set.  
By answering N(O) after the printout, the search will stop. Else, searching will continue.