ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-01D

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	INST-SIB-100-F02	PROG	I	R	RWACD	RWACD	63	184382
1	SIB2-PROG-F02	MODE	I	R	RWACD	RWACD	2	414
2	SIB2-DATA-F02	MODE	I	R	RWACD	RWACD	15	26724
3	SIB2-DML-100-F02	OUT	I	R	RWACD	RWACD	5	7938
4	SIB2-PROG-F02	BPUN	I	R	RWACD	RWACD	66	130999
5	SIB2-DATA-F02	BPUN	I	R	RWACD	RWACD	62	115887
6	SIB2-DBM-100-F02	PROG	I	R	RWACD	RWACD	113	264192
7	SIB2-DRL-100-F02	PROG	I	RWACD	RWACD	RWACD	197	729088
8	SIB2-LOOKLOG-F00	PROG	I	R	RWACD	RWACD	71	92160

9 files using 594 pages. 610 pages reserved out of 610 pages.

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-02D

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIBAS-SERV-F02	PROG	I	R	RWACD	RWACD	106	131072
1	SIBLIB-1BANK-F02	BRF	I	R	RWACD	RWACD	14	25087
2	SIBLIB-2BANK-F02	BRF	I	R	RWACD	RWACD	14	25828
3	SIBINTER-F00	PROG	I	R	RWACD	RWACD	116	249856
4	UE-ERMSG-EN-B04	ERR	I	R	RWACD	RWACD	66	131840
5	UE-ERMSG-NO-B04	ERR	I	R	RWACD	RWACD	69	137472
6	SIB2-DPA-F00	PROG	I	R	RWACD	RWACD	82	83968
7	SIB2-DBCONV-F02	PROG	I	R	RWACD	RWACD	74	225280
8	files using 541 pages.			610 pages reserved out of 610 pages.				

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-01S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIB2-PROG-F02	MODE	I	RWACD	RWACD	RWACD	2	414
1	SIB2-DATA-F02	MODE	I	RWACD	RWACD	RWACD	15	26724
2	SIB2-DML-100-F02	OUT	I	RWACD	RWACD	RWACD	5	7938
3	INST-SIB-100-F02	PROG	I	R	RWACD	RWACD	63	184730
4	files using 85 pages.			148 pages reserved out of 148 pages.				

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-02S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIB2-PROG-F02	BPUN	I	RWACD	RWACD	RWACD	66	130999
1	SIB2-DATA-F02	BPUN	I	RWACD	RWACD	RWACD	62	115887
2	files using 128 pages.			148 pages reserved out of 148 pages.				

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-03S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIBAS-SERV-F02	PROG	I	RWACD	RWACD	RWACD	106	131072
1	SIBLIB-1BANK-F02	BRF	I	RWACD	RWACD	RWACD	14	25087
2	SIBLIB-2BANK-F02	BRF	I	RWACD	RWACD	RWACD	14	25828

3 files using 134 pages. 148 pages reserved out of 148 pages.

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-04S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	MAKEDRL-F02	PROG	I	RWACD	RWACD	RWACD	21	40960
1	SIB2-DRL-A-F02	PROG	I	RWACD	RWACD	RWACD	101	532480
2	files using 122 pages.			148 pages reserved out of 148 pages.				

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-05S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIB2-DRL-B-F02	PROG	I	RWACD	RWACD	RWACD	97	729088
1	file using 97 pages.	148 pages reserved out of 148 pages.						

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-06S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIB2-DBM-100-F02	PROG	I	RWACD	RWACD	RWACD	113	264192
1	file using 113 pages.			148 pages reserved out of 148 pages.				

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-07S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIBINTER-F00	PROG	I	RWACD	RWACD	RWACD	116	249856
1	file using 116 pages.			148 pages reserved out of 148 pages.				

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-08S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	UE-ERMSG-EN-B04	ERR	I	RWACD	RWACD	RWACD	66	131840
1	UE-ERMSG-NO-B04	ERR	I	RWACD	RWACD	RWACD	69	137472

2 files using 135 pages. 148 pages reserved out of 148 pages.

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-09S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIB2-LOOKLOG-F00	PROG	I	RWACD	RWACD	RWACD	71	92160
1	SIB2-DBCONV-F02	PROG	I	RWACD	RWACD	RWACD	74	225280
2	files using 145 pages.			148 pages reserved out of 148 pages.				

ND SOFTWARE LIBRARY DISKETTE

Containing : SIBAS-II for ND-100

Directory Name : 210166F02-XX-10S

User Name : FLOPPY-USER

Nr	File name	Type	T	File access: Public	Friend	Own	Pages	Bytes
0	SIB2-DPA-F00	PROG	I	RWACD	RWACD	RWACD	82	83968

1 file using 82 pages. 148 pages reserved out of 148 pages.

PROGRAM DESCRIPTION

Product	Name	Reg. no.	Category
	S I B A S II for ND-100	210166F	STPR

Reason

. New product
X Change/Addition
. Other:
X Error Correction
. Different Environment

Documentation

Title	Reg. no.
SIBAS II ND User Manual	60.127.05
SIBAS II ND Operators Manual	30.009.03

Purpose

General purpose database management system.

Prerequisites

Computer	Type	Floating format	Op. system	Version
ND-100	All		SIN III VS	>=I

Minimum mass storage resources for installation

User	Userspace	Number of files
SYSTEM	60 pages on	2 files
DIALOG-SYS	1100 pages on	16 files

Minimum permanent mass storage resources

User	Userspace	Number of files
SYSTEM	60 pages on	1 files
DIALOG-SYS	1100 pages on	16 files

Max/Min number of RT-descriptions: Max 13 Min 2
Max/Min number of segments: Max 13 Min 2
Space requirements on segment file(s) is:
64 + ((no SIBAS processes) * 56) pages

Product consists of

Reg. no. for Source 210308F

File no.	File Name	Type	CONTAINING
207988F	INST-SIB-100-F<rev>	PROG	system generation prog.
205272F	SIB2-PROG-F<rev>	MODE	loading program segment
205273F	SIB2-DATA-F<rev>	MODE	loading data segment
207975F	SIB2-DML-100-F<rev>	OUT	symbol list of DML
205269F	SIB2-PROG-F<rev>	BPUN	program segment
205270F	SIB2-DATA-F<rev>	BPUN	data segment
207981F	SIB2-DBM-100-F<rev>	PROG	maintenance program
207985F	SIB2-LOOKLOG-F<rev>	PROG	utility program
207977F	SIBAS-SERV-F<rev>	PROG	service program
207978F	SIBLIB-1BANK-F<rev>	BRF	1-bank library
207979F	SIBLIB-2BANK-F<rev>	BRF	2-bank library
207982F	SIBINTER-F<rev>	PROG	interactive use of DML
204622F	UE-ERMSG-EN-B04	ERR	error messages
204623F	UE-ERMSG-NO-B04	ERR	- - - - - - - - -
207987F	SIB2-DPA-F<rev>	PROG	Utility program
207986F	SIB2-DBCONV-F<rev>	PROG	conversion program
207989F	SIB2-DRL-100-F<rev>	PROG	redefinition program
205274F	MAKEDRL-F<rev>	PROG	install prog. for DRL
207980F	SIB2-DRL-A-F<rev>	PROG	redefinition program
205339F	SIB2-DRL-B-F<rev>	PROG	redefinition program

* <rev> = Current revision

1 LIMITATIONS IN SIBAS II/F

Maximum number of realms per database has been increased to 254 for SIBAS-500 and approximately 100 for SIBAS-100.

More data may be stored on each realm. Max. 2 gigabytes per realm.

More concurrent user per database: 188 on SIBAS-500 and 60 on SIBAS-100.

Maximum 24 OS-files per database.

BIM and R-log size with maximum 65000 pages.

2 ERRORS CORRECTED

2.1 SIB2-DML

SOPDB with code 0. SRRLM with usage 1 and protection 0 did allow the the user to STORE records when no R-log was defined.

It is now impossible to open a database on a SIBAS system number if database name differs from the name used when the process was set to running state.

Slow SFTCH, when duplicate index-key and empty index-tables, has been improved.

SIBAS-500 error 505 has been improved.

SINFO now returns correct free-space info for serial realms.

Find-last-in-set (SRLSM) with double link gave status=1, even if the realm where the members resided had not been readied.

OFLOG will no longer lead to 'answer mismatch' during reprocessing.

2.2 SIBAS-LIBRARIES

All reported and known errors corrected.

2.3 SIBAS-SERVICE

"Hang" when trying to INIT R-LOG, when RT had only RW or R access to the database owner, corrected.

A database with BIM and R-log may now <u>always</u> be (re)started by STANDARD-REPRO AND ROLL-BACK even after RESET R-LOG and/or redefinitions of the database.

After reprocessing with "remove uncompleted sequences", those removed are no longer displayed by Sibas-Service.

2.4 SIB2-DRL

Trouble with expanding an item which is member of group is corrected.

Redefining database with several NEW SET's sometimes caused problems, corrected.

Errors in CHANGE SET corrected.

The '*' character may be used inside PURPOSE/HEADING.

2.5 SIB2-DBM

All reported and known errors corrected. Among these:

LOAD from contiguous file didnotstopwhen all recordswereread, continued to EOF. Corrected.

RESET-ERROR-FLAGS now always works, also after ready-realm.

2.6 SIBINTER

All reported and known errors corrected.

Sibinters ability to 'remember' default values has been improved.

All SIBAS DML-calls has been implemented.

Changed editing of input from terminals. The DELETE key and the arrow down now works like under SINTRAN.

2.7 SIB2-LOOKLOG.

All reported and known errors corrected.

3 CHANGED PREREQUISITES

3.1 SIB2-DBCONV

All existing databases have to be converted to run under SIBAS-F. This is done by a separate program. For details, see chapter 8.

4 MODIFICATIONS

4.1 CHANGED COMMANDS/FEATURES

4.1.1 SIB2-DML

The maximum R-log file size is increased from 32000 pages to 65000 pages, block size from 1/2 K to 1 K. All 'SCLDB' calls logged will contain some accounting info, such as user ID (CPU number / terminal number), time when opened, time when closed, opened for read/update, total number of calls executed and number of STORE,SMDFY,SRASE and SGET.

The max BIM-log file size is increased from 4096 pages to 65000 pages. Checkpoint (CP) is automatically taken when BIM-log passes the trigger size (default trigger size = BIM file size - 10%). The exception is between SUBEG/SUEND, when CP is delayed until SUEND is executed. Forced roll-back is done if max BIM size is reached between SUBEG/END.

SUBEG/SUEND now use no-of-calls as a time-out indicator instead of elapsed time. In addition there is an internal time-out mechanism to avoid "hang". Default is a limit of 1000 calls between SUBEG and SUEND.

SOPDB for read-only, after a direct R-log is filled, can now be allowed through the runflag.

Max number of members in multi-member sets is 8 in the F-version.

SINFO is changed to be able to read large database descriptions. Max before: approx. 120 items/realm.

SINFO with code 2 now returns all page numbers in 32 bits integers. Note that this has not been corrected in the manual!

4.1.2 SIBAS-LIBRARIES

The SIBAS libraries has been rewritten in Planc, and are now available only in 3 versions :

SIBLIB-1BANK (SIBAS-100)

SIBLIB-2BANK (SIBAS-100)
SIBLIB-500 (SIBAS-500)

This means easier loading procedures, and applications written in COBOL does no longer need to load FORTRAN-LIB to run SIBAS.

Programs that need to have common data and program code loaded on separate areas may refer the symbol SIBPACK and then load SIBLIB from a specified location. Only global data entries will then be loaded from SIBLIB. This may be useful for multi-segment programs loaded by RT-LOADER or BRF-linker.

SIBLIB-E and SIBLIB-F are interchangeable, except for that SIBLIB-F cannot access SIBAS through the E-version of SIBAS BACKEND.

The number of XMSG calls is reduced, giving faster communication, especially on the ND-500.

4.1.3 SIBAS BACKEND

See the Program Description of SIBAS BACKEND F, product no. 210197F.

4.1.4 SIB2-DRL

Changed syntax to spread a realm onto several OS-files:

```
NEW xxxx-REALM <realm-name> OS-FILE <file-name>
      REALMSIZE <no-of-pages>
    ( ADDITIONAL OS-FILE <file-name> SIZE <no-of-pages>
    ( ADDITIONAL OS-FILE <file-name> SIZE <no-of-pages> )...)
```

```
CHANGE xxxx-REALM <realm-name>
    ( REALMSIZE <no-of-pages> )
    ( ADDITIONAL OS-FILE <file-name> SIZE <no-of-pages>
    ( ADDITIONAL OS-FILE <file-name> SIZE <no-of-pages> )...)
```

Additional OS-files are declared by the NEW OS-FILE statement, just as ordinary OS files.

One OS-file may only belong to one realm, but one realm may have several OS-files declared as additional. Please note that only 3 add. OS-files may be declared for a realm in each run. Thus, if you want 6 add. OS-files for a realm, you have to run DRL twice. REALMSIZE option in the CHANGE command may not be used if add. OS-files are defined. Increase in realmsize will then have to be made in the last add. OS-file; the same goes for decrease in realmsize. Add. OS-files may be deleted by setting SIZE to zero

for the last defined OS-file(s). Files to be deleted must be empty. NB : beware that there are some errors in the new user manual concerning the syntax description of the NEW/CHANGE REALM commands.

Added syntax in the START REDEFINITION command to place the scratch file on another directory and/or user :

```
START REDEFINITION DATABASE <databasename> (DPA-PASSWORD) <passw
      ( SUPRESS .... )
        SCRATCH-FILE <filname> ( DIRECTORY <abbr-dir-name:user>
```

Max number of members in multimember sets is now 8.

Number of top-levels for character index-keys is reduced to max 75.

Timestamp is set on realm-level when redefining the datastucture.

WARNING: It is not possible to define new index on set owner and new set in the same redifinition run.

4.1.5 SIBAS-SERVICE

SIBAS system number can now be given on the command line when SIBAS- SERVICE is started (e.g. SIBAS-SERVICE 5).

Terminal #1 can no longer be reserved by SIBAS during recovery.

It is now possible to ignore all subsequent mismatch when 'answer mismatch' occurs during reprocessing.

The database owner can now start and stop a database. (Not only users RT and SYSTEM). However, you must still be user RT or SYSTEM to take SIBAS to/from passive state.

The new DBEC value is written if 'answer mismatch' occurs during reprocessing. Also, the total number of mismatch will be printed at the end of reprocessing.

Improved messages during reprocessing.

R-LOG directory name can now be up to 8 characters.

TURN-ON/OFF-TERMINAL-LOG now works both on ND-100 and ND-500. This command can be used to get all calls going to/from SIBAS printed on a terminal or rtopened file.

Changed editing of input from terminals. The DELETE key and the arrow down now works like under SINTRAN.

4.2 NEW COMMANDS/FEATURES

4.2.1 SIB2-DML

Several new subroutines are implemented, among them are some calls using a 'record number'. A record number is the physical record number relative to realm start. For complete description of these calls, please refer to the manual.

SFRNO : find-using-record-number. Parameters as for SFTCH, but re name and record number is given instead of key-value. Fo record is set to current record.

SFRGT : find-using-record-number-and-get. Combined SFRNO + SGET.

SWHAT : what-is-temporary-db-key. Return parameters are realm-name and record-number.

SSGET : combined SFORG + SREMB + SGET. Parameters as for SGET.

SYNCP : syncronised checkpoint. CP is taken when all active critica sequences are completed.

SEMSG : multifunction subroutine to read log info, db info, user in error messages, SSI/SEC codes, etc.

SCLDB : accounting info is written on the log-file, such as:

- user id (CPU#, Terminal#)
- time when opened
- " " closed
- opened for read/update
- number of calls executed
- number of STORE/SMDFY/SRASE/SGET

SEC codes (Standard Error Codes) implemented for all SIBAS error codes. UE-ERMSG--B04 can be loaded to read SIBAS error messages (text) when any DBEC or negative status occurs (see description of the SEMSG call).

If DBA password is used to open a database where privacy items are defined, the privacy item does not need to be given.

The R-LOG file is now closed whenever the database files are closed.

If only BIM-log is used (no R-LOG), SIBAS will now tell the operator to do recovery when the database is started after an abnormal stop (i.e. the database was not closed properly). In earlier versions this was only checked if R-LOG was in use.

SIBAS will check current year < 2000 before start with R-LOG is accepted.

Automatic realm expansion when a realm runs full. Additional OS-files, declared by DRL, serve as overflow area. A message is written on the console. This feature must be enabled through a patch.

4.2.2 SIB2-DRL

DRL now runs on the ND-500. This means faster definition / redefinition and larger schemas.

Changed editing of input from terminals. The DELETE key and the arrow down now works like under SINTRAN.

New display codes for the DDC: DATE / TIME / WEEK.

SEC codes (Standard Error Code). If any error occur during a DRL run, the SEC code is set and may be tested by JEC. (Job Execution Control)

```
SSI code : 230B     ( SIBAS II module SIB2-DRL )
SEC code : 23050B   ( SSI + SC , SC = 50B = error
condition )
```

If no error occurs:

```
SSI code : 230B
SEC code :   0
```

4.2.3 SIB2-DBM

The DBM is now available on ND-500, giving faster verify.

Changed editing of input from terminals. The DELETE key and the arrow down now works like under SINTRAN.

It is now possible to run DBM from another user. Syntax :

```
START (user-name)database-name.
```

Correct free-space-statistics for serial realms.

VERIFY PAGE-LINK is now more accurate and is able to find more errors, for example loops in free-links.

VERIFY MODE COUNT. Almost the same as READ-ONLY, but faster.

SET-PRINT-INTERVAL. Gives printout for every n'th record when verifying indexes.

FREE-SPACE-STATISTICS shows the distribution of reserved pages for all OS-files when using additional OS-files.

Below is a table to indicate the increase in performance for the F version of DBM. All measurements are approximate.

	ND-100/E	ND-100/F	ND-500/F
Count Index	*	2 - 3	5 - 6
Read Index	1	1.5 - 2	4 - 5
Regen. Index	1	1.5 - 2	3 - 4
Read Set	1	1 - 1.5	2 - 3
Regen. Set	1	1 - 1.5	3 - 4
Unload	1	2	3 - 4
Load	1	2	4 - 5

* Count Index may be compared with Read Index on ND-100 DBM Version E

4.2.4 SIBAS-SERVICE.

All numbers are now in decimal format by default.

DATABASE-STATUS returns more info:

- BIM-log start address
- Percent used of R-log
- Number opened for read/update
- User id (CPU#,Terminal#)
- Time opened for each user
- No. of calls " "

STATUS : Same as DATABAS-STATUS, but no user entries will be displayed. Runflag description is given, and number of BIM triggered checkpoints are displayed.

USER-STATUS : Gives all statistics and info available about one particular or all users with database open.

IO-STATISTICS : Print number of page accesses per OS-file after last physical open.

FREE-SPACE-STATISTICS : Prints all free-space-statistics for all realms in the database.

4.2.5 SIB2-DPA

Database Patching Aid. Utility program for ND support personel.

4.2.6 SIB2-LOOKLOG

Prints available user info for all SOPDB and SCLDB calls.

4.3 ELIMINATED COMMANDS/FEATURES

4.3.1 SIB2-DBM

VERIFY MODE REPAIR is no longer available.

MAKE MODE FILE is no longer available.

5 LOADING/OPERATING PROCEDURE

SIBAS-II/F is designed to run under SINTRAN III version I or newer. If more than 12 processes is wanted, SINTRAN III version K is required.

SIBAS-II/F is delivered on double or single density diskettes.

On double density diskettes, the system is divided into 2 diskettes with directory names 210166F<rev>-XX-01D, 210166F<rev>-XX-02D.

On single density diskettes, the system is divided into 10 diskettes with directory names 210166F<rev>-XX-01S, 210166F<rev>-XX-02S,..... 210166F<rev>-XX-10S

We remind you that this is SIBAS-100 only. If SIBAS-500 is required in addition to SIBAS-100 you must ask for SIBAS-500 (relevant only if SIBAS-500 is not already installed).

You may choose to install SIBAS by a installation program or not.

DATABASES DEFINED WITH SIBAS-E OR EARLIER VERSIONS MUST BE CONVERTED BEFORE THEY CAN BE USED BY SIBAS-F. How to convert a database is explained later in this document.

6 INSTALLATION USING THE INSTALLATION PROGRAM

You may either perform a complete installation or just change the existing installation. If installing completely, INST-SIB-100-F:PROG will copy all files on the floppy disks to user DIALOG-SYS.

If you later want to change the number of SIBAS processes in your system, just start INST-SIB-100-F:PROG again from user SYSTEM.

- Before you start the installation we suggest that you check that the users involved have enough unused pages, or at least there are unreserved pages on the directories.

  User DIALOG-SYS needs 1100 pages and 16 filenumbers.

  User SYSTEM needs space and filenumbers for the utilities you copy into it. Minimum of one filenumber and 58 pages.

  You must also check that the 'DIALOG-SYS'-user (if it exists) has exactly the name DIALOG-SYS, and not any other name that can be abbreviated into it (f.ex. DIALOGUE-SYS or DIALOG-SYSTEM)

  All SIBAS processes must be in passive state and the RT-LOADER must be free to use.

- Log in as user SYSTEM and insert the first floppy disk 210166F<rev>-XX-01. Then type:

```
@ENTER-DIRECTORY,210166F,F-D-1,<unit>
@SET-DEF-DIR 210166F
```

- Run (210166F:F-U)INST-SIB-100-F:PROG from user SYSTEM:

```
@(210166F:FL-U)INST-SIB-100-F
```

- Answer all questions from the program.

- When the program is finished, SIBAS is installed.

NB! A COPY OF "SIB2-DRL-100-F:PROG" MUST ALWAYS RESIDE ON USER DIALOG-SYS.

EXPLANATION OF QUESTIONS FROM THE INSTALLATION PROGRAM:

What do you want to do, Install or Change (type I or c) ?

- If Install, all SIBAS files are read from the diskettes and the SIBAS-F processes are defined.

- If change, the SIBAS processes are reloaded. Number of processes may be changed. An Install must be done before a Change can be done.

How many SIBAS processes do you want (1 to 12) ?

- You may choose how many SIBAS processes you want to load on your ND-100 computer.

Which process do you want to be the first (0 to nn) ?

- You must decide which process is to be the first.

On which seg-file is SIBAS to be loaded (default = 0) ?

- Usually you can give CR on this question, but if you get a message that the seg-file is full when running the mode files, you must run SIB2-INST-F<rev> again with option "Change" and try another seg-file. To find which seg-files are defined in your computer, do the Sintran command @LIST-FILES SEGFIL,, from user SYSTEM.

On which directory do you want to give user DIALOG-SYS pages ?

"List of entered directories."

Directory name ("CR" = Main directory) :

- If the user already is defined and it is enough free space on the directory where the user is defined, answer CR on this question.
- If the user is not defined on your system, give name of a directory where you know it is enough free space (1100 Sintran pages).
- If the user is defined, but there is not enough free space on the directory, try to take some space from other users on the dirctory or move DIALOG-SYS to another directory.

Which floppy station and unit are you going to use ?
Station: FLOPPY-DISC-_
Unit:_

- You have to choose a free floppy-unit.

Do yoy want to copy SIBAS library-files to user SYSTEM ?

- Answer YES if you want the files SIBLIB-1BANK-Fxx and SIBLIB-2BANK-Fxx copied to user SYSTEM.

Do you want to dump "FILE-NAME" reentrant (default is "YES/NO") ?

- For all files asked, answer YES or NO if you want the program dumped reentrant or not. If you are not sure of what you want, just answer CR and the installation program decides wath to do.

Do you want to copy "FILE-NAME" to user SYSTEM (default is "YES/NO")?

- This question gives you the possibility to copy SIBAS programs to user SYSTEM.

Do you want to run the mode files SIB2-PROG-F<rev>:MODE and SIB2-DATA-F<rev>:MODE ?

- If YES, the mode-files are run and the SIBAS processes installed with default "system locations".
- If you want to change any "system locations" (se chapter "Editing the mode files"), answer NO. Now you have to edit the mode-file SIB2-DATA-Fxx:MODE and run the mode-file SIB2-PROG-Fxx:MODE from user RT or SYSTEM.

7 INSTALLATION WITHOUT USING THE INSTALLATION PROGRAM

7.1 CHECKING

- Check that SINTRAN user DIALOG-SYS exists and has at least 1100 pages free. If user does not exist, create the user and give him enough space
- SIBAS-F processes can be installed in paralell with SIBAS-E processes.
- Check that all SIBAS processes you want to install are passive. If not, use the SET-PASSIVE command in SIBAS-SERVICE.
- The RT-LOADER must be free to use.
- Check the number of free segments. Each SIBAS process needs one data segment. In addition to these segments, one program segment is needed, common for all SIBAS processes.
- Check the RT-common size. 1/2 kw per SIBAS process.
- Check the Segfile size.

7.2 MANUAL INSTALLATION

Copy all files on the diskettes to DIALOG-SYS:

If single density diskettes, SIB2-DRL-100-F<rev> must be copied by using the program MAKEDRL-F<rev>:PROG:

- Insert diskette number 4 and enter the directory 210166F<rev>-XX-04S, and copy the file MAKEDRL-F<rev>:PROG to user DIALOG-SYS.

- Execute the MAKEDRL program with 1 as parameter:

  @MAKEDRL-F 1

- Release directory 210166F<rev>-XX-04S.

- Enter diskett with directory 210166F<rev>-XX-05S and run MAKEDRL-F<rev> with 2 as parameter:

  @MAKEDRL-F 2

- Delete the file MAKEDRL-F<rev>:PROG

- Release the directory.

NB! A COPY OF "SIB2-DRL-100-F:PROG" MUST ALWAYS RESIDE ON USER DIALOG-SYS.

7.3 EDITING THE MODE FILE

Check if necessary system locations in the sibas processes is updated (in the file SIB2-DATA-F<rev>:MODE):

Example from SIB2-DATA-F<rev>:MODE on floppy disk 210166F-XX-01S, the part of the mode-file for loading SIBAS process SIB2A:

```
@RT-LOADER
Y
Y LOAD SIB2A
Y ==========
Y THESE SYSTEM LOCATIONS CAN BE CHANGED BY LOAD-TIME:
Y (ALL VALUES ARE OCTAL).
Y NAME      ADDRESS VALUE  USE
Y IUTDV       2/     1     INPUT DEVICE NUMBER FOR ERROR DEVICE.
Y INNDV       3/     1     OUTPUT DEVICE NUMBER FOR ERROR DEVICE.
Y MYRTCAD     4/     167000 INDEX IN RT-COMMON FOR SIBAS PROCESS SIB2I.
Y MYSIFLG     5/     10    SIBAS PROCESS NUMBER, 0 FOR SIB2I.
Y MYRESIZE    6/     310   SIZE OF BIM RESTART AREA (IN 64W PAGES).
Y MYSULIM     7/     500   PAGES BEFORE BIM-END CAUSINC FORCED ROLL.
Y MYSUCAL    10/     1750  MAX CALLS IN SUBEG SUEND
Y MYSBRK     13      12    NAX NO OF SECURITY BREAKS (PRIVACY ITEM).
Y TDBPUS     32/     62    MAX NO REMEMBERED RECORDS PER. USER.
Y TDBMAX     33/     1750  MAX NO REMEMBERED RECORDS IN DATABASE.
Y TSRPUS     34/     12    MAX NO REMEMBERED SEARCH REGIONS PER USER.
Y TSRMAX     35/     500   MAX NO REMEMBERED SEARCH REGIONS IN DB.
Y EFLAG      36/     0     AUTOMATIC REAL EXPAND FLAG. 0 = OFF, 1 = ON
Y            37/     0     (EFLAG IS DOUBLE INTEGER).
Y ESIZE      40/     0     REALM EXPANDS WITH THIS SIZE.
Y            41/     23420 (ESIZE IS DOUBLE INTEGER).
Y MCLAMU     42/     0     LAMU COMMUNICATON FLAG. 0 = OFF, 1 = ON.
Y COMLEN     75/     1000  MAX LENGTH OF COMMUNICATION PACKET.
Y LAMUPAG   100/     177   LOGICAL PAGENUMBER WHERE TO MAP LAMU.
Y LAMUSIZ   101/     1     LAMU SIZE IN PAGES.
Y SUINERV   102/     12    CALL INTERVAL BETWEEN TIMEOUT TEST IN
Y                          TR-UNIT (SUBEG/SUEND).
Y SUTMOUT   103/     24    SECONDS USED FOR INTERNAL TIMEOUT DURING
Y                          TR-UNIT (SUBEG/SUEND).
Y MDIR      133/     0     DIRECT TRANSFERE FLAG. 0 = OFF, -1 = ON.
Y                          IF -1 THE DATA SEGMENT MUST BE NON-DEMAND
Y                          AND FIXEC CONTINOUS (SINTRAN FIXC COMMAND).
Y
SET-SEG-FILE 0
DELETE-PROG SIB2A
CLEAR-SEGMENT SIB2A
Y
SET-PAGE-TABLE 1 .
NEW-SEG SIB2A,1,0M,,,
READ-BIN (DIALOG-SYS)SIB2-DATA-F,,,,,
CHANGE-LOC SIB2A
4/177000
5/0
```

Product	Name	Reg. no.	Category
	S I B A S II for ND-100	210166F	STPR

```
.      <----- Changes in system locations before period.
Y              Syntax is:  "address"/"new value"  (eks: 13/24).
Y              All values must be on octal format.
 END-LOAD
 DECLARE-PROG SIB2A,,,,,,,,,
 CHANGE-RT-DES SIB2A,56,SIBPF00,SIB2A,11,1,2,1
 END-LOAD
 EXI
 @RT-LOADER
 SET-SEG-FILE 0
 CHANGE-RT-DES SIB2A,56,SIBPF00,SIB2A,11,1,2,1
 END-LOAD
 EXIT
```

For loading the SIBAS processes, run the mode-file SIB2-PROG-F:MODE from user SYSTEM or RT.

8 AFTER INSTALLATION

@MODE SIB2-PROG:MODE should be included in the HENT-MODE file in order to install SIBAS-II/F properly after a cold start. Remember to update the DUMP-REENTRANT part for the SIBAS utility programs. Use the command @DUMP-PROGRAM-REENTRANT.

9 CONVERTING DATABASES TO SIBAS-F

A database defined with SIBAS-E or earlier versions must be converted before it can be used with SIBAS-F. Size of the data part of the database is not changed of the conversion, only the schema-part is increased with 10 kw.

The procedure is:

- Make sure you have a consistent database (run a verify of the database using SIB2-DBM-Exx).

- Take a full backup of the database.

- Fromthe user where the database is located, or from another user which has "RWC" access to the database files, run the program (DIALOG-SYS)SIB2-DBCONV-F<rev>:PROG.

- The program needs a scratch-file to holdacopy of the database schema. Size of this file can be found with the FREE-SPACE command in SIB2-DBM-Exx. Take "PAGES USED" for "Database-name" type SYS, divide this number with 16 and add 10. You will then get an estimated size of the database schema

after conversion. This will also be the space requirement for the scratch-file.

(PAGES-USED ON E-SCHEMA)/16 + 10 ==> Size of scratch-file in SINTRAN-pages.

THE SCRATCH-FILE SHOULD BE AN IDEXED FILE (NOT CONTIGOUS FILE).

- Always run the program from a mode-file with output to a file and check if the output is OK.

Example of a mode file for converting a database:

```
@(DIALOG-SYS)SIB2-DBCONV-F
FUNCTEST                <-- Name of DB owner (MUST BE GIVEN).
FUNCBASE                <-- Name of database (MUST BE GIVEN).
SCRATCH:SYMB            <-- Name of scratch-file. "CR" gives a
                            default file name. If a name is
                            given, the type (:SYMB) must also
                            be given. The program deletes the
                            scratch-file when it has finished
                            using it.
```

- Run the mode file which we have called CONVDB:MODE:

```
@MODE CONVDB:MODE,"CONVDB:OUT"
```

- The conversion program converts from 20 to 100 mega-bytes of dataper hour. Sets defined in the database slowes down the speed of the conversion. With no sets defined, appr. 100 megabytes/hour is a reasonable speed. Note that the conversion program will remove any defined R-LOG and/or BIM-LOG.

- After conversion we advise you to run another verify using SIB2-DBM-F<rev> followed by a full backup of the database.

- FINALLY YOU MUST INITIATE NEW R-LOG AND/OR BIM-LOG AS THEY WERE REMOVED BY THE CONVERSION PROGRAM.