ND SOFTWARE LIBRARY DISKETTE

Containing   : NOTIS-BG for ND-100
                (ENGLISH VERSION) 32 BITS FL.

Directory Name : 10758B04-EN-01S

User Name : FLOPPY-USER

| | | | | File access: | | | | |
Num	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	BG-PART1-EN-B04	BRF	I	RWACD	RWACD	RWACD	56	110622
1	INST-BG132-B04	PROG	I	RWACD	RWACD	RWACD	4	6144
2	BG-EX01-EN-B04	PLOT	I	RWACD	RWACD	RWACD	2	415
3	BG-EX02-EN-B04	PLOT	I	RWACD	RWACD	RWACD	2	328
4	BG-EX03-EN-B04	PLOT	I	RWACD	RWACD	RWACD	2	311
5	BG-EX04-EN-B04	PLOT	I	RWACD	RWACD	RWACD	2	425
6	BG-EX05-EN-B04	PLOT	I	RWACD	RWACD	RWACD	2	284
7	BG-EX06-EN-B04	PLOT	I	RWACD	RWACD	RWACD	2	593
8	INST-BG132-B04	COM	I	RWACD	RWACD	RWACD	14	25807
9	XCOM	PROG	I	RWACD	RWACD	RWACD	60	182272

==
10 files using 146 pages. 148 pages reserved out of 148 pages
==

ND SOFTWARE LIBRARY DISKETTE

Containing   : NOTIS-BG for ND-100
                  (GERMAN VERSION) 32 BITS FL.

Directory Name : 10758B04-GE-01S

User Name : FLOPPY-USER

Num	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	BG-PART1-GE-B04	BRF	I	RWACD	RWACD	RWACD	56	112029
1	INST-BG132-B04	PROG	I	RWACD	RWACD	RWACD	4	6144
2	BG-EX01-GE-B04	PLOT	I	RWACD	RWACD	RWACD	2	414
3	BG-EX02-GE-B04	PLOT	I	RWACD	RWACD	RWACD	2	334
4	BG-EX03-GE-B04	PLOT	I	RWACD	RWACD	RWACD	2	309
5	BG-EX04-GE-B04	PLOT	I	RWACD	RWACD	RWACD	2	428
6	BG-EX05-GE-B04	PLOT	I	RWACD	RWACD	RWACD	2	279
7	BG-EX06-GE-B04	PLOT	I	RWACD	RWACD	RWACD	2	664
8	INST-BG132-B04	COM	I	RWACD	RWACD	RWACD	14	25807
9	XCOM	PROG	I	RWACD	RWACD	RWACD	60	182272

===
10 files using 146 pages. 148 pages reserved out of 148 pages
===

ND SOFTWARE LIBRARY DISKETTE

Containing   : NOTIS-BG for ND-100
                   (Swedish version) 32 bits floating

Directory Name : 10758B02-SW-01S

User Name : FLOPPY-USER

Num	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	BG-PART1-SW-B02	BRF	I	RWACD	RWACD	RWACD	56	111161
1	INST-BG132-B02	PROG	I	RWACD	RWACD	RWACD	4	6144
2	BG-EX01-SW-B02	PLOT	I	RWACD	RWACD	RWACD	2	415
3	BG-EX02-SW-B02	PLOT	I	RWACD	RWACD	RWACD	2	328
4	BG-EX03-SW-B02	PLOT	I	RWACD	RWACD	RWACD	2	311
5	BG-EX04-SW-B02	PLOT	I	RWACD	RWACD	RWACD	2	425
6	BG-EX05-SW-B02	PLOT	I	RWACD	RWACD	RWACD	2	284
7	BG-EX06-SW-B02	PLOT	I	RWACD	RWACD	RWACD	2	593
8	INST-BG132-B02	COM	I	RWACD	RWACD	RWACD	14	25781
9	XCOM	PROG	I	RWACD	RWACD	RWACD	60	182272

```
================================================================
10 files using 146 pages. 148 pages reserved out of 148 pages
================================================================
```

ND SOFTWARE LIBRARY DISKETTE

Containing   : NOTIS-BG for ND-100
                   32 bits floating

Directory Name : 10758B03-XX-02S

User Name : FLOPPY-USER

				File access:				
Num	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	BG-DRIV01-B03	BRF	I	RWACD	RWACD	RWACD	8	13407
1	BG-DRIV02-B03	BRF	I	RWACD	RWACD	RWACD	10	16624
2	BG-DRIV03-B03	BRF	I	RWACD	RWACD	RWACD	9	16074
3	BG-DRIV04-B03	BRF	I	RWACD	RWACD	RWACD	10	16586
4	BG-DRIV05-B03	BRF	I	RWACD	RWACD	RWACD	9	14417
5	BG-DRIV15-B03	BRF	I	RWACD	RWACD	RWACD	9	14360
6	BG-PART2-B03	PROG	I	RWACD	RWACD	RWACD	12	21812
7	BG-PRINTERS-B03	SYMB	I	RWACD	RWACD	RWACD	2	749
8	BG-TYPER-B03	SYMB	I	RWACD	RWACD	RWACD	2	1486
9	DDBTABLES-E02	VTM	I	RWACD	RWACD	RWACD	11	15034
10	DDB078	VTM	I	RWACD	RWACD	RWACD	2	625

==
11 files using 84 pages. 148 pages reserved out of 148 pages
==

ND SOFTWARE LIBRARY DISKETTE

Containing   : NOTIS-BG for ND-100
                  32 bits floating

Directory Name : 10758B03-XX-03S

User Name : FLOPPY-USER

| | | | | File access: | | | |
Num	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	BG-PART3-B03	BRF	I	RWACD	RWACD	RWACD	56	111796
1	BG-PART4-B03	BRF	I	RWACD	RWACD	RWACD	24	46718
2	BG-PART5-B03	BRF	I	RWACD	RWACD	RWACD	22	41293
3	BG-PART6-B03	BRF	I	RWACD	RWACD	RWACD	19	35569

===
4 files using 121 pages. 148 pages reserved out cf 148 pages
===

Program: NOTIS-BG
Subject: Large diagrams were not possible to output with NOTIS-WP-M.
Symptom: The file output with NOTIS-BG got 0 bytes, and was therefore
             not possible to output with NOTIS-WP-M.
Description: The error is corrected in revision B01 of NOTIS-BG-B.

- -

Program: NOTIS-BG
Subject: Errors corrected and changes made in revision B02

- -

Error corrections

The driver for Epson ND-470 is corrected. Be aware of the
switch settings in the terminal when output to Epson is
wanted. The Communication switch Printer handshake must be
set to OFF, and Printer code format to 7Even.

Changes introduced

The terminal types 80 and 90 are allowed.

Driver for HP7475 uses communication handshake XON/XOFF.

Standard VTM-table (E02) is used. This means that customers
using Tektronix 4105 must use VTM-Compound to add terminal
type 78 to the VTM-table.

The PROG file is generated on SINTRAN user NOTIS. This user
must exist before the installation procedure starts.

Program: NOTIS-BG
Subject: German version is generated.

- -

The German version is now generated. This version uses the
English command set, but has user communication and output
in German.

The new revision found on diskettes 10758B03-XX-02S and
10758B03-XX-03S is made to handle the German version.
(This revision is ONLY necessary for the German version,
no other changes have been made.)

Revision B03 contains the following diskettes:

10758B02-GE-01S
10758B02-NO-01S
10758B02-EN-01S
10758B03-XX-02S
10758B03-XX-03S

NOTIS-BG for ND-100 (32 bits)
10758B
Date: 860612   Report no: 9

===

Program: NOTIS-BG
Subject: Swedish version is generated.

- -

The Swedish version is now available and is found on the
following diskettes:

        10758B02-SW-01S
        10758B03-XX-02S
        10758B03-XX-03S

Kindly refer to the ND SOFTWARE LIBRARY DISKETTE sheets for
the updated file information.

NOTIS-BG for ND-100 (32 bits)
10758B

Date: 860915   Report no: 11

Program: NOTIS-BG
Subject: Installation program
Symptom: Due to an error in the installation program it is not
            possible to load NOTIS-BG version B03.
Description: A new revision of floppy 10758B04-1 has been made.

- -

        Revision B04 contains the following diskettes:

        10758B04-GE-01S
        10758B04-NO-01S
        10758B04-EN-01S
        10758B03-XX-02S
        10758B03-XX-03S

Product	Name NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR

Reason	. Error Correction . Different Environment . Change/Addition

Documen- tation	Title NOTIS-BG User Manual NOTIS-BG Brukerveiledning	ND-no. 63.033.01 63.034.01

Purpose	Produce simple line graphs, bar charts and pie charts on various types of output units.

Prerequi- sites	Computer Type Floating format Op. system Version ND-100 32 bits SIN III VS > = I

	ND-no. Product name (At least one of these is necessary) ND 321 NOTIS-terminal with graphic option ND 447 Philips printer ND 448 Philips printer ND 424 Epson printer ND 218 HP-plotter Tektronix 4105 (Not ND product)

	Minimum mass storage resources for installation User Userspace Number of files SYSTEM 300 pages on 13 files user specified 160 pages on 15 files

	Minimum mass storage resources permanent User Userspace Number of files SYSTEM 180 pages on 4 files user specified 20 pages on 6 files

Product consists of		ND-no. for Source 10759B

Directory Name: 10758B00-EN-1   User Name: FLOPPY-USER

Prog.no.	File Name	Type	T	Pg.	Bytes	Containing
205977B	BG-PART1-EN-B00	BRF	I	56	110839	BG-modules
205978B	INST-BG132-B00	COM	I	4	6144	Installation job.
205284B	BG-EX01-EN-B00	PLOT	I	2	415	Demo-file
205285B	BG-EX02-EN-B00	PLOT	I	2	328	Demo-file
205286B	BG-EX03-EN-B00	PLOT	I	2	311	Demo-file
205283B	BG-EX04-EN-B00	PLOT	I	2	425	Demo-file
205287B	BG-EX05-EN-B00	PLOT	I	2	284	Demo-file
205958B	BG-EX06-EN-B00	PLOT	I	3	1000	Demo-file
205979B	INST-BG132-B00	PROG	I	14	25547	Installation program
205960B	XCOM	PROG	I	60	182272	Installation system

Product	Name	ND-no.	Category
	NOTIS-BG for ND-100		
	(Business Graphics) 32 bits fl.	10758B	STPR

Directory Name: 10758B00-NO-1   User Name: FLOPPY-USER

Prog.no.	File Name	Type	T	Pg.	Bytes	Containing
205981B	BG-PART1-NO-B00	BRF	I	56	110851	BG-modules
205978B	INST-BG132-B00	COM	I	4	6144	Installation job.
205279B	BG-EX01-NO-B00	PLOT	I	2	353	Demo-file
205280B	BG-EX02-NO-B00	PLOT	I	2	419	Demo-file
205281B	BG-EX03-NO-B00	PLOT	I	2	320	Demo-file
205278B	BG-EX04-NO-B00	PLOT	I	2	443	Demo-file
205282B	BG-EX05-NO-B00	PLOT	I	2	314	Demo-file
205962B	BG-EX06-NO-B00	PLOT	I	3	701	Demo-file
205979B	INST-BG132-B00	PROG	I	14	25547	Installation program
205960B	XCOM	PROG	I	60	182272	Installation system

Directory Name: 10758B00-2   User Name: FLOPPY-USER

Prog.no.	File Name	Type	T	Pg.	Bytes	Containing
205982B	BG-DRIV01-B00	BRF	I	8	13371	Device-driver
205983B	BG-DRIV02-B00	BRF	I	10	17060	Device-driver
205984B	BG-DRIV03-B00	BRF	I	9	16074	Device-driver
205985B	BG-DRIV04-B00	BRF	I	10	16575	Device-driver
205986B	BG-DRIV05-B00	BRF	I	8	14263	Device-driver
205987B	BG-DRIV15-B00	BRF	I	9	14361	Device-driver
205245B	BG-PRINTERS-B00	SYMB	I	12	831	Output device def.
205988B	BG-PART2-B00	PROG	I	2	21812	NRL
205970B	BG-TYPER-B00	SYMB	I	2	1479	Printer data
203786D	DDBTABLES-D-D	VTM	I	19	20394	VTM-table

Directory Name: 10758B00-3   User Name: FLOPPY-USER

Prog.no.	File Name	Type	T	Pg.	Bytes	Containing
205991B	BG-PART3-B00	BRF	I	56	111796	Fortran library
205992B	BG-PART4-B00	BRF	I	24	46718	Graphic modules
205993B	BG-PART5-B00	BRF	I	24	45327	Graphic modules
205994B	BG-PART6-B00	BRF	I	22	41699	Graphic modules
205995B	BG-PART7-B00	BRF	I	18	34087	VTM-modules

1 ERRORS CORRECTED

The following errors are corrected from the A-version of NOTIS-BG

- R access on Philips spooling files is not required.

- Error message when opening printer will not be suppressed.

- Graphic Rendition Mode (in TDV menu) is set to 'Attribute' at exit from NOTIS-BG.

- Extended Control Mode (in TDV menu) is set to 'Off' at exit from NOTIS-BG.

- The instruction 'DATAFILE=?' in diagram file for line graphs works according to the specifications.

2 KNOWN, BUT NOT CORRECTED ERRORS

- The instructions 'XRANGE=' and 'YRANGE=' doesn't work as expected. These two instructions require two parameters each, lowest and highest value along the actual axis. These two values are used in the algorithm that calculates tic marks with 'nice' labels. The maximum and minimum value along the axis may be adjusted to get 'nice' values on the tic marks.

- If the execution of NOTIS-BG is breaked when preparing diagrams for Philips or Epson, the following files may exist on the account afterwards :

    - VECTOR-A:DATA

    - SPLIT-A:RAST

    - SORT-A:RAST

    If more than one user is using NOTIS-BG at this time, the letter 'A' in the file names could be any letter. These files are used temporarily in the conversion algorithm, and are deleted when conversion is complete.

Product	Name NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR

3 CHANGED PREREQUISITES

- The B version of NOTIS-BG may be executed on a Tektronix
  4105 color graphics terminal, or a compatible one (TEK
  4106,4107,4109,4115)

4 NEW COMMANDS

The following command are added in the B-version. (Not documented in
the User Manual.)

- ROTATION=90 . This command (instruction) may be used to
  rotate the diagram 90 degrees. The diagram will then be
  plotted on a A4 portrait format instead on an A4 landscape
  format. In this version of NOTIS-BG it is not possible to
  rotate any other angles. The instruction has to be used in
  the first part of the diagram file.

5 NEW FEATURES

- When printing diagrams on the PHILIPS printer, the diagram
  has to be converted to a raster-format first. The raster-
  format is printed directly to a spooling file. It is
  possible to store this raster-picture prepared for PHILIPS
  on a user specified file. This is done by specifying a file
  name instead of a logical output device when BG asks for
  'OUTPUT DEVICE :' If the file doesn't exist, the file name
  has to be written in quotation marks ("file:data"). The
  file is stored in an internal format for future use and is
  not suited for direct copying to the Philips printer later.

- It is possible to specify a remote Philips for output in
  BG-PRINTERS:SYMB

- Tektronix-4105, color graphics terminal may be used to
  execute NOTIS-BG.

6 IMPROVED PERFORMANCE

- The algorithm for converting the diagram for the Philips
  printer is optimized, and output to Philips is not so time-
  consuming as in the A-version.

Product	Name NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR

7 ADDITION TO MANUAL

7.1 DIAGRAM VARIATIONS

The following diagrams are not documented in the manual:

Text diagrams

```
PLOT-TYPE=LINE
SIZE-OF-PLOT=210,170
XAXIS=INTEGER
XRANGE=0,1
XINTERVALS=0
YAXIS=INTEGER
YRANGE=0,1
YINTERVALS=0
1,1
CHARACTER-SIZE=10
TEXT-LINE=0.90,0.93,270, TEXT DIAGRAM
CHARACTER-SIZE=6
TEXT-LINE=0.75,0.95,270,  This  text-diagram is
TEXT-LINE=0.68,0.95,270,  produced by using the
TEXT-LINE=0.61,0.95,270,  'TEXT-LINE'  command
TEXT-LINE=0.54,0.95,270,  in a line  graph. The
TEXT-LINE=0.47,0.95,270,  graph  has  only  one
TEXT-LINE=0.40,0.95,270,  data point (1,1). The
TEXT-LINE=0.33,0.95,270,  axis  labels  have  to
TEXT-LINE=0.26,0.95,270,  be erased afterwards.
```

TEXT DIAGRAM

This text-diagram is
produced by using the
'TEXT-LINE' command
in a line graph. The
graph has only one
data point (1,1). The
axis labels have to
be erased afterwards.

Product	Name NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR

Bar chart with both negative and positive values

```
PLOT-TYPE=BAR
SIZE-OF-PLOT=70,140
5
8
-7
11
-3
-1
2
6
```
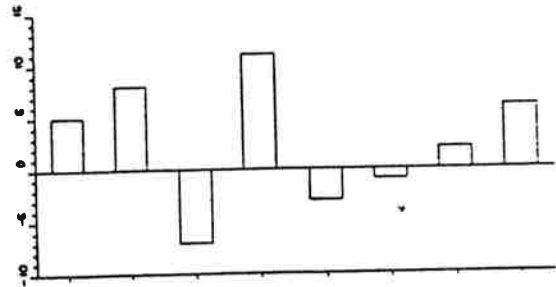
Line chart with non-increasing x-values

```
PLOT-TYPE=LINE
SIZE-OF-PLOT=70,140
1,2
7,2
7,8
13,2
19,2
19,18
13,18
13,12
7,18
1,18
1,2
PLOT-TYPE=LINE
21,2
35,2
39,6
39,14
35,18
21,18
21,2
PLOT-TYPE=LINE
27,8
32,8
33,9
33,11
32,12
27,12
27,8
```
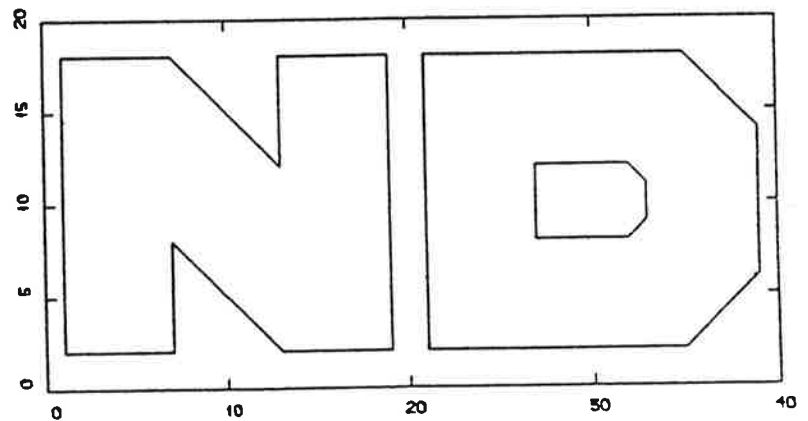
Product	Name NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR

7.2 ERROR MESSAGES FROM THE GRAPHIC KERNEL

If a text-string in the diagram file exceeds the maximum length specified in the manual, the following error occurs :

```
** GPGS ERROR         17
*  SEVERITY            2
*  CALL NO.           ..
*  ROUTINE NO.       140
*  ARGUMENT NO.        0
*  VALUE              ..
** GPGS VERSION      8200
```

This is only a warning from the graphic kernel, and the drawing continues.

If the file BG-PRINTERS is edited wrong (not according to this document), the following error may occur :

```
** GPGS ERROR         13
*  SEVERITY            3
*  CALL NO.           ..
*  ROUTINE NO.         1
*  ARGUMENT NO.        1
*  VALUE              ..
** GPGS VERSION      8200
```

The program stops, because the number specifying output device in BG-PRINTERS is unknown.

7.3 NOTIS-BG IN BATCH

If many diagrams are going to be plotted, it could be convenient to run NOTIS-BG in batch. The following batch-job will do it :

```
@ENTER   ..........................
@NOTIS-BG-ENG-BOO,<diagram-file name>,<output device>,CC
@NOTIS-BG-ENG-BOO,<diagram-file name>,<output device>,CC
@NOTIS-BG-ENG-BOO,   ....
@NOTIS-BG-ENG-BOO,   ....

   .

ESC,ESC
```

Product	Name	ND-no.	Category
	NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	10758B	STPR

7.4 PLOTTING ON A3 WITH THE HP-PLOTTER

The plotter may be used both for A4 and A3 sheet sizes. Changing the sheet size on the plotter may be done in two ways :

- By switching one of the switches on the back of the plotter (marked A4 - A3).

- By pressing the 'SIZE' button and the 'ENTER' button simultaneously on the plotter's front panel.

When plotting on a A3 sheet, the 'SIZE-OF-PLOT=' instruction must be used to enlarge the diagram to fit the sheet.

7.5 RESTRICTIONS

The following restrictions are not mentioned in the User Manual

- Maximum nuber of points in a line graph is 1000.

- Maximum number of bars in a bar chart is 25 groups with 25 bars each.

8 INSTALLATION PROCEDURE

- Prepare the NOTIS terminal   (see Instruction 1)
- Prepare the HP-plotter   (see Instruction 2)
- Prepare the Philips and Epson printers   (see Instruction 3)
- Prepare the Tektronix color terminal   (see Instruction 4)
- Start installation job   (see Instruction 5)
- Edit BG-PRINTERS   (see Instruction 6)
- Test NOTIS-BG with the demo files   (see Instruction 7)

Instruction 1 : Preparing the NOTIS terminal.

Set these values in the Communications Switches Menu for NOTIS terminals (ND-246 or ND-320 with graphic option) that will be used to view diagrams with NOTIS-BG:

- Communication handshake: XON/XOFF

- Transmission Code Length: 7 bits

- Transmission Code Parity: Even

- Transmission Code Stop Bits: 2

Set the same values for the terminal line like this:

Find the terminal's Logical Device Number with the SINTRAN command @WHO-IS-ON. Continue as shown here, typing the underlined commands and parameters.   XXXX represents number provided by system.

```
@SINTRAN-SERVICE
*CHANGE-DATA <Logical Device Number>,I,Y,Y,Y
DFLAG/  XXXXXX  1000
CNTREG/ XXXXXX  44005
  ·
*EXIT
```

IMPORTANT! The Logical Device Number must be followed by "D".   Ex: 53D.

Instruction 2 : Preparing the HP-plotter. (ND-102180)

Equipment:

- HP-7475 A3/A4 plotter

- 325301 Cable between ND-100 and HP-7475.

- OR 2 local KM-1D modems connected to each other, with 325345 Cable between ND-100 and one modem, and 325300 Cable between the other modem and the HP-7475.

Connection:

- Set the switches at the back of the plotter for 9600 BAUD, A4 paper, direct line and even parity (7 bit character length): 010001010. For further details, see pages 2-21 and 2-23 in the Operation and Interconnection Manual accompanying the HP-plotter.

- Obtain a terminal line with an RS-232 interface to the ND-100.

- Connect cables in one of the following configurations:

Alternative 1 : Direct cable between ND-100 and HP-7475.

Alternative 2 : Connection via 2 local KM-1D modems.

CL = Current Loop
M = Local KM-1D Modem
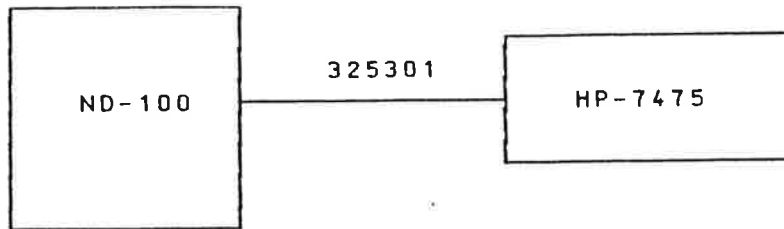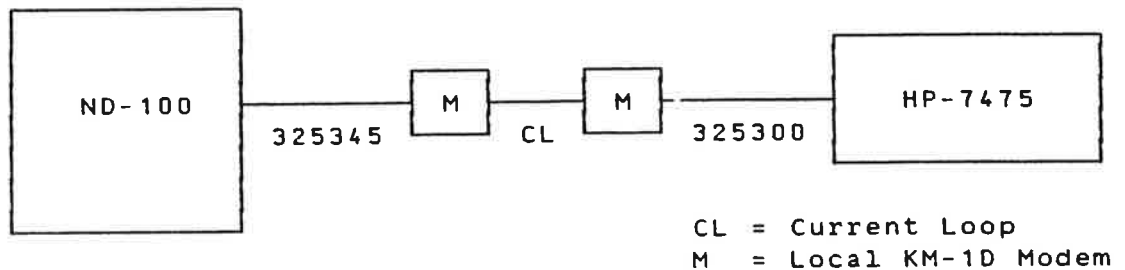
- Log in as user SYSTEM and set a file name for the line:

    @SET-PERIPH-FILE <file name>,<Logical Device Number>

Our plotter has the file name HP-PLOTTER and Logical Device
Number 54D. The command is thus:

    @SET-PER-FILE "HP-PLOTTER",54D

- Define the file access so that a user who will be working
with the plotter has file access RWC(D):

    @SET-FILE-ACCESS HP-PLOTTER,RWC,RWC,RWCD

- Find the background program for the terminal line with the
SINTRAN command @LIST-DEVICE, and abort the background
program:

    @LIST-DEVICE <Logical Device Number>,0
    NNNN
    @ABORT NNNN

Product	Name NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR.

- Note the address of the line's background program (represented hereby XXXXX) for future use; then set the address to 0:

        @SINTRAN-SERVICE
        *REMOVE-FROM-BACKGR-TABLE <Logical Device No.>,I,Y,Y,Y
        *CHANGE-DATAFIELD (LDN),I,Y,Y,Y
        DBPROG/   XXXXXX   0
        ÷
        *EXIT

- The transmission speed on the logical device has to be set according to the setting on the plotter. This speed has to be set explicitly, and is done by the following procedure :

        @SINTRAN-SERVICE
        *CHANGE-DATAFIELD (LDN),I,Y,Y,Y
        TSPEED/   XXXXXX   210   (for 9600 baud)
        ÷
        *EXIT

For terminal-lines, TSPEED is often set to -1 (177777), which means that the transmission is done according to the terminal setting (soft-switches). This will not work on the plotter!! The transmission speed has to be set on the terminal-card for a whole four-group before starting the machine. (Redefinision in software may be done afterwards).

- If you wish, output a test program to the plotter. See the Operation and Interconnection Manual that accompanies the HP-plotter.

- IMPORTANT! Before the plotter begins to draw, a green light blinks on the control panel. Press the plotter's ENTER button.

Instruction 3 : Preparing the Philips and Epson printers.

Philips ND-447 and ND-448 is set up as usual. There are no special requirements. NOTIS-BG takes care of switching between graphic and alphanumeric modes.

NOTE!!
The first versions delivered of the ND-447 had an hardware-error, which results in some black points scattered on the output. This may be corrected by the hardware service people.

Product	Name NOTIS-BG for ND-100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR

Epson ND-424 is connected to a NOTIS terminal as a local printer, but the printer is not used as a local one. (Use Cable 325356). Output to the printer is sent via the terminal, which hangs during printing.

Setting of DIP-switches :

DIP NO	Switch	ON	OFF
1	1	●	
	2		●
	3		●
	4		●
	5		●
	6	●	
	7	●	
	8		●
2	1	●	
	2		●
	3	●	
	4	●	

Read the instructions accompanying the Epson with regard to switch settings.

On some ND-246 terminals, we have discovered an error in the printer interface, which leads to buffer overflow on the printer and wrong printout.

NOTE!! When printing on Philips or Epson, conversion from vector information to raster information is necessary. This conversion is very time-consuming, especially when printing diagrams with hatched or filled areas.

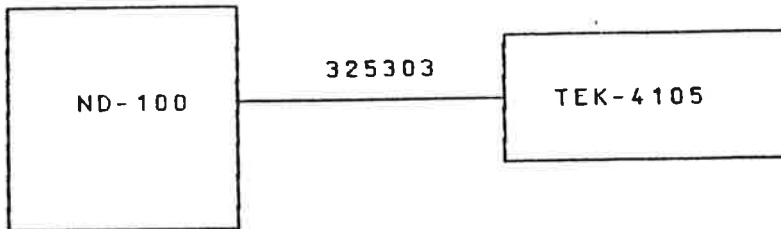Instruction 4 : Prepare the Tektronix color terminal.

Equipment:

- Tektronix 4105 color graphics terminal

- 325303 Cable between ND-100 and TEK-4105

- OR 2 local KM-1D modems connected to each other, with 325345 Cable between ND-100 and one modem, and 325305 Cable between the other modem and the TEK-4105

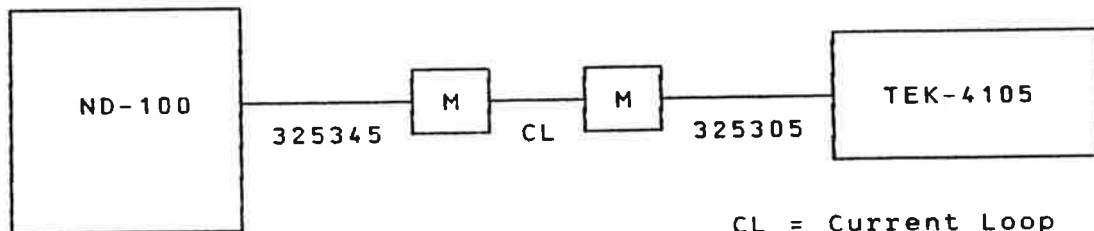| Product	Name NOTIS-BG for ND 100 (Business Graphics) 32 bits fl.	ND-no. 10758B	Category STPR

Connection:

The Tektronix terminal needs RS232/C interface on the machine. The connection is done in one of two ways :

Alternative 1 : Direct cable between ND-100 and TEK-4105.

```
┌──────────┐                    ┌──────────┐
│          │      325303        │          │
│  ND-100  │────────────────────│ TEK-4105 │
│          │                    │          │
│          │                    └──────────┘
│          │
└──────────┘
```

Alternative 2 : Connection via 2 local KM-1D modems.

```
┌──────────┐              ┌───┐       ┌───┐              ┌──────────┐
│          │              │ M │       │ M │              │          │
│  ND-100  │──────────────│   │───────│   │──────────────│ TEK-4105 │
│          │   325345     └───┘  CL   └───┘    325305    │          │
│          │                                              └──────────┘
│          │
└──────────┘
```

CL = Current Loop
M = Local KM-1D Modem

These possible connections are the same as for the HP-7475 plotter (see instruction 2), but the cables are different.

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Read the instructions following the terminal about how to set
software switches.

The following switch-setting for communication is recommended :

```
ECHO             NO
IGNOREDEL        NO
BAUDRATE         9600,9600
XMTLIMIT         1200
STOPBITS         2
XMTDELAY         0
PARITY           EVEN
PROMPTSTRING     '>'
PROMPTMODE       NO
QUEUESIZE        800
FLAGGING         IN/OUT
EOMCHARS         CR/LF
EOLSTRING        'CR'
EOFSTRING        ' '
BREAKTIME        200
BYPASSCANCEL     CR
```

Set the same values for the terminal line like this:

Find the terminal's Logical Device Number with the SINTRAN command
@WHO-IS-ON. Continue as shown here, typing the underlined commands
and parameters. XXXX represents number provided by system.

```
@SINTRAN-SERVICE
*CHANGE-DATA <Logical Device Number>,I,Y,Y,Y
DFLAG/  XXXXXX   1000
CNTREG/ XXXXXX   44005

*EXIT
```

IMPORTANT! The Logical Device Number must be followed by "D". Ex:
53D.

Instruction 5 : Start installation job.

The installation is done by starting the installation job which
resides on diskette 10758B00-EN-1 (or 10758B00-NO-1) :

@(10758B00-EN-1:FLOPPY-USER)INST-BG132-B00

The installation program will ask for all necessary information. When
installing NOTIS-BG, the user may have an account to temporarily
store brf-files which will be deleted afterwards. (Necessary storage
requirements is specified in the beginning of this document).

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Please study all notes and messages from the installation program carefully.

The files BG-LOAD:LOGG and BG-DUMP:LOGG will be created on user SYSTEM, and contains information about the installation. They should not be deleted. The files X-COM-nn:SAVE and X-COM-nn:MODE (where nn is terminal number on the terminal used for installation) should be deleted after installation. (They can not be deleted automatically in the installation job).

Instruction 6 : Editing BG-PRINTERS.

The device's logical name, SINTRAN file name, GPGS driver number and (optional) plotter speed must be defined for each output device (Screen, plotter or printer) in BG-PRINTERS.

Whichever output device is defined first will be the default output device for NOTIS-BG.

Device logical name is used with NOTIS-BG to identify the specific printer or plotter desired. Each individual output device must have a unique name. Ex: The HP-plotter in Ann's office could be HPANN.

GPGS-driver numbers are :

NOTIS terminal	20
Tektronix-4105	62
Epson printer	206
Philips printer	306
HP-plotter	XX04

The two first digits in the driver number for the HP-plotter are the Logical Device Number. If the plotter has line 54D, the driver number is 5404. (Only Logical Device Numbers with two digits are accepted!)

For the HP-plotter you have the option of specifying plotter speed. Speed is controlled by placing a number from 1 to 100 after the driver number. 100 is the default value. To plot on transparencies, the speed should be reduced by using a low number, for example 5.

Edit with CAPITAL LETTERS and use a comma to separate parameters. Comments must begin with CC or follow the final parameter. See also the accompanying example on BG-PRINTERS.

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Instruction 7 : Test NOTIS-BG with the demo files.

Start NOTIS-BG:

    @NOTIS-BG-ENG
    DIAGRAM FILE NAME : BG-EX01
    OUTPUT DEVICE NAME (cr for SCREEN) :↵

Continue to test with other demo files (NNN:PLOT).

You ought to be able to produce diagrams on the screen, plotter or printer. If you choose the plotter as the output device, remember to press the ENTER button on the plotter to allow it to begin drawing.

To exit from NOTIS-BG, press the EXIT key or type EXIT.