

ND SOFTWARE LIBRARY DISKETTE

PAGE 1

Containing :  
BACKUP-SYSTEM

Directory Name :  
210337104-XX-01S

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	INST-BASY-I04	PROG	I	R	RWACD	RWACD	61	181592
1	RESERVE-SYSTEM	MODE	I	R	RWACD	RWACD	3	2692
2	RESERVE-SYSTEM	BATC	I	R	RWACD	RWACD	2	1830
3	BACKUP-SERV-I02	PROG	I	R	RWACD	RWACD	59	117032

4 files using 125 pages. 128 pages reserved out of 148 pages.

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Containing :  
BACKUP-SYSTEM

Directory Name :  
210337I04-XX-02S

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	BACKUP-SYS-I02	PROG	I	R	RWACD	RWACD	121	245248
1	file using 121 pages. 128 pages reserved out of 148 pages.							

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Containing :  
BACKUP-SYSTEM

Directory Name :  
210337I04-XX-03S

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	UE-ERMSG-EN-C05	ERR	I	R	RWACD	RWACD	111	224512
1	file using 111 pages. 128 pages reserved out of 148 pages.							

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Containing :  
BACKUP-SYSTEM

Directory Name :  
210337I04-XX-01D

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	INST-BASY-I04	PROG	I	R	RWACD	RWACD	61	181592
1	RESERVE-SYSTEM	MODE	I	R	RWACD	RWACD	3	2692
2	RESERVE-SYSTEM	BATC	I	R	RWACD	RWACD	2	1830
3	BACKUP-SERV-I02	PROG	I	R	RWACD	RWACD	59	117032
4	BACKUP-SYS-I02	PROG	I	R	RWACD	RWACD	121	245248
5	UE-ERMSG-EN-C05	ERR	I	R	RWACD	RWACD	111	224512

6 files using 357 pages. 556 pages reserved out of 610 pages.

Product	Name BACKUP-SYSTEM	Reg. no. 210337I	Category STPR
Reason	. New product <span style="float:right">X Error Correction</span> X Change/Addition <span style="float:right">X Different Environment</span> . Other: .....		
Documen- tation	Title ND BACKUP USER GUIDE	Reg. no. ND-60.250.2 EN	
Purpose	Copying files and taking backup of data on all types of ND computers.		
Prerequi- sites	Computer Type Floating format Op. system Version	ND-100 All All SIN III VS >=J rev >=5000	
	Reg. no. Product name Version	210373 X-MESSAGE >= K	
	Minimum mass storage resources for installation		
	User User space Number of files	Totally 353 pages on 6 files	
	SYSTEM 211 pages on 4 files		
Prerequi- sites	Minimum permanent mass storage resources		
	User User space Number of files	Totally 293 pages on 6 files	
	SYSTEM 115 pages on 4 files		
	Max/Min number of RT-descriptions:	Max 4	Min 4
	Max/Min number of segments:	Max 1	Min 1
	Space requirements on segment file(s) is	56 pages	
		Reg. no. Source 210347I	
Product files	File Name	Type	Containing
	BACKUP-SYS-I<rev>	PROG	Backup-system
	BACKUP-SERV-I<rev>	PROG	Mass Storage server
	RESERVE-SYSTEM	MODE	Broadcast reservation
	RESERVE-SYSTEM	BATC	Reservation batch job
	INST-BASY-I	PROG	Installation program
	UE-ERMSG-EN-C05	ERR	Error message database

1 NOTE:

<rev> is to be replaced by the current revision of the DIRECTORY or FILE. Revision is found on the "ND SOFTWARE LIBRARY DISKETTE" pages.

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## 2 ERRORS CORRECTED

- All errors that have been corrected as patches to the H-version, have now been implemented in the source-code of the I-version. In addition, some other internal errors have been corrected.

## 3 KNOWN, BUT NOT CORRECTED ERRORS

- If you copy spooling files when there are not enough spooling pages, the BACKUP-SYSTEM will go into a deadlock, waiting for the semaphore 1144B (spooling system waiting for free pages).

SOLUTION: Make sure that there are enough spooling pages, or exclude spooling files by defining a selection criteria before starting backup.

## 4 CHANGED FUNCTIONS

### 4.1 No more waiting for rewind and unload

When using DEVICE-COPY to or from more than one mag-tape, the I-version will now start copying on the next device, in parallel with rewind and unload the current drive. This saves time by continuously utilizing the available transfer rate to tape.

### 4.2 Time used indication

DEVICE-COPY will now write out start and completion times for the operation.

### 4.3 Indicating when the DMA-server is used for file-copying

When the DMA-server is used for file-copying, the backup-system will now indicate this by writing the text '-DMA' together with the usual '-OK' to indicate that the file has been copied successfully.

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#### 4.4 Error Handling and user-abort during DEVICE-COPY

In the earlier versions, the backup-system would delete the header-blocks on the destination, if an error occurred during the DEVICE-COPY operation. This was to avoid that erroneous data being used by accident. The I-version will not perform this deletion if the copying has been completed successfully. The reason for changing this mechanism is to allow for attempts to repair the data concerned.

#### 4.5 New Devices

The backup-system is now able to handle new Winchester disks and Quarter Inch Streamer tape drives with higher performance and capacity than before, - available on ND's new range of Satellite and Compact machines, including the 5000 compact series.

### 5 MODIFICATIONS

#### 5.1 CHANGED COMMANDS

- The command LIST-VOLUME will not prompt for more volumes to be mounted before the system returns to normal command-processing mode.

#### 5.2 NEW COMMANDS

- In the CUF-SERVICE-PROGRAM, three new commands have been introduced. The new commands are SET-SPLIT-LIMIT, SET-RETENTION- MODE and TOTAL-RESERVATION. Consult the on-line help or the manual for explanation of the new commands.

The command TOTAL-RESERVATION is not yet documented in any manual. It eliminates the need for patching on the segment to allow for swapping in parallel with the command DEVICE-COPY ( a modification patch was needed for the G and H version to accomplish this). Note that if you use this command to allow parallel swapping, the backup-system will fail during the compare operation, if the disk involved in the backup-operation contains a segment file that is in use but not opened. It is therefore recommended to use the TOTAL-RESERVATION command to allow swapping only when you are sure that there is no swapping on the disk(s) involved, or use the command COMPARE-MODE to avoid compare after copy.

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### 5.3 IMPROVED PERFORMANCE

- The Backup-System has now implemented a completely new algorithm which will automatically optimize the buffer-sizes used for DEVICE-COPY to fit the characteristics of the devices involved in the operation. The performance improvement will vary due to configuration differences, between 0 and more than 100 percent, compared with the H-version of the Backup-system. The copying speed should however ALWAYS be at least as good as with earlier versions of the Backup-System. Configurations where DEVICE-COPY will have only the same speed as in the H-version, are those with Streamer-cartridge or CIPHER open-reel tape-stations. Configurations that can expect greater improvements, include systems with STC open reel tape stations using GCR ( 6250 bpi ) recording format and the larger types of disk devices.

NOTE! To allow the bigger blocks that are being used by the I-version, it has been necessary to change the label format that is used when taking DEVICE-COPY to STC mag-tape drives. This has the consequence that tapes written with the I-version's command DEVICE-COPY, can not be read by the H-version, or by any other application that does not know how to interpret the new labels' content.

If you need to be able to read the tape by a product other than the I-version of Backup-System, you can activate the modification patch 1, that is included in the file BACKUP-LOAD-I:MODE, which will be written by the installation program. When this patch has been run, the format will be compatible with earlier versions. This will also significantly slow down the DEVICE-COPY process.

NOTE! Remember to run the mode-file after changing it, otherwise the patches will not be effective until the next time you run it.

The product "Disk Restore" is able to interpret the labels written by the I-version correctly. A later version of the Stand-alone program MCOPY will also be able to interpret the labels.

### 5.4 RESTORE IN THE EVENT OF A SYSTEM-DISC FAILURE

Floppy-SINTRAN ( a component of the G & H versions of the Backup-System) can not be generated from the I-version. If your SINTRAN SYSTEM-DISK should fail, making a full restore necessary, you will need a stand-alone tool. A stand-alone



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program is a program which can run without the support given by the operating system. You will normally have library-diskettes that contains most of the relevant stand-alone programs that can help you do a restore of a backup taken by the backup-system ( Disk-TEMA, Dir-Backup, MCOPY ). For those configurations which will not be helped by these tools, use the product called ND-210523A, Disk Restore.

If your system runs the SINTRAN Operating System with a SCSI-disk as its main-directory, you must use "Disk Restore".

## 6 INSTALLATION PROCEDURE

- Log in as user SYSTEM.

If you have a double side/double density floppy-drive, insert the floppy 210337I<rev>-XX-01D in your floppy-disc drive. If you have a single side/single density floppy-drive, insert the diskette 210337I<rev>-XX-01S in the drive.

- 1) Enter the directory on the floppy by issuing the following command:

```
@ENTER-DIRECTORY↓  
DIRECTORY NAME: 210337I-XX-01↓  
DEVICE NAME: FLOPPY-DISC-<DRIVE-NO> <UNIT>↓
```

- 2) Start the installation program by typing:

```
@(210337:FLOPPY-USER)INST-BASY-I↓
```

- 3) Follow the instructions given by the installation program.
- 4) The installation program will make the mode-file BACKUP-LOAD-I:MODE on user SYSTEM, and execute this file.

A call to this mode-file should be appended to the file HENT-MODE:MODE .

- 5) If the installation program gave the message: "Someone is using the file UE-ERMSG-EN-C:ERR" , the program has failed to install the error message database because it is in use at that time.

However, the file has been copied in to user SYSTEM under the name "UE-ERMSG-EN-C:NEW" . To complete the installation of the error message file, you must first ensure that nobody is using the old file. IF this

Date 87.09.15

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PROGRAM DESCRIPTION

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situation occurs, you can delete or rename the old file, and enable use of the new one by renaming it, like this:

@DELETE-FILE (SYSTEM)UE-ERMSG-EN-C:ERR↓  
@RENAME-FILE (SYSTEM)UE-ERMSG-EN-C05:NEW↓  
NEW FILE NAME AND TYPE: UE-ERMSG-EN-C05:ERR↓