Norsk Data

ND TPS-II
Operator Guide

ND-30.030.2A EN

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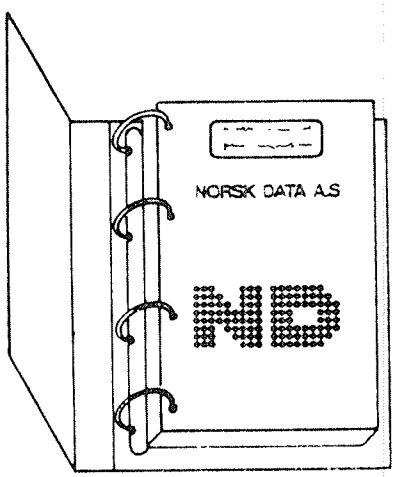

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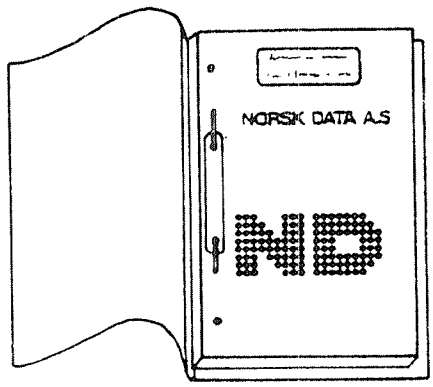

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02/84	VERSION 01
12/84	VERSION 02
09/85	Revision A
	The following pages have been revised or added:
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PREFACE

THE PRODUCT

This manual describes the TPS-II system (Transaction Processing System). The product identification is:

ND TPS-II ND-10542B and ND-10542C
ND-10543B and ND-10543C

THE READERS

This manual is meant for the operator and the supervisor of a TPS-II installation. The manual should be used mainly for the operation and maintenance of the TPS-II system.

PREREQUISITE KNOWLEDGE

This manual contains all the information necessary to run a computer system based on TPS-II. The person responsible of a TPS-II installation must have thorough knowledge of the administrative problems that can be solved by the system, but no special data processing knowledge is necessary.

THE MANUAL

Part 1 of the manual is written for the totally inexperienced user. This part describes, in general, the equipment necessary to run a TPS-II system, and the procedure to be followed for initializing the system.

Part 2 deals with the daily operation, and the use of various functions in TPS-II. This part is intended for reference. The individual chapters may be read when they are relevant to the task you are about to carry out.

For regular use only a few functions are used. These functions are covered in chapter 1, the Normal Operation.

RELATED MANUAL

ND TPS-II User Guide ND-60.195.1 EN

NOTE:
- The parts of this manual that have been revised have screen pictures that refer to version C. The screen pictures for the rest of the manual refer to version B.
- Chapter and section numbers in PART 2 correspond to the menu or function numbers.
- The index has been revised to correspond to the revised chapter 2 of PART 2.

WHAT IS NEW IN THIS VERSION OF TPS-IIB

The most important changes are the following:

- The menu for Normal Operation is changed.
- The menu for Maintenance has new forms.
- Function keys are changed. (See the Standard Notation page.)

VERSION C:

- The various screen forms in the report system are changed to handle a number of different SINTRAN-III batch processors.
- The TPS-II backup system may handle backup/recovery to/from streamer tapes.

TABLE OF CONTENTS

Section Page

Section Page

STANDARD NOTATION

In the text you see:	What it means or what it is used for:
@START	● Text typed in by the user is underlined. All operating system commands must be terminated by ↵.
@	● This is the SINTRAN III prompt sign. It indicates that you are in touch with the computer's operating system and can give it commands.
M	● Keytops are shown in this way.
↵	● This represents the carriage return key. On the terminal it may be marked ↵, CR, RETURN or ENTER.
\	● This represents the HOME key.
⌫	● This represents the delete key.
HELP	● HELP key. Pushing this key will, in most cases, give you help information.
FUNC - @	● If the picture on the screen has disappeared, you can get it back by presing the FUNC key followed by the @ key.
CTRL + W	● This is an example of a CTRL combination. It means you press the CTRL key and hold it down while you press W.

P A R T .1.

CHAPTER 1
WHAT IS TPS-II ?

- WHAT IS TPS-II ?
- THE HARDWARE IN TPS-II
- THE TERMINAL
- MAGNETIC DISKS
- FLEXIBLE DISKS
- THE LINE PRINTER
- STARTING THE COMPUTER

1 WHAT IS TPS-II ?

TPS-II with NORDRIFT is a system that can supervise several other systems. The systems that are supervised are generally different types of user systems such as accounting systems, salary systems and so on.

What Can You do With TPS-II ?

With TPS-II

- you can start and stop different types of information systems (databases);
- you can print out reports from databases;
- you can keep control of data files;
- you can define which users or terminals can have access to different parts of the system.

Who is Responsible for the TPS-II System ?

The TPS-II system controls the activity in the computer. Messages of interest are sent to the operator's terminal. Corrections in the system are always made from the operator terminal.

The Operator

The operator is responsible for the daily operation of the TPS-II system. He is responsible for starting and stopping the individual user systems, for producing reports, and for taking security copies of processed data. The operator usually works at the operator terminal.

The System Supervisor

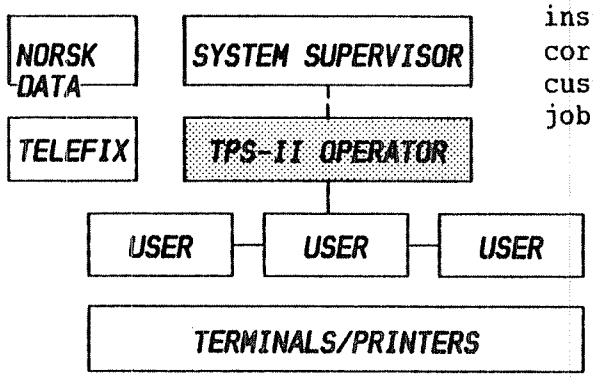
The system supervisor is responsible for the entire computer installation. System failures are usually reported to him.

The User

The individual user usually works with the user systems s/he has been authorized to use.

Service Personnel

Norsk Data's service personnel may be summoned if there are errors in the installation or if the programs must be corrected. You may also use Norsk Data's customer service TELEFIX for a repair job.



The organization of personnel on the TPS-II system

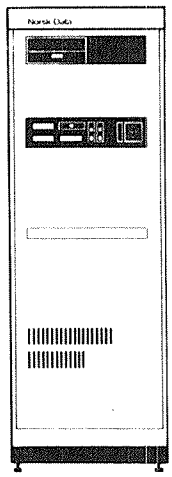
1.1 THE HARDWARE IN TPS-II

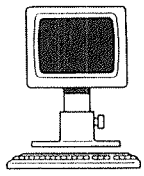
The hardware that is typically used in the TPS-II system is shown here:

The ND-100 Computer
central processing unit

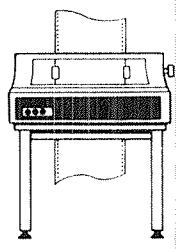
The most important part of the computer is the Central Processing Unit (CPU). The programs are executed in the CPU. On the ND-100 the CPU is placed in one cabinet, and on the ND-500 it is placed in two cabinets.

Together with the CPU, the cabinet also houses an internal storage. The part of the system currently being processed is stored here. The internal storage also holds the processing data, the input data, which is to be processed, and the output data resulting from it.

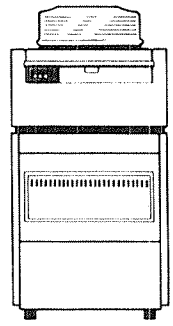




The Terminal



The Printer



The Magnetic Disk Device

The Terminal
input device
output device

The program and the input data are usually "fed" to the computer via an input device such as a terminal.

The Printer
output device

The results, the output data, are usually taken out of the computer's internal storage on a printer, or stored on an external device such as the disk.

Magnetic Disk Device
external storage

Normally there will not be enough room in the internal storage to store large amounts of data for longer periods of time. For this reason computers use an external storage such as a magnetic disk device.

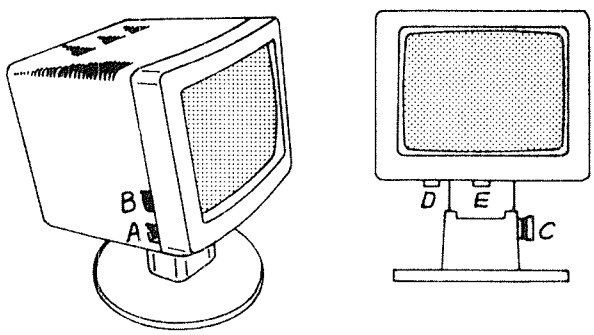
All the devices which are connected to the computer are called peripheral units. Both the computer and the peripheral units have power switched ON when working.

1.2 THE TERMINAL

The terminal is both an input and an output device. With the terminal keyboard you can enter data, or correct data already present in the system. You can check you input data on the terminal screen, which will also be used to accept messages from the system.

For TPS-II you will normally use the Tandberg terminal ND 246 (terminal type 53).

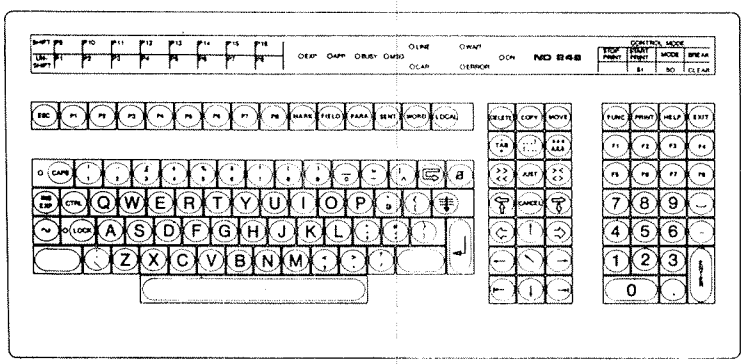
The Terminal Screen
turning ON and OFF



A - to turn the terminal ON or OFF
B - to regulate light intensity of screen
C - to regulate the height of the screen
D - to regulate the angle of inclination
E - to regulate the angle in proportion to foot.

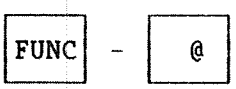
The Keyboard

The keyboard is shown here below. We will mention only the most important keys here. The functions of the keys are described in the text, at the appropriate places.



Carriage Return key

Home key



If the picture on the screen has disappeared you can get it back by pressing these two keys

Pressing the HELP key will give you help information

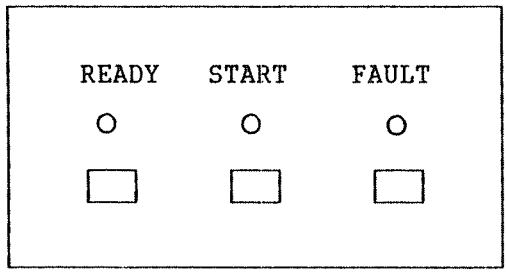
1.3 MAGNETIC DISKS

A magnetic disk is an external storage device which can hold large amounts of data. The disk unit contains one or more magnetic disks (disk packs).

Care of the Disk Unit

- Handle disks very carefully;
- avoid great variations in temperatures;
- avoid direct sunlight;
- avoid electro-magnetic fields;
- do not drop the disks.

The Disk Unit Panel



The panel on a disk unit is shown here. The "Ready" and the "Start" lamps are lit when the disk is in operation. The cover of the disk unit must not be opened at this stage.

The "Fault" lamp will be lit if there is an error on the disks. The disks can be restarted by pressing the ERROR switch. If the lamp remains lit after this, stop the disk unit and contact the system supervisor.

Changing Disk Packs

1) Press the switch under the "Start" lamp. The "Ready" lamp and the "Start" lamp will now start to blink. When they have gone out, the disks have stopped rotating and the disk unit cover may be opened.

2) Open the cover and put on the lid that belongs to the disk pack. If you are removing the disk, turn the lid anticlockwise. Turn until you hear a click. Lift up the disk pack and place it in its case. A clip mechanism in the case holds the disk in place.

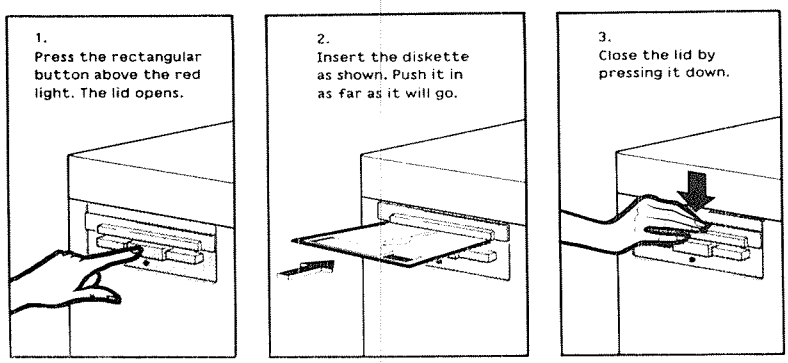
3) If a new disk is to be placed in the pack, reverse the procedure: remove the disk from its case and place the new pack in position together with its plastic lid. Take the lid off by turning it clockwise.

4) You can restart the disk by pressing the "Start" switch. When the "Start" and "Ready" lamps are both showing a steady light, the pack is ready for use.

1.4 FLEXIBLE DISKS (FLOPPY DISKS)

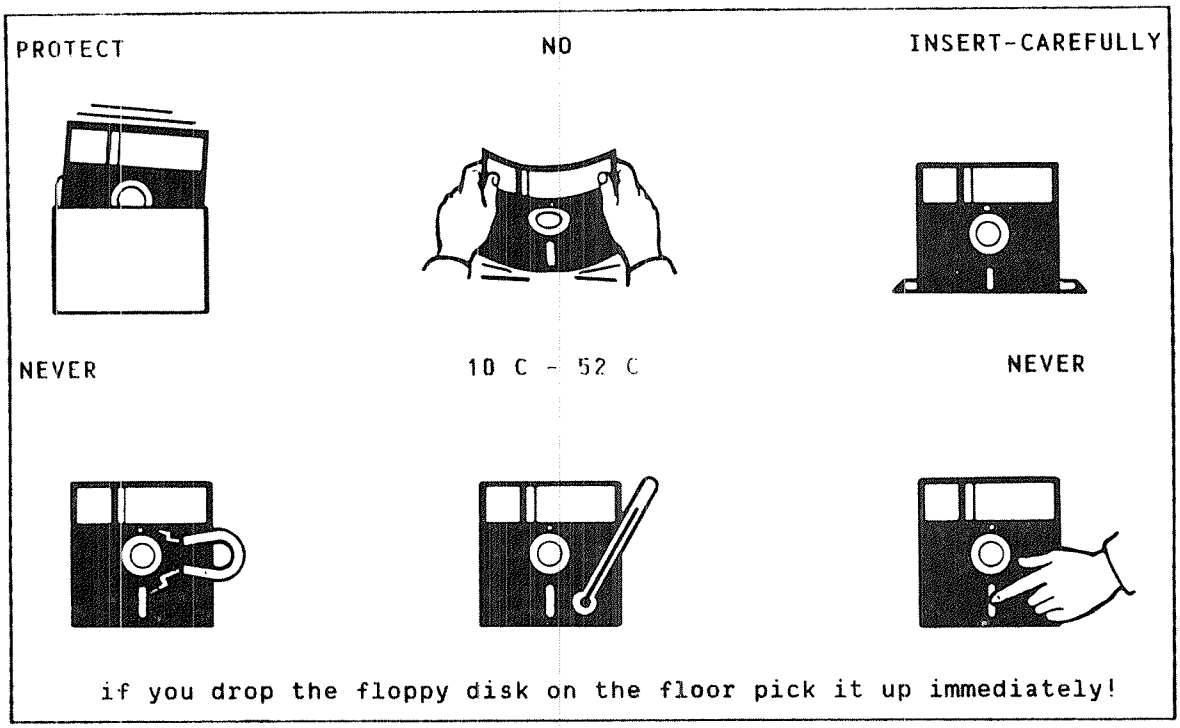
A floppy disk is also an external storage device. It stores considerably less data than a hard disk. But, it has the advantage of being easy to handle, easy to install and easy to transport.

The disk drive for the floppy disks is normally situated at the top left-hand corner of the computer. The figure below shows how to insert a floppy disk in the disk drive.



How to Insert a Floppy Disk in the Disk Drive

Caring for The Floppy Disks



1.5 THE LINE PRINTER

The line printer is a useful output device for producing hard-copy output of your data, reports and so on. There are several types of line printers. Most manufacturers provide operating instructions for their products. However, the basic procedures are usually the same for most printers. Here, we will provide a brief account of the Terminet printer.

The Terminet Line Printer

Opening the Printer

To open the printer, just lift the cover above the paper.

Feeding Paper

The opening for feeding the paper (the forms) is on the underside of the machine. The paper is inserted between the roll and the ribbon.

Regulating the Sheet Length

Paper sheet length is usually measured in inches (ca. 2,5 cm.). For every sheet length, insert a guide tape of corresponding length. Guide tape is a punched tape. There are different sizes of guide tapes for each printer. If the sheet length is permanent the correct tape will usually be on. The guide tape is put on a toothed wheel on the left side of the printer. Make sure that the wheels on the tape grip the teeth on the toothed wheel!

Regulating the Sheet Width

The feed paper must also fit into the two toothed wheels on the roll which drive the paper forwards. Lock the paper properly between the toothed wheel.

Setting the Sheet Top

Some forms have a mark showing exactly where the top line is to be printed. To adjust the paper to a proper position, move the paper backwards or forwards using the knob on the side of the printer.

Starting the Printer

You can establish contact between the printer and the computer by pressing the switch marked "ON LINE".

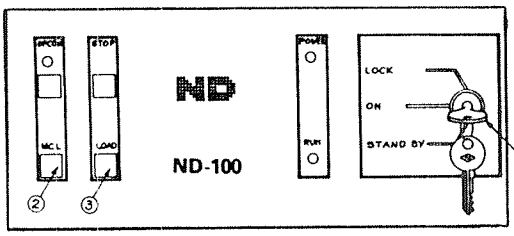
After printing out nonstandard forms, reset the printer to standard format! The printer should normally be set to standard format. Readjustments should be made only when you use nonstandard forms.

Run a test printout to check the proper positioning of the paper. If you are not satisfied with the positioning of text on the paper, stop the printer by using the "LOCAL" switch, and make the appropriate adjustments. When all adjustments are made, press the "ON LINE" switch again to restore contact with the computer.

1.6 STARTING THE COMPUTER

Normally the computer, as well as the terminals, the disk units and the printers, will be ON continuously.

Starting the Computer



1) Set the key in "ON" position and press the keys marked STOP (2) and MCL (MASTER CLEAR) in this order. Wait for a few seconds until the computer answers with a signal on the console.

2) Switch on the disk unit as described in section 1.3. Wait until the disk unit has started.

3) Switch on the operator's terminal.

4) On the computer, press the switch marked LOAD (4). The lamp marked RUN (5) should now light up. The computer now begins to work and writes out messages on the console.

5) Turn the key to the position LOCK (6).

6) Turn on the other terminals and the line printer(s).

```
NORSK DATA TPS-II OPERATORS TERMINAL
INITIAL DATABASE RECOVERY                Version B.

When reload of TPS-II finished the time was:
  ..:..      .. - .. - ....

Is this correct now ? : .
(Type CR to get the present time)
```

7) After a few minutes the picture shown here will appear on the operator's terminal asking for the correct time and date. This should be correct, otherwise the recovery of the databases controlled by TPS-II will not be performed correctly.

- If the time and date are not correct, enter the correct time and date.

  Watch out for error messages at this stage.

TPS-II Initialization

If the computer is started properly, the screen picture shown in section 2.1 appears.

You should now be ready to take off!!!

end of chapter

P A R T .1.

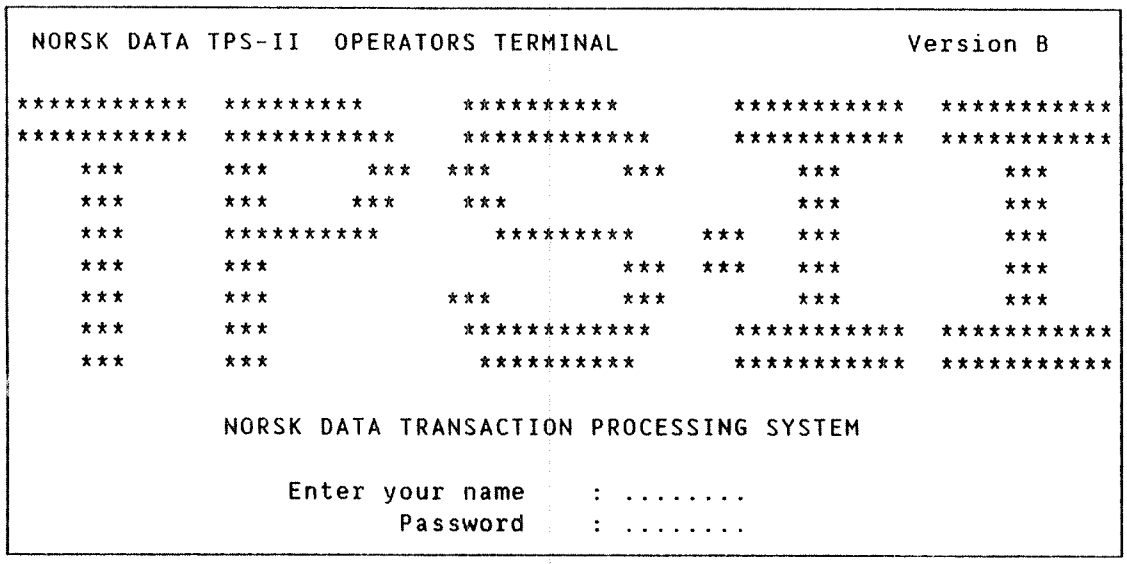
CHAPTER 2
THE VARIOUS FUNCTIONS IN TPS-II

- *THE VARIOUS FUNCTIONS IN TPS-II*
- *THE MAIN MENU*
- *THE ORGANIZATION OF MENUS*
- *THE RELATIONSHIPS BETWEEN MENUS*

2 THE VARIOUS FUNCTIONS IN TPS-II

2.1 IDENTIFICATION OF THE OPERATOR

After you have started the computer and recovered the databases, a picture for identification of the operator for TPS-II appears on the screen. It may look like this (or it may have been modified for your installation):



FIELD DESCRIPTION

Name The operator's name.

Password The operator's password.
A password is recommended if it is desirable to prevent intruders from having access to TPS-II.
See Appendix B for definition of operator's name and password.

The password is not displayed when you type it.

In the TPS-II screen pictures, the cursor will lead you from field to field to all the areas where data input is anticipated.

Filling in a field is terminated with a Carriage Return, ↵.

2.2 THE MAIN MENU

When you have entered the approved name and password, the main menu in TPS-II appears on the operator screen:

```
ND TPS-II OPERATORS TERMINAL                          Version B.
                                                08.59   19. aug. 1984

          ***    MAIN - MENU     ***      ==>

  1.  OPER        Normal operation
  2.  REPO        Report system
  3.  COPY        Security copying
  4.  MAINT       Maintenance
  5.  ERROR       Error handling
  6.  SPEC        Special functions
  7.  SYST        Exit other systems

Select   :                      Response :
Log-lines:
```

The 7 submenus have the following functions:

Normal Operation contains the most commonly used functions for controlling the Control System and the different User Systems under TPS-II.

Report System contains functions for defining, producing, printing and deleting reports. It also contains a function for checking the status of ordered or ready-made reports.

Security Copying contains functions for security copying, backup copying and for controlling disk packs used under TPS-II.

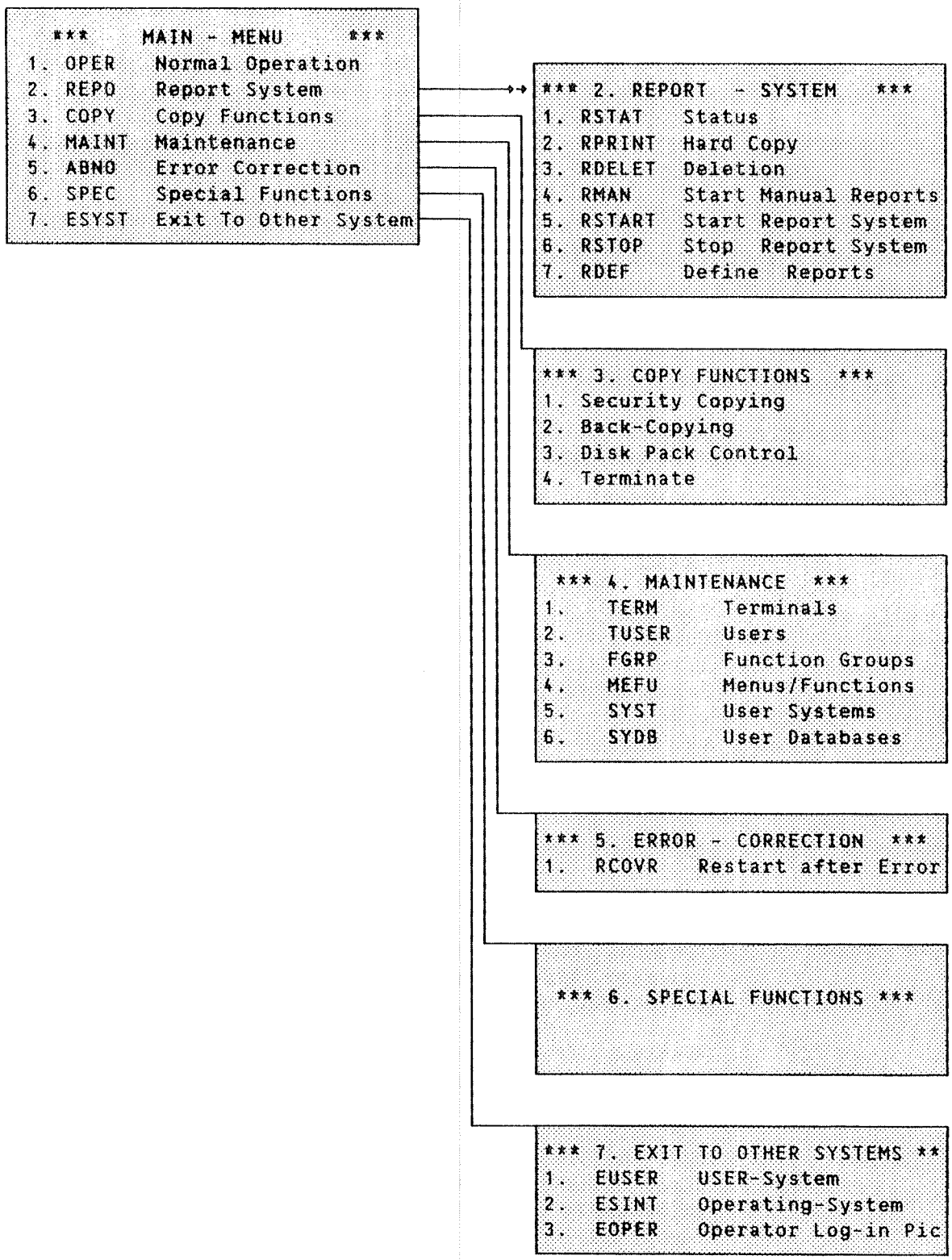
Maintenance contains functions for registering, changing and displaying data on the different User Systems, terminals, users, databases and menus under TPS-II.

Error Handling contains a command for getting a User System under TPS-II out of an error situation.

Special Functions contain functions for special situations, for example, for transferring the control system to another terminal.

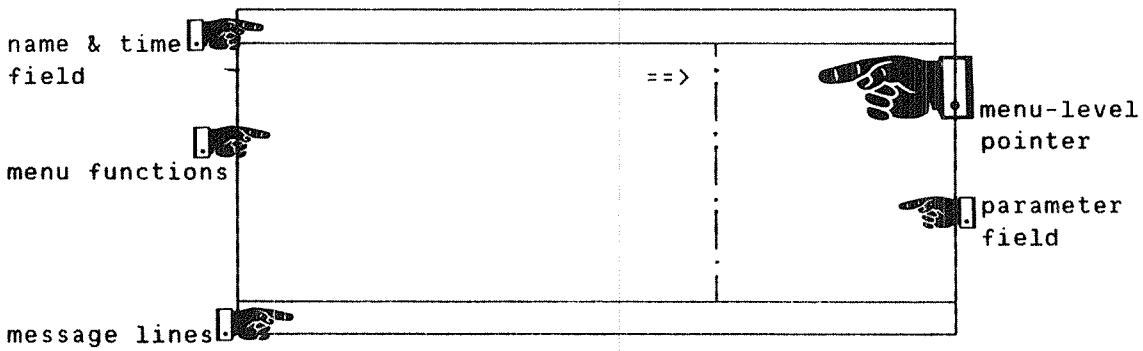
Exit To Other Systems releases the operator's terminal so that it can be used for regular work or for registering data on data files.

2.3 AN OVERVIEW OF THE MENU RELATIONSHIPS



2.4 THE STRUCTURE OF MENU PICTURES

Most menus (and submenus) are organized as shown below.



The top area of the menu identifies the name, the time and the date.

The middle area contains the list of menu functions, an arrow showing the menu level currently in use, and a field indicating the parameters of the chosen menu function.

Menu Functions — You can choose a menu function by typing in the function number or its abbreviation (followed by ↵).

Menu-Level Pointer — The menu level currently in use is shown by the arrow pointing at one of the four dots in the middle area. The Arrow at the topmost dot is for the main menu, and the lower dots are for the lower level (sub)menus.

Parameter Fields — The middle area also contains the parameter fields. The parameters displayed here indicate how a command is to be executed.

The lower part of the screen has the following functions:

Select — In this field you enter the abbreviation of the function you want to execute. If the function is on another submenu, the corresponding submenu will be displayed. You also jump to any submenu by entering its number (for the submenu numbers, see the next page).

Response — Messages from TPS-II will be displayed in this field. The message can, for instance, be that it will take time before the function comes up on the screen.

Log-Lines — The LOG-LINES fields will display messages of up to three lines from the TPS-II system. The messages contain information concerning the results of executed functions, possible errors, and so on.

Examples of choosing functions:

You can choose function RSTART like this: RSTART↵ or 2↵ (get menu Report System) 5↵ (get function RSTART)

end of chapter

PART .2.

CHAPTER 1
THE NORMAL OPERATION

- THE NORMAL OPERATION
- START START SYSTEMS
- STOP STOP SYSTEMS
- ABEND ABEND SYSTEMS
- STATUS SYSTEMS STATUS
- MESS SEND MESSAGE
- SSYST STATUS SYSTEMS
- STERM STATUS TERMINALS
- MSYST TO USER SYSTEM
- MTERM TO A TERMINAL
- MALL TO ALL TERMINALS

THE NORMAL OPERATION

The menu for Normal Operation contains the most important functions used for the daily operation of the TPS-II system.

You can select any command in this function by typing its abbreviation or its number.

MAIN MENU

```
  ***    MAIN - MENU     ***
1. OPER   Normal Operation
2. REPO   Report System
3. COPY   Copy Functions
4. MAINT  Maintenance
5. ABNO   Error Correction
6. SPEC   Special Functions
7. ESYST  Exit To Other System
```

MENU NO. 1

```
*** 1. NORMAL OPERATION  ***
1.  START    Start Systems
2.  STOP     Stop Systems
3.  ABEND    Abend Systems
4.  STATUS   Status Functions
5.  MESSAGE  Send Message
```

MENU NO. 1.4

```
 *** 1.4. STATUS  ***
1. SSYST  Systems
2. STERM  Terminals
```

MENU NO. 1.5

```
 *** 1.5. SEND MESSAGE   ***
1. MSYST   To User System
2. MTERM   To a Terminal
3. MALL    To all Terminals
```

Example of selecting a command:

To select command STERM, type in

STERM↵

or

1↵ (gets menu Normal Operation)
4↵ (gets submenu Status)
2↵ (gets Command STERM)

~ A TYPICAL OPERATION AT A TPS-II INSTALLATION ~

Here we will describe some of the processes an operator might perform at a TPS-II installation during a normal working day.

On a typical installation the computer and the TPS-II system will run the whole day.

STARTING THE DAY

- Examine status reports.
- Print required reports.
- Dispatch reports to proper persons.

ENDING THE DAY

- Send a message to all terminals that you are stopping the system.
- Take a backup of the database.

DISK PACK COPYING

- Use the command COPY to take a backup.

STARTING NORMAL OPERATION

- Use the command OPER to get the main menu.

STARTING USER SYSTEMS

- Start the individual user systems with the command START.

PRODUCING REPORTS

- First discard previously produced reports with the command RDELET.
- Use the function RMAN to produce the desired reports.

That's a normal day's work with TPS-II.

1 OPER - NORMAL OPERATION

When you select function number 1 ("Normal operation") or OPER from the main menu, the following menu appears on the screen:

```
                                                        MENU NO. 1

ND TPS-II OPERATORS TERMINAL                                Version B.
                                                 08.59   19. aug. 1984

     ***       NORMAL OPERATION  ***

 1.  START     Start Systems
 2.  STOP      Stop Systems                        ==>
 3.  ABEND     Abend Systems
 4.  STATUS    Status Functions
 5.  MESS      Send Message

Select   :              Response :
Log-lines:  <hour> <message>
            <hour> <message>
            <hour> <message>
```

Choosing Command You can select the desired function by typing the function number or its abbreviation in the Command field.

Direct Commands START, STOP and ABEND are direct operator commands. STATUS and MESS commands lead to submenus.

Command Parameters If your TPS-II system controls only one user-application system, the commands START, STOP and ABEND are carried out directly. If your TPS-II system controls many user-application systems, you will be prompted for parameters for these commands.

Cancelling Input Parameter Values If you change your mind, you can cancel the input parameter values by pressing the key marked "FUNC" and then the "home" key.

NOTE:
It may take time for a command to be executed !!

In the following pages we will describe each of the available functions in the menu.

----------->>>>>

1.1 START - START SYSTEMS

With this command you can start the various User Systems (accounting, salary, stock holding, etc.) that are under TPS-II.

.A. TPS-II WITH ONE USER-APPLICATION SYSTEM.

When only one user application is defined under TPS-II, you will not be asked to enter any parameters. When the command is accepted, the following message appears on the log lines:

```
Select    : 1            Response : TPS-II AND SYSTEMS STARTED
Log-lines: 10.25.30   - CONTROL-STARTED
           10.25.72   - REPORT MONITOR STARTED
           10.25.35   - SYSTEM-1 STARTED
```

.B. TPS-II WITH MORE THAN ONE USER-APPLICATION SYSTEM.

When TPS-II controls several user-application systems, the following screen picture is displayed:

```
                                                      MENU NO. 1.1
 ND TPS-II OPERATORS TERMINAL                               Version B.
                                               08.59    19. aug. 1984

      ***  NORMAL  OPERATION    ***            .
                                               |  0. Control
 1.   START    Start System                    .  1. System-1
 2.   STOP     Stop  System                    |  2. System-2
 3.   ABEND    Abend System                 ==>: -1. All Systems
 4.   STATUS   Status Functions                |
 5.   MESS     Send Message                    :  Select System :

Select:          Response :
Log-lines:
```

SYSTEM SELECTION:

0 :	Start control system. The TPS-II control system should always be started <u>before</u> you start other systems.
1 : 2 :	Start the specified system. If the systems are started individually, they also have to be stopped individually.
-1 :	Start the TPS-II control system and the user systems (with one command).

-->>>>>

1.2 STOP - STOP SYSTEMS

Use

This command closes the TPS-II system.

The users who are inside a function in the User System when the STOP-command is given, are allowed to complete their operation. However, the users will not be allowed to select a new function.

Note

Before using the command, check via the function STERM (Status terminals, menu 1.4.2) which terminals are active, and send a message to them by using the function MTERM (Send message to terminal, menu 1.5.2).

If a user has left his terminal in a user application, it may take time to actually close the system.

If your system controls more than one user-application system, you will have to close them one by one (if the systems have been defined individually).

If the command is successful, the following message is displayed:

```
Select   : STOP   Response : TPS-II AND SYSTEMS CLOSED

Log-lines: 15.30.01 - SYSTEM-1 - STOPPED
         : 15.30.03 - CONTROL  - STOPPED
         :
```

At close-down, the TPS-II checks the current free space in the database system and in the serial realms. If you get a message like:
12.05.05 - SYSTEM-1 - XXREALM IS 98% FULL
contact your system supervisor.

1.3 ABEND - ABEND SYSTEMS

Use

With this command, the TPS-II systems will stop immediately.

If there is more than one user-application system under TPS-II, you will have to ABEND them individually (if the systems were started individually).

Note

This command must be used only when it is absolutely necessary to stop the system immediately.

Effect

A user who is in the middle of a function in the User System, will be terminated. If a registration function has been terminated in the middle of the registration, the register may be only partially updated.

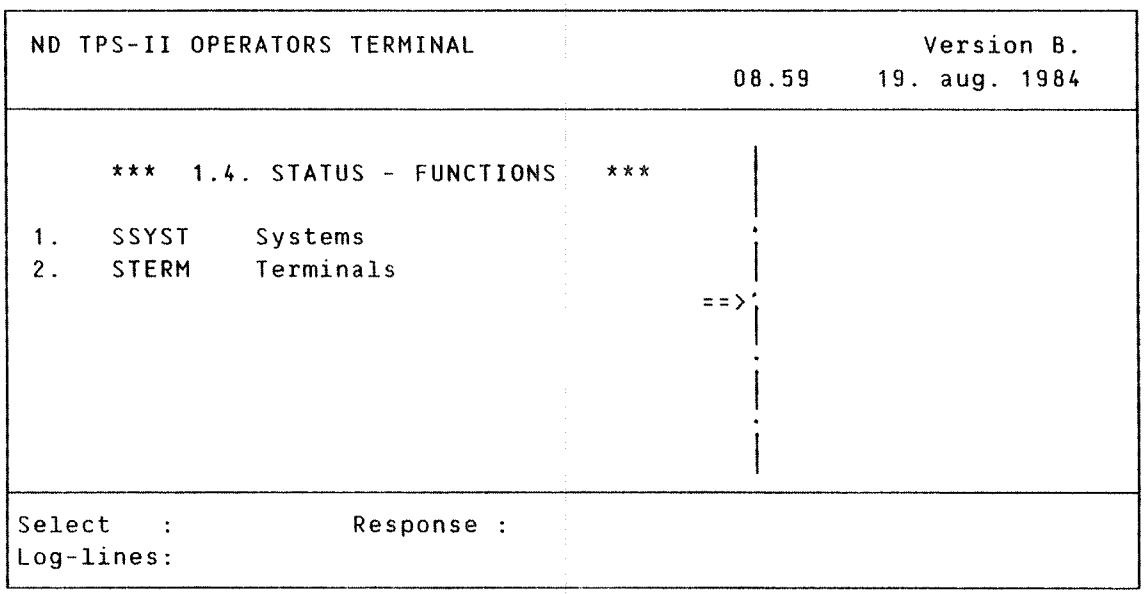
This command must be used with care!

It may take some time before the termination message, like the one below, appears on the screen.

```
Select    : 3      Response : TPS-II AND SYSTEMS ABENDED
Log-lines: 15.30.30 - SYSTEM-1 - STOPPED
         : 15.30.32 - CONTROL  - STOPPED
         :
```

1.4 STATUS - STATUS

This menu contains functions showing the state of TPS-II and the various systems linked to it.



This menu has two functions, SSYST and STERM.

SSYST SSYST can be used to examine the status of the systems controlled by TPS-II.

STERM STERM can be used to examine the status of all individual terminals linked to TPS-II.

Details of these two functions are given on the following pages.

---------->>>>>

1.4.1 SSYST - SYSTEMS

This routine is used to examine the status of the various User Systems under TPS-II. The following picture is shown as an example of what appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                              Version B.
                                                   10.17  28. aug. 1984

System     System          Active        System   System    Report
no.        name            Terminals     type     status    status

 1         ACCOUNTING        4            DB      STARTED    FREE
 2         PERSONAL          2            DB      STARTED    FREE
 3         NOTIS             3

 0         CONTROL SYSTEM                         STARTED    STARTED

 Active terminals inside  TPS-II :  6
 Active terminals outside TPS-II :  3

                                         Display / Terminate : .
```

FIELD DESCRIPTION

COL.NO.	FIELD NAME	MEANING
1	**System no.**	The numbers of the User Systems controlled by TPS-II.
2	**System name**	The names of the User Systems controlled by TPS-II.
3	**Active terminals**	The number of user terminals presently using this User System.
4	**System type**	DB if database system, else "nothing".
5	**System status**	The present status of the User System (STARTED/STOPPED/IN ERROR).
6	**Report status**	Indicates report system activity.
	Active terminals in TPS-II	Shows how many terminals are occupied with tasks (of DB type) in the TPS-II system.
	Active terminals outside TPS-II	States how many terminals are occupied with SINTRAN III system.
	Display/Terminate	T : return to the main menu. D : display status at the present time.

1.4.2 STERM - TERMINALS

With this function you can examine the status of the individual user terminals linked to TPS-II. The picture below is an example of what may appear on the screen:

```
ND TPS-II OPERATORS TERMINAL                              Version B.
USER-TERMINAL STATUS                          10.17  28. aug. 1984

Terminal    Linked to system    Linked to function    Linked to TPT-no.    Page : 1

   7        PERSONAL              2 FUNCADM             2
  15        PERSONAL              2 FUNCADM             3
  36        ACCOUNTING           62 KONT              102
  48        Operator terminal

Display/Terminate : .
Page no.: .
```

FIELD DESCRIPTION

COL.NO.	FIELD NAME	MEANING
1	**Terminal**	SINTRAN III device number for the TPS-II terminals.
2	**Linked to system**	Which User System is presently in use on the terminal.
3	**Linked to function**	Which tasks are being carried out on the terminal.
4	**Linked to TPT-no.**	This number is of interest only to the service personnel.
	Display/Terminate	Used to "turn" the pages if the number of terminals is larger than what can be shown on the screen. "D" is used to turn. The cursor will then move to "Page no.", for you to specify the page wanted. If there is only one page, nothing will happen. "T" gives exit from the function.

1.5 MESS - SEND MESSAGE

This function contains three commands for sending out messages to user terminals linked to TPS-II. The menu is called by selecting function 1.5.

```
ND TPS-II OPERATORS TERMINAL                               Version B.
                                                 08.59    19. aug. 1984

    *** 1.5  SEND MESSAGE      ***              |  M E S S A G E
                                                |
1.  MSYST    To user system                 ==> |  Write the message in
2.  MTERM    To a terminal                      |  the following 3 lines
3.  MALL     To all terminals                   |  ....................
                                                |  ....................
                                                |  ....................

Select   :           Response :
Log-lines:
```

1.5.1 MSYST - TO USER SYSTEM

Use

To send a message to all terminals presently linked to a chosen User System.

How to Send Messages

First select the required User System. Enter the message in the proper field.

The message is sent to all active terminals in the User System. It will be written out on the bottom part of the user's terminal screen:

Example:

===> MESSAGE FROM TPS-II OPERATOR <===
Hello! Hello! Please terminate immediately.

1.5.2 MTERM - TO A TERMINAL

Use

To send a message to a specific user terminal logged in and linked to TPS-II. The terminal number and the message lines are entered in the right "window" of the operator's terminal.

1.5.3 MALL - TO ALL TERMINALS

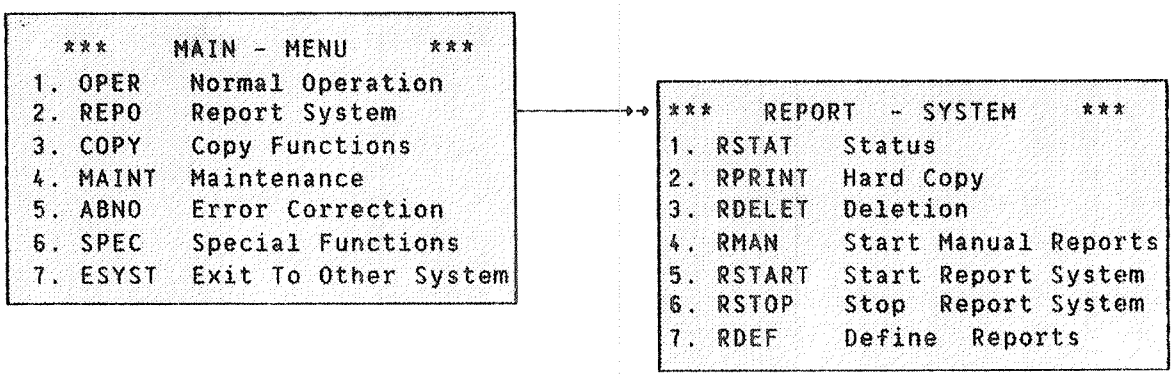
Use

To send a message to all user terminals registered under the maintenance function 4.1 (TERM "Terminals"). The message is entered in the right "window" of the operator's terminal.

———end of chapter———

CHAPTER 2
THE REPORT SYSTEM

- THE REPORT SYSTEM
- RSTAT STATUS
- RPRINT HARD COPY
- RDELET DELETION
- RMAN START MANUAL REPORTS
- RSTART START REPORT SYSTEM
- RSTOP STOP REPORT SYSTEM
- RDEF DEFINE REPORTS
- ORDERING REPORTS


*** MAIN - MENU ***
1. OPER Normal Operation
2. REPO Report System
3. COPY Copy Functions
4. MAINT Maintenance
5. ABNO Error Correction
6. SPEC Special Functions
7. ESYST Exit To Other System
*** REPORT - SYSTEM ***
1. RSTAT Status
2. RPRINT Hard Copy
3. RDELET Deletion
4. RMAN Start Manual Reports
5. RSTART Start Report System
6. RSTOP Stop Report System
7. RDEF Define Reports

2 REPO - REPORT SYSTEM

The TPS-II report system contains functions for defining, ordering, running, printing and deleting reports. It also has a function for examining the status of ordered reports. You can choose the functions from the following menu.

```
ND TPS-II OPERATORS TERMINAL                          Version C.
                                          08.59    19. april  1985

     ***       REPORT  - SYSTEM       ***

1.   RSTAT     Status                           ==>
2.   RPRINT    Hard Copy
3.   RDELET    Deletion
4.   RMAN      Start Manual Reports
5.   RSTART    Start Report System
6.   RSTOP     Stop  Report System
7.   RDEF      Define  Reports

Select    :                    Response :
Log-lines:
```

Who can order reports ?

Reports are ordered from individual user terminals running under TPS-II User Systems.

Reports may be ordered for periodical or once only execution. After the first order of a periodical report has been executed, the report system will automatically store a new order for the next running date. This is calculated by the system depending on the given period at the first order (e.g., daily, weekly, monthly).

A report can be defined to start automatically or manually. A report that is ordered to start automatically will be run as soon as the order has been made. When starting a manual report, the function RMAN (Start manual reports (2.4)) must be used from the operator's terminal.

Defining and ordering reports must be done from the operator's terminal. This is described in the last two sections of this chapter.

Error messages

Error messages in the various functions are self-explanatory.

--->>>>>

2.1 RSTAT - STATUS

This function is used to examine the status of the individual ordered, active and run(ning) reports under the TPS-II report system. The function must be used from the operator's terminal. The following picture (here with examples) appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                               Version C.
STATUS REPORTS                                10.17  28  april  1985

Report status (W/A/O/E/ ↵ =all )  : .

User      Report   List       Report   Ordered  Run     Report  Batch  Set for
system    name    serial no   type     by       date    status   no.   start
                    no

ACCOUNT. RE  020  140530.. .......   SIJ    180585  WAITING  1       Y
ACCOUNT. RE  030  091000.. PERIOD.   ABC    160585  OK       2       .
........  ........ ........ .......   ....   .....   .......          .
........  ........ ........ .......   ....   .....   .......          .

More  (N/+/-): ..                                            Page no : ..
```

FIELD DESCRIPTION

COL.NO.	FIELD NAME	MEANING
	Report status **Legal values**	Enter a letter depending on what you want to view. W : List all ordered (waiting) reports. A : List all reports with status ACTIVE. Normally, there will be only one report. O : List all reports with status OK. E : List all reports with status ERROR. ↵ : Lists all ordered reports. (See column no. 7 for Report Status).
1	User system	Name of the User System the report originates from.
2	**Report name**	Short name of the report.
3	List serial no.	Number identifying the result lists belonging to this report.
4	Report type	PERIOD : Report is ordered for periodical running. Else : Report is ordered for running once.
5	**Ordered by**	Name of the terminal user who has ordered the report.

\>>>>>

6	**Run date**	The date on which the report is to be run.
7	**Report status**	WAITING : The report is ordered, but not run. ACTIVE : Report is running. OK : Report has been run and terminated normally. ERROR : Report has been run, but interrupted because of an error during runtime.
8	**Batch no.**	Indicates which batch processor no. the report is going to use or has used.
9	**Set for start**	Marked Y (Yes) by the system if the report is set to run but waiting in a queue to be executed.
	More (N/+/-)	N : terminate and return to the next level. + : turn to next page (if there are more than 10 reports). - : turn to the previous page.
	Page no.	Shows which page you are currently on.

2.2 RPRINT - HARD COPY

This function produces a hard copy of the reports from the result lists. The function will send result lists to a declared printer.

If the result list is to be printed out on nonstandard listing paper, a message about the required form is written out on the computers error device when the list is ready for printing. The printing starts when the operator has executed the SINTRAN command START-PRINT (see Appendix B) on the console.

The following screen picture (here with examples) is displayed.

```
ND TPS-II OPERATORS TERMINAL                                  Version C.
HARD COPY OF REPORTS                          10.17  28 april  1985

Include previously printed? : .

User      Report    Ordered List     Form      No. Print? No.
system    name      by    serial no  type      pag.(Y/N)  Cop. Print.name

ACCOUNT. RE  030  ABC     091000-1 STANDARD  15    Y     2  LINEPRINTER.
ACCOUNT. RE  020  SIJ     091020-1 STANDARD  45    .     1  LINEPRINTER.
.......  .......  .......  .......  .......  ....  .     .  ...........
.......  .......  .......  .......  .......  ....  .     .  ...........
.......  .......  .......  .......  .......  ....  .     .  ...........

More  (N/+/-) : ..                                          Page no :  ..
```

FIELD DESCRIPTION

COL.NO.	FIELD NAME	MEANING
	Is previously written to be included?	Y : The names of all result lists previously printed will be displayed on the screen and may be sent for printing once again. N : Only result lists which have not been printed out previously are included in the picture. When this field has been filled in, the system automatically fills in the first six columns of the table below. The cursor moves through all the fields in the upper columns, so that they can be filled by the operator.
1	**User System**	Name of the User System the report belongs to.

>>>>>

2	**Report name**	Short name of the report.
3	**Ordered by**	Signature of the terminal user who has ordered the report.
4	**List serial number**	Identification of the result lists belonging to this report.
5	**Form**	Form type connected to this result list.
6	**No. pages**	The number of pages generated by the report in this result list.
7	**Print (Y/N)**	Indicate here whether the result list is to be sent to a printer or not. Y : YES, send this result list to a printer N : NO, the result list is not to be printed.
8	**No. copies**	Give the number of hard copies required of the result list. (Default value: The number defined in RDEF - Define reports, function 2.7).
9	**Printer name**	The name of the printer to which the result list is sent. Default value: the printer declared in the terminal user's function "Ordering of Reports", (see section 2.8).
	More (N/+/-)	N : terminate and return to the next level. + : turn to next page (if there are more than 10 reports). - : turn to the previous page.
	Page no.	Shows which page you are presently on.

2.3 ROELET - DELETION

The function is used to delete report orders and corresponding result lists, after the function report has been executed and is no longer current. This is useful because of the limited capacity in the computer's external storage. It should, therefore, be used every time a report is generated. Normally this will be used for reports with status OK or ERROR. The function may also be used in error situations to delete reports with status WAITING or ACTIVE, but in such cases the system supervisor should be contacted first.

This function must be used from the operator's terminal. The following picture appears on the screen (here with examples):

```
ND TPS-II OPERATORS TERMINAL                                  Version C.
DELETE REPORTS                                  10.17  28  april  1985

Report status : .

User      Report   List      Run       Ordered  Report    All      Delete
system    name     serial no date      by       status    printed  (Y/N)?

ACCOUNT.  RE  030  091000    830520    ABC      WAITING     Y        Y
ACCOUNT.  RE  020  091020    830518    SIJ      OK          N        N
........  ........ ........ ........  .......  ........    .        .
........  ........ ........ ........  .......  ........    .        .
........  ........ ........ ........  .......  ........    .        .

More   (N/+/-) : ..                                        Page no : ..
```

FIELD DESCRIPTION

COL.NO	FIELD NAME	MEANING
	Report status	Type of reports to be listed. W : Waiting, ordered reports. A : Active, presently running reports. Use this only if a report is blocked in this status after an error! O : O.K. Reports are run and terminated normally. E : Error. Reports that are run, but interrupted because of an error. ↵ : Normal. Reports that are run and terminated normally. After you fill in this field, the system fills in the seven first columns of the main field. The cursor moves to column no. 8 for further input.

>>>>>

1	**User System**	Name of the User System belonging to the report.
2	**Report name**	Abbreviation of the report's name.
3	**List serial number**	Number identifying the result lists belonging to the report.
4	**Run date**	The date the report was run or ordered to run.
5	**Ordered by**	Identification of the terminal user who has ordered the report.
6	**Report status**	Status of this report. WAITING : The report is waiting to run. ACTIVE : The report is presently executing (or has terminated abnormally in this state). OK : The report has been run and terminated normally. ERROR : The report has been run, but interrupted because of an error during runtime.
7	**All printed?**	The field shows if all the reports' result lists have previously been sent to a printer.
8	**Delete (Y/N)?**	Are the report and corresponding result lists to be deleted?
	More (N/+/-)?	N : terminate and return to the next level. + : turn to next page (if there are more than 10 reports). - : turn to the previous page.
	Page no.	Shows which page you are presently on.

2.4 RMAN - START MANUAL REPORTS

The function is used to order reports that are to be started manually. The following picture appears on the screen (here with examples). The first 5 columns in the main field are filled in by the system, the last 4 are filled in by the operator.

```
ND TPS-II OPERATORS TERMINAL                                  Version C.
START MANUAL REPORTS                          10.17  28 april  1985

The following reports are ordered for manual start :

User      Report  List       Report  Ordered  Starting Start-time Batch
system    name    serial no. type    by       (Y/N)?   Date  Hour  no.

ACCOUNT.  RE 030  091000-1   PERIOD.  ABC       Y      230583 0800  1
ACCOUNT.  RE 020  091000-2   PERIOD.  SIJ       Y      220583 1405  2
........  .......  ........  .......  ...       .      ...... ....  .

More  (N/+/-)? : ..                                        Page no: ..
```

FIELD DESCRIPTION

COL.NO.	FIELD NAME	DESCRIPTION
1	**User System**	Name of the User System the report belongs to.
2	**Report Name**	Short name of the report.
3	**List Serial Number**	The identification of the result lists belonging to the report.
4	**Report Type**	PERIOD. :The report is ordered for periodical execution. Else :The report is ordered to run once.
5	**Ordered by**	Signature of the terminal user who has ordered the report.
6	**Starting (Y/N)?**	Is the report to be started? Y : The report is set for start. N : The report will not be started.
7	**Start Date**	The date the report is to be executed.
8	**Hour**	The hour of execution.
9	**Batch no.**	Indicates which batch processor no. the report is going to use. Default: The value typed in RORDR ordering of reports.
	More (N/+/-)?	N : terminate and return to the next level. + : turn to next page (if there are more than 10 reports). - : turn to the previous page.
	Page no.	Shows which page you are presently on.

2.5 RSTART - START REPORT SYSTEM

Before a report can be executed, the command START (Start System (1.1)) must be given. If the report system has stopped because of an error, or if it has been stopped manually via the command RSTOP (Stop report system (2.6)), function RSTART may be used to start the report system again. The following message appears on the Log Line of the operator's terminal:

<hour> REPORT MONITOR - IS STARTED

2.6 RSTOP - STOP REPORT SYSTEM

Use this command to stop the TPS-II report system. No more reports will be started before the command RSTART (Start report system (2.5)) is given. Reports that are under execution will be finished before the report system stops.

NOTE! Only the execution of reports is stopped. Other functions in the report system may continue to be carried out. When the TPS-II report system has stopped, this message appears on the Log Line of the operator terminal:

<hour> REPORT MONITOR - IS STOPPED

2.7 RDEF - DEFINE REPORTS

All reports that are ordered from the operator terminals must be defined in the TPS-II report system. The system must have a description of the individual reports. This is done only once for each report, normally by the system supervisor at the time of initial installation. The command RDEF defines the reports. The following picture appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                                Version C.
DEFINITION OF REPORTS                          10.17  28  april  1985

System-name : ............
Report-name : ........          ................................

Can be ordered for      Run-group      :        TPS-report ?  : .
automatic start  ? : .  No. of files   : .      TPS-appl.no.  : ...
Can be ordered for      Form types     : .. ..  Batch no.     : ....
periodic exec.   ? : .  No.of copies   : .. ..  SINTRAN user : .....

---------------------- Parameter definitions --------------------------
                   Min   Max   Ctrl.              Values
No. Name           char. char. code  Lowest valid     Highest valid
..  ............   ..    ..    ...   ..............   ..............
..  ............   ..    ..    ...   ..............   ..............
..  ............   ..    ..    ...   ..............   ..............


<COMMAND>                                                        :
```

FIELD DESCRIPTION

COL.NO.	FIELD NAME	EXPLANATION
	System-Name	The field is automatically filled in with the name of the user system the function is selected for. The remaining fields are filled in by the system supervisor.
	Report-Name	The report's short and full name. The short name is the function name given in function 4.5 MEFU - Menu/Functions and in :PROG-name if it is a batch report.
	Can be Ordered for Automatic Start	The field shows whether the report can be ordered for automatic, or manual start. Legal values are: Y : The report may be ordered for automatic start. N : The report may be ordered for manual start.

>>>>>

	Can be Ordered for Periodic Start	Define whether the report can be ordered for periodic start. Legal values are: Y : Can be ordered for periodic start. N : Cannot be ordered for periodic start.
	Run-Group	Individual programs are associated with specific run-groups. The run group defines the order in which the reports are run. For reports ordered simultaneously, the lowest run group is processed first. Legal values are: 1 - 9
	No. of Files	This defines the number of output (result listings) files the report will create. Accepted values : 0 - 5
	Forms	For each result listing, give the form type. Accepted values: determined by the installation.
	No. of Copies	The number of copies of each result listing which are to be produced on the printer is given here (this is controlled by function 2.2 RPRINT - Hard Copy).
	TPS-Report ?	The field defines whether the report will run as an application controlled by TPS (this will normally be reports which are changing the data register), or whether it is to run under the SINTRAN III batch processor (normally applies only for reading of the data register). Legal values are: TP : TPS-II Application Program B1 : ND-100 Batch Program B5 : ND-500 Batch Program R1 : ND-100 NOTIS-RG Report R5 : ND-500 NOTIS-RG Report
	Appl. Number	If the report is to run as a TPS-II application, the application number must be given here, otherwise it is set to 0. Valid numbers are: 30 - 255
	Batch no.	Indicates which batch processor no. the report should use. (Default value in the function "RORDR ordering of reports").
	SINTRAN-User	When the report is to be run by the batch processor, the SINTRAN user area where the :PROG-file is located must be given.
1	**No.**	This field is filled in automatically.
2	**Text**	The text supplied here will be written out as the parameter name when the report is ordered.

---------->>>>>

3	**Min. Chars.**	Minimum number of characters (or symbols) which must be typed in when ordering reports.
4	**Max. Chars.**	Maximum number of characters (or symbols) which can be typed in as the parameter when the report is ordered.
5	**Ctrl. Code**	System control code given to determine how the parameter will be registered. Accepted values: 1 : numeric single integer (0 - 4 digits) 2 : numeric double integer (0 - 9 digits) 3 : numeric characters (0 - 18 digits) 4 : date (YYMMDD) (6 digits) 5 : Year/week (4 digits) 6 : Year/Month (4 digits) 7 : date (DDMMYY) (6 digits) 10: alphabetic characters (0 - 18 chars) 11: alphanumeric chars. (0 - 18 chars) 12: code Y/N (1 char) NOTE: If the control code is given a minus sign, this will mean that the parameter will be of the same type and size as the parameter on the line above, but the value will be larger or the same. Additional control codes may be defined at each installation.
6	**Lowest Permitted**	The lowest value permitted for the parameter should be given here.
7	**Highest Permitted**	The highest value permitted for the parameter should be given here.
	<COMMAND>	The permitted commands can be entered in this field. They are: New/Remove/Display/Modify/Update/Terminate To get to the command field from another field in the picture, press the FUNC key followed by the HOME (↖) key.

2.8 ORDERING REPORTS

You can order reports from any user terminal running under TPS-II. Each user system has a set of defined reports. These appear on the menu. The user can select a required report by typing in the report number (or code) in the menu itself.

When a report has been selected, the following picture appears on the user terminal:

```
ND TPS-II OPERATORS TERMINAL                                  Version C.
ORDERING OF REPORTS                              10.17  28  april  1985

Report name       : .........   ................................

Periodic?         : .           Start-date      : ....   ....
Period (D,W,M)    : .           Batch no.
Automatic/Manual? : .....  ....  Printer name    : ............
Ordered by        : ............ On terminal no. : ...the....at. ...
                                                      (date,time)
Listing-ref.      : ..............

----------------------- REPORT  PARAMETERS ----------------------------

Name              Value               Name              Value
................  ..................  ................  ............
................  ..................  ................  ............
................  ..................  ................  ............

<COMMAND>
```

FIELD DESCRIPTION

FIELD NAME	DESCRIPTION
Report Name	The field is automatically filled in with the name of the chosen report. First comes the abbreviated name, followed by the report's full name.
Periodic?	The field is used to order reports for periodic running. In this case, the report system automatically creates a new order for the report after each run. The period's length is given in the adjoining field. Accepted values are: Y : Order for periodic execution. N : One-off ordering (this is default, and does not need to be entered).

>>>>>

Period (D,W,M) When the field Periodic? has been filled in as Y (Periodic), the period length for the running of the report must be given.
Legal values are:
D : Daily report (the report is run every day Monday through Friday).

W : Weekly report (the report is run weekly, on the day for which the first time point was given).

M : Monthly report (the report is run monthly on the date the first start time was given for). If the last day of the month was requested, the report will always be run on the last day of every month.

Automatic/ Manual Define whether the report is to be run automatically or or whether it is to be started later from the operator terminal by using function 2.4 RMAN (Start manual reports). A report can be ordered for automatic start only if it has been defined for this function by function 2.7 RDEF Definition of reports.
Legal values are:
A : Automatic start up.
M : Must be started manually from the operator's terminal.

Start-Date If manual: Proposed start date in RMAN.
If automatic: Start time and date for first run.

Batch no. Indicates which batch processor no. the report is going to use. Could be overruled by RMAN if manual report.
Default: Value registered in RDEF - Define reports.

Printer-Name Give the name of the printer which will produce the listing. For reports with manual start this can be controlled by function 2.2, RPRINT.

Automatic reports come out on the registered printer automatically. If nothing is written into the field, the listing must be printed with the help of function 2.2 - RPRINT.

(These fields are filled in by the system:)

Ordered by This field is filled in by the system with the user's name, after the order has been made.

On Terminal no. These fields are filled in by the system with the date and time when the order was made.

List Reference This field is filled in by the system when the order is made, with the associated identification for the listings.

Parameter Name The system displays the names of all the parameters which must be supplied when the report is ordered.

---->>>>>

Value

Give the parameter values the report needs to run here. The system will check that the supplied values are valid for the parameters. The parameters and validation routines are specified in RDEF. Checking is defined in function 2.7 - RDEF Definition of reports.

<COMMAND>

The field where the function writes out the valid commands that the user may choose from.
Commands :

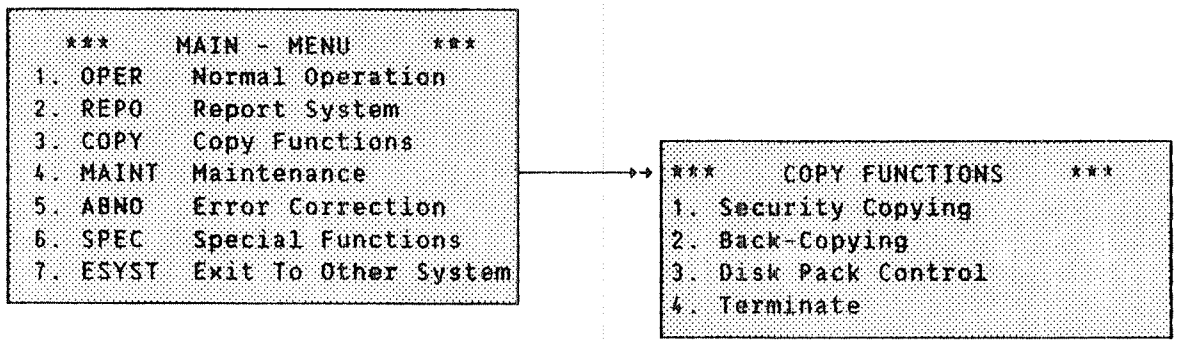
N (New)	: Registration of a new order.
D (Display)	: Look at previously registered order.
R (Remove)	: Remove a previously registered order (which is now shown in the picture).
M (Modify)	: Change fields in a previously registered order (which can now be seen in the picture).
U (Update)	: Create registered or changed order (now on the screen).
T (Terminate)	: Exit from the function.

One may go to the command field from another field in the picture by pressing the FUNC key and then the HOME (↖) key.

end of chapter

CHAPTER 3
COPY FUNCTIONS

- COPY FUNCTIONS
- SECURITY COPYING
- BACK-COPYING
- DISK PACK CONTROL
- SECURITY COPYING: AN EXAMPLE


*** MAIN - MENU ***
1. OPER Normal Operation
2. REPO Report System
3. COPY Copy Functions
4. MAINT Maintenance
5. ABNO Error Correction
6. SPEC Special Functions
7. ESYST Exit To Other System
*** COPY FUNCTIONS ***
1. Security Copying
2. Back-Copying
3. Disk Pack Control
4. Terminate

3 COPY - COPY FUNCTIONS

TPS-II contains a function for copying and controlling disk packs.

Before you use these functions:

- Ask all terminal operators to log out. This can be done by first using the function STERM (Status terminals, 1↵4↵2↵) to see if all are logged out, followed by either MTERM (1↵5↵2↵) or MALL (1↵5↵3↵) to send a message to the terminal(s) still in use;
- Stop the TPS-II systems.

When you select the COPY function, you will get a message to continue from the console or from the terminal defined to own the TPS-II backup system. When the copy function is active, the terminals connected to the system are not available for use.

The following menu appears:

```
          ****************************
          *  TPS-II COPY FUNCTIONS   *
          ****************************
             March 8. 1984  16.57.43

                 1. Security copying
                 2. Back-copying
                 3. Disk pack control
                 4. Terminate

                Select function:
```

SUBMENU DESCRIPTION:

Security Copying Used to copy disk packs used in the daily operation. This is the most commonly used function.

Back-Copying Used when it is necessary to restore a copy of a pack if the original is not OK. The procedure is similar to security copying, but this function copies from a copy to the original pack. This is usually done under supervision of the system supervisor or service personnel.

Disk Pack Control Used to check whether a disk pack is physically O.K. The function is performed on an already installed pack. This means that there is no shift of the disk pack. This function is normally used by the service personnel.

In the next page we give an example of a normal "Security copying"

----------->>>>>

3.1 SECURITY COPYING: AN EXAMPLE

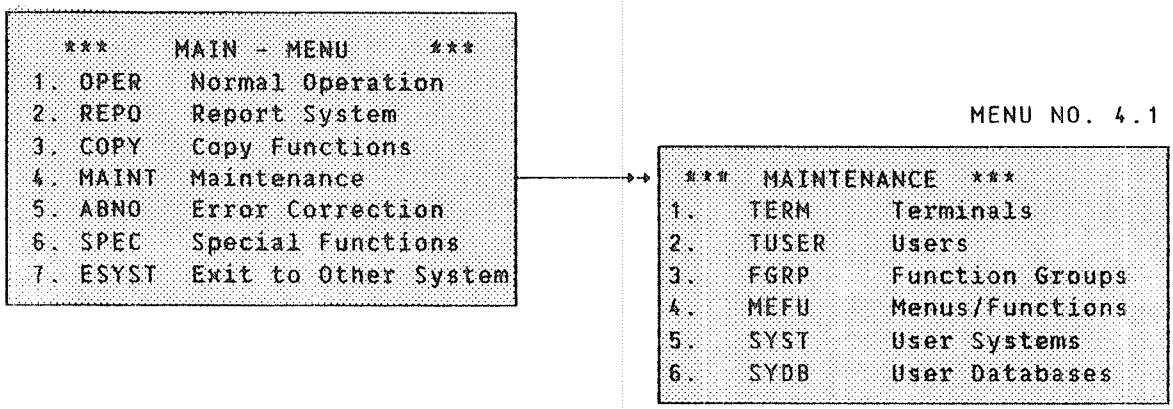
```
1. Security copying
**************************
      1. SYSTEM PACK                          Disk packs are given names
      2. REGISTER PACK-1                      when the system is installed
      3. REGISTER PACK-2
      0. RETURN

      Select function: 2                      Disk unit names are on the
      Start the function (Y/N)?:Y             disk units.

**CHANGE DISK PACK**
      Stop the disk unit : SYSTEM
      Remove pack!                                Start the disk unit &
      Install pack       : REGISTER PACK-1 COPY   wait before answering
                                                  until "READY" lamp
      Ready (Y/N):Y                               is lit.

**DATE CONTROL**
      Date : 07.04.83 - on pack REGISTER PACK-1 ORIGINAL
      Date : 07.04.83 - on pack REGISTER PACK-1 COPY
      **Date control ok!**                    The dates on the original
                                              and copy packs should be
**COPYING**                                   the same.
      Started:   17.00.42
      Finished : 17.03.25
                                              The original and copy packs
**COPY CONTROL**                              are compared. If the copy is
      Started  : 17.03.26                     not correct, an error
      Finished : 17.06.08                     message is given.

**NEW DATE ON THE PACKS**
      Date : 08.03.83 - on pack REGISTER PACK 1 ORIGINAL
      Date : 08.03.83 - on pack REGISTER PACK-1 COPY
      **New dates ok!**                       New dates are written on the
                                              original and copy disk packs
**CHANGE DISK PACK**
      Stop the disk unit : SYSTEM             Copying is done. Exchange
      Remove pack!                            the copy and system packs.
      Install pack       : SYSTEM ORIGINAL

      Ready (Y/N)? : Y
                                              If the copy pack contains a
**DATA BASE Routine-log initiated ok!**       database, Routine-Log is
                                              initiated automatically.
  ( After a pack is copied
    the copy menu is displayed again)
```

*** After copying is terminated, TPS-II can be started from the operator's terminal.

end of chapter

CHAPTER 4
MAINTENANCE FUNCTIONS

- MAINTENANCE FUNCTIONS
- TERM TERMINALS
- TUSER USERS
- FGRP FUNCTION GROUPS
- MEFU MENUS/FUNCTIONS
- SYST USER SYSTEMS
- SYDB USER DATABASES

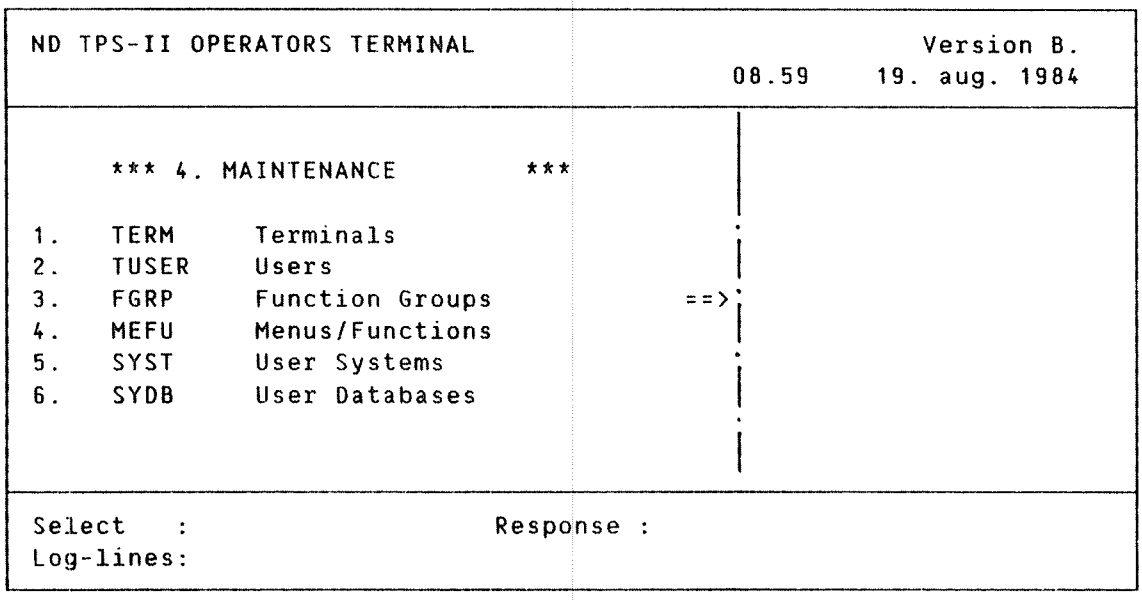

*** MAIN - MENU ***
1. OPER Normal Operation
2. REPO Report System
3. COPY Copy Functions
4. MAINT Maintenance
5. ABNO Error Correction
6. SPEC Special Functions
7. ESYST Exit to Other System
MENU NO. 4.1
*** MAINTENANCE ***
1. TERM Terminals
2. TUSER Users
3. FGRP Function Groups
4. MEFU Menus/Functions
5. SYST User Systems
6. SYDB User Databases

4 MAINT - MAINTENANCE

The MAINTENANCE functions are for registering, changing and displaying data on the individual user systems, terminals, users, databases and menus running under TPS-II.

Before using this function, start the service system with the command START (Start Systems).

Interrupt all present registrations by pressing FUNC and then "CTRL" and "W" simultaneously. Prevent all further registration by pressing FUNC followed by HOME (↖).



FUNCTION:	USE:
TERM	To register terminals under TPS-II.
TUSER	To define users of individual systems under TPS-II.
FGRP	To define function groups for individual users.
MEFU	To define menus, registration functions and reports for a database system.
SYDB	To define the internal contents of data registers.

>>>>>

4.1 TERM - TERMINALS

All terminals that are to be connected permanently to TPS-II, must be registered with this function. When a new terminal is registered, the system must be stopped and started to activate it.

Error messages are displayed as self-explanatory text at the bottom left corner of the screen. The cursor will always be positioned at the field which is to be filled.

The function will list the registered terminals, if necessary over several pages. The picture shown below appears:

```
ND TPS-II OPERATORS TERMINAL                                  Version B.
MAINTENANCE TERMINALS                              08.59    19. aug. 1984

      Terminal    Terminal Terminal    Printer  Alt.Printer
      Number      Type     Category    Number   Number
       ...         ..         .         ...      ...
       ...         ..         .         ...      ...

New/Display/Terminate : .
```

FIELD NAME:	DESCRIPTION:
Page	Shows which page you are currently working on.
Terminal Number	SINTRAN III device number for the terminal to be registered. Each terminal is given a unique number.
Terminal Type	Terminal type, given by the system supervisor to the individual terminal (usually 53).
Terminal Category	N : if the terminal is to be controlled by TPS-II. S : if the terminal is controlled by SINTRAN III.
Printer Number	The use of this field is installation dependent. This field may be used to "connect" terminals to a printer.
Alternative Printer Number	The use of this field is installation dependent. This field may be used to "connect" terminals to a printer.
New/Display/ Terminate	N(ew): to enter new terminals. D(isplay): to list the registered terminals. T(erminate): to exit to the maintenance menu.
Error Messages	Error messages are displayed at the bottom left corner of the screen and are self-explanatory.

>>>>>

4.2 TUSER - USERS

The TUSER function is used to register terminal user-names and passwords and to specify the kind of access the individual users will have to the various systems running under TPS-II.

With the command TUSER, the following screen picture is displayed:

```
ND TPS-II OPERATORS TERMINAL                                  Version B.
MAINTENANCE TERMINAL                              08.59    19. aug. 1984

     User name : ............ Default Usersystem: ..
     Password  : ............ SINTRAN User area : ............
                              SINTRAN Password  : ............

System  System     System Autoriz. Enter Enter     Function group
Number  Name       Type   Level    Type  Menu/Func Number Autoriz.
 ..    ...........  ..     .        .      ...       ...     .
 ..    ...........  ..     .        .      ...       ...     .
 ..    ...........  ..     .        .      ...       ...     .

User-def. : ..................  ........  ....  ....  ........
```

New/Display/Terminate : .

FIELD NAME:	DESCRIPTION:
UserName	The terminal user's signature.
Password	The terminal user's password.
Default User System	The TPS-II user system number. Used only if the terminal user has a default user system.
SINTRAN User Area	The terminal users SINTRAN III user-area (if any).
SINTRAN Password	The SINTRAN-III user-area password (if any).
System Number	A TPS-II user system number is displayed.
System Name	A TPS-II user system name is displayed.
System Type	The TPS-II user system type.
Authorization Level	0=no access, 9 is highest access. Enter the terminal users general authorization level for this user system.

>>>>>

Enter Type — Used to indicate in what way the terminal user should enter this TPS-II system.
(M : through a menu, F : through a function).

Enter Menu/Func. — If the user should enter this TPS-II user system through a submenu or a specific function enter the submenu or function number here.

Function Group — Used if the terminal user is to be a member of a function group (function 4.3).

- **Number** — Enter function group number and the terminal users
- **Authorization** — authorization level inside this group.

The above lines are repeated for each defined user system.

User-Default — The use of these fields is installation dependent. The values entered will be available for user application programs at runtime.

New/Display/ Terminate

New: enter data for a new terminal user.
Display: display data for an existing terminal user.
Terminate: exit to the maintanance menu.

Access control in TPS-II is defined in the following way:

Each user is recorded in the control system database with a name, and a password, if desired.

The user is given different authorization levels for each user system in TPS-II. Here 0= no access, and 9= highest access.

In each user system, the user can access menus and functions which are on the same or lower level of authorization than the his or her own general authorization level.

Each user may have a special authorization level for one specific group of functions ("Function Group" - 4.3) in each user sustem. The user's authorization level inside a function group may be higher than the users general authorization level.

4.3 FGRP - FUNCTION GROUPS

This function is used to define groups of functions for which the user may be given special access to.

- Each user can only belong to one group in each user system.
- Function groups are used to give a terminal user special authorization for a defined group of user-system functions (application programs). Function groups may be used to overrule the users general authorization level.
- A number of function groups may be defined for each user system.

The example below shows what appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                                  Version B.
MAINTENANCE FUNCTION GROUPS

          Function group number    : ...

                 Applications in this group :

       ...   ...   ...   ...   ...   ...   ...   ...   ...   ...
       ...   ...   ...   ...   ...   ...   ...   ...   ...   ...
       ...   ...   ...   ...   ...   ...   ...   ...   ...   ...


New/Display/Terminate : .
```

FIELD NAME:	DESCRIPTIONS:
Function Group Number	Enter here a unique number for this function group.
Application in This Group	Enter the TPS-II application program numbers which the group consists of. New: to register a new function group. Display: to display an existing function group. Terminate: exit from the function.

4.4 MEFU - DEFINITION OF MENUS AND FUNCTIONS

The function MEFU is used to define all menus, functions and reports in an individual TPS-II user system.

This function is normally used only by the system supervisor. The operator can, however, use the function to modify the authorization code for a menu or a function.

There are two kinds of screen pictures associated with this function, depending on whether you are defining a Function or a Menu.

An example of a picture which appear on the screen:

Screen picture for defining Menus:

```
ND TPS-II OPERATORS TERMINAL                                  Version B.
MAINTENANCE MENUS/FUNCTIONS                        08.59   19. aug. 1984

Menu  No.: ... Menu  text : ............................... Page: .

Entry No.: ... Entry text : ............................... Type: .
           ...              ...............................       .
           ...              ...............................       .
           ...              ...............................       .
           ...              ...............................       .

Menu number : ...  Menu name : ........    Authorization level : .
```

Screen picture for defining Functions:

```
ND TPS-II OPERATORS TERMINAL                                  Version B.
MAINTENANCE MENUS/FUNCTIONS                        08.59   19. aug. 1984

Menu  No.: ... Menu  text : ............................... Page: .

Entry No.: ... Entry text : ............................... Type: .
           ...              ...............................       .
           ...              ...............................       .
           ...              ...............................       .
           ...              ...............................       .

Function no. : ...  Function name: ......  Authorization level : .
No. of appl. : .    Appl. numbers: .. .. .. .. .. ..
```

Note that only the lower part of the screen differs in the two forms.

---->>>>>

FIELD NAME:	DESCRIPTIONS:
Menu Number:	Menu number, between 1 and 999.
Menu Text:	Menu text, descriptive name of the menu. Is automatically filled out.
Entry Number:	In a menu, the entries should be given consecutive numbers from 1 and upwards.
Entry Text:	A descriptive name of the menu-entry.
Type:	One character. The legal values are: M (for Menu) : the entry is a submenu. F (for Function) : the entry is a function. R (for Report) : the entry is a report. All other characters are illegal.

Entry Number, Entry Text and Type are repeated 10 times in each form. Up to 20 entries may be defined for a menu, the rest on page 2.
Remember: a good menu does not have more than 9 entries!

Lower window when the entry type is a submenu (M):

Menu number:	Submenu number.
Menu name:	Menu name (maximum 8 characters) that may be used to select this submenu.
Authorization Level	Terminal users authorization level for using this submenu.

Lower window when entry type is function (F) or report (R):

Function no.:	The number of main function (application) for the entries.
Function Name:	The function name, maximum 8 characters.
Authorization Level:	The terminal user's authorization level to use this submenu.
No. of Appl.:	The number of applications in the function (max 6).
Appl. Numbers:	Sequence of applications constituting the function, one entry for the number of applications given above.

NOTE: When the entry type is report (R), the lower window is automatically filled out by the system with the exception of the function name and the auth. level.

NOTE: When you use the function MEFU for the first time for a user system, start with displaying menu number 10 (the system defined top level). The menu defined as "main-menu" for the user system will automatically be stored in the menu no.10. You can now continue filling entries in the defined "main-menu".

4.5 SYST - USER SYSTEMS

This function should be used only by system supervisors. It is used for providing information on the systems which are controlled (or may be accessed) by TPS-II.

```
ND TPS-II OPERATORS TERMINAL                                  Version B.
MAINTENANCE USER-SYSTEM INFORMATION            08.59    19. aug. 1984

              System name          : ..........
              SINON menu text      : ....................
              System type          : ..
              System number        : ..

              Database name        : ........
              Database owner       : ........
              SIBAS system number: ...
              SIBAS runflag(oct.): ....

              Main-menu number     : ...
              Standard log-in
              application          : ...
```

New/Display/Terminate : .

FIELD NAME:	DESCRIPTIONS:
1.System Name	The name used in TPS-II.
2.SINON Menu Text	The name used when selected from user terminals.
3.System Type	DB : if the system is a database system under TPS-II. ' ': if the system is of background type, e.g., NOTIS.
4.System Number	> 0 : database system. < 0 : SINTRAN III subsystem to be accessed from user terminals.
5.Database Name	Name of the database.
6.Database Owner	Name of the SINTRAN user owning the database.
7.SIBAS System No.	Number of the SIBAS process which controls the database.
8.SIBAS Runflag	The SIBAS runflag for the database.
9.Main Menu Number	Main-menu number in the user system.
10.Standard Log-in Application	Enter an application number in the user system, if you want all users to enter the user system through a specific function.

NOTE:
Fields 5 to 10 are only used for database systems which are controlled by TPS-II.
The system name SINTRAN should be registered if terminal users are to have access to the operating system SINTRAN III from their TPS-II terminals.

>>>>>

4.6 SYDB - DATABASES

This function should be used only by the system supervisor. This is where the internal structure of the data registers is defined to the TPS-II system.

```
ND TPS-II OPERATORS TERMINAL                              Version B.
MAINTENANCE DATABASE DESCRIPTIONS                08.59    19. aug. 1984


System name   : ........
System number : ...
Database name : ........

No. of realms : ...                                            Page: ..
---------------------------- Realm names -----------------------------
........  ........  ........  ........  ........  ........  ........
........  ........  ........  ........  ........  ........  ........
........  ........  ........  ........  ........  ........  ........
........  ........  ........  ........  ........  ........  ........
........  ........  ........  ........  ........  ........  ........
........  ........  ........  ........  ........  ........  ........
........  ........  ........  ........  ........  ........  ........

New/Display/Terminate : .
```

FIELD NAME: **DESCRIPTIONS:**

System Name
System Number
Database Name

These fields are filled out automatically by the system.

No. of realms Number of realms that are to be recorded in the next fields.

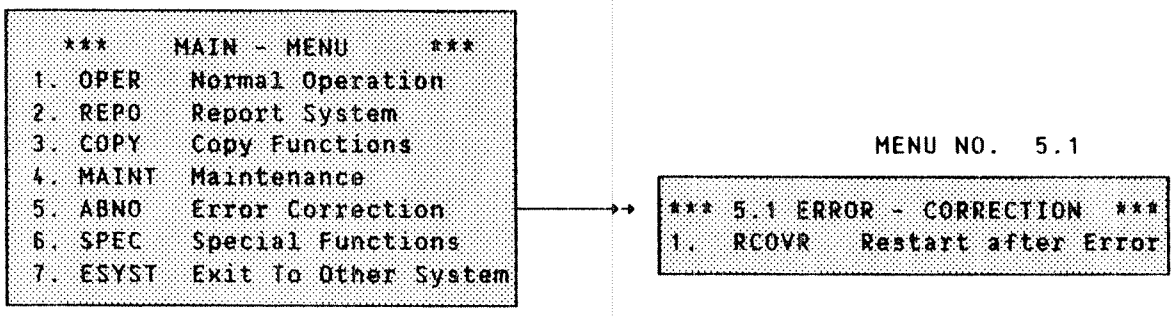
Realm names Realm names defined in the user database.

- The realm names should be repeated as many times as indicated in the no-of-realms field.
- The realms registered will be "readied" for use by the SIGNON special application.
- 63 realms may be registered on each page; additional realm names can be entered on extra pages.
- The "page number" is updated automatically.

end of chapter

CHAPTER 5
ERROR FUNCTIONS

- ERROR FUNCTIONS
- ABNO - ERROR CORRECTION
- RCOVR - RESTART AFTER ERROR


*** MAIN - MENU ***
1. OPER Normal Operation
2. REPO Report System
3. COPY Copy Functions
4. MAINT Maintenance
5. ABNO Error Correction
6. SPEC Special Functions
7. ESYST Exit To Other System
MENU NO. 5.1
*** 5.1 ERROR - CORRECTION ***
1. RCOVR Restart after Error

5 ABNO - ERROR CORRECTION

Where a user system under TPS-II stops on account of a critical error in a terminal user function, the user system stops automatically, and an error message appears on the operator's terminal and the user terminals.

After an error condition, the user system can be used only after the command RCOVR has been given or after TPS-II is reloaded and restarted form the beginning (see Part 1, section 1.6):

```
ND TPS-II OPERATORS TERMINAL                                Version B.
                                                 08.59   19. aug. 1984
-----------------------------------------------------------------------
                                                 |    W A R N I N G
      ***  5.  ERROR - CORRECTION  ***           |
                                                 |
 1.   RCOVR    Restart After Error               :  This function must
                                                 |  only be used after
                                              ==>:  the system has stopped
                                                 |  because of an error
                                                 :
                                                 | Want to continue(Y/N):.
                                                 :
-----------------------------------------------------------------------
                            Response :
```

5.1 RCOVR - RESTART AFTER ERROR

The function RCOVR should only be used when the system stops and you get a message like:

- SYSTEM-1 - STOPPED BECAUSE OF CRITICAL ERROR.
  CONTACT THE SYSTEM SUPERVISOR

When performing RCOVR, the following messages will be written on the log lines of the operator's terminal.

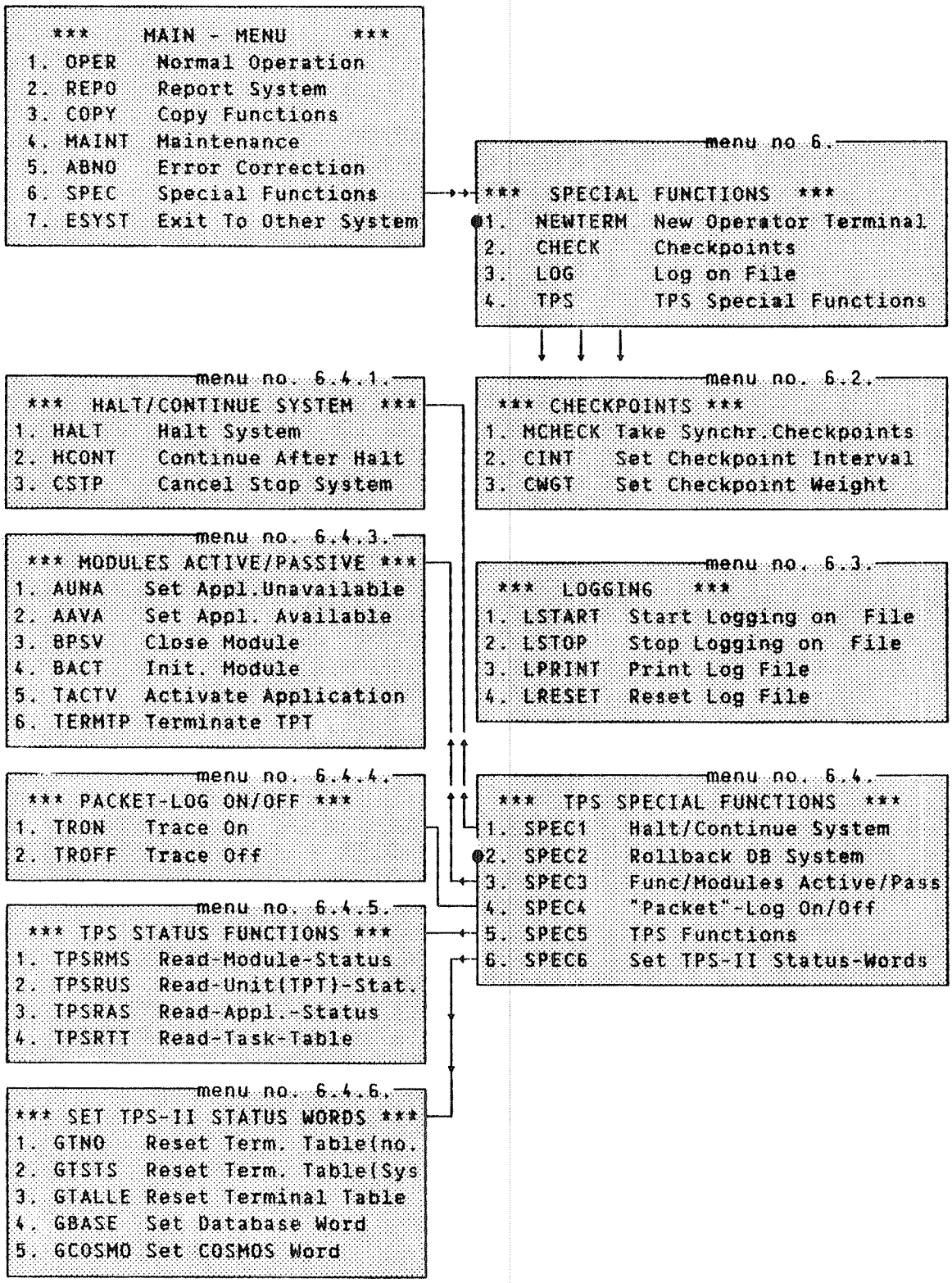
```
<time> <user-system> ROLLED BACK TO 12:15 18.08.84
<time> <user-system> REPROCESSING  OF R-LOG  FINISHED
<time> <user-system> RESTART AFTER ERROR FINISHED : OK
```

The messages mean that the system is up and running again. Terminal users should, however, check to see if their last updates are available. If not, they must be registered once again.

If the message: <time> <user-system> RESTART AFTER ERROR FINISHED : OK does not appear on the operator's terminal, the system has not recovered from the last error. In this case, the system supervisor should be contacted.

CHAPTER 6
SPECIAL FUNCTIONS

- SPECIAL FUNCTIONS
- NEWTRM NEW OPERATOR TERMINAL
- CHECK CHECKPOINTS
- LOG LOGGING
- TPS SPECIAL TPS FUNCTIONS
- MCHECK TAKE SYNCHRONIZED CHECKPOINT
- CINT SET CHECKPOINT INTERVAL
- CWGT SET CHECKPOINT WEIGHT
- LSTART START LOGGING ON FILE
- LSTOP STOP LOGGING ON FILE
- LPRINT PRINT LOG FILE
- LRESET RESET LOG FILE
- SPEC1 HALT/CONTINUE SYSTEM
- SPEC2 ROLL BACK DB-SYSTEM
- SPEC3 FUNC/MODULES ACTIVE/PASSIVE
- SPEC4 TPS-PACKET-LOG ON/OFF
- SPEC5 TPS-STATUS FUNCTIONS
- SPEC6 SET TPS-II STATUS-WORDS
- HALT HALT SYSTEM
- HCONT CONTINUE AFTER HALT
- CSTP CANCEL STOP SYSTEM
- AUNA SET APPL. UNAVAILABLE
- AAVA SET APPL. AVAILABLE
- BPSV CLOSE MODULE
- BACT INIT MODULE
- TACTV ACTIVATE APPLICATION
- TERMTP TERMINATE TPT
- TRON TRACE ON
- TROFF TRACE OFF
- TPSRMS READ-MODULE-STATUS
- TPSRUS READ-UNIT(TPT)-STATUS
- TPSRAS READ-APPLICATION STATUS
- TPSRTT READ-TASK-TABLE
- GTNO RESET TERMINAL TABLE (NO.)
- GTSYS RESET TERMINAL TABLE (SYSTEM)
- GTALLE RESET TERMINAL TABLE
- GBASE SET DATABASE WORD
- GCOSMO SET "COSMOS" WORD



● These functions do not lead to submenus.

6 SPEC - SPECIAL FUNCTIONS

This menu contains functions which are seldom used. The most common special function is probably NEWTRM for changing the operator's terminal.

```
ND TPS-II OPERATORS TERMINAL                          Version B.
                                                08.59   19. aug. 1984

     ***  6.  SPECIAL - FUNCTIONS      ***

1.   NEWTRM   New Operator Terminal
2.   CHECK    Checkpoints
3.   LOG      Log on File                  ==>
4.   TPS      TPS Functions

Select   :          Response :
Log-lines:
```

6.1 NEWTRM - NEW OPERATOR TERMINAL

The command NEWTRM is used to make any terminal, which is connected to TPS-II, the operator's terminal.

The new operator terminal number is entered in the right window of the screen picture.

When you have used this command, you will be prompted to enter the user's name and password at the new operator terminal.

6.2 CHECK - CHECKPOINTS

This function contains the commands for controlling the use of checkpoints for database registers in TPS-II.

A checkpoint is an instance in time at which TPS-II saves data, and information about the current activities. Checkpoints are used by TPS-II in error situations so that the database and the systems are returned to an earlier, error-free state. Checkpoints are usually taken automatically by the system. In special situations, the operator may take a checkpoint manually.

With the command CHECK the following menu appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                              Version B.
                                                  08.59   19. aug. 1984

     *** 6.2   CHECKPOINTS     ***

1.   MCHECK   Take Synchronized Checkpoint     Checkpoint interval
2.   CINT     Set Checkpoint Interval         should have a value
3.   CWGT     Set Checkpoint Weight           between 5 & 99 min.

                                          ==>  Recommended : 30 min.

                                               Interval    :

Select   : 2                  Response :
Log :
```

6.2.1 MCHECK - TAKE SYNCHRONIZED CHECKPOINT

The command is used to take a checkpoint in the chosen system. The system number is entered in the corresponding prompt in the right-hand "window".

6.2.2 CINT - SET CHECKPOINT INTERVAL

TPS-II automatically takes checkpoints for each user system.

This command determines how often checkpoints are taken. The checkpoint interval is given in number of minutes. If you enter a 0 as the interval, a checkpoint will be taken only at start or stop, or at a manual command.

---->>>>>

6.2.3 CWGT - SET CHECKPOINT WEIGHT

Automatic checkpoints can be taken, depending upon the load on the individual user system.

When initializing a particular user system, a Checkpoint Weight is determined for each function in it. TPS-II adds up these weights as the functions are used. When the total exceeds the total-weight set in this command, TPS-II automatically takes a checkpoint for the user system (and starts counting again from 0).

6.3 LOG - LOG ON FILE

The menu contains functions for defining the log-device and for logging of the internal activity in TPS-II. The data logged is: all commands and the responses, error messages, and information which normally appears on the terminal. Normally, messages describing the activities in the TPS-II system are routed to the computer error device. The messages may, however, be routed to a disk file. The default operational mode is set by the installation program OPCOM-INIT.

```
ND TPS-II OPERATORS TERMINAL                          Version B.
                                                08.59   19. aug. 1984

     ***  6.3  LOG ON FILE  ***

1.   LSTART  Start Logging on File
2.   LSTOP   Stop  Logging on File
3.   LPRINT  Print Log File
4.   LRESET  Reset Log File
                                                ==>

Select    :                    Response :
Log :
```

6.3.1 LSTART - START LOGGING ON FILE

This command changes the log-device from the computer error device to a disk file.

6.3.2 LSTOP - STOP LOGGING ON FILE

This command changes the log-device from the TPS-II disk file to the computer error device.

6.3.3 LPRINT - PRINT LOG FILE

This command prints out the contents of the TPS-II log file on a printer. You will be prompted to enter the printer name. If you change your mind, and if you do not want a printout, enter ↵ only.

---->>>>>

6.3.4 LRESET - RESET LOG FILE

The log file is set to empty. We advise you to use this after you have printed a log-file.

6.4 TPS - TPS FUNCTIONS

With the command TPS, the following picture appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                          Version B.
                                                08.59   19. aug. 1984

   ***  6.4  TPS FUNCTIONS    ***

1.    SPEC1   Halt/Continue System
2.    SPEC2   Rollback DB-System
3.    SPEC3   Func./Modules Active/Passive
4.    SPEC4   TPS Packet-Log On/Off
5.    SPEC5   TPS Functions
6.    SPEC6   Set TPS-II Status-Words
                                                ==>

Select    :                    Response :
Log-lines:
```

The functions in this menu are described in the following pages.

6.4.1 SPEC1 - HALT/CONTINUE SYSTEM

With the command SPEC1, the following menu appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                                 Version B.
                                                    08.59    19. aug. 1984
---------------------------------------------------------------------------
     *** 6.4.1  HALT/CONTINUE    ***                 |  S Y S T E M S
                                                     .
1.   HALT     Halt System                            |  0 CONTROL SYSTEM
2.   HCONT    Continue After Halt                    .  1 ACCOUNTING
3.   CSTP     Cancel Stop System                     |  2 PERSONAL
                                                  ==>.
                                                     |  Select system :
                                                     .
---------------------------------------------------------------------------
Select    :                 Response :
Log-lines:
```

6.4.1.1 HALT - HALT SYSTEM

All user terminals connected to selected user systems are suspended until the command HCONT - "Continue after halt" or RCOVR - "Restart after error" is given.

The command is used to freeze the state of the user system. Data will not be lost for this function. You can later continue from where you left off when the command was activated.

6.4.1.2 HCONT - CONTINUE AFTER HALT

HCONT allows user terminals to continue the current activity. The function should be used after the function HALT has been used.

6.4.1.3 CSTP - CANCEL STOP

The command is used to cancel the execution of the command 1.2 - STOP - "Stop system" <u>before</u> the message "<hour> <system -> -is stopped" appears.

6.4.2 SPEC2 - ROLLBACK DB-SYSTEM

This command is used to rollback the system to a previous checkpoint. After this command is performed, all updates of the database done after the synchronized checkpoint are lost. This command should, therefore, be used with great care. When the command is executed, the following message appears:

```
:<time> <user-system> ROLLED BACK TO  15.31  21.08 1984
```

6.4.3 SPEC3 - FUNCTIONS/MODULES ACTIVE/PASSIVE

With the command SPEC3, the following picture appears on the screen:

```
ND TPS-II OPERATORS TERMINAL                              Version B.
                                                  08.59   19. aug. 1984

 *** 6.4.3  ACTIVE/PASSIVE    ***

1.    AUNA     Set Appl. Unavailable
2.    AAVA     Set Appl. Available
3.    BPSV     Close Module
4.    BACT     Init Module
5.    TACTV    Activate Application
6.    TERMTP   Terminate TPT
                                                  ==>

Select    :                      Response :
Log-lines:
```

6.4.3.1 AUNA - SET APPL. UNAVAILABLE

This command makes an application unavailable for use under TPS-II.
You will be prompted to enter the following parameters:
- TPS module number (the module no. of a TCM),
- the application number.

After giving this command, reload the application or perform the next command to make the application available again.

6.4.3.2 AAVA - SET APPLICATION AVAILABLE

An application which has been set unavailable by the AUNA is made available for use again.
You will be prompted to enter the following parameters:
- TPS module number (the module no. of a TCM),
- the application number.

6.4.3.3 BPSV - CLOSE MODULE

This command is used to stop a TPS-II internal module (TCM or IOM). It is usually used for the system containing a I/O-module (3270-CU, X25-IOM, 3270-HOST). You will be prompted to enter the module number.

6.4.3.4 BACT - INIT MODULE

This command is used to start an internal TPS-II module. You will be prompted to enter the TPS-II module number.

6.4.3.5 TACTV - ACTIVATE APPLICATION

This command is used to activate an application in the TPS-II system for a specific Transaction Processing Task (TPT).
The following parameters must be supplied:
1. TPS-II system number.
2. Application number.
3. Parameter - 1 (user defined)(usually terminal no.)
Parameter 3 is transferred to the application in the first word of the ITERM-area.

Examples:

TPS-II with 1 application system

Activate SINON on terminal 52 to connect a new terminal to the TPS-II system.
1 : 1
2 : -2
3 : 52

Activate TPS-II ND-500 monitor program TPMON on terminal 53 to debug user applications.
1 : 1
2 : -3
3 : 53

Examples:

TPS-II with more than 1 user application system

Activate SINON on terminal 52 to connect a new terminal to the TPS-II system.
Parameters:
1 : 0
2 : -2
3 : 52

Activate TPS-II ND-500 monitor program TPMON on terminal 53 to debug a user application in user system SYSTEM-2.
Parameters.
1 : 2
2 : -3
3 : 53

Note the difference in the TPS-II module numbers.!!!

---------->>>>>

6.4.3.6 TERMTP - TERMINATES TPT

The command terminates a Transaction Processing Task.
The following parameters must be supplied:
1. TPS-II system number.
2. TPT number.

Example: Terminate TP104 (i.e. TPT number 4 in system no. 1).
Parameters:
1 : 1
2 : 4

6.4.4 SPEC4 - TPS PACKET-LOG ON/OFF

These functions are used to turn on/off logging of all internal activity "packets" in TPS-II. (For further information, see the TPS-II System Programmer Guide, ND-60.212.01.)

```
ND TPS-II OPERATORS TERMINAL                                   Version B.
                                                   08.59   19. aug. 1984
-------------------------------------------------------------------------
                                                  |
  *** 6.4.4. TPS PACKET-LOG    ***                |  T P S   T R A C E
                                                  |
1.    TRON     Trace On                           :
2.    TROFF    Trace Off                          |  Give the CPU for
                                                  :  which trace is to
                                                  |  be turned on/off,
                                                  :  for example, CPU-0
                                                  |
                                               ==>:  CPU no.:
                                                  |  ....
-------------------------------------------------------------------------
Select    :                 Response :
Log-lines:
```

6.4.4.1 TRON - TRACE ON

This command is used for debugging purposes. Use it to log all internal messages ("packets") in the TPS-II system.
The following parameter must be supplied:
CPU-0.

6.4.4.2 TROFF - TRACE OFF

This command is used to turn the internal packet-log off.
The following parameter must be supplied:
CPU-0.

6.4.5 SPEC5 - TPS STATUS FUNCTIONS

The function contains commands for inspection of various internal status variables in TPS-II. (See also the TPS-II System Programmer Guide.)

```
ND TPS-II OPERATORS TERMINAL                          Version B.
                                                08.59   19. aug. 1984

     *** 6.4.5  TPS STATUS FUNCTIONS  ***

1.   TPSRMS  Read-Module-Status
2.   TPSRUS  Read-Unit(TPT)-Status
3.   TPSRAS  Read-Application Status
4.   TPSRTT  Read-Task-Table
                                                ==>

Select   :                    Response :
Log-lines:
```

6.4.5.1 TPSRMS - READ-MODULE-STATUS

This command is used for debugging purposes. Use it to display internal variables in the TPS-II modules. The TPS-II module number must be specified. The output is routed to the TPS-II log device.

6.4.5.2 TPSRUS - READ-UNIT-STATUS

This command is used for debugging purposes. Use it to display internal variables of TPTs. The TPS-II system number and TPT number must be specified. The output is routed to the TPS-II log device.

6.4.5.3 TPSRAS - READ-APPLICATION-STATUS

This command is used to check the current status of an application in TPS-II. The TPS-II module number and application number must be specified.

6.4.5.4 TPSRTT - READ-TASK-TABLE

This command is used to display the current activities of all active TPTs connected to a TPT-II module.
Parameter: TPS-II module number.
Output: Active TPT numbers with currently active application numbers.

6.4.6 SPEC6 - SET TPS-II STATUS WORDS

```
ND TPS-II OPERATORS TERMINAL                          Version B.
                                                08.59   19. aug. 1984

   *** 6.4.6  SET TPS-II STATUS WORDS  ***

1.   GTNO   Reset Terminal Table (No.)
2.   GTSYS  Reset Terminal Table (System)
3.   GTALLE Reset Terminal Table (All)
4.   GBASE  Set Database Status Word
5.   GCOSMO Set "COSMOS" Word
                                                ==>

Select   :                    Response :
Log-lines:
```

6.4.6.1 GTNO - RESET TERMINAL TABLE (NO.)

This command is used to erase the current internal TPS-II status information for a given terminal.
Parameter: terminal number.

6.4.6.2 GTSYS - RESET TERMINAL TABLE (SYSTEM)

This command is used to erase the current internal TPS-II status information for all terminals active in a TPS-II system.
Parameter: TPS-II system number.

6.4.6.3 GTALLE - RESET TERMINAL TABLE (ALL)

This command is used to erase the whole internal TPS-II status table for all connected terminals.

----------->>>>>

6.4.6.4 GBASE - SET DATABASE STATUS WORD

The TPS-II special application updates a status word in RTCOMMON for each connected database system. (0=closed, 1=opened, <0=in error). The status word is checked in connection with commands like START, STOP, and so on. This command is used to alter the status word.
Parameters:
1. TPS-II system number.
2. New status word value.

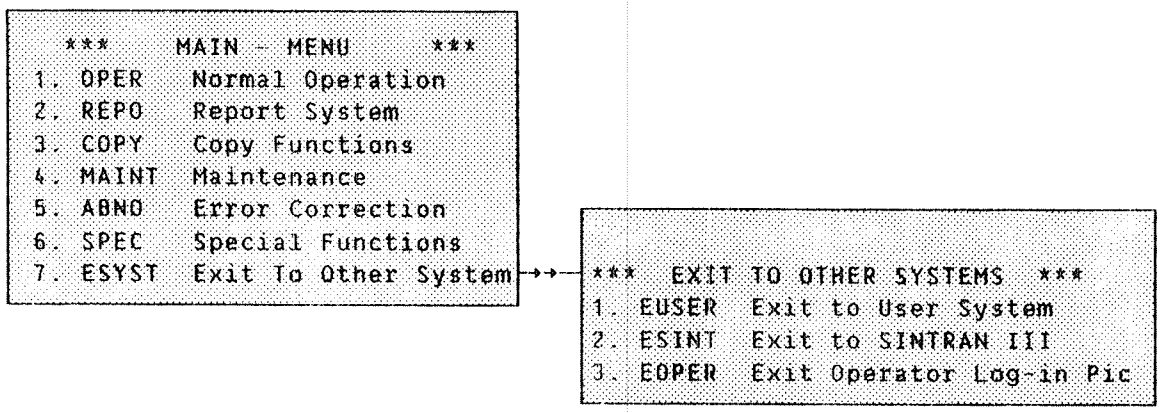
6.4.6.5 GCOSMO - SET "COSMOS" WORD

In TPS-II version B, it is possible to connect the system and run the applications from a remote terminal (connected through COSMOS).
This feature is turned OFF by default.
With this command, it is possible to change the default value.
Parameters: 0 : Turn OFF
1 : Turn ON.

end of chapter

CHAPTER 7
EXIT TO OTHER SYSTEMS

- EXIT TO OTHER SYSTEMS
- EUSER EXIT TO USER SYSTEM
- ESINT EXIT TO SINTRAN III
- EOPER EXIT TO OPERATOR LOG-IN PICTURE


*** MAIN - MENU ***
1. OPER Normal Operation
2. REPO Report System
3. COPY Copy Functions
4. MAINT Maintenance
5. ABNO Error Correction
6. SPEC Special Functions
7. ESYST Exit To Other System
*** EXIT TO OTHER SYSTEMS ***
1. EUSER Exit to User System
2. ESINT Exit to SINTRAN III
3. EOPER Exit Operator Log-in Pic

7 ESYST - EXIT TO OTHER SYSTEMS

With the command EXIT, the following menu appears:

```
ND TPS-II OPERATORS TERMINAL                          Version B.
                                                08.59   19. aug. 1984

      *** 7.  EXIT TO OTHER SYSTEMS     ***

1.    EUSER   Exit to User System
2.    ESINT   Exit to SINTRAN III
3.    EOPER   Exit to Operator Log-in Pic. ==>

Select    :                    Response :
Log-lines:
```

7.1 EUSER - EXIT TO USER SYSTEM

This command is used when the operator's terminal is to be returned to normal user functions.

After selecting this command, the picture for entering the terminal user-name and password is displayed.

The individual user system can now be used from the operator's terminal.

7.2 ESINT - EXIT TO SINTRAN III

With this command you can log in under the SINTRAN OPERATING SYSTEM from the operator's terminal. You will be prompted to enter SINTRAN III user-name and password.

7.3 EOPER - EXIT TO OPERATOR LOG-IN PICTURE

The picture for entering name and password for operators on the TPS-II operator's terminal is displayed. This is the same picture as that which appears when the terminal is first switched on.

end of chapter

APPENDIX A
ERRORS AND ERROR MESSAGES

- CRITICAL AND NON-CRITICAL ERRORS
- ERROR MESSAGES AND DIAGNOSTICS

CRITICAL AND NON-CRITICAL ERRORS

When you operate the TPS-II system, warnings and error messages from the activities in the system are routed to the operator's terminal. One or two message lines may appear in the "log-lines" fields, and more descriptive error messages are sent to the computer's error device (or the TPS-II log-file).

Most warnings and error messages originate from the user system's application programs.

Critical Errors

The TPS-II checks whether an error situation is critical or not. If the error situation is critical, TPS-II will stop the system immediately. The following message will be displayed on the operator terminal.

```
Log-lines: ABEND : APPL. ERROR IN <function-name>-/ TERMINAL ..
           -<system name> - STOPPED BECAUSE OF SYSTEM ERROR
            CONTACT SYSTEM-SUPERVISOR
```

Non-Critical Errors

In a non-critical error situation, usually only one message line as shown below will appear:

```
Log-lines: ABEND : APPL. ERROR IN <function-name>-/ TERMINAL ..
```

In this case, the TPS-II system will continue as usual, but the error should be reported to the system supervisor.

Detailed descriptions of the critical and non-critical errors will be found on the error device of the computer.

ERROR MESSAGES AND DIAGNOSTICS IN TPS-II

Error messages are in the alphabetical order.

List of most error messages, when and why they occur and what to do.

MESSAGE : ABEND: APPL. ERROR IN -..... - / TERMINAL...

WHEN : Abnormal termination of an application program.
REASON : Error in the executing program.
ACTION : The runtime error message which appears on the error device should be sent to the system supervisor. If the error is not "critical", ie., causing the system to stop, no further action is necessary. The system supervisor should decide if the function is to be taken out of use until the error is corrected.

MESSAGE : ABEND: APPL. ERROR IN PROG. AP.. AT TERMINAL..

WHEN : See MESSAGE 10
REASON : See MESSAGE 10
ACTION : See MESSAGE 10

MESSAGE : ABEND: OPERATOR TIMEOUT IN AP... / TERMINAL...

WHEN :
REASON : A user's terminal is abandonded inside a function for normally more than 25 minutes without the function having been used.
ACTION : Normally nothing.
On the user's terminal the picture for logging in (if necessary, choice of system) will reappear.

MESSAGE : ABNORMAL TERMINATION OF - ABEND - (..)

WHEN :
REASON : TPS-II special application ABEND terminated abnormally.
ACTION : Contact system supervisor.

>>>>>

MESSAGE : APPLICATION - SLECT- IS NOT AVAILABLE

WHEN : After selection of functions on a user's terminal.
REASON : The essential system programs are not accessible for TPS-II and must be reloaded.
ACTION : Contact system supervisor.

MESSAGE : CHECK: ERROR...WHEN CONTROLLING R-LOG (SISTA)

WHEN : When TPS-II takes a checkpoint of the databases.
REASON : SIBAS call to check use of R-log could not be performed correctly.
ACTION : Contact system supervisor.

MESSAGE : ERROR IN USER SYSTEMS LOG IN APPLICATION !

WHEN : Connected with logging in at a user's terminal.
REASON : Error in a user system's log in program. (Installation dependent).
ACTION : Contact system supervisor.

MESSAGE : LACKING DATA ON TERMINALS

WHEN : After the command "START SYSTEM".
REASON : Information is missing about terminals connected to TPS-II.
ACTION : Register necessary information via the function "TERM - TERMINALS" (4.1).

MESSAGE : LACKING DATA ON TERMINAL USERS

WHEN : After the command "START SYSTEM".
REASON : Information is missing about the users who are to use the system.
ACTION : Register necessary information via the function "TUSER - USERS" (4.2).

MESSAGE : LACKING DATA ON USER SYSTEMS

WHEN : After the command "START SYSTEM".
REASON : Data not registered for the user system in question.
ACTION : Contact system supervisor, or use functions "SYST - USER-SYSTEMS" (4.5), to register the necessary information.

MESSAGE : LACKING INFORMATION ON USER SYSTEM REALMS

WHEN :
REASON : Information is not available for the user database's internal structure.
ACTION : Contact system supervisor, or use the function "SYDB - User Databases" (4.6) to register the necessary information.

MESSAGE : MENU/FUNCTION .... IS NOT REGISTERED

WHEN : After selecting a menu in a user system.
REASON : The necessary data on menu/functions has not been registered.
ACTION : Contact system supervisor, or use function "MEFU - MENU/FUNCTIONS" (4.4) to enter the necessary information.

MESSAGE : NO ENTRIES DEFINED IN MENU NO.: ...

WHEN : When selecting a menu in a user system.
REASON : The necessary data on menu/functions has not been registered.
ACTION : Contact system supervisor, or use function "MEFU - MENU/FUNCTIONS" (4.4) to enter the necessary information.

MESSAGE : OPERATOR TERMINAL-NO NOT AVAILABLE

WHEN : After command "START SYSTEM".
REASON : Operator terminal number not known to TPS-II.
ACTION : Use function "TERM -TERMINALS" (4.1) to enter the operator terminal.

MESSAGE : SIGNON: ERROR FROM TSOPN. STATUS = ..

WHEN :
REASON : Internal error in TPS-II.
ACTION : Contact system supervisor if any terminals "fall out". (Status indicates error type, see TPS manual.)

MESSAGE : SIGNON: ERROR WHEN OPENING THE DATABASE-

WHEN : When logging in on a user's terminal.
REASON : The database could not be opened correctly.
ACTION : Contact system supervisor.

MESSAGE : SINON : TERMINAL TABLE FILLED

WHEN : A new terminal tried to enter TPS-II from SINTRAN III.
REASON : No free space in the TPS-II terminal tables.
ACTION : Contact system supervisor.

MESSAGE : SINON: ERROR RETURN FROM MENU/FUNCTION.../...

WHEN : TPS-II detected an error return from an application program.
REASON :
ACTION : Contact system supervisor if any terminal "falls out".

MESSAGE : - <SYS.NAME> - ERROR NO. ..FROM SINON CALL

WHEN : After the command "RCOVR - RESTART AFTER ERROR".
REASON : Error related to execution of rollback/ recovery.
ACTION : Contact system supervisor.

MESSAGE : - <SYS.NAME> - ERROR NO. .. WHEN REPROCESSING

WHEN : After the command "RCOVR - RESTART AFTER ERROR".
REASON : Error when reprocessing calls to a database.
ACTION : Contact system supervisor.

MESSAGE : - <SYS.NAME> - ERROR NO. .. AT START OF SIBAS

WHEN : After the command "RCOVR - RESTART AFTER ERROR".
REASON : TPS-II unable to start the database again.
ACTION : Contact system supervisor.

MESSAGE : -<SYS.NAME>- STOPPED BECAUSE OF SYSTEM ERROR
C O N T A C T S Y S T E M S U P E R V I S O R

WHEN : Usually in connection with message 10/11.
REASON : The error which has occurred is "critical", ie., the system in which the error originated must be stopped by TPS for further use.
ACTION : The system supervisor must be contacted. The system which has been stopped can usually be started again with the command "RCOVR - RESTART AFTER ERROR" (5.1).

The function which resulted in an error should not be reused until the program has been corrected.

MESSAGE : - <SYS.NAME> - ERROR NO. ... DURING STOP

WHEN : After the command "STOP SYSTEM"
REASON : The systems database was not closed correctly.
ACTION : Contact system supervisor.

MESSAGE : - <SYS.NAME> - ERROR NO. .... AT CHECKPOINT

WHEN : In connection with taking a checkpoint of the control system's or user system's database.
REASON : Checkpoint not carried out normally.
ACTION : Contact system supervisor.

MESSAGE : - <SYS.NAME> - ERROR NO. .. AT ROLL-BACK

WHEN : After the command "RCOVR - RESTART AFTER ERROR" or the command "SPEC2- ROLL-BACK DB-SYSTEM".
REASON : Error when performing rollback of the database.
ACTION : Contact system supervisor.

---->>>>>

MESSAGE : - <SYSTEM NAME> - ERROR NO. ...AT INITIATION

WHEN : After the command "START SYSTEM".
REASON : The system's database could not be opened correctly.
ACTION : Contact system supervisor.

MESSAGE : TOO MANY ATTEMPTS TO ENTER ON TERMINAL:...

WHEN : A terminal user has failed to enter the correct user name and password.
REASON :
ACTION : As the terminal in question is disconnected, it must be restarted either by performing a STOP and START of TPS-II, or by using the command TACTV (Activate Application).
(Parameters:
System with one user database system:
parameter 1: 1
parameter 2:-2
parameter 3: terminal number

System with >1 user database system:
parameter 1: 0
parameter 2:-2
parameter 3: terminal number)

MESSAGE : TOO MANY TERMINALS ARE REGISTERED !!

WHEN : After the command "START SYSTEM".
REASON : Too many terminals have been registered by the function "TERM - TERMINALS" than the TPS-II system is dimensioned for.
ACTION : Some terminals should be removed by the function "TERM - TERMINALS" (4.1).

MESSAGE : TPOPN: ERROR IN SYSTEM CONFIGURATION

WHEN : After the command "START SYSTEM".
REASON : TPS-II is installed incorrectly.
ACTION : Contact system supervisor.

---->>>>>

MESSAGE : TPOPN: START OF CONTROL SYSTEM FAILED ?

WHEN : After the command "START SYSTEM".
REASON : Control system failed when starting up.
ACTION : Contact system supervisor.

MESSAGE : TPCLO: ERROR ... FROM "RUN" DATA BASE

WHEN : After command "STOP SYSTEM"
or "ABEND SYSTEM".
REASON : Unable to set database in "running" mode.
ACTION : Contact system supervisor.

MESSAGE : TPCLO: ERROR ... FROM "PAUSE" DATA BASE

WHEN : After command "STOP SYSTEM"
or command "ABEND SYSTEM".
REASON : Unable to set database in DBA mode before closing.
ACTION : Contact system supervisor.

MESSAGE : TPCLO: DATA BASE IS NOT CLOSED. E R R O R ! !

WHEN : After command "STOP SYSTEM"
or command "ABEND SYSTEM".
REASON : Database could not be closed correctly.
ACTION : Contact system supervisor.

MESSAGE : TPCLO: ABNORMAL TERMINATION ! !

WHEN : After command "STOP SYSTEM"
or command "ABEND SYSTEM".
REASON : System program for system close-down terminated abnormally.
ACTION : Contact system supervisor.

MESSAGE : USER SYSTEMS LOG IN APPLICATION NOT AVAILABLE

WHEN : After entering a user system on a user terminal.
REASON : The essential user apllication program is not accessible for TPS-II and must be reloaded.
ACTION : Contact system supervisor.

end of appendix

APPENDIX B
COMMANDS IN SINTRAN - REGISTRATION OF OPERATORS

- *ABBREVIATING SINTRAN COMMANDS*
- *EXIT FORM SINTRAN*
- *PRINTING COMMANDS*
- *REGISTRATION OF OPERATORS*

COMMANDS IN SINTRAN - REGISTRATION OF OPERATORS

The ND computers use a common operating system called SINTRAN. One of the functions of SINTRAN is to allocate the machine's resources in the best possible way. One can, for example, issue commands which affect the usage of peripheral units like printers and disk units.

You can enter SINTRAN by using the function ESINT (8.2). When you are in SINTRAN, the commercial at sign, "@", together with the cursor is displayed on the screen. This indicates that you are in touch with SINTRAN and can give its commands. There are some commands in SINTRAN which the operator of TPS-II should know about. We will describe these commands here.

Abbreviating SINTRAN Commands

SINTRAN commands can be abbreviated, but only in such a way that they cannot be mistaken for other commands.

Exit from SINTRAN

You can exit from SINTRAN by simply entering "log". Then the TPS-II menu comes up again.

Uppercase or Lowercase

A SINTRAN command can be written in uppercase or lowercase letters; it is always terminated by carriage return (CR).

Printing Commands

The command START-PRINT activates the printing of "special forms", the result listings. The command STOP-PRINT causes the printer to stop printing any output until it is set going again.

Registering Operator and Password

To register a new operator, or to change or delete a name use the SINTRAN command @OPERATOR-PASSWORD. This will produce a screen picture as shown below:

```
** REGISTRATION OF OPERATORS **

                Name       Password
Operator 1 :    ......... .........
Operator 2 :    ......... .........
Operator 3 :    ......... .........


EDIT/UPDATE/TERMINATE:
```

Legal values:
E : to enter a new name or to change an existing name.
U : the data in the picture will be registered.
T : to terminate the function.

A name is removed by blanking it out.

end of appendix

APPENDIX C
TPS-II COMMANDS REFERENCE LIST

TPS-II FUNCTIONS LIST

MENU NUMBER:	NAME:		DESCRIPTION:
1.1.	START	-	Start System
1.2.	STOP	-	Stop System
1.3.	ABEND	-	Abend System
1.4.	STATUS	-	Status Systems
1.4.1.	SSYST	-	Status of Systems
1.4.2.	STERM	-	Status of Terminals
1.5.	MESS	-	Send Message
1.5.1.	MSYST	-	Message to User System
1.5.2.	MTERM	-	Message to a Terminal
1.5.3.	MALL	-	Message to all Terminals
2.	REPO	-	Report System
2.1	RSTAT	-	Status
2.2	RPRINT	-	Hard Copy
2.3	RDELET	-	Deletion
2.4	RMAN	-	Start Manual Reports
2.5	RSTART	-	Start Report System
2.6	RSTOP	-	Stop Report System
2.7	RDEF	-	Define Reports
2.8		-	Ordering of Reports
3.	COPY	-	Copy Functions
		-	Security Copying
		-	Backup Copying
		-	Disk Pack Control
4.	MAINT	-	Maintenance
4.1	TERM	-	Terminals
4.2	TUSER	-	Users
4.3	FGRP	-	Function Groups
4.4	MEFU	-	Menus/Functions
4.4	SYST	-	User Systems
4.5	SYDB	-	User Databases
5.	ABNO	-	Error Correction
5.1	RCOVR	-	Restart After Error

>>>>>

MENU NUMBER:	NAME:		DESCRIPTION:
6.	SPEC	-	Special Functions
6.1.	NEWTRM	-	New Operator Terminal
6.2.	CHECK	-	Checkpoints
6.2.1.	MCHECK	-	Take Synchronized Checkpoints
6.2.2	CINT	-	Set Checkpoint Interval
6.2.3	CWGT	-	Set Checkpoint Weight
6.3.	LOG	-	Log on File
6.3.1	LSTART	-	Start Logging on File
6.3.2	LSTOP	-	Stop Logging on File
6.3.3	LPRINT	-	Print Log File
6.3.4	LRESET	-	Reset Log File
6.4.1.	SPEC1	-	Halt/Continue System
6.4.1.1	HALT	-	Halt System
6.4.1.2	HCONT	-	Continue After Halt
6.4.1.3	CSTP	-	Cancel Stop System
6.4.2	SPEC2	-	Rollback Database System
6.4.3.	SPEC3	-	Functions/Modules Active/Passive
6.4.3.1	AUNA	-	Set Application Unavailable
6.4.3.2	AAVA	-	Set Application Available
6.4.3.3	BPSV	-	Initiate Module
6.4.3.4	BACT	-	Close Module
6.4.3.5	TACTV	-	Activate Application
6.4.3.6	TERMTP	-	Terminate TPT
6.4.4.	SPEC4	-	TPS "Packet"-Log On/Off
6.4.4.1	TRON	-	Trace On
6.4.4.2	TROFF	-	Trace Off
6.4.5.	SPEC5	-	TPS Status Functions
6.4.5.1	TPSRMS	-	Read Module Status
6.4.5.2	TPSRUS	-	Read Unit Status
6.4.5.3	TPSRAS	-	Read Application Status
6.4.5.4	TPSRTT	-	Read Task Table
6.4.6.	SPEC6	-	Set TPS-II Status Words
6.4.6.1	GTNO	-	Reset Terminal Table (no.)
6.4.6.2	GTSYS	-	Reset Terminal Table (sys.)
6.4.6.3	GTALLE	-	Reset Terminal Table (all)
7.4.6.4	GBASE	-	Set Database Status Word
6.4.6.5.	GCOSMO	-	Set "COSMOS" Word
7.	ESYST	-	Exit to Other Systems
7.1	EUSER	-	Exit to User System
7.2	ESINT	-	Exit to SINTRAN III
7.3	EOPER	-	Exit to Operator Log-in Picture

end of appendix

Index

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