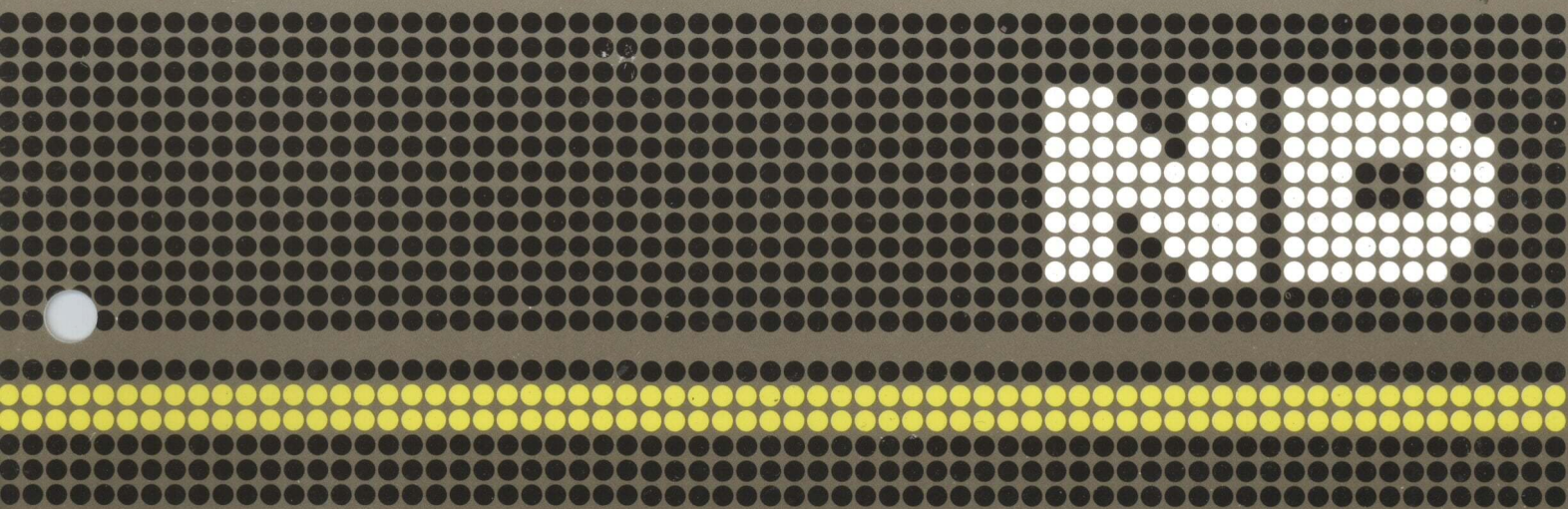


# **SINTRAN III - How to order it**

ND-30.053.1 EN





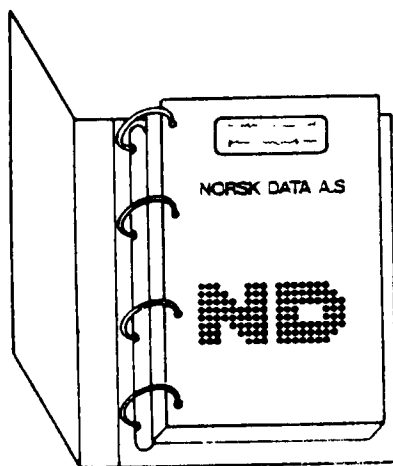
# **SINTRAN III - How to order it**

**ND-30.053.1 EN**

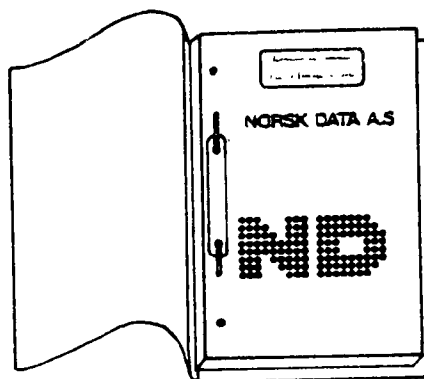
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Graphic Center  
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Company .....

Address .....

.....

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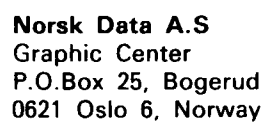
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Publ.No. ND-30.053.1 EN



Manuals can be updated in two ways, new versions and revisions. New versions consist of a complete new manual which replaces the old manual. New versions incorporate all revisions since the previous version. Revisions consist of one or more single pages to be merged into the manual by the user, each revised page being listed on the new printing record sent out with the revision. The old printing record should be replaced by the new one.

New versions and revisions are announced in the Customer Support Information (CSI) and can be ordered as described below.

The reader's comments form at the back of this manual can be used both to report errors in the manual and to give an evaluation of the manual. Both detailed and general comments are welcome.

These forms and comments should be sent to:

Documentation Department  
Norsk Data A.S  
P.O. Box 25, Bogerud  
0621 Oslo 6, Norway

Requests for documentation should be sent to the local ND office or (in Norway) to:

Graphic Center  
Norsk Data A.S  
P.O. Box 25, Bogerud  
0621 Oslo 6, Norway

## Preface:

**GENERAL INFORMATION ON THIS MANUAL.**

The intention of this "manual" is to give the reader some hints on how to fill in the SINTRAN III ORDER FORM. It will not give all details, but cover the most important information needed to generate a SINTRAN III that will satisfy the users. Even though this manual is dedicated to the J-version, it may serve as a guide for other versions as well.

The reader should have some basic knowledge of SINTRAN III, software and hardware.

If you cannot find devices or functions on the order form, this information should be written under SOFTWARE-NOTES on page 1.

The normal way of ordering SINTRAN III is like this:

New systems to be delivered: contact the SYSTEM INTEGRATION department that will install your system (in Norway, UK or Germany).

"Old" systems (systems already installed): contact your local ND-support office.

# TABLE OF CONTENTS

Section	Page
<b>1 CUSTOMER INFORMATION . . . . .</b>	<b>1</b>
<b>2 MASS STORAGE . . . . .</b>	<b>3</b>
2.1 DISKS . . . . .	3
2.2 MAG-TAPES . . . . .	4
2.3 FLOPPY-DISKS . . . . .	4
<b>3 TERMINALS . . . . .</b>	<b>6</b>
<b>4 INPUT/OUTPUT DEVICES AND SPOOLING . . . . .</b>	<b>9</b>
4.1 HDLC / MEGALINK . . . . .	9
4.2 PIOC . . . . .	10
4.3 GPIB . . . . .	10
4.4 OCTOBUS . . . . .	10
4.5 MPM 4 . . . . .	10
4.6 BUS EXPANDER . . . . .	10
4.7 X.21 . . . . .	10
4.8 X.25 . . . . .	10
4.9 X.29 . . . . .	10
4.10 SYNCHRONOUS MODEMS . . . . .	11
4.11 CAMAC . . . . .	11
4.12 UNIVERSAL DMA / VICOM INTERFACES . . . . .	11
4.13 FAST UDMA/VICOM OPTION FOR ND-500 . . . . .	11
4.14 LINE-PRINTER . . . . .	11
4.15 FUJITSU-PRINTER . . . . .	11
4.16 VERSATEC . . . . .	12
4.17 COSMOS SPOOLING . . . . .	12
4.18 DEVICE NUMBERS FOR SPOOLING . . . . .	12
<b>5 SYSTEM PARAMETERS . . . . .</b>	<b>13</b>
5.1 RT-PROGRAMS . . . . .	13
5.2 SEGMENTS . . . . .	14
5.3 SEMAPHORES . . . . .	14
5.4 INTERNAL DEVICES . . . . .	14
5.5 BATCH PROCESSORS . . . . .	14
5.6 CX-CPU . . . . .	15
5.7 DEVICE BUFFERS . . . . .	15
5.8 SYMBOLIC DEBUGGER . . . . .	15
5.9 FILE ACCESS SEGMENTS . . . . .	15
5.10 CONNECT TO . . . . .	16
5.11 TERMINAL ACCESS DEVICE (TAD) . . . . .	16
5.12 ND-500 . . . . .	16



Section	Page
5.13 ND-500 PROCESSES . . . . .	16
5.14 ACCOUNTING . . . . .	16
5.15 NOT PANEL CLOCK . . . . .	16
5.16 SIBAS . . . . .	16
5.17 REMOTE JOB ENTRIES . . . . .	17
5.17.1 HASP DMA . . . . .	17
5.17.2 IBM . . . . .	17
5.17.3 HONEYWELL BULL . . . . .	17
5.17.4 UNIVAC . . . . .	17
5.17.5 CDC . . . . .	17
5.18 RT COMMON (CORE COMMON) . . . . .	17
5.19 BACKGROUND ALLOCATION SYSTEM . . . . .	17
5.20 LOGGING FUNCTIONS . . . . .	18
5.20.1 SWAP . . . . .	18
5.20.2 DISC ACCESS . . . . .	18
5.20.3 MON CALL . . . . .	18
5.21 SREEN . . . . .	18
5.22 LAMU . . . . .	18
5.23 READ SEGMENT . . . . .	18
5.24 TPS . . . . .	18
5.25 NORD NET (ND-NET) . . . . .	19
5.26 DIRECT TASK . . . . .	19
5.27 NO OF RT-PROGRAMS TO BE STARTED FROM DIRECT TASK . . . . .	19
5.28 MAG-TAPE FROM DIRECT TASK . . . . .	19
5.29 DIRECT TRANSFER ON MAG-TAPE . . . . .	19
5.30 CONNECT DATAFIELD . . . . .	19
5.31 EXTENDED OPEN FILE TABLE . . . . .	19
 <b>6 ND-NET . . . . .</b>	 <b>21</b>
6.1 LINE NUMBER . . . . .	21
6.2 CHANNELS . . . . .	21
6.3 FILLING IN ND-NET CHANNELS . . . . .	22
6.4 OVERLAPPING ND-NET VERSUS OTHER DEVICES . . . . .	24
 <b>7 TERMINAL DEVICE NUMBERS . . . . .</b>	 <b>25</b>
 <b>8 OVERLAPPING DEVICE NUMBERS . . . . .</b>	 <b>28</b>
 <b>Appendix</b>	
 <b>A SINTRAN III ORDER FORM . . . . .</b>	 <b>31</b>

## 1. CUSTOMER INFORMATION

The boxes should be filled in as described below. In order to find out to which system and customer the SINTRAN III belongs, one should be very precise when filling in.

SINTRAN III ORDER			PAGE 1
CUSTOMER:	CPU NO:	DATE:	
CUSTOMER REP. :	PHONE:		
CUSTOMER NOTES:	MAINT. :		
	ISSUED BY:	DUMPED: (1)	LISTING: (2)

- **Customer:**  
Write the name of the company to which this system is delivered.
- **CPU no.:**  
The system number must be filled in. It will identify the SINTRAN III later on when the system is going to have a new SINTRAN III.
- **Date:**  
This is the date when the order form has been completed.
- **Customer rep.:**  
The name of a customer representative to whom one can turn for information if the customer have any specific requirements to SINTRAN III.
- **Phone:**  
Here is the telephone-number to the customer.
- **Customer notes:**  
The customer's address or other relevant information.
- **Maint.:**  
For internal use by the support office. They will make a note if there is a maintenance contract.

# SINTRAN III - HOW TO ORDER IT

## CUSTOMER INFORMATION

### - Issued by :

Write your initials here. If you don't, we will not be able to trace and report back if SINTRAN III becomes too big or ask for any missing information.

### - Dumped:

Specify the type of floppy disks to be used for delivery of SINTRAN III:

8 means 0.3-Megabyte, 8-inch diskettes.

5 means 1.2-Megabyte, 5 1/4-inch diskettes.

### - Listing:

Specify if you want a listing of SINTRAN III:

C means complete listing of part two (the configuration dependent part).

S means symbol listing only.

N means no listing.

F means that the listing will be delivered on floppy disks (the same type as for SINTRAN III itself).

P means that the listing will be printed on paper.

You may specify combinations, for example, CF will give you a complete listing on diskettes.

Note that if you don't fill in here, new systems will come with a complete listing on floppies, while old systems will get a listing as decided by regional support.

Below is an example of a correctly filled in customer information form.

<b>S I N T R A N   I I I   O R D E R</b>			PAGE 1
CUSTOMER: <b>NORSK DATA A/S</b>	CPU NO: <b>100-1273</b>	DATE: <b>85.01.31</b>	
CUSTOMER REP. : <b>PÅL VELGAARD</b>	PHONE: <b>29 54 00</b>		
CUSTOMER NOTES: <b>INSTALLED IN SYSTEM-INTEGRATION AT SKULLERUD</b>			MAINT. :
ISSUED BY: <b>PV</b>		DUMPED: <b>8 (1)</b>	LISTING: <b>CP (2)</b>

## 2. MASS STORAGE

### 2.1 DISKS

Please take great care when you decide your disk configuration. There are limits on how to configurate disks, i.e., you cannot put a Phoenix disk (30/60/90MB) on the same controller as a 450MB. They use different types of controllers. A Phoenix disk requires the 10MHZ disk controller, while the 450MB requires the new 15MHZ controller. The old 33 and 66MB disk drives are not handled by the ND-100 disk interface.

The 288MB disk is often referred to as 300MB.

Winchester and Hawk drives are using two different interfaces, but they have the same device numbers, and must therefore be used on two different controllers.

MASS STORAGE									
AVAILABLE SIZES ON:		REMOVABLE PACKS:		288MB AS:	38MB 225MB R	70MB 288MB R	75MB 3-75MB	4-70MB R	
		FIXED DRIVES:		140MB AS:	140MB	2-70MB			
				150MB AS:	2-75MB				
				288MB AS:	288MB F	4-70MB F			
				450MB AS:	450MB	2-225MB	6-70MB		
		PHOENIX:			30MB	60MB	90MB		
UNIT	0		1		2		3		
CONTROL 1	.....MB .		.....MB .		.....MB .		.....MB .		
CONTROL 2	.....MB .		.....MB .		.....MB .		.....MB .		
AVAILABLE SIZES ON WINCHESTER DRIVES: 14 16 21 23 45 HAWK: 10									
UNIT	0		1						
CONTROL 1	.....MB .		.....MB .						
CONTROL 2	.....MB .		.....MB .						

SYSTEM UNIT ON: ..... MB DISK

When you have decided which disk that will be your system disk (the disk that will contain the files "SINTRAN:DATA" and "MACM-AREA:DATA"), write it on the dotted line below UNIT 0 and to the right hand side of CONTROLLER 1. Write it exactly as described above beside "AVAILABLE SIZES ON :" (see also example below).

If you have two different controller types on your system, e.g., 75MB and 21MB, you can put both on UNIT 0 - CONTROLLER 1 (they have different device numbers). Remember then to identify your system disk by writing the correct disk size in the bottom right hand box called "SYSTEM UNIT ON: ..... MB DISK".

**2.2 MAG-TAPES**

CONTR/UNIT	MAG-TAPES			
	HP	PERT	CIPHER	STC
1/				
2/				

The mag-tape interface for HP has the same device number as PERTEC, CIPHER and STC. In fact, PERTEC and CIPHER are using the same interface. If you are going to use more than one make of mag-tapes, you must define them on separate controllers (see example below).

**2.3 FLOPPY-DISKS**

FLOPPY DISK	
SMALL	BIG

When it comes to floppy disks, you have to know which kind of interface you have in the system. The old "floppy + 4 terminals" interface is referred to as "SMALL FLOPPY", and all the new DMA-interfaces (even if it is a single-side/single-density 8" or a 5 1/4" drive) are referred to as "BIG FLOPPY". The interfaces have the same device numbers.

Note that your "system-floppy" (the one you use for stand-alone programs) must always be on controller 1/unit 0.

SINTRAN III - HOW TO ORDER IT  
MASS STORAGE

5

Below is an example of a correctly filled-in MASS STORAGE order.

<b>MASS STORAGE</b>						
<div style="display: flex; justify-content: space-between;"> <div> <b>AVAILABLE SIZES ON:</b>   <b>FIXED DRIVES:</b>   <b>PHOENIX:</b> </div> <div> <b>REMOVABLE PACKS:</b>            288MB AS:            140MB AS:            150MB AS:            288MB AS:            450MB AS:             30MB            60MB            90MB         </div> <div>           38MB            225MB R            140MB            2-75MB            280MB F            450MB             70MB            288MB R            2-70MB            4-70MB F            2-225MB             75MB            3-75MB            6-70MB         </div> <div>           4-70MB R         </div> </div>						
UNIT	0	1	2	3		
CONTROL 1	...6-70.MB .	...4-70.MB R	.....MB .	.....MB .		
CONTROL 2	.....70.MB .	...288.MB F	...288.MB R	.....MB .		
<b>AVAILABLE SIZES ON WINCHESTER DRIVES:</b> 14 16 21 23 45 <span style="float: right;">HAWK: 10</span>						
UNIT	0	1				
CONTROL 1	.....45.MB .	.....MB .				
CONTROL 2	.....10.MB .	.....MB .				

CONTR/UNIT	HP	MAG-TAPES			FLOPPY DISK	
		PERT	CIPHER	STC	SMALL	BIG
1/			2		1	
2/				4		2

SYSTEM UNIT ON: 6-70. MB DISK



**3. TERMINALS**

TERMINALS (3)																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
B																							
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	
121	122	123	124	125	126	127	128																
						R	B																

We have two standard terminal interfaces, the 8-term. and the 4-term. The 8-term. is divided into two groups of 4. Device numbers for each four-group are set by thumbwheels. Terminal number 1 will always be present, as this is the console.

This means that normally the first terminal on your system should be set on terminal number 5. Terminals 2, 3 and 4 may be used if the system is using some of the old Nord-10 interfaces.

The following letters must be used as described below:

- B :  
"B" means terminal with background. (This is the normal way of using a terminal.)
- R :  
"R" means terminal without background. This is used when the terminal is used for RT-programs only, or if "Background Allocation System" is ordered. See chapter 5 "SYSTEM PARAMETERS".
- S :  
"S" means printer terminal with spooling. You may put an "S" on terminal 2, 3 and 4. This is often done if the system is going to have printers in the future, but the customer does not know where he wants to have them connected. By using "SINTRAN-SERVICE-PROGRAM" the spooling can be moved to another output. That output must however be known by SINTRAN III, i.e., another letter must be in that position when you look at the order form.

If you want to alternate between printer output and terminal output, you may write a "B" in the box for your terminal number and under "DEVICE NUMBERS FOR SPOOLING" on page 2 of the order form, you can write that terminal's octal device number. By using "SINTRAN-SERVICE-PROGRAM" you can then remove or insert the background program.

- P :  
"P" means printer terminal without spooling.
- T :  
"T" means text editing terminal. The first should be on terminal 16, the second on 15, and so on down to terminal number 2.
- F :  
"F" means photsetter. The first should be on terminal 31, the second on 30 and the last on 29.
- H :  
"H" means Harris photsetter. The first should be on terminal 30 and the second on 29.
- G :  
"G" means Graf cassette. The first should be on terminal 27 and the second on terminal 28.
- X :  
"X" means ND-net on async-modem output or machine-machine communication. The first line should be on terminal 16, the second on terminal 15 and so on down to terminal 8. On page 2, you must write an "X" in the box "ASYNC" "LINE NO. 1" for terminal 16, in "LINE NO. 2" for terminal 15 and so on.
- Terminals 127 and 128.  
Terminal 127 is as standard "R" and terminal 128 is "B". This is for patching in the code for "TELEFIX". Please note that you have to have the new 8-terminal interface if you are going to use terminals from 65 and upwards. There are several overlapping device numbers between terminals and HDLC. See chapter 8 ("OVERLAPPING DEVICE NUMBERS").

Below is an example of a correctly filled-in order for TERMINALS.

TERMINALS (3)																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
8	S			S	B	B	B	B	B	B	B	B	B	B	X								
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128																
						R	B																

#### 4. INPUT/OUTPUT DEVICES AND SPOOLING

INPUT/OUTPUT DEVICES AND SPOOLING																							
HDLC DMA		DRIVER /		SYNC.		MOD.		HDLC		(H/S)		(4)		PIOC		GPIB		OCTOBUS		MPM-4		BUS EXPANDER	
1	2	3	4	5	6	7	8	9	10	11	12	1-8	1-4	1-4									
X.21 1-8		X.25		X.29		SYNCHRONOUS MODEMS (4)																	
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
CAMAC		UNIVERSAL DMA / VICOM INTERFACES ( D / V )														FAST UDMA/VICOM OPT. FOR ND-500							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16						
NE- NTER		VERSATEC DMA I/O		COSMOS SPOOLING		DEVICE NUMBER FOR SPOOLING (5)																	
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			

##### 4.1 HDLC / MEGALINK

The HDLC interface is treated in two different ways by SINTRAN III. One is the DMA and the other is I/O. The hardware is the same, software decides if you must use DMA or I/O (sync. mod.). Seen from SINTRAN III, both HDLC-DMA and MEGALINK is the same interface, and you order them both as HDLC.

To separate them on the order form, you must write "H" for HDLC-DMA/MEGALINK and "S" for HDLC-Sync modem.

In general terms it means that if you are going to communicate with another ND-system, you must use the DMA-function. That is, even if you are going to use X-message on a synchronous line, X.21, X.25 or X.29, you must use the DMA-function. It is the connection on the cabinet's backpanel that will separate the link and the sync function now. Link is machine-machine communication without modem, sync is communication via modem.

MEGALINK can only run directly machine-machine, i.e., you cannot put a modem in between.

If you are communicating with IBM or CDC or other makes, you must use I/O (sync. mod.). HASP DMA is the only exception.

In order to find out which function to use, you have to look into the PD-sheets of the software that is going to be used on the system.

The maximum number of HDLC-DMA/MEGALINKs on one system is 32. For HDLC-Sync modem it is 6, and they must be from 1 to 6.

If you are using HDLC both for ND-net and other communication, take care not to use the same HDLC device number. I.e., if you have X-message on HDLC number 1, you must put ND-net on everything but "LINE NO 1".

Some device numbers on terminals and HDLC will overlap. In chapter 8 ("OVERLAPPING DEVICE NUMBERS") you will find the HDLC and terminals you cannot have simultaneously in the same system.

#### 4.2 PIOC

Fill in the number of PIOC's in the system. PIOC's have no overlapping device numbers.

#### 4.3 GPIB

Fill in the number of GPIB's in the system. GPIB's have no overlapping device numbers.

#### 4.4 OCTOBUS

Fill in the number of OCTOBUS'es in the system. OCTOBUS'es have no overlapping device numbers.

#### 4.5 MPM 4

If the system has MPM 4, you should fill in this box with an "X". It is not necessary to fill in for Bus Expander. For the MPM 5 there is no box to fill in.

#### 4.6 BUS EXPANDER

Fill in the number of Bus Expanders in the system. Normally it is minimum 2, one for the one in the A-crate and one for the B-crate. If there is a C-crate you write 3 in the box.

#### 4.7 X.21

Fill in the number of lines the system is going to use. X.21 must have an HDLC-DMA. The TPS monitor call is not necessary to fill in, it will be generated automatically.

#### 4.8 X.25

Fill in with an "X" if the system is going to use X.25, and at least one HDLC-DMA. The TPS monitor call will be generated automatically.

#### 4.9 X.29

Fill in with an "X" if the system is going to have X.29, and at least one HDLC-DMA. The rest of the requirements will be generated automatically.

#### 4.10 SYNCHRONOUS MODEMS

Fill in the number of modems in the system, but not those which are going to be used by the ND-net (they must be filled in on page 2). Sync. modem no. 1 will overlap with ND-net sync. modem no. 6, sync. modem no. 2 will overlap with ND-net sync. modem no. 5 and so on up to sync. modem no. 6. See also chapter 8 ("OVERLAPPING DEVICE NUMBERS").

#### 4.11 CAMAC

Fill in the number of CAMAC crates the system is going to communicate with. The maximum number is 16.

#### 4.12 UNIVERSAL DMA / VICOM INTERFACES

Fill in the number of interfaces in the system, and the way you want them configured. For UNIVERSAL DMA you must write "D", and for VICOM you must write "V".

#### 4.13 FAST UDMA/VICOM OPTION FOR ND-500

This is a monitor call to speed up the use of UDMA/VICOM when using it from the ND-500.

#### 4.14 LINE-PRINTER

Fill in the number of printer interfaces using parallell-byte interface, i.e., the 1000/600 l.p.m. printers and Terminet (ND-426). The spooling device numbers for these printers are:

No 1)	5
No 2)	15
No 3)	1014
No 4)	1015

Note that device numbers will overlap with VERSATEC I/O.

#### 4.15 FUJITSU-PRINTER

This printer is using a new DMA interface. It is using the same device numbers for spooling as a line printer, see above. In order to have them generated, write which of the printers you want under "SOFTWARE NOTES" in the bottom right hand corner of page 1. Write the correct spooling device number on page 2.



**4.16 VERSATEC**

There are two ways of interfacing the VERSATEC printers. One is DMA and the other is I/O. The system can have two DMA interfaces with spooling device numbers:

No 1) 22  
No 2) 23

If I/O interfaces are used, they have the same device numbers as the line printers mentioned above.

**4.17 COSMOS SPOOLING**

Fill in with an "X" if the system is going to have COSMOS Spooling in conjunction with COSMOS communication. This function should always be present in systems with COSMOS.

**4.18 DEVICE NUMBERS FOR SPOOLING**

All terminals can be used as printer interfaces (see TERMINALS). The octal device numbers should be filled in here. In chapter 7 ("TERMINAL DEVICE NUMBERS") you will find the octal and decimal device numbers for all terminals.

Below is an example of a correctly filled-in order for INPUT/OUTPUT DEVICES.

INPUT/OUTPUT DEVICES AND SPOOLING																							
HDLC		DMA		DRIVER / SYNC.		MOD.		HDLC		(H/S)		(4)		PIOC		GPIB		OCTOBUS		MPM-4		BUS EXPANDER	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
H	S														1	1	1			X		2	
X.21 1-8		X.25		X.29		SYNCHRONOUS MODEMS (4)																	
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
1		X		X		X																	
CAMAC		UNIVERSAL DMA / VICOM INTERFACES (D / V)										FAST UDMA/VICOM OPT. FOR ND-500											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16						
16		D	V																				X
LINE-PRINTER		VERSATEC DMA I/O		COSMOS SPOOLING		DEVICE NUMBER FOR SPOOLING (5)																	
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			
1		1	1	X		5	22	15	11	44													

As you can see above, the line printer and VERSATEC has got separate spooling device numbers, 5 and 15. It is now hardware that will decide which device number is going to be used by which printer.

There are two additional device numbers for spooling, 11 and 44. These are written for user convenience in order to show from page 1 "TERMINALS" that the spooling device numbers are 11 for terminal 2 and 44 for terminal 5.

## 5. SYSTEM PARAMETERS

SYSTEM PARAMETERS													
RT PROG. -50-	SEGM. -75-	SEMA. -5-	INTERN. CHAR. -2-	DEVICE BLOCK	BATCH PROC. -1-	CX CPU	DEV BUF -20-	SYMB. DEBUG.	FILE ACC. SEGM.	CONN. TO	TERM. ACCESS DEVICE	ND-500	ND-500 PROCESS -10-
ACCOUNTING RT I/O	NOT PANEL CLOCK	1-3	SIBAS 1-6	1-12	HASP DMA	IBM	REMOTE JOB ENTRIES HONEYWELL	UNIVAC	CDC	RT COMM	BACKGR. ALLOC ↓ NO OF BACK		
LOGGING FUNCTIONS SWAP	DISC ACCESS	MON CALL	SREEN	LAMU	READ SEGM	TPS (6)	NORD NET(7)	DIRECT TASK	NO. OF RT-PROG FROM DIR. TASK				
T FROM DIRECT TASK	DIRECT TRANSFER ON M-T	CONNECT DATAFIELD	EXTEND OPEN FILE TABLE										

The system parameters are very dependent on the use of the system. Customer written programs, software delivered from ND and the use of this software will decide which and perhaps how many of each function to generate.

### 5.1 RT-PROGRAMS

Fill in the number of extra RT-programs required. The system will have generated the system-required RT-programs automatically. That means you have to calculate only the need of RT-programs for own purpose, like loading SIBAS and so on. You have to look into the PD-sheets of the software you are going to use in order to find the exact number required. However, if you don't fill in, you will automatically get 50 extra.

## 5.2 SEGMENTS

As for the RT-programs, just write the number of extra segments needed. The maximum number of segments SINTRAN III can have is 255. Below you will find the list telling you how many segments different functions use.

System in general	33
- ND-500 and XMSG is included	
Terminal	2
Batch-processor	2
ND-500 process	2
Terminal access device (TAD)	2
File access segment	1
Debugging function	1
- Addition for each debug terminal	1
Transaction processing system (TPS)	31
- Transaction processing terminal (TPT)	2
Common spooling segment	1
- Addition for each spooling process	1
Each ND-net channel	1
Each ND-net background	3

If nothing is written, the system will be generated with 75 extra segments. You may also write "MAX". Then you will get as many extra segments as possible.

## 5.3 SEMAPHORES

Fill in the number of semaphores the system will need. You can have 5, 10, 20, 30, 40 or 50. The default value is 5.

Semaphores are used for simple timing between programs. Refer to SINTRAN III Real Time Guide.

## 5.4 INTERNAL DEVICES

There are two different types of internal devices, one character (byte) oriented, and one block oriented.

The character oriented internal devices can be ordered from 1 up to 32, default value is 2. The block oriented internal devices can be ordered from 1 up to 5. The default value is 0.

Internal devices are used for information transfer between programs. Character oriented internal devices will transfer information byte by byte, while block oriented internal devices will transfer up to one page (2048 bytes). Refer to SINTRAN III Real Time Guide.

## 5.5 BATCH PROCESSORS

Fill in the number of batch-processors you need.

The maximum number is 10. Default value is 1.

Remember to add one if the system is going to use "ACCESS".

## 5.6 CX-CPU

If the system has got a CX-CPU, you may write an "X" here. SINTRAN III will then be generated in a different way, enabling the system to contain more devices.

If the system is an ND-500 system, you must have a CX-CPU. SINTRAN III will not run if you don't have it.

If the system has a CX-CPU, it can without any difficulties run a standard SINTRAN III/VSE.

## 5.7 DEVICE BUFFERS

The default number of device buffers are 20. This will normally be sufficient to cover most systems. It may also be reduced if you have problems with space in SINTRAN III. Calculate the number of device buffers the system needs by using the table below:

Each disk interface needs	1
Each floppy interface needs	1
Each mag-tape <u>drive</u> needs	1
Each spooling process needs	1

The device buffers acts as a kind of "cache" in memory. That means that the more device buffers you generate, the faster the system will work. The maximum nuber is 64.

Remember that each device buffer will require one page in memory. You should on small systems (with less than 1.0 MB memory) not have more than 20, as the number of pages for swapping will be insufficient and reduce performance.

## 5.8 SYMBOLIC DEBUGGER

Fill in the number terminals that is expected to run debugging simultaneously. The symbolic debugger function is not connected to any particular terminal, but is picked out of a pool.

This is a facility that will help programmers to debug their programs written in, e.g., FORTRAN and a few other languages. Not all languages have this option.

This covers the debugging function in the ND-100. The ND-500 have this function as standard.

## 5.9 FILE ACCESS SEGMENTS

Fill in the number of segments that will be used.

File access segments will be used when using BAKCUP-SYSTEM from a remote computer. The number required is difficult to forecast. It depends on how many users will use this facility simultaneously. The segments are not released after use until the user logs out.

#### 5.10 CONNECT TO

Fill in with an "X".

This will enable users to connect to other systems.

#### 5.11 TERMINAL ACCESS DEVICE (TAD)

Fill in the number of TADs the system shall have. Maximum is 96.

A TAD is the background for users on this system logging in from remote computers.

#### 5.12 ND-500

Fill in an "X" if the system is an ND-500 system.

Under "Software notes" on page 1, you may write the number of ND-500's if the system consists of more than one ND-500. Maximum is 8.

#### 5.13 ND-500 PROCESSES

Fill in the number you want to have on the system. The maximum number that can be generated is 62. The ND-500 may handle up to 64, but 2 must be reserved for the ND-500 itself.

If nothing is filled in, you will have default 10.

#### 5.14 ACCOUNTING

Fill in with an "X" if you want to keep accounting of RT-programs and/or I/O.

Background accounting is always present.

#### 5.15 NOT PANEL CLOCK

If the system has got no panel clock, you may fill in an "X" here. The system must, however, always be updated (SINTRAN III command: @UPDAT) after every restart.

#### 5.16 SIBAS

Fill in an "X" under the number of SIBAS'es that will run simultaneously on the system. It will cover both ND-100 and ND-500 SIBAS.

## **5.17 REMOTE JOB ENTRIES**

### **5.17.1 HASP DMA**

Fill in the number of HASP DMA interfaces the system has.  
Maximum is 6.

It is not necessary to generate the standard HDLC DMA. HASP DMA will overlap with several other interfaces, see chapter 8 ("OVERLAPPING DEVICE-NUMBERS").

### **5.17.2 IBM**

If the system is going to communicate with an IBM system over a synchronous modem, fill in an "X" here.

### **5.17.3 HONEYWELL BULL**

If the system is going to communicate with an HONEYWELL BULL system over a synchronous modem, fill in an "X" here.

### **5.17.4 UNIVAC**

If the system is going to communicate with an UNIVAC system over a synchronous modem, fill in an "X" here.

### **5.17.5 CDC**

If the system is going to communicate with an CDC system over a synchronous modem, fill in an "X" here.

## **5.18 RT COMMON (CORE COMMON)**

Fill in the number of pages you want for RT COMMON. Default is 0.

## **5.19 BACKGROUND ALLOCATION SYSTEM**

The intention of this system is to give the customer the possibility to connect up to 128 terminals to the system. However, all terminals cannot be used simultaneously because of the limited number of segments. By using BACKGROUND ALLOCATION SYSTEM one can connect all terminals, but only a limited number are able to log on simultaneously. That limited number is written below "NO OF BACK" and an "X" below the arrow "BACKGR. ALLOC". All terminals and TADs will now take a background from a pool. When there are no more backgrounds available, no more users can enter. There is also a timeout function which automatically can log out terminals that have been passive for a predecided period.

NOTE: The console and batches will always have fixed backgrounds.



## 5.20 LOGGING FUNCTIONS

### 5.20.1 SWAP

This is a standard function in SINTRAN III

### 5.20.2 DISC ACCESS

This is a standard function in SINTRAN III

### 5.20.3 MON CALL

This is a standard function in SINTRAN III

## 5.21 SREEN

Fill in with an "X" if you want this monitor call.  
SREEN automatically writes all pages belonging to shadow segment (current segment) which have been modified, back to the segment file before the reentrant segment is fetched. Refer to the SINTRAN III Reference Manual.

## 5.22 LAMU

Fill in with an "X" if you want LAMUs.  
A LAMU is a limited physically and virtually contiguous address area in the SINTRAN III systems. LAMUs are intended to be an extension to the segment structure. They make it possible for RT-programs and background processes to address more space than covered by the available 3 segments. LAMUs can be shared by several RT-programs or CPUs. Refer to the SINTRAN III System Supervisor manual.

## 5.23 READ SEGMENT

Fill in with an "X" if you want to have read segment. It is automatically generated on ND-500 systems  
The monitor call READ SEGMENT will read the contents of a segment table entry to the user's memory. Refer to the SINTRAN III Reference Manual, monitor call 53.

## 5.24 TPS

Fill in the number of terminals that will run TPS.

### **5.25 NORD NET (ND-NET)**

See chapter 6 ("ND-NET").

### **5.26 DIRECT TASK**

Fill in with an "X" if you want direct task.  
Direct task is a routine executing on one of the free interrupt levels, independent of the operating system. Refer to the SINTRAN III Real Time Guide.

### **5.27 NO OF RT-PROGRAMS TO BE STARTED FROM DIRECT TASK**

Fill in the number of RT-programs to be started. Refer to the SINTRAN III Real Time Guide.

### **5.28 MAG-TAPE FROM DIRECT TASK**

Fill in with an "X" if this function is wanted.

### **5.29 DIRECT TRANSFER ON MAG-TAPE**

Fill in with an "X" if this function is wanted.  
Direct transfer on mag-tape is a function that will transfer data from memory directly to the mag-tape interface not using the device buffers.

### **5.30 CONNECT DATAFIELD**

Fill in the number of fields wanted.  
These data fields are connected to interfaces used in direct tasks.

### **5.31 EXTENDED OPEN FILE TABLE**

Fill in the extra number of tables wanted.  
If all files are accessed sequentially, the maximum number is 13. If all files are accessed randomly, the number is 28. Refer to SINTRAN III Reference Manual. for each table added, you will increase the number by 13 or 28. (This function requires very much space in SINTRAN III.)

SINTRAN III - HOW TO ORDER IT  
SYSTEM PARAMETERS

Below is an example of a correctly filled-in order for  
SYSTEM PARAMETERS.

SYSTEM PARAMETERS														
RT PROG. -50-	SEGM. -75-	SEMA. -5-	INTERN. CHAR. -2-	DEVICE BLOCK	BATCH PROC. -1-	CX CPU	DEV BUF -20-	SYMB. DEBUG.	FILE ACC. SEGM.	CONN. TO	TERM. ACCESS DEVICE	ND-500	ND-500 PROCESS -10-	
80	MAX	10	5	2	5	X	40	3	10	X	5	X	30	
ACCOUNTING RT	NOT PANEL I/O	CLOCK	1-3	SIBAS 1-6	1-12	HASP DMA	IBM	REMOTE JOB ENTRIES HONEYWELL			UNIVAC	CDC	RT COMM	BACKGR. ALLOC ↓ NO OF BACK
X	X			X		1	X	X		X	X	4	X 10	
LOGGING FUNCTIONS SWAP DISC ACCESS MON CALL				SREEN		LAMU	READ SEGM	TPS (6)	NORD NET(7)	DIRECT TASK		NO. OF RT-PROG FROM DIR. TASK		
X	X		X	X		X	X	10	X	X		2		
M-T FROM DIRECT TASK		DIRECT TRANSFER ON M-T			CONNECT DATAFIELD		EXTEND OPEN FILE TABLE							
X		X			20		1							

## 6. ND-NET

ND-NET																					
LINE NO	ASYNC	SYNC MODEM		H D L C		CHANNELS															
		FULL DPX.	HALF DPX.	DMA	I/O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					

POOL :

### 6.1 LINE NUMBER

On line number you should fill in the appropriate communication line, e.g., ASYNC. If you have used Async on line 1 and you want to have HDLC communication in addition, you must put this one on line 2. Fill in with an "X".

### 6.2 CHANNELS

There are three different types of channels:

- B: This is the background channel for a remote terminal, i.e., where it comes into this system.
- N: This is "the way out" for a local terminal to a remote system.
- C: This has almost the same function as "N" above. The difference between "N" and "C" is that "C" can handle the monitor call "MAGTP". The "C" therefore requires more space in SINTRAN III.

**- POOL:**

Fill in the size of the ND-NET buffer pool. Use the table below to find proper size:

If 1	line with less/equal	5 channels, use 4
If 1	line with greater than	5 channels, use 5
If 2 or 3	lines with less/equal	5 channels, use 5
If 2 or 3	lines with greater than	5 channels, use 6
If 4	lines with less/equal	5 channels, use 6
If 4	lines with greater than	5 channels, use 7
If 5 or 6	lines with less/equal	5 channels, use 7
If 5 or 6	lines with greater than	5 channels, use 8
If 7	lines with less/equal	5 channels, use 8
If 7	lines with greater than	5 channels, use 9
If 8 or 9	lines	use 9

**6.3 FILLING IN ND-NET CHANNELS**

A "B" on the remote system channel 1 must communicate with an "N" or a "C" on channel 1 on the local system. This will make it possible to perform remote login.

For file transfer, one can use "N" at the local system and the same on the remote system. Remember that the channel number has to be the same.

Below you will find two orders for ND-NET on two systems that are going to communicate with each other.

System A

ND-NET																					
LINE NO	ASYNC	SYNC MODEM		H D L C		CHANNELS															
		FULL DPX.	HALF DPX.	DMA	I/O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X					N	B	N	B	N	C										
2				X		N	B	N	B	N	C										
3																					
4																					
5																					
6																					
7																					
8																					
9																					
				POOL : 6																	

System B:

NO-NET																					
LINE NO	ASYNC	SYNC MODEM		H D L C		CHANNELS															
		FULL DPX.	HALF DPX.	DMA	I/O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X					B	N	B	N	N	C										
2				X		B	N	B	N	N	C										
3																					
5																					
6																					
7																					
8																					
9																					
				POOL : 6																	



## 6.4 OVERLAPPING ND-NET VERSUS OTHER DEVICES

ND-NET																					
LINE NO	ASYNC	SYNC MODEM		H D L C		CHANNELS															
		FULL DPX.	HALF DPX.	DMA	I/O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	* 16	SYNC. MOD.	NO. 6	HDLC 1	*53,54																
2	* 15	SYNC. MOD.	NO. 5	HDLC 2	*55,56																
3	* 14	SYNC. MOD.	NO. 4	HDLC 3	*57,58																
4	* 13	SYNC. MOD.	NO. 3	HDLC 4	*59,60																
5	* 12	SYNC. MOD.	NO. 2	HDLC 5	*61,62																
6	* 11	SYNC. MOD.	NO. 1	HDLC 6	*63,64																
7	* 10			CAMAC1																	
8	* 9			CAMAC2																	
9	* 8			CAMAC3																	
POOL :																					

"\*" means terminal number.

# 7. TERMINAL DEVICE NUMBERS

Term.no. Oct. Dec.		Device No.	IDENT- Code	Logical Dev.no. Oct. Dec.		Back- ground
1	1	300	120(1)	1	1	BAK01
2	2	310	121(5)	11	9	BAK02
3	3	320	122(6)	42	34	BAK03
4	4	330	123(7)	43	35	BAK04
5	5	340	44	44	36	BAK05
6	6	350	45	45	37	BAK06
7	7	360	46	46	38	BAK07
10	8	370	47	47	39	BAK08
11	9	1300	50	60	48	BAK09
12	10	1310	51	61	49	BAK10
13	11	1320	52	62	50	BAK11
14	12	1330	53	63	51	BAK12
15	13	1340	54	64	52	BAK13
16	14	1350	55	65	53	BAK14
17	15	1360	56	66	54	BAK15
20	16	1370	57	67	55	BAK16
21	17	200	60	7	7	BAK17
22	18	210	61	17	15	BAK18
23	19	220	62	52	42	BAK19
24	20	230	63	53	43	BAK20
25	21	240	64	54	44	BAK21
26	22	250	65	55	45	BAK22
27	23	260	66	56	46	BAK23
30	24	270	67	57	47	BAK24
31	25	1200	70	70	56	BAK25
32	26	1210	71	71	57	BAK26
33	27	1220	72	72	58	BAK27
34	28	1230	73	73	59	BAK28
35	29	1240	74	74	60	BAK29
36	30	1250	75	75	61	BAK30
37	31	1260	76	76	62	BAK31
40	32	1270	77	77	63	BAK32
41	33	640	124	1040	544	BAK33
42	34	650	125	1041	545	BAK34
43	35	660	126	1042	546	BAK35
44	36	670	127	1043	547	BAK36
45	37	1100	130	1044	548	BAK37
46	38	1110	131	1045	549	BAK38
47	39	1120	132	1046	550	BAK39
50	40	1130	133	1047	551	BAK40
51	41	1140	134	1050	552	BAK41
52	42	1150	135	1051	553	BAK42
53	43	1160	136	1052	554	BAK43
Term.no. Oct. Dec.		Device No.	IDENT- Code	Logical Dev.no. Oct. Dec.		Back- ground

SINTRAN III - HOW TO ORDER IT  
 TERMINAL DEVICE NUMBERS

Term.no. Oct. Dec.		Device No.	IDENT- Code	Logical Dev.no. Oct. Dec.		Back- ground
54	44	1170	137	1053	555	BAK44
55	45	1400	140	1054	556	BAK45
56	46	1410	141	1055	557	BAK46
57	47	1420	142	1056	558	BAK47
60	48	1430	143	1057	559	BAK48
61	49	1500	144	1060	560	BAK49
62	50	1510	145	1061	561	BAK50
63	51	1520	146	1062	562	BAK51
64	52	1530	147	1063	563	BAK52
65	53	1640	150	1064	564	BAK53
66	54	1650	151	1065	565	BAK54
67	55	1660	152	1066	566	BAK55
70	56	1670	153	1067	567	BAK56
71	57	1700	154	1070	568	BAK57
72	58	1710	155	1071	569	BAK58
73	59	1720	156	1072	570	BAK59
74	60	1730	157	1073	571	BAK60
75	61	1740	160	1074	572	BAK61
76	62	1750	161	1075	573	BAK62
77	63	1760	162	1076	574	BAK63
100	64	1770	163	1077	575	BAK64
101	65	140400	140040	2000	1024	BAK65
102	66	140410	140041	2001	1025	BAK66
103	67	140420	140042	2002	1026	BAK67
104	68	140430	140043	2003	1027	BAK68
105	69	140440	140044	2004	1028	BAK69
106	70	140450	140045	2005	1029	BAK70
107	71	140460	140046	2006	1030	BAK71
110	72	140470	140047	2007	1031	BAK72
111	73	140500	140050	2010	1032	BAK73
112	74	140510	140051	2011	1033	BAK74
113	75	140520	140052	2012	1034	BAK75
114	76	140530	140053	2013	1035	BAK76
115	77	140540	140054	2014	1036	BAK77
116	78	140550	140055	2015	1037	BAK78
117	79	140560	140056	2016	1038	BAK79
120	80	140570	140057	2017	1039	BAK80
121	81	140600	140060	2020	1040	BAK81
122	82	140610	140061	2021	1041	BAK82
123	83	140620	140062	2022	1042	BAK83
124	84	140630	140063	2023	1043	BAK84
125	85	140640	140064	2024	1044	BAK85
126	86	140650	140065	2025	1045	BAK86
Term.no. Oct. Dec.		Device No.	IDENT- Code	Logical Dev.no. Oct. Dec.		Back- ground

Term.no. Oct. Dec.		Device No.	IDENT- Code	Logical Dev.no. Oct. Dec.		Back- ground
127	87	140660	140066	2026	1046	BAK87
130	88	140670	140067	2027	1047	BAK88
131	89	140700	140070	2030	1048	BAK89
132	90	140710	140071	2031	1049	BAK90
133	91	140720	140072	2032	1050	BAK91
134	92	140730	140073	2033	1051	BAK92
135	93	140740	140074	2034	1052	BAK93
136	94	140750	140075	2035	1053	BAK94
137	95	140760	140076	2036	1054	BAK95
140	96	140770	140077	2037	1055	BAK96
141	97	141000	140100	2040	1056	BAK97
142	98	141010	140101	2041	1057	BAK98
143	99	141020	140102	2042	1058	BAK99
144	100	141030	140103	2043	1059	BA100
145	101	141040	140104	2044	1060	BA101
146	102	141050	140105	2045	1061	BA102
147	103	141060	140106	2046	1062	BA103
150	104	141070	140107	2047	1063	BA104
151	105	141100	140110	2050	1064	BA105
152	106	141110	140111	2051	1065	BA106
153	107	141120	140112	2052	1066	BA107
154	108	141130	140113	2053	1067	BA108
155	109	141140	140114	2054	1068	BA109
156	110	141150	140115	2055	1069	BA110
157	111	141160	140116	2056	1070	BA111
160	112	141170	140117	2057	1071	BA112
161	113	141200	140120	2060	1072	BA113
162	114	141210	140121	2061	1073	BA114
163	115	141220	140122	2062	1074	BA115
164	116	141230	140123	2063	1075	BA116
165	117	141240	140124	2064	1076	BA117
166	118	141250	140125	2065	1077	BA118
167	119	141260	140126	2066	1078	BA119
170	120	141270	140127	2067	1079	BA120
171	121	141300	140130	2070	1080	BA121
172	122	141310	140131	2071	1081	BA122
173	123	141320	140132	2072	1082	BA123
174	124	141330	140133	2073	1083	BA124
175	125	141340	140134	2074	1084	BA125
176	126	141350	140135	2075	1085	BA126
177	127	141360	140136	2076	1086	BA127
200	128	141370	140137	2077	1087	BA128
Term.no. Oct. Dec.		Device No.	IDENT- Code	Logical Dev.no. Oct. Dec.		Back- ground

**8. OVERLAPPING DEVICE NUMBERS**

===== OVERLAPPING DEVICE NUMBERS, ND-100 =====

HARDWARE DEVICE NAME		FIRST DEVNO	LAST DEVNO	IDENT -CODE	
REAL TIME CLOCK	3	20	23	6	Overlaps with
EXTERNAL INTERRUPT	2	20	23	6	
SYNCHRONOUS MODEM	7	160	167	40	Overlaps with
LINE PRINTER	3	160	163	35	
LINE PRINTER	4	164	167	36	
SYNCHRONOUS MODEM	8	170	177	10	Overlaps with
LINE PRINTER	5	170	173	33	
LINE PRINTER	6	174	177	32	
PARALLELL BYTE OUTPUT		430	433	3	Overlaps with
LINE PRINTER	1	430	433	3	
10 MB DISC CONTR.	1	500	507	1	Overlaps with
FINCH 8" DISC CONTR.	1	500	507	1	
ST506 5" DISC CONTR.	1	500	507	1	
STC MAG TAPE CONTR.	4	500	507	1	
10 MB DISC CONTR.	2	510	517	5	Overlaps with
FINCH 8" DISC CONTR.	2	510	517	5	
ST506 5" DISC CONTR.	2	510	517	5	
STC MAG TAPE CONTR.	3	510	517	5	
STC MAG TAPE CONTR.	1	520	527	3	Overlaps with
PERTEC MAG TAPE CONTR.	1	520	527	3	
STC MAG TAPE CONTR.	2	530	537	7	Overlaps with
PERTEC MAG TAPE CONTR.	2	530	537	7	
SMD 10 MHZ DISC CONTR.	3	540	547	2	Overlaps with
SMD 15 MHZ DISC CONTR.	3	540	547	2	
SMD 10 MHZ DISC CONTR.	4	550	557	6	Overlaps with
SMD 15 MHZ DISC CONTR.	4	550	557	6	
ND-500	5	560	577	76	Overlaps with
HASP DMA	1	560	577	156	
VERSATEC DMA	1	600	607	4	Overlaps with
VERSATEC PIO	1	600	607	4	
ND-500	3	660	677	36	Overlaps with
TERMINAL INTERFACE	35	660	667	126	
TERMINAL INTERFACE	36	670	677	127	
SYNCHRONOUS MODEM	9	1100	1107	70	Overlaps with
TERMINAL INTERFACE	37	1100	1107	130	

SINTRAN III - HOW TO ORDER IT  
OVERLAPPING DEVICE NUMBERS

29

HARDWARE DEVICE NAME		FIRST DEVNO	LAST DEVNO	IDENT -CODE	
SYNCHRONOUS MODEM	10	1110	1117	44	Overlaps with
TERMINAL INTERFACE	38	1110	1117	131	
SYNCHRONOUS MODEM	11	1120	1127	50	Overlaps with
TERMINAL INTERFACE	39	1120	1127	132	
SYNCHRONOUS MODEM	12	1130	1137	54	Overlaps with
TERMINAL INTERFACE	40	1130	1137	133	
SYNCHRONOUS MODEM	13	1140	1147	60	Overlaps with
TERMINAL INTERFACE	41	1140	1147	134	
SYNCHRONOUS MODEM	14	1150	1157	64	Overlaps with
TERMINAL INTERFACE	42	1150	1157	135	
SYNCHRONOUS MODEM	15	1160	1167	74	Overlaps with
TERMINAL INTERFACE	43	1160	1167	136	
SYNCHRONOUS MODEM	16	1170	1177	75	Overlaps with
TERMINAL INTERFACE	44	1170	1177	137	
UNIVERSAL DMA, Nord-10	1	1400	1407	24	Overlaps with
TERMINAL INTERFACE	45	1400	1407	140	
UNIVERSAL DMA, Nord-10	2	1410	1417	25	Overlaps with
TERMINAL INTERFACE	46	1410	1417	141	
UNIVERSAL DMA, Nord-10	3	1420	1427	26	Overlaps with
TERMINAL INTERFACE	47	1420	1427	142	
UNIVERSAL DMA, Nord-10	4	1430	1437	27	Overlaps with
TERMINAL INTERFACE	48	1430	1437	143	
HASP DMA	5	1500	1517	162	Overlaps with
UNIVERSAL DMA, Nord-10	9	1500	1507	34	
TERMINAL INTERFACE	49	1500	1507	144	
UNIVERSAL DMA, Nord-10	10	1510	1517	35	
TERMINAL INTERFACE	50	1510	1517	145	
HASP DMA	6	1520	1537	163	Overlaps with
TERMINAL INTERFACE	51	1520	1527	146	
TERMINAL INTERFACE	52	1530	1537	147	
SMD 10 MHZ DISC CONTR.	1	1540	1547	17	Overlaps with
SMD 15 MHZ DISC CONTR.	1	1540	1547	17	
SMD 10 MHZ DISC CONTR.	2	1550	1557	20	Overlaps with
SMD 15 MHZ DISC CONTR.	2	1550	1557	20	
FLOPPY DISC PIO	1	1560	1567	21	Overlaps with
FLOPPY DISC DMA	1	1560	1567	21	
FLOPPY & STREAMER 8"	1	1560	1567	21	
FLOPPY & STREAMER 5 & 8	1	1560	1567	21	

HARDWARE DEVICE NAME		FIRST DEVNO	LAST DEVNO	IDENT -CODE	
FLOPPY DISC PIO	2	1570	1577	22	Overlaps with
FLOPPY DISC DMA	2	1570	1577	22	
FLOPPY & STREAMER 8"	2	1570	1577	22	
FLOPPY & STREAMER 5 & 8	2	1570	1577	22	
VERSATEC DMA	2	1600	1607	14	Overlaps with
VERSATEC PIO	2	1600	1607	14	
HDLC AUTO LOAD		1600	1603		
HDLC REMOTE LOAD	1	1604	1607		
HDLC / MEGALINK	1	1640	1657	150	Overlaps with
TERMINAL INTERFACE	53	1640	1647	150	
TERMINAL INTERFACE	54	1650	1657	151	
HDLC / MEGALINK	2	1660	1677	151	Overlaps with
TERMINAL INTERFACE	55	1660	1667	152	
TERMINAL INTERFACE	56	1670	1677	153	
HDLC / MEGALINK	3	1700	1717	152	Overlaps with
TERMINAL INTERFACE	57	1700	1707	154	
TERMINAL INTERFACE	58	1710	1717	155	
HDLC / MEGALINK	4	1720	1737	153	Overlaps with
TERMINAL INTERFACE	59	1720	1727	156	
TERMINAL INTERFACE	60	1730	1737	157	
HDLC / MEGALINK	5	1740	1757	154	Overlaps with
TERMINAL INTERFACE	61	1740	1747	160	
TERMINAL INTERFACE	62	1750	1757	161	
HDLC / MEGALINK	6	1760	1777	155	Overlaps with
TERMINAL INTERFACE	63	1760	1767	162	
TERMINAL INTERFACE	64	1770	1777	163	
OVERLAPPING DEVICE NUMBERS					

**APPENDIX A**

**SINTRAN III ORDER FORM**

On the next two pages you will find a complete SINTRAN III order form.





# SINTRAN III ORDER

PAGE 1

CUSTOMER:		CPU NO:	DATE:
CUSTOMER REP. :		PHONE:	
CUSTOMER NOTES:			MAINT. :
ISSUED BY:		DUMPED: (1)	LISTING: (2)

## MASS STORAGE

AVAILABLE SIZES ON: REMOVEABLE PACKS: 288MB AS: 38MB R 70MB 75MB 4-70MB R  
 225MB R 288MB R 3-75MB  
 FIXED DRIVES: 140MB AS: 140MB 2-70MB  
 150MB AS: 2-75MB  
 288MB AS: 288MB F 4-70MB F 6-70MB  
 450MB AS: 450MB 2-225MB  
 PHOENIX: 30MB 60MB 90MB

UNIT	0	1	2	3
CONTROL 1	.....MB .	.....MB .	.....MB .	.....MB .
CONTROL 2	.....MB .	.....MB .	.....MB .	.....MB .

AVAILABLE SIZES ON WINCHESTER DRIVES: 14 16 21 23 45 HAWK: 10

UNIT	0	1
CONTROL 1	.....MB .	.....MB .
CONTROL 2	.....MB .	.....MB .

CONTR/UNIT	HP	MAG-TAPES PERT CIPHER	STC	FLOPPY DISK SMALL BIG
1/				
2/				

SYSTEM UNIT ON: ..... MB DISK

## TERMINALS (3)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
B																							
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128																
						R	B																

- (1) B: ON 8" FLOPPY 5: ON 5 1/4" FLOPPY  
 (2) C: COMPLETE LISTING F: ON FLOPPY  
 S: SYMBOL LISTING P: ON PAPER  
 N: NO LISTING  
 (DEFAULT: LISTING ON FLOPPY)  
 (3) B: TERM. WITH BACKGROUND  
 R: TERM. WITHOUT BACKGROUND  
 S: PRINTER TERM. WITH SPOOLING  
 P: PRINTER TERM. WITHOUT SPOOLING  
 T: TEXT EDITING (TERM. 16-2)  
 F: PHOTSETTER (TERM. 29-31)  
 H: HARRIS PHOTSETTER (TERM. 29-30)  
 G: GRAF CASSETTE (TERM. 27-28)  
 X: RESERVED FOR ND-NET

DELIVERY

MAIL :

LOCAL PICKUP :

SOFTWARE NOTES

VERS

GEN BY

DATE

## INPUT/OUTPUT DEVICES AND SPOOLING

HDLC DMA DRIVER / SYNC.		MOD.		HDLC (H/S)		(4)		PIOC		GPIB		OCTOBUS		MPM-4		BUS EXPANDER					
1	2	3	4	5	6	7	8	9	10	11	12	1-8	1-4	1-4							
X.21		X.25		X.29		SYNCHRONOUS MODEMS (4)															
1-8						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
CAMAC		UNIVERSAL DMA / VICOM INTERFACES (D / V)														FAST UDMA/VICOM OPT. FOR ND-500					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
LINE-PRINTER		VERSATEC DMA I/O		COSMOS SPOOLING		DEVICE NUMBER FOR SPOOLING (5)															
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

## SYSTEM PARAMETERS

RT PROG.	SEGM.	SEMA.	INTERN. CHAR.	DEVICE BLOCK	BATCH PROC.	CX CPU	DEV BUF	SYMB. DEBUG.	FILE ACC. SEGM.	CONN. TO	TERM. ACCESS DEVICE	ND-500	ND-500 PROC.				
-50-	-75-	-5-	-2-		-1-		-20-						-10				
ACCOUNTING RT I/O		NOT PANEL CLOCK		SIBAS		HASP DMA		REMOTE JOB ENTRIES			RT COMM		BACKGR. ALLOC				
				1-3	1-6	1-12		IBM	HONEYWELL	UNIVAC	CDC		↓ NO OF BACK				
LOGGING FUNCTIONS				SREEN		LAMU		READ SEGM		TPS (6)		NORD NET(7)		DIRECT TASK		NO. OF RT-PROG FROM DIR. TASK	
SWAP DISC ACCESS MON CALL																	
M-T FROM DIRECT TASK		DIRECT TRANSFER ON M-T			CONNECT DATAFIELD		EXTEND OPEN FILE TABLE										

## ND-NET

LINE NO	ASYNC	SYNC MODEM		H D L C		CHANNELS															
		FULL DPX.	HALF DPX.	DMA	I/O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					

POOL :

(4) EXCLUSIVE OF ND-NET CONNECTIONS

(5) GIVE OCTAL NUMBERS

(6) GIVE DECIMAL NUMBERS OF TERMINALS RUNNING TPS

(7) SPECIFY CONFIGURATION BELOW

EVERY SINTRAN WILL ALSO CONTAIN AS STANDARD:

MAGTP, ECHO BREAK TABLE 7, TELINT/TELENT, EXTENDED ADDRESS MODE, FIXC, 5 FIXC500, X-MESSAGE, XON/XOFF, INSTING/OUTSTRING, MON LOGIN



\*\*\*\*\*

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\*\*\*\*\*



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Manual name: SINTRAN III — How to order it

Manual number: ND-30.053.1 EN

What problems do you have? (use extra pages if needed)

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Do you have suggestions for improving this manual ?

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Your name: \_\_\_\_\_ Date: \_\_\_\_\_

Company: \_\_\_\_\_ Position: \_\_\_\_\_

Address: \_\_\_\_\_

What are you using this manual for ? \_\_\_\_\_

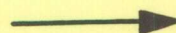
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