NCR

SERVICE HANDBOOK
VOL. IV

SERVICE HANDBOOK

Vol. IV

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1. SINTRAN III Version H
2. SINTRAN III Version I

Chapter 1

SINTRAN III Version H

SINTRAN III Version H

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                                            SINTRAN III VER. H
                                            SIN-H
Date: 821011   Report no: 22

Program: ALL
Subject: Character conversion for printers on terminal interfaces.

- -

Due to the variety of character sets on different printers,
if may be necessary to convert characters from their ASCII
internal values to appropriate output values. A conversion
routine LPPUT exist in SINTRAN. The routine starts with a
conversion table, of which the label is PTABL.

If a match is found between the character to be output and
one of the values found to the left of the table, the
character is converted to the corresponding element to the
right of the table. The table may be modified, and expanded
to include up to 7 conversions and must be terminated by a
zero left hand element.

The routine is utilised by patching in the relevant
terminal's output data field. Change the content   of
location IOTRANS from <TTPUT> to <LLPUT>.

Exapmle:
@FMAC
SINTRAN:DATA
PTABL=?
LPPUT=?
IOTRA=?
DTxxW=?   > OUTPUT-DATAFIELD OF THE RELEVANT TERMINAL

PTABL/160 ; 30   > convert from 160B to CDC form-feed
        44 ; 135   > convert from ASCII $ to CDC]
       135 ; 134   > convert from ASCII J to CDC \
        45 ; 133   > convert from ASCII % to CDC [
       100 ; 134   > convert from ASCII @ to CDC \

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Date: 821011   Report no: 22

```
        0         $ END
DTxxW+IOTRA/<LPPUT>
)9EXIT
```

NB: For   conversion   for   Line-printers   or
    parallell-interfaces see SIN-H 24   and   SIN-H 39

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SINTRAN III VER. H
SIN-H
Date: 821015   Report no: 24

Program: ALL
Subject: Character conversion for parallel I/O LINE-PRINTER

- -

> In the line-printer datafield exists a conversion table
> which is located at address DMLP1+22, DMLP2+22, etc...
> The locations are located in pairs, the 1st. containing
> initial character value, the second containing "after con-
> version" value. The table has space for 16 conversions.
> EXAMPLE:
> @FMAC
> SINTRAN:DATA
> DMLP1=?
> DMLP1+22/ 101; 102   % CONVERT A TO B
>   102; 103   % CONVERT B TO C
>   0   % END
>
>)9EXIT

ND Norsk Data   Software MODIFICATION Report   Page: 1

SINTRAN III VER. H
SIN-H
Date: 821018   Report no: 31

Program: ALL
Subject: How to remove pages from swapping.

- -

If one wants to remove pages from swapping, i.e. pages that
SINTRAN III normally allocates as swapping pages. This
information may be inserted in the NSWPAGE table located in
the listing part two, chapter 36.24. The value of NSWPA may
also be found in the file SYMBOL-2-LIST.

Each entry in NSWPAGE consist of two location, the first
physical page and the last physical page of the area to be
removed from the available swapping area. There are space
for 20 elements in NSWPAGE. The entry(ies) must be inserted
contigously from the beginning of the table(SINTRAN will
stop searching on the first zero element).

This may be done on the image area(SEGFIL0:DATA) or on the
save area(SINTRAN:DATA) using FMAC. If the patch is done on
image it will be effective after @RESTART-SYSTEM or master-
clear/load. See also SIN-H-32.

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                                    SINTRAN III VER. H
                                    SIN-H
Date: 830609   Report no: 33 B

_____

Program: ALL
Subject: Internal devices using whole words.

- -

The following patches must be done on each internal device
to be run with whole words. Use the CHANGE-DATAFIELD
command of the SINTRAN-SERVICE-PROGRAM. (Logical device
number for byte oriented internal devices are 200B-237B).

Find the tre addresses <PUTW>, <GETW> and <IOBUT> in the
SYMBOL-1-LIST and SYMBOL-2-LIST.

@SINTRAN-SERVICE
@CHANGE-DATAFIELD <LOG.NO> INPUT NO YES NO
IOTRANS/ <GETW>
.
@CHANGE-DATAFIELD <LOG.NO> OUTPUT NO YES NO
IOTRANS/ <PUTW>
.
@EXIT

The table IOBUT consists of a number of two word elements.
The first word is logical device nr. and the second the
buffer size in words.

Use the @LOO-AT,IMAGE comand and step through the table
until the correct element is found. Then set bit 17B in the
buffer size word.

@LOOK-AT,IMAGE
<IOBUT>/xxxxxx
xxxxxx
000230
000040 100040
.
@

If wanted, the buffer size may now be changed using the
CHANGE-BUFFER-SIZE command of the SINTRAN-SERVICE-PROGRAM.

These patches are permanent if done on the save area
(SINTRAN:DATA).

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 821018   Report no: 34

Program: ALL
Subject: Output devices on terminal interfaces.

- -

Output devices on terminal interfaces will on the E,F,G and
H-version of SINTRAN run properly without the earlier patch
on DFOPP, TTMH and TYPRING

If you want delay after carriage return, set bit 9 in
TYPRING (see SIN-H 35).

If your SINTRAN is generated with background on the actual
terminal, use
@SINTRAN-SERVICE-PROGRAM
*REMOVE-FROM-BACKGROUND-TABLE <LOG.NO> INPUT YES YES YES
*CHANGE-DATAFIELD <LOG.NO> INPUT YES YES YES
DBPROG/ RANDOM RANDOM RANDOM   0
.
*EXIT
@
NB: Remember to set the correct speed (see SIN-H 36).

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SINTRAN III VER. H
SIN-H
Date: 821018   Report no: 3b

Program: ALL
Subject: To set the speed of a terminal interface from software.

- -

1. Location TSPEED in the terminals input datafield must be
   set according to one of the following tables. The initial
   value of TSPEED is 177777.

2. It is not possible to set the speed of the current-loop
   interface ND 250 (1020) or the console on NORD-100 by
   software!!

3. If the speed of any one of the terminals on a multi-
   terminal interface is to be set by software, all other
   terminals on the same interface must also be set by
   software!!!

4. The software-programmed speed will be effective after the
   next start of SINTRAN(i.e. @RESTART-SYSTEM;
)HENT/221; @STOP-SYSTEM followed by <master-clear>/
   201; or an ordinary LOAD.)!!!

5. TSPEED should be changed in RESIDENT,IMAGE and on
   SINTRAN:DATA. NB!For RT-SINTRAN only in RESIDENT (CORE).

| TABLE 1 | | TABLE 2 | |
| NORMAL: | | 1095-card: | |
Baud-rate	TSPEED	Baud-rate	TSPEED
50	42	50	377
75	63	75	273
110	377	100	356
134.5	104	110	314
150	356	150	252
200	125	200	335
300	335	300	231
600	146	600	210
1200	273	1200	63
1800	256	2400	42
2400	167	4800	21
4800	231	9600	0
9600	210		

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SINTRAN III VER. H
SIN-H
Date: 821019   Report no: 38

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Program: ALL
Subject: NORD-NET communication between different versions of
             SINTRAN III

- -

NORD-NET communication can be established between the
different SINTRAN versions released from the 78-version and
later.

However some modifications in the different versions are
necessary to make this possible.

The level of patches is determinded by the oldest version
in the communication-link.

There are two level of patches:
Level-1: Oldest version in link is 78 or 79 version.
         - Involves patches in all versions in link.

Level-2: Oldest version in lin is 80A version.
         - Involves patches in E, F and G-version.
LEVEL-1:
****** PATCHES IN 78 OR 79 VERSIONS ******

Break strategy is changed in later versions to use
BREAK-TABLE-b with break only on carriage-return.

@FMAC
SINTRAN:DATA
BRKb=
RTOCH=
BRKb/   000004   %OLD: 177777
   */   000000   %OLD: 177777
RTOCH+b/SAR   00b   %OLD: 170401
)9EXIT

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                                         SINTRAN III VER. H
                                         SIN-H
Date: 821019   Report no: 38

****** PATCH IN 80 OR E, F, G AND H - VERSIONS ******

These versions introduced a new frame type unknown to
earlier versions. The patch will prevent this frame type
from being sent.

@FMAC
SINTRAN:DATA
REMTT=
REMTT-1/ 000001   %OLD: 000000
)9EXIT

Each time remote command is used, SINTRAN will write:
Terminal type is not sent.

Both systems must be restarted by)HENT.
LEVEL-2:
****** PATCH IN E, F, G AND H - VERSIONS ******

This version expects escape character to be sent together
with terminal type. This patch ignores escape-character.

@DMAC
)CLOAD 26

162162/RAND 0 0   %OLD: 006362

)9EXIT

System must be restarted by)HENT, unless patch is repeated
on SEGMENT 27.

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 821020   Report no: 39

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Program: ALL
Subject: Convert lovercase letters to uppercase on parallell
            lineprinters.

- -

    Be avare of that the standard conversion table and routine
    is disabled.See SIN-H-13.

    @FMAC
    MACM-AREA:DATA

    CONVC=?   % CONVERSION ROUTINE
    DMLP1=?   % LINE-PRINTER DATAFIELD
    9SMRE=?

    % REMOVE PERCENT SIGN IN FRONT OF THE DESIRED CHANGE
    % (ONLY ONE)

    % MASC=157737   % LOWERCASE TO UPPERCASE
    % MASC=057537   % LOWERCASE TO UPPERCASE AND REMOVE PARITY
    % MASC=077577   % REMOVE PARITY
    CONVC-9SMRE/   BSKP ZRO 60 DA   % OLD: 146151
                    AND *2
                    EXIT
                    MASC
)9EXIT
    @CONTINUE
    SINTRAN:DATA

    DMLP1+22:   % FLAG ADDRESS
    DMLP1+22/1   % OLD: 000000 THIS IS A FLAG FOR
                         % ENABLING/ DISABLING THIS FUNCTION
)9EXIT

    The system should be restarted by means of the)HENT comand
    in MACM loaded from the SINTRAN-I diskette.

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SINTRAN III VER. H
SIN-H
Date: 821116   Report no: 40

Program:
Subject: Asynchronous modem with fixed line.

- -

To make an asynchronous modem work on a fixed line, the
following patch must be done on the input datafield of the
relevant modem.

Use the CHANGE-DATAFIELD command in SINRAN-SERVICE-PROGRAM
and change the content of location DFLAG from 0 to 20.

Example:

@SINTRAN-SERVICE
@CHANGE-DATAFIELD <LOG.NO> INPUT NO YES YES
DFLAG/ 20
.
@EXIT

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SINTRAN III VER. H
SIN-H
Date: 830406   Report no: 41 B

_____

Program:
Subject: The NTR emulator os running very badly when a multiplexed
             modem is used.

- -

```
     @FMAC
     SINTRAN:DATA
     141/7ENDC=^
     )9TSS
     @CONT
     MACM-AREA:DATA
     MODIN=?
     MORET=MODIN+605
     RBPUT=?
     RETUR=MODIN+353
     MOSWY=MODIN+60
     9SMRE=?
     %
     MODIN+351-9SMRE/    JMP I *1      % OLD: 135010
                         7ENDC         % OLD: 171003
     )9TSS
     @CONT
     SINTRAN:DATA
     7ENDC/              SUB   (377
                         JAZ   *11
                         ADD   (377
                         SUB   (220
                         JAZ   *5
                         ADD   (220
                         JPL I (RBPUT
                         SAT   3
                         JMP I (RETUR
                         JMP I (MORET
                         JMP I (MOSWY
     )FILL
     )KILL 7ENDC; 7ENDC=*; 7ENDC:
     141/7ENDC
```

SINTRAN III H / SSR MODIFICATION
Date: 850130

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830406   Report no: 41 B

)9TSS

@CC Restart system by)HENT

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 821015   Report no: 44

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Program: ALL
Subject: Sometimes, when using XOF/XON against fast devices, you can
            lose XON thereby hanging the device.

- -

    The problem is solved by always sending XON on timeout if
    more than half of the buffer space is available. This patch
    should not be done unless the problem occours, because the
    device may not alowe several XON's.

    @FMAC
    SINTRAN:DATA

    7ENDC=?
    TTOMR=?
    RTENT=?

    DFLAG=?
     HDEV=?
    RTRES=?
    DFOPP=?
      MAX=?
    BHOLD=?
      XON=?

    TIOMR=7ENDC

    TIOMR:
    TIOMR/ COPY SL DA
           STA SAVL
           LDX ,B DFOPP
           LDA ,X DFLAG
           BSKP ONE 170 DA
           JMP UT
           LDA ,X MAX
           SHA ZIN SHR 1
           SUB ,X BHOLD

SINTRAN III H / SSR MODIFICATION
Date: b50130

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                                        SINTRAN III VER. H
                                        SIN-H
Date: b21015   Report no: 44

```
        JAN START
        LDA ,B HDEV
        AAA 1
        COPY SA DT
        SAA XON
        EXR ST

UT,     LDX SAVL
        COPY SX DL
        JMP I (TTOMR
START,  LDX ,X RTRES
        JPL I (RTENT
        JMP    UT
SAVL,0
)FILL
)FILL 7ENDC; 7ENDC=*; 7ENDC:
141/7ENDC
)9EXIT
```

Next execute the following commands (remember correct
device.nr. and correct address for TIOMR).

```
@SINTRAN-SERVICE-PROGRAM
@CHANGE-DATAFIELD <LOG.NO.> OUTPUT NO NO YES
TMSUB/<TIOMR>
.
@EXIT
```

The system should be restarted by means of the)HENT command
in MACM loaded from the SINTRAN-I diskette.

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                                          SINTRAN III VER. H
                                          SIN-H
Date: 830405   Report no: 45 B

Program:
Subject: Error number returned from attempt to open file.

- -

    This is corrected in the SINTRAN code and it is no longer of
    interest.

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830224   Report no: 86

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Program:
Subject: Problem with direct cursor addressing over ND-NET.
              Do the patch on all machins with ND-NET !!

- -

      $$$ TO DO THE PATCH ON RESIDENT
      @DMAC
)CLOAD 3
      110563/ 376   % OLD: 235
      156261/ 376   % OLD: 235
)9EXIT

      $$$ TO DO THE PATCH ON SAVE
      @FMAC
      SINTRAN:DATA
      110563/ 376   % OLD: 235
      156261/ 376   % OLD: 235
)9EXIT

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                                          SINTRAN III VER. H
                                          SIN-H
Date: 830301   Report no: 87

Program: ALL
Subject: Patch to use page index table 1 (PIT-1) as alternative
             (in stead of PIT-3) from two-bank background programs.

- -

This patch is made to enable use of "2-bank" (128K word)
subsystems (or user programs) on page table 2 and 1, instead
of page table 2 and 3 (page table 3 may be used for direct
task systems etc.) This patch is delivered on a floppy on
request. Inserting this patch will lead to some extra
overhead in SINTRAN when changing between RT and background
programs (The RT-COMMON area entries in page table 1 must be
saved and restored). If any direct tasks or drivers are
using these page table entries(ie. modifying them), one
should be aware of the fact that the entries is only mapping
RT-COMMON when the current program is a RT-program.

Copy the files from the diskette to user system on main
directory.

Enter the directory containing SYMBOL-2-LIST and type the
command:

If SINTRAN III VS : @MODE PATCH-APT1-VS:MODE,,
If SINTRAN III VSE: @MODE PATCH-APT1-VSE:MODE,,

The system should be restarted by means of the)HENT command
in MACM loaded from the SINTRAN I diskette.

NB! The patch becomes effective after the command
CHANGE-BACKGROUND-SEGMENT-SIZE has been used.

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830301   Report no: 88

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Program: ALL
Subject: Power fail on terminals.

- -

     @FMAC
     MACM-AREA:DATA
     IOAPD=?; 9SMRE=?
     IOAPD+35-9SMRE/ JMP * 1   % OLD: 124010
     IOAPD: 9SMRE:
)9EXIT

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 831020   Report no: 98 B

━━

Program: ALL
Subject: When the BREAK-key is pushed on a terminal,SINTRAN generates
             an ESC. This patch is to remove the action of the BREAK-key.

- -

     @FMAC
     MACH-AREA:DATA
     IOAPD=?; 9SMRE=?
     IOAPD+35-9SMRE/ RAND   % OLD: 124010
)9EXIT

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830315   Report no: 112

Program: ALL
Subject: New universal (ND852) DMA driver.

- -

    @CC A new universal (ND852) DMA driver is now available. It
    @CC can be implemented in SINTRAN as a patch.
    @CC
    @CC The patch will be delivered on request from Your local
    @CC ND office.
    @CC
    @CC Note! The patch requires 1075 octal words after 7ENDC.

    @CC The patch is entered in SINTRAN as follows:

    @MODE (ND:SYS)NEW-UNIV-DMA:MODE,,,

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SINTRAN III VER. H
SIN-H
Date: 830316   Report no: 113

===

Program: ALL
Subject: Patch to remove the form feed at the start of the spooling
           print if the spooling header is present.

- -

```
@CC ----- MEMORY -----------------------------------
@CC
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PERMIT 25
@EXIT
@DMAC
)CLOAD 25
164734/124003                        % OLD: 170414
)9EXIT
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PROTECT 25
@EXIT


@CC ----- SAVE AREA ------------------------------
@CC
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PERMIT 36
@EXIT
@DMAC
)CLOAD 36
164734/124003                        % OLD: 170414
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PROTECT 36
@EXIT
```

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 840827   Report no: 114 B

_____

Program: ALL
Subject: Patch to remove the form feed at the start of the spooling
             print if there is no spooling header present.

- -

        @CC ----- MEMORY ---------------------------------
        @CC
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PERMIT 25
        @EXIT
        @DMAC
)CLOAD 25
        163022/124002   % OLD: 135046
)9EXIT
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PROTECT 25
        @EXIT

        @CC ----- SAVE AREA ------------------------------
        @CC
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PERMIT 36
        @EXIT
        @DMAC
)CLOAD 36
        163022/124002   % OLD: 135046
)9EXIT
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PROTECT 36
        @EXIT

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830609   Report no: 115 B

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Program: ALL
Subject: Patch to remove the form feed after the spooling header.

- -

```
        @CC ----- MEMORY ------------------------------------
        @CC
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PERMIT 25
        @EXIT
        @DMAC
        )CLOAD 25
        164756/124003                    % OLD: 170414
        )9EXIT
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PROTECT 25
        @EXIT


        @CC ----- SAVE AREA ------------------------------------
        @CC
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PERMIT 36
        @EXIT
        @DMAC
        )CLOAD 36
        164756/124003                    % OLD: 170414
        )9EXIT
        @SINTRAN-SERVICE-PROGRAM
        @SEGMENT-WRITE-PROTECT 36
        @EXIT
```

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830316   Report no: 116

_____

Program: ALL
Subject: Patch to change the '*' in the spooling header and trailer
            to any ASCII character.

- -


```
@CC ----- MEMORY --------------------------------
@CC
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PERMIT 25
@EXIT
@DMAC
)CLOAD 25
%              ? can be replaced by any ASCII character.
165275/ SAA 00?                          % OLD: 170452
165315/ SAA 00?                          % OLD: 170452
165334/ SAA 00?                          % OLD: 170452
)9EXIT
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PROTECT 25
@EXIT


@CC ----- SAVE AREA ------------------------------
@CC
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PERMIT 36
@EXIT
@DMAC
)CLOAD 36
%              ? can be replaced by any ASCII character.
165275/ SAA 00?                          % OLD: 170452
165315/ SAA 00?                          % OLD: 170452
165334/ SAA 00?                          % OLD: 170452
)9EXIT
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PROTECT 36
@EXIT
```

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                                          SINTRAN III VER. H
                                          SIN-H
Date: 830802   Report no: 117 B

- -

Program: ALL
Subject: Patch to remove the spooling trailer.

- -

```
@CC ----- MEMORY -------------------------------
@CC
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PERMIT 25
@EXIT
@DMAC
)CLOAD 25
165210/146542                    % OLD: 146145
)9EXIT
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PROTECT 25
@EXIT


@CC ----- SAVE AREA -----------------------------
@CC
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PERMIT 36
@EXIT
@DMAC
)CLOAD 36
165210/146542                    % OLD: 146145
)9EXIT
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PROTECT 36
@EXIT
```

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830316   Report no: 118

- -

Program: ALL
Subject: Patch to change the width of the spooling header from 122 to
            71 positions.

- -

```
    @CC ----- MEMORY ------------------------------------
    @CC
    @SINTRAN-SERVICE-PROGRAM
    @SEGMENT-WRITE-PERMIT 25
    @EXIT
    @DMAC
    )CLOAD 25
    TOPPO=136;  OUTPO=465;  NAMPO=506;  TOFPO=707;  TXTPO=712
    GENPO=1131; PRIPO=1353; DATPO=1143; CLCPO=1365; BOTPO=1712

    165047/ TOPPO                    % OLD: 000244
    165051/ BOTPO                    % OLD: 003164
    165052/ TXTPO                    % OLD: 001424
    165055/ NAMPO                    % OLD: 001052
    165165/ DATPO                    % OLD: 002023
    165173/ TOFPO                    % OLD: 001420
    165177/ OUTPO                    % OLD: 001030
    165201/ GENPO                    % OLD: 002010
    165203/ PRIPO                    % OLD: 002400
    165205/ CLCPO                    % OLD: 002411
    165373/ TOPPO                    % OLD: 000244
    165375/ BOTPO                    % OLD: 003164
    165271/ SAA 111                  % OLD: 170574
    165322/ SAA 111                  % OLD: 170574

    )KILL TOPPO OUTPO NAMPO TOFPO TXTPO
    )KILL GENPO PRIPO DATPO CLCPO BOTPO
    )9EXIT

    @SINTRAN-SERVICE-PROGRAM
    @SEGMENT-WRITE-PROTECT 25
    @EXIT
```

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 830316   Report no: 118

_____

```
@CC ----- SAVE AREA -------------------------------
@CC
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PERMIT 36
@EXIT
@DMAC
)CLOAD 36
TOPPO=136;  OUTPO=465;  NAMPO=506;  TOFPO=707;  TXTPO=712
GENPO=1131; PRIPO=1353; DATPO=1143; CLCPO=1365; BOTPO=1712

    165047/ TOPPO                    % OLD: 000244
    165051/ BOTPO                    % OLD: 003164
    165052/ TXTPO                    % OLD: 001424
    165055/ NAMPO                    % OLD: 001052
    165105/ DATPO                    % OLD: 002023
    165173/ TOFPO                    % OLD: 001420
    165177/ OUTPO                    % OLD: 001030
    165201/ GENPO                    % OLD: 002010
    165203/ PRIPO                    % OLD: 002400
    165205/ CLCPO                    % OLD: 002411
    165373/ TOPPO                    % OLD: 000244
    165375/ BOTPO                    % OLD: 003164
    165271/ SAA 111                  % OLD: 170574
    165322/ SAA 111                  % OLD: 170574

    )KILL TOPPO OUTPO NAMPO TOFPO TXTPO
    )KILL GENPO PRIPO DATPO CLCPO BOTPO
    )9EXIT

    @SINTRAN-SERVICE-PROGRAM
    @SEGMENT-WRITE-PROTECT 36
    @EXIT
```

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                                          SINTRAN III VER. H
                                          SIN-H
Date: 830408   Report no: 119

_____

Program: ALL
Subject: INPUT/OUTPUT on terminal interfaces.

- -

    It is often desireable to alter character I/O-specifications
    for terminals. Some of the most common and useful changes
    are described below. They can be performed by changing
    variables in the relevant terminal input datafield by means
    of the command CHANGE-DATAFIELD in SINTRAN-SERVICE-PROGRAM.

    1.Specifications for N-10 and ND-100 interfaces:

            N-10   terminal buffer   (1095)
            N-10   4 async.   (1122)
            N-10   Dual async.   (1147)
            ND-100 terminal interfaces (all)

| Variable | Bit no | | | | Number of | Number of | Parity |
CNTREG	14	13	12	11	data bits	stop bits	
000005	0	0	0	0	8	2	No
004005	0	0	0	1	7	2	No
010005	0	0	1	0	6	2	No
014005	0	0	1	1	5	2	No
020005	0	1	0	0	8	1	No
024005	0	1	0	1	7	1	No
030005	0	1	1	0	6	1	No
034005	0	1	1	1	5	1	No
040005	1	0	0	0	8	2	Even
044005	1	0	0	1	7	2	Even
050005	1	0	1	0	6	2	Even
054005	1	0	1	1	5	2	Even
060005	1	1	0	0	8	1	Even
064005	1	1	0	1	7	1	Even
070005	1	1	1	0	6	1	Even
074005	1	1	1	1	5	1	Even

Note that these specifications affect hardware only. To
obtain 8 oit data and/or remove parity, also changes
described in section 2 must be done!

2.Fast I/O-driver with no editing functions, break on all
  characters and no echo (and no parity):

Variable	Old value	New value
STDRIV	STTIN	TELIN
DRIVER	TYENT	TELENT
IOTRANS	TTGET	TRGET
TYPRING	110040	110000

3.Examples.

If you have connected a device to terminal 36 (for
instance a microcomputer), and want fast I/O You should
run following mode file:

@SINTRAN-SERVICE-PROGRAM
@CHANGE-DATAFIELD 36D INPUT YES YES YES
STDRIV/<value of TELIN>
DRIVER/<value of TELEN>
TYPRING/110000
IOTRANS/<value of TRGET>
.
@EXIT

If you in addition want 8 bit data and no parity the
mode file should be as follows:

@SINTRAN-SERVICE-PROGRAM
@CHANGE-DATAFIELD 36D INPUT YES YES YES
CNTREG/5
STDRIV/<value of TELIN>
DRIVER/<value of TELEN>
TYPRING/110000
IOTRANS/<value of TRGET>
.
@EXIT

The value of TRGET is found in part-I symbol list, STTIN
TYENT, TTGET, TELIN and TELEN is found in part-II symbol
list.

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                                            SINTRAN III VER. H
                                            SIN-H
Date: 830706   Report no: 120 B

═══

Program: ALL
Subject: New priority scheduler for background processes

- -

    This scheduler should solve most of the standard sintran
    schedulers disadvantages. The need of space after 7ENDC is
    320 octal locations, plus two locations for each background
    program. Both the SYMBOL-LISTs must reside on disc, under
    user SYSTEM. To implement it, insert the floppy in unit 0
    and type the following commands:

    @ENTER-DIR PATCH-SINTRAN FLOPPY-DISC-1 0
    @MODE (PATCH-SINTRAN:SYSTEM)NEW-TIMESLICER:MODE,,
    @REL-DIR PATCH

    Afterwards a)HENT must be done to get the scheduler into
    effect.

    PRESUPPOSITIONS WITH THE NEW SCHEDULER:

            1..Possible to run batches on low priorities.
            2..Several types of scheduling (classes).
            3..Less thrashing when many break conditions.
            4..More equitable sharing of cpu on cpu-bound jobs.
            5..Separate escape/break handling.
            6..Easy to change-/make new- types of scheduling.
            7..Use CPU time instead of elapsed time.

    1. There is a problem with running batches (and other
       background programs) on fixed low priority.That is, if
       it had reserved a resource, got suspended because of
       it's priority, and someone else wanted the same
       resource, then the others had to queue up behind until
       the resource was released. This would appear as a
       'HANG'. This is solved in the way of testing if someone

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                                    SINTRAN III VER. H
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Date: 030700   Report no: 120 B

is waiting for a system resouce.If so the owner gets thrown high (in priority) until he releases the resource.

2. The new scheduler can handle up to eight types of scheduling, independent of if it is batch,terminal or ND-NET background. To choose between one or another is until a sintran-service command is availiable done in this way. The bits 12B – 14B in TSTAT can be set with the sintran service command CHANGE-DATAFIELD. Default is 0 for terminals and ND-NETT channels, and 1 for batches. Afterwards bit 17B in FLAGB should be set to activate this change.

3. The handeling of break/escape is separated together with a maximum priority for 'legal to get break priority'. This prevents thrashing when there are many break situations in a short time.

4. To see why the old timeslicer was not 'fair' with cpu-bound jobs, the exeqution queue mechanism must be understood. The cpu is 'eating' along the queue against DUMMY which is always last. When inserting there are two rules:
   a) The program should be between one with higher and one with lower priority
   b) If two or more have the same priority then the last one to enter the queue is put behind the other with the same priority.
   It follows that the first in the queue with a certain priority has higher priority than the last with the same priority. On cpu- bound jobs the first gets almost all cpu. To solve this a hashing mecanism is implemented in the new scheduler.

5. See point 3.

6. Since the scheduler is mapped by tables, and a command in sintran service program (CHANGE-TIMESLICE) will be implemented, the way of operating can easily be changed to fit each site. See the description of CHANGE-TIMESLICE. (or now see pt. 2)

7. Instead of using elapsed time the new scheduler uses the cpu time for each background program to "pull" the processes through the slices. This will help wery fast when a process moves from editing to compiling. However, processes wich does not use cpu time will be stuck on

one (high) priority (ex.: editing). This is not
desireable so a idle "speed" through the slices is also
implemented.

NB!
    If COSMOS is to be implemented together with this patch
    then this patch must always be done BEFORE the COSMOS
    patch. This because they are symbol dependent of eatch
    other.

    This version of the timeslicer makes the SSR SIN-H 121
    obsolete.

    The following are corrected from the E version:
      - SIN-H 121 is implemented in this patch.
      - Some minor changes of the tables.

    CLASSES
    0   Default terminal class
    1   Default batch class
    2   ND-500 class
    3   Second class for terminal/batch. Lower than 0 and
        higher than 1
    4=5=6=7=0

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                                          SINTRAN III VER. H
                                          SIN-H
Date: 830706   Report no: 121 C

_____

Program: VSE
Subject: Additional patch to the NEW-TIMESLICER-E. If the X-MESSAGE
            file-transfer is used an error can occur.

- -

     This patch is now obsolete.
     See SIN-H 120 B

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Date: 840111   Report no: 143 B

═══

Program: VS
Subject: SIBAS with MON SIBAS communication
            NOTE: This patch is available as a patchfile.

- -

```
@FMAC
MACM-AREA:DATA
"-8EXAD
7ENDC=? ; BACKG=? ; ESCOF=? ; SRTCS=? ; OLDPA=? ; GET0=?
DALT0=? ; DBTRA=? ; RTREF=? ; STUPR=? ; RET=?   ; CCTAB=?
BRELE=? ; MONEN=? ; ERRFA=? ; MRET=?  ; ZPREG=? ; ZTREG=?
ZAREG=? ; ZDREG=? ; ZXREG=? ; RTRES=? ; STATU=? ; 5WAIT=?
MLEVB=? ; MLEV=?  ; PION=?  ; 9MCTA=? ; DV200=? ; SIO1I=?
9SMRE=?



DV200-9SMRE/ 37
)9EXIT
@CONTINUE
SINTRAN:DATA
SIO1I/ DIA0,  0;0;"-2;2;0;0;0;"+14/
DIA1,  0;0;"-2;2;0;0;0;"+14/
DIA2,  0;0;"-2;2;0;0;0;"+14/
DIA3,  0;0;"-2;2;0;0;0;"+14/
DIA4,  0;0;"-2;2;0;0;0;"+14/
DIA5,  0;0;"-2;2;0;0;0;"+14/
DSI0,  0;0;"-2;2;"+15/
DSI1,  0;0;"-2;2;"+15/
DSI2,  0;0;"-2;2;"+15/
DSI3,  0;0;"-2;2;"+15/
DSI4,  0;0;"-2;2;"+15/
DSI5,  0;0;"-2;2;"+15/

1456/ 5
1460/ 7ENDC
```

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```
        7ENDC+6

        B5WAI=5WAIT03

        7ENDC/ SIBBD, DSI0;DSI1;DSI2;DSI3;DSI4;DSI5
        SIBAP, DIA0;DIA1;DIA2;DIA3;DIA4;DIA5
        CCOUN=20
        CADR1=CCOUN+1          % ADDRESS OF MESSAGE IN RT-COMMON
        CADR2=CADR1+1
        DRTCA=CADR1
        DACCT=*
        ACCTA, CCTAB
        CRTCA, 0;0;0;0;0;0;0;0;0;0;0;0
        IMAPS, 0                          % >0 AFTER FIRST MAPSIB
        MAPSI, JPL I (GETO
               LDA I (BACKG; SKP IF DA EQL 0;  JPL I (ESCOF
               LDA SHTCS,B;  SKP IF DA EQL 0;  JMP I (M2ERR
               LDX ZTREG,B;  LDX I,X (SIBBD
               LDX RTRES,X;  SKP IF DX UEQ 0;  JMP I (M1ERR
               LDA STATU,X;  BSKP ONE B5WAI DA;  JMP I (M2ERR

               LDA IMAPS; JAF MAPS3
               SAA 172;  COPY SA DL;  SAT 5;  STT CCOUN,B
        DO1,   SAX 0
        DO2,   LDA I,X ACCTA; SAT -1; SKP IF DA UEQ ST; JMP MAPS2
               AND (377;  SKP IF DA EQL SL;  JMP MAPS1
               LDD I,X DACCT;  SAA 0;  SAD 12;  LDT (1000; RADD ST DD
        INDO1, LDX CCOUN,B; RADD SX DX; STD I,X (CRTCA
               JXZ OKINI
               LDA CCOUN,B; AAA -1; STA CCOUN,B; RINC DL; JMP DO1
        MAPS1, AAX 2;  JMP DO2
        MAPS2, SAA 0;  COPY SA DD;  JMP INDO1
        OKINI, SAA 1;  STA IMAPS

        MAPS3, LDX ZTREG,B;  RADD SX DX;  LDD I,X (CRTCA
               JAF MAPS4
               SKP IF DD UEQ 0;  JMP I (EE174
        MAPS4, STD DRTCA,B
               LDX ZXREG,B;  LDA OLDPA,B;  COPY SA DD
               JPL I (DALTO;  BSET ZRO
               SAA MLEV;  MST PIE
               BSET ONE;  LDA 1,X;  BSET ZRO
               SKP IF DA UEQ 0;  JMP I (EE174
               LDT (200;  SKP IF DA MLST ST;  JMP I (EE174
               STA CCOUN,B;  JMP MAPS5
        )FILL

        MAPS5, LDT CADR1,B;  LDX CADR2,B;  JPL I (DBTRA
```

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```
            LDA (777;  RADD SA DX;  COPY SB DA;  STA 0,X
            LDA (777;  RSUB SA DX;  LDA CCOUN,B;  COPY SA DL
            LDA ZXREG,B;  COPY SA DB
      LOOP1, SKP IF DL UEQ 0;  JMP MAPS6
            BSET ONE;  LDD 0,B;  BSET ZRO;  STD 0,X
            BSET ONE;  LDD 2,B;  BSET ZRO;  STD 2,X
            AAB 4;  AAX 4;  RDCR DL;  JMP LOOP1
      MAPS6, COPY SX DA;  AND (177000;  ADD (777
            COPY SA DX;  LDA 0,X;  COPY SA DB
            IOF;  BSET ZRO
            LDX ZTREG,B;  LDX I,X (SIBBD
            LDX RTRES,X;  JXZ M1ERR
            LDA STATU,X;  BSKP ONE B5WAI DA;  JMP M1ERR
            BSET ZRO B5WAI DA;  STA STATU,X;  JMP MAPS7
      )FILL

      MAPS7, LDX I (RTREF;  LDA STATU,X;  BSET ONE B5WAI DA
            STA STATU,X;  SAA -1;  STA SRTCS,B
            LDA (STUPR;  IRW MLEVB DP
            SAA MLEV;  MST PID;  PION

            LDT CADR1,B;  LDX CADR2,B;  JPL I (DBTRA
            LDA 1,X;  JAZ EE174
            LDT (200;  SKP IF DA MLST ST;  JMP EE174
            STA CCOUN,B
            LDA (777;  RADD SA DX;  COPY SB DA;  STA 0,X
            LDA (777;  RSUB SA DX;  LDA CCOUN,B;  COPY SA DL
            LDA ZDREG,B;  COPY SA DB
      LOOP2, SKP IF DL UEQ 0;  JMP MAPS8
            LDD 0,X;  BSET ONE;  STD 0,B;  BSET ZRO
            LDD 2,X;  BSET ONE;  STD 2,B;  BSET ZRO
            AAB 4;  AAX 4;  RDCR DL;  JMP LOOP2
      MAPS8, COPY SX DA;  AND (177000;  ADD (777;  COPY SA DX
            LDA 0,X;  COPY SA DB;  STZ ZAREG,B
            MIN ZPREG,B;  JMP *+1;  JMP MXRET
      )FILL

      EE174, SAA 174;  JMP CERET
      M2ERR, SAA -2;  JMP CERET
      M1ERR, SAA -1
      CERET, STA ZAREG,B;  PION;  JMP MXRET

      MSIBB, JPL I (GETO
            LDX ZTREG,B;  LDX I,X (SIBAP;  COPY SX DD;  IOF
            LDX RTRES,X;  JXZ MSIB1
            LDA STATU,X;  BSKP ONE B5WAI DA;  JMP MSIB1
            BSET ZRO B5WAI DA;  STA STATU,X
      MSIB1, LDA ZAREG,B;  JAF MSIB2
```

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```
          LDX I (RTREF;  LDA STATU,X;  BSET ONE B5WAI DA
          STA STATU,X;  SAA 0;  JMP MSIB3
MSIB2, SAA 1
MSIB3, COPY SD DX;  STA SRTCS,X
          MIN ZPREG,B;  JMP *+1;  LDA (STUPR;  IRW MLEVB DP
          SAA MLEV;  MST PIE;  MST PID;  ION;  JMP I (RET

)FILL

MXRET, SAA MLEV;  MCL PIE;  LDX I (RTREF;  JPL I (BRELE
          COPY SB DA;  IRW MLEVB DX
          LDA (MRET;  IRW MLEVB DP
          LDA (MONEN;  IRW MLEVB DL
          SAA MLEV;  MST PID;  MST PIE;  PION
          JPL I (ERRFA
)FILL


*:
)KILL 7ENDC; 7ENDC=*
141/ 7ENDC
9MCTA+304/ MAPSI
MSIBB
"
)9EXIT
```

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                                    SINTRAN III VER. H
                                    SIN-H
Date: 831017   Report no: 164

_____

Program: ALL
Subject: Patch to allow lower case letters within the filesystem
             (i.e. text strings in filesystem monitor calls).

- -

```
      ⍼FMAC
      SINTRAN:DATA
      7ENDC=7; GETCH=?
      GETCH+2/ JMP I ⍁+001          % OLD: 144067
              7ENDC                 % OLD: 146142
      7ENDC/   BSKP ZRO 60 DA
               BSET ZRO 50 DA
               SWAP ST DX
               EXIT
      )KILL 7ENDC; 7ENDC=⍁
      7ENDC: GETCH:
      141/ 7ENDC
      )9EXIT
```

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                                              SINTRAN III VER. H
                                              SIN-H
Date: 831116   Report no: 168

Program: ALL
Subject: Asterisk within filename in OPEN, CONNECT.
            (Both commands and monitor calls.)

- -

```
     @FMAC
     MACH-AREA:DATA
     DFSNA=?; OPENF=?; CONNF=?; OPFIL=?
     OPENF+5/    DISP1=^-LDA
     *+DISP1/    DFSNA              % OLD: 151261
     CONNF+5/    DISP2=^-LDA
     *+DISP2/    DFSNA              % OLD: 151261
     OFILF+120/  DISP3=^-LDA
     *+DISP3/    DFSNA              % OLD: 151261
     )KILL DISP1 DISP2 DISP3
     DFSNA: OPENF: CONNF: OPFIL:
     )9EXIT
```

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                                    SINTRAN III VER. H
                                    SIN-H
Date: 831221   Report no: 175

═══

Program: ALL
Subject: RENAME-DIRECTORY when old and/or new directory name is al-
            ready entered on another unit.

- -

     @DMAC
)CLEAR
)CLAOD 36
     142623/ JMP *16   % OLD: 054027
)9EXIT
     @SINTRAN-SERVICE-PROGRAM
     @WRITE-SEGMENT-PERMIT 25
     @EXIT
     @DMAC
)CLOAD 25
     142623/ JMP *16   % OLD: 054027
)9EXIT
     @SINTRAN-SERVICE-PROGRAM
     @WRITE-SEGMENT-PROTECT 25
     @EXIT

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Date: 840202   Report no: 179

==

Program: ALL
Subject: SINTRAN command DEFAULT-SUBSYSTEM-ENABLE.

- -

```
@DMAC
)CLOAD 3
143633/ JMP *+003                    % OLD: 175055
)9EXIT
```

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SINTRAN III VER. H
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_____

Program: ALL
Subject: Treat empty spooling form as a normal string.

- -

```
    @DMAC
    )CLOAD 36
    FORM=?; FORMS=?; SEMPL=?; SG36F=?
    FORMS+12/ JMP I *+001              % OLD: 044102
         */ SG36F                      % OLD: 153122
    SG36F/    LDA  (SEMPL
              MON  122
              COPY 0    DD    AD1
              LDA  ,X   FORM
              SHA  ZIN  SHR   10
              BSET ZRO  70    DA
              SAT  47
              SKP  IF   DA    EQL   ST
              JMP  I    (FORMS+24
              LDA  ,B   161
              SHA  ZIN  SHR   10
              BSET ZRO  70    DA
              SKP  IF   DA    EQL   ST
              JMP  I    (FORMS+101
              JMP  I    (FORMS+60
    )FILL
    FORM: FORMS: SEMPL:
    )KILL SG36F; SG36F=*; SG36F:
    )9EXIT
```

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                                        SINTRAN III VER. H
                                        SIN-H
Date: 840411   Report no: 186

_____

Program: ALL
Subject: No error message is given in the PRSRV command if device
            is already reserved by another program.

- -

```
      @FMAC
      SINTRAN:DATA
      CPLIS=?; RTFEL=?; SINCO=?; PRIRT=?;
      ESCON=?; ESCOF=?
      110002/ SG03F="
      SINCO+62/ LDT "+113       % OLD: 146156
            "/ JMP I "+1        % OLD: 044112
            "/ SG03F            % OLD: 140660
      SG03F/ SWAP SA DT
            EXR  ST
            JAZ  OUT
            COPY SX DA
            SUB  (114507
            JAF  OUT
            LDA  (ERTX
            JPL  I ,B -37
            LDA  (CPLIS
            MON  140
            STA  ,B -175
            COPY SB DA
            AAA  -175
            JPL  I (RTFEL
            JMP  OUT
            JPL  I (ESCON
            JPL  I (ESCOF
            COPY SD DX
            JPL  I (PRIRT
            JPL  I ,B -33
      OUT,  JMP  I ,B -25
      )FILL
      ERTX, 'DEVICE ALREADY RESERVED BY '
      )KILL SG03F; SG03F="
```

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_____

      110002/ SG03F
)9EXIT

Chapter 2

SINTRAN III Version I

SINTRAN III Version I

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                                              SINTRAN III version I
                                              SIN-I
Date: 840130   Report no: 44 B

_____

_____

Program: ALL
Subject: Disk error handling in SINTRAN-III I-version.

- -

    We refer to our disk pack quality requirements published in
    ND-Bulletin no. 1/80. These requirements states that   the
    disk   pack shall not contain uncorrectable errors, i.e. not
    more than 11 bit errors per datasector.

    Our   hardware (disk controller) and software (operating
    system and utility programs) has been designed to   handle
    correctable   errors as safe as possible, and improvements
    have been done resently due to declining disk pack quality.

    From   the H-version and out, SINTRAN has TRACK-REALOCATION
    (T-R) implemented. T-R is used when a track has an   error
    burst   which is longer than a certain limit. (DEF=5 bits/
    sector). The limit which ECC-correction can handle, is   11
    bits/sector.   If the burst is longer than this limit,
    SINTRAN will use another track placed elsewhere on   the
    disk.

    The   realocation   is   initiated   by DISK-TEMA when
    formatting the pack. It is not visible for SINTRAN, but   3
    reads/writes are neccesary to get/put the data, therefor
    care should be taken so that often used areas are   not
    realocated.   There are also a couple of areas that the
    machine can't handle. Here is list of such areas ordered
    accordig to priority:

    1 Page-0 on system disk   Illegal
    2 The lowest 32K of SEGFIL0   Illegal
    3 Bit-file   Strongly advised against
    4 Page-0 on other disk's   Strongly advised against
    5 Swapping area on the SEGFIL   Not recommended
    6 USER-FILE-PAGES   Not recommended

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                                          SINTRAN III version I
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---

    7 USER-FILE-INDEX-BLOCKS   Not recommended
    8 OBJECT-FILE-INDEX-BLOCKS   Not recommended
    9 OBJECT-FILE-PAGES   Not recommended

    When converting from the old disk layout to T-R disk, it
    should be done in the following steps:

    1) TAKE A BACKUP OF THE OLD DISK !

    2) Use the J-version of the FILESYSTEM-INVESTIGATOR to check
       for logical errors on the old disk. i.e. Use the command
       PAGE-LIST with the parameter E(rrors). If the disk
       has NO conflicts or serious errors the use the   command
       DIR-SIZE-UPDATE (only in the J-version of FILSYS-INV on
       ND-10022T).

    3) Format a new disk-pack with DISK-TEMA and with T-R.

    4) Copy from the old-disk to the new with DISK-TEMA.

    5) Load your new SINTRAN-III-I in the usual way.

    SINTRAN-III version I can handle both disk with and without
    T-R, but not disks with the old disk size. Those who cant
    use the old size should call Norsk Data A/S. Older versions
    of SINTRAN than H-version can NOT handle T-R.

    If the error burst is so short that T-R is not used, then
    SINTRAN handles it with ECC-correction and the following is
    valid:

    1. THE BITFILE AREA : (usually in the middle of the disk).
       The I-version now tests the bit file area with
       write-and-compare when creating a directory: it will
       automatically choose the next track if compare error
       occurs.

       The same compare error may also occur during a write to
       the same area if there is a bad spot on the disk.

       For safety reasons we have choosen to output an error
       message 'BITFILE TRANSFER ERROR' and/or/even when   the
       error   is correctable 'DISK/DRUM TRANSFER ERROR....'
       whenever this situation occurs. This does not mean   that
       any is lost, but one should, in order to avoid any
       further problems reallocate the bitfile to a vacant   area
       on the disk. (Contact your nearest Norsk Data software
       service department if you do not know how this could   be

done).

2.THE   SEGMENTFILE AREA: If the disk has declined to a
  uncorrectable error in this area, SINTRAN will after   a
  number   of retries output 'TRANSF!!' on the console. This
  indicates that the segment administration has detected an
  error during swapping to/from one of the segment files.If
  this error occures, one should use DISK-TEMA as described
  above when going from old type to T-R disks. Maybe also
  the segment file should be split in two to avoid   the
  realocated   area. Afterward you have to go through the
  standard "@COLD-START" procedure.

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                                        SINTRAN III version I
                                        SIN-I
Date: 840112   Report no: 45

Program: ALL
Subject: Dangerous commands to use in batch and mode jobs.

- -

    The following SINTRAN commands should not be used in BATCH
    or MODE jobs outputting to a mass-storage file, when there
    is another user active in the filesystem. (Effectively any
    other user). If they are there is a high probability they
    will lead to a deadlock in the filesystem.

        @CHANGE-DIRECTORY-ENTRY
        @CHANGE-USER-ENTRY
        @CHANGE-OBJECT-ENTRY
        @CHANGE-PAGE

ND Norsk Data   Software INFORMATION Report   Page: 1

                                          SINTRAN III version I
                                          SIN-I
Date: 840113   Report no: 46

Program: ALL
Subject: Files on more than 1 default directory.

- -

When a file-name is specified without neither a directory
name nor a user name the filesystem uses the executing user
main user index and default directory and user indexes from
the system segment. The users default directory index is the
index of the first default directory in which the user has
space, determined at log-in.

If just a user name is specified the users default directory
is found by searching all default directories for this user
name. The one of lowest index in which this user has space
is the user's default directory.

The   order in which the directories are search can be found
by

@LIST-DIRECTORIES-ENTERED,,,

The exception to this is that if one of user systems files
is accessed by omitting the directory and user name, e.g. by

@RECOVER QED

then user system main directory is searched. This is usually
user systems default directory but not necessarily.

Thus if a user has files on more than one default directory
he must specify the directory name for files which are not
on the lowest default directory.

To change the order of the directories in the directory
table you may use the following (example)

ND Norsk Data   Software INFORMATION Report   Page: 2

                                    SINTRAN III version I
                                    SIN-I
Date: 840113   Report no: 46

```
 ӘSINTRAN-SERVICE-PROGRAM
 ■SWAP-DIRECTORY-ENTRIES
  DIR. INDEX 1 : 0
  DIR. INDEX 2 : 1
  SAVE AREA ? YES
 ■EXIT
  Ә
```

ND Norsk Data   Software INFORMATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840125   Report no: 50

Program: VSX
Subject: The 5TERM bit in TYPRING (Terminal datafiled).

- -

In the VSX-version of SINTRAN the terminal datafields are
splitted, one resident part and one paging-off part. To
indicate a terminal datafield the 5TERM bit in TYPRING is
used, consequently indicating a splitted or non splitted
datafield. Due to this the 5TERM bit MUST NOT FOR ANY REASON
BE SET TO ZERO (even if the terminal only is used as a
printer). If so, this will cause SINTRAN resident to be
overwritten and the system will probably crash!

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SINTRAN III version I
SIN-I
Date: 840514   Report no: 137

Program: ALL
Subject: New disks implemented in Sintran.

- -

Name table entry	Di:Ty	cyl:ind.	He:ad	Se:ct	Sect:cyli	Pages/:dir.	:N:D	Total: pages	Total: Mbytes
DI-75MB	23	1467	5	22	132	110121	1	110121	75.66
DI-2-75MB	26	1467	10	22	264	110121	2	220242	151.33
DI-3-75MB	27	1467	23	22	526	110121	3	330363	226.99
DI-70MB	22	1467	5	22	132	103715	1	103715	71.19
DI-2-70MB-F	24	1467	12	22	264	103715	2	207632	142.39
DI-4-70MB-R	27	1467	23	22	526	103715	4	417464	264.76
DI-4-70MB-F	31	1307	30	22	660	103715	4	417464	264.76
DI-6-70MB-S	32	1307	30	32	1160	103715	6	627316	427.15
DI-140MB-F	24	1467	12	2	264	207632	1	207632	142.39
DI-2-225MB-S	32	1307	30	32	1160	327324	2	656650	451.76
DI-288MB-R	27	1467	23	22	526	422147	1	422147	287.52
DI-288MB-F	31	1307	30	22	660	422147	1	422147	287.52
DI-450MB-S	32	1307	30	32	1160	656650	1	656650	451.76

Explanation:
Name table entries ending on -R, -F, -S, the 'real' name is
-x-R, -x-F, -x-S, where -x- gves controller number (1=>4).

DI TY:.. => Physical disk:
      22 = DT070, RSD   w/spare track
      23 = DT075, SMD 60 w/spare track
      24 = DT140, FUJITSU w/spare track
      26 = DT160, MMD   w/spare track
      27 = DT288, SMD 300 w/spare track
      31 = DT300, FSD 340 w/spare track
      32 = DT450, FSD 515 w/spare sektor

Cylinders:..... => Octal number of cylinders.
Head:.......... => Number of heads/Surfaces(oct.).
Sect:.......... => Number of sectors/head (oct.).
Sect cyli:..... => Number of sectors/cylinder (oct.).
Pages/dir.:.... => Number of pages/directory (oct.).
Total pages:... => Number of pages used on disk(oct.).
Total Mbytes:.. => (Number of pages * 2048)/1000000 (dec.).

ND Norsk Data   Software INFORMATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840613   Report no: 144

Program: ALL
Subject: Spooling files.

- -

    The SINTRAN-SERVICE-PROGRAM command *SET-SPOOLING-DEVICE-
    NUMBER can be used to change the device number used by a
    given spooling program. However it is NOT sufficient to
    only the device number in the peripheral file: this number
    occurs in all the spooling files. The simplest way of
    the spooling files is to delete the peripheral file and
    spooling files and to create them all again.

ND Norsk Data   Software INFORMATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840613   Report no: 145

Program: ALL
Subject: Removal of a discette during transfer (when the red light
              is lighting) on old discette drives.

- -

        A crude soluotion of this problem is to turn the POWER
        off and on again. No discette should be in the drive.
        Wait 8 seconds. If nothing happends, repeat.

ND Norsk Data   Software INFORMATION Report   Page: 1

                                          SINTRAN III version I
                                          SIN-I
Date: 840920   Report no: 182

═══

Program:
Subject: AN HOURLY IOX ERROR IS GIVEN

- -

     Failing address -1 / 0   % Old : 150115
     This patch will remove the instruction TRR ECCR

ND Norsk Data   SSR Summary   Page: 2

Date: 850128   SINTRAN III version I
                                          SIN-I

REPORT- DATE   REA- SUBJECT:
NO   WRITTEN SON

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                          SINTRAN III version I
                                          SIN-I
Date: 840111   Report no: 27

_____
_____

Program: ALL
Subject: How to prevent initialization of memory pages in multi CPU
             systems with shared memory.

- -

     If one wants to prevent memory initialization of one or
     more physical memory areas it may be done in the following
     way: There is table named NINITPAGE located in the listing
     part 2, chapter 36.24. The value of NINIT may also be found
     in the file SYMBOL-2-LIST.

     Each entry in NINITPAGE consist of two locations, the first
     physical page and the last physical page in the actual
     memory area, not to initialize. There is space for 20
     elements in NINITPAGE. The entries must be inserted
     contiguously from the beginning of the table (SINTRAN will
     stop searching the table on the first zero element).

     NOTE: The memory area(s) set up in NINITPAGE will not be
           available for swapping.

     The updating of NINITPAGE may be done on the image
     (SEGFIL0:DATA) or on the save area (SINTRAN:DATA) using
     FMAC. If the patch is done on image it will be effective
     after a "warm-start" (@RESTART-SYSTEM or STOP/MASTER-
     CLEAR/LOAD).

     If the patch is done on the save area it will be effective
     after a "cold-start" (@COLD-START).
     See also SIN-I 28.

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                                           SINTRAN III version I
                                           SIN-I
Date: 840111   Report no: 28

Program: ALL
Subject: Increasing SINTRAN's resident memory area

- -

One location in memory gives the end address of SINTRAN
code and buffers.The name of the location containing the
end address of SINTRAN is ENDCOR (141). Its value is named
7ENDC and may be changed using the CHANGE-VARIABLE command
in the SINTRAN service program.

The first page boundary after this address in defined as
the first page in memory available for user pages. If this
location is increased BEFORE the system is started (before
221) the area between the old value and the value will be
free to use, i.e. it will not be a part of the dynamic
swapping area. This area can be used for special drivers,
user monitor calls etc.

The absolute highest address of the (user) patch area is
the value of the symbol 9POFS-1.(default 107777B). The
value of 9POFS is found in the SYMBOL-2-LIST. If ENDCOR
contents is higher than 9POFS SINTRAN will not be able to
start.(7ENDC > 9POFS)

IMPORTANT: When extensions/patches have been added to
SINTRAN, the content of ENDCOR must be changed. ENDCOR
should then contain the end address 7ENDC of your
extensions/patches. See also SIN-I 27.

SINTRAN III Version I / SSR MODIFICATION
Date: 850129

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                                              SINTRAN III version I
                                              SIN-I
Date: 840111   Report no: 29

Program: ALL
Subject: Terminals and printers with slow carriage-return.

- -

There are 3 ways of causing a delay after a carriage return:

(i)   If the interface is ND 253, then bit 7 in CNTREG of
       the INPUT datafield may be set.

(ii)   Bit 9 in TYPRING of the output datafield may be set.

(iii) Using the TERMINAL-MODE command. This command may only
       be used on a terminal and has only a temporary effect,
       i.e. after a new system load, the command must be
       be executed again.

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SINTRAN III version I
SIN-I
Date: 840111   Report no: 30

Program: ALL
Subject: To set/change the speed of a terminal interface from soft-
            ware.

- -

1. Location TSPEED in the terminals input datafield must be
   set according to one of the following tables. The initial
   value of TSPEED is 177777.

2. It is not possible to set the speed of the current-loop
   interface ND 250 (1020) or the console on NORD-100 by
   software!!

3. If the speed of any one of the terminals on a multi-
   terminal interface is to be set by software, all other
   terminals on the same interface must also be set by
   software!!!

4. The software programmed speed will be effective after the
   next start of SINTRAN   (i.e.   @RESTART-SYSTEM   or
   @COLD-START). @STOP-SYSTEM followed by <master-clear>/
   201, or an ordinary LOAD.)!!!

5. TSPEED   should be changed in RESIDENT,IMAGE and on
   SINTRAN:DATA. NB!For RT-SINTRAN only in RESIDENT (CORE).

TABLE 1		TABLE 2	
NORMAL:		1095-card:	
Baud-rate	TSPEED	Baud-rate	TSPEED
50	42	50	377
75	63	75	273
110	377	100	356
134.5	104	110	314
150	356	150	252
200	125	200	335
300	335	300	231
600	146	600	210

1200	273	1200	63
1800	256	2400	42
2400	167	4800	21
4800	231	9600	0
9600	210		

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                                        SINTRAN III version I
                                        SIN-I
Date: 840111   Report no: 31

Program: ALL
Subject: XON/XOFF problem approaches.

- -

     To avoid misunderstandings, first this expression must be
defined. There are several ways for this to be   understood
in connection with Sintran-III.

     1. Characters

          a: XON = DC1 (ASCII 21B) = ctrl Q
          b: XOFF = DC3 (ASCII 23B) = ctrl S

     2. Expressions for input/output flow control.

          a: DC1/DC3 sendt by a device to stop/start output
              from Sintran III. "AUX ON/OFF"

          b: DC1/DC3 sendt by Sintran III to stop/start input
              (from fast devices). "READER ON/OFF"

To make use of the flow control facilities, Sintran is
prepared with routines conected to the terminal datafields.
For enabling/disabling this functions, DFLAG location in
the input datafield is used

          DFLAG bit 11B controls "AUX ON/OFF"
          DFLAG bit 17B controls "READER ON/OFF"

It is possibility to use ctrl Q and ctrl S as normal data
even if the XOFF/XON function is enabled. This function
operates as follows: If XOFF/XON do not appear in the
sequence XOFF/XON these characters are treated as normal
data. This means that for Sintran ctrl S and ctrl Q can
be used   as editing keys as before. The only change

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                                            SINTRAN III version I
                                            SIN-I
Date: 840111   Report no: 31

is   that Sintran will wait for the next character when it
recives a ctrl S.

Example:
        @CC Mode-file for enabling a terminal to stop/start
        @CC output,also having the special XON/XOFF sequence
        @CC function. The address <XOFTR> can be found in
        @CC SYMBOL-2-LIST searching for XOFTR.
        @CC
        @SINTRAN-SERVICE
        @CHANGE-DATAFIELD 39D I Y Y N
        DFLAG/1001
        ROUSP/<XOFTR>
        .
        @EXIT

Note.Updating   of the "DYNAMIC" datafield (memory) should
     only be done if the terminal is passive. The initial
     value of DFLAG is 1.

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                                    SINTRAN III version I
                                    SIN-I
Date: 840111   Report no: 32

_____

Program: ALL
Subject: Internal devices using whole words.

- -

    The following patches must be done on each internal device
    to be run with whole words. Use the CHANGE-DATAFIELD
    command of the SINTRAN-SERVICE-PROGRAM. (Logical device
    number for byte oriented internal devices are 200B-237B).

    Find the tre addresses <PUTW>, <GETW> and <IOBUT> in the
    SYMBOL-1-LIST and SYMBOL-2-LIST.

    @SINTRAN-SERVICE
    @CHANGE-DATAFIELD <LOG.NO> INPUT NO YES NO
    IOTRANS/ <GETW>
    .
    @CHANGE-DATAFIELD <LOG.NO> OUTPUT NO YES NO
    IOTRANS/ <PUTW>
    .
    @EXIT

    The table IOBUT consists of a number of two word elements.
    The first word is logical device nr. and the second the
    buffer size in words.

    Use the @LOO-AT,IMAGE command and step through the table
    until the correct element is found. Then set bit 17B in the
    buffer size word.

    @LOOK-AT,IMAGE
    <IOBUT>/xxxxxx
    xxxxxx
    000230
    000040 100040
    .
    @

If wanted, the buffer size may now be changed using the
CHANGE-BUFFER-SIZE command of the SINTRAN-SERVICE-PROGRAM.

These patches are permanent if done on the save area
(SINTRAN:DATA).

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                                        SINTRAN III version I
                                        SIN-I
Date: 840111   Report no: 33

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Program: ALL
Subject: NORD-NET communication between different versions of
            SINTRAN III

- -

        NORD-NET communication can be established between the
        different SINTRAN versions released from the 78-version and
        later.

        However some modifications in the different versions are
        necessary to make this possible.

        The level of patches is determinded by the oldest version
        in the communication-link.

        There are two level of patches:
        Level-1: Oldest version in link is 78 or 79 version.
                 - Involves patches in all versions in link.

        Level-2: Oldest version in link is 80A version.
                 - Involves patches in E, F, G, H and I-version.

        LEVEL-1:
        ****** PATCHES IN 78 OR 79 VERSIONS ******

        Break strategy is changed in later versions to use
        BREAK-TABLE-6 with break only on carriage-return.

        @FMAC
        SINTRAN:DATA
        BRK6
        RTOCH
)SYSDF
)9ASSM SYMBOL-1-LIST
)SYSDF
)9ASSM SYMBOL-2-LIST
        BRK6/   000004   %OLD: 177777

```
   */   000000             %OLD: 177777
RTOCH+6/SAA    006          %OLD: 170401
)KILL BRK6 RTOCH
)9EXIT
```

****** PATCH IN 60 OR E, F, G, H AND I - VERSIONS ******

These versions introduced a new frame type unknown to
earlier versions. The patch will prevent this frame type
from being sent.

```
@FMAC
SINTRAN:DATA
REMTT
)SYSDF
)9ASSM SYMBOL-1-LIST
REMTT-1/  000001            %OLD: 000000
)KILL REMTT
)9EXIT
```

Each time remote command is used, SINTRAN will write:
Terminal type is not sent.

Both systems must be restarted by)HENT.

LEVEL-2:
****** PATCH IN E, F, G AND H - VERSIONS ******

This version expects escape character to be sent together
with terminal type. This patch ignores escape-character.

```
@DMAC
)CLOAD 16

162162/RAND 0 0            %OLD: 006362

)9EXIT
```

System must be restarted by)HENT, unless patch is repeated
on SEGMENT 27.

****** PATCH IN I - VERSION ******

This version expects escape character to be sent together
with terminal type. This patch ignores escape-character.

```
@DMAC
```

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)CLOAD 16

    162175/RAND 0 0   %OLD: 006362

)9EXIT

    System must be restarted by)HENT, unless patch is repeated
    on SEGMENT 27.

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                                         SINTRAN III version I
                                         SIN-I
Date: 840111   Report no: 34

Program: ALL
Subject: Output devices on terminal interfaces.

- -

Output devices on terminal interfaces will on the E,F,G and
H-version of SINTRAN run properly without the earlier patch
on DFOPP, TTMR and TYPRING

If you want delay after carriage return, set bit 9 in
TYPRING (see SIN-I 29).

If your SINTRAN is generated with background on the actual
terminal, use:
@SINTRAN-SERVICE-PROGRAM
*REMOVE-FROM-BACKGROUND-TABLE <LOG.NO> INPUT YES YES YES
*CHANGE-DATAFIELD <LOG.NO> INPUT YES YES YES
DBPROG/ RANDOM   RANDOM   RANDOM   0
.
*EXIT
∉
NB: Remember to set the correct speed (see SIN-I 30).

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                                        SINTRAN III version I
                                        SIN-I
Date: 840522   Report no: 35 B

Program: ALL
Subject: INPUT/OUTPUT on terminal interfaces.

- -

    It is often desireable to alter character I/O-specifications
    for terminals. Some of the most common and useful changes
    are described below. They can be performed by changing
    variables in the relevant terminal input datafield by means
    of the command CHANGE-DATAFIELD in SINTRAN-SERVICE-PROGRAM.

    1.Specifications for N-10 and ND-100 interfaces:

              N-10   terminal buffer   (1095)
              N-10   4 async.   (1122)
              N-10   Dual async.   (1147)
              ND-100 terminal interfaces (all)

| Variable | Bit no | | | | Number of | Number of | Parity |
CNTREG	14	13	12	11	data bits	stop bits	
000005	0	0	0	0	8	2	No
004005	0	0	0	1	7	2	No
010005	0	0	1	0	6	2	No
014005	0	0	1	1	5	2	No
020005	0	1	0	0	8	1	No
024005	0	1	0	1	7	1	No
030005	0	1	1	0	6	1	No
034005	0	1	1	1	5	1	No
040005	1	0	0	0	8	2	Even
044005	1	0	0	1	7	2	Even
050005	1	0	1	0	6	2	Even
054005	1	0	1	1	5	2	Even
060005	1	1	0	0	8	1	Even
064005	1	1	0	1	7	1	Even
070005	1	1	1	0	6	1	Even
074005	1	1	1	1	5	1	Even

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                                           SINTRAN III version I
                                           SIN-I
Date: 840522   Report no: 35 B

_____

    Note that these specifications affect hardware only. To
    obtain 8 bit data and/or remove parity, also changes
    described in section 2 must be done!

2.Fast I/O-driver with no editing functions, break on all
  characters and no echo (and no parity):

        Variable   Old value   New value
                             VSE/VSE-500   VSX/VSX-500

        STDRIV   STTIN   TELIN   TELIN
        DRIVER   TYENT   TELENT   TELENT
        IOTRANS   TTGET   TRGET   TRGET
        TYPRING   110040   110000   110040

3.Examples for VSE/VSE-500.

    If you have connected a device to terminal 36 (for
    instance a microcomputer), and want fast I/O You should
    run following mode file:

    @SINTRAN-SERVICE-PROGRAM
    @CHANGE-DATAFIELD 36D INPUT YES YES YES
    STDRIV/<value of TELIN>
    DRIVER/<value of TELEN>
    TYPRING/110000
    IOTRANS/<value of TRGET>
    .
    @EXIT

    If you in addition want 8 bit data and no parity the
    mode file should be as follows:

    @SINTRAN-SERVICE-PROGRAM
    @CHANGE-DATAFIELD 36D INPUT YES YES YES
    CNTREG/5
    STDRIV/<value of TELIN>
    DRIVER/<value of TELEN>
    TYPRING/110000
    IOTRANS/<value of TRGET>
    .
    @EXIT

The value of TRGET is found in part-I symbol list, STTIN
TYENT, TTGET, TELIN and TELEN is found in part-II symbol
list.

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                                        SINTRAN III version I
                                        SIN-I
Date: 840111   Report no: 36

_____

Program: ALL
Subject: How to remove pages from swapping.

- -

   If one wants to remove pages from swapping, i.e. pages that
   SINTRAN III normally allocates as swapping pages. This
   information may be inserted in the NSWPAGE table located in
   the listing part two, chapter 36.24. The value of NSWPA may
   also be found in the file SYMBOL-2-LIST.

   Each entry in NSWPAGE consist of two location, the first
   physical page and the last physical page of the area to be
   removed from the available swapping area. There are space
   for 20 elements in NSWPAGE. The entry(ies) must be inserted
   contigously from the beginning of the table(SINTRAN will
   stop searching on the first zero element).

   This may be done on the image area(SEGFIL0:DATA) or on the
   save area(SINTRAN:DATA) using FMAC. If the patch is done on
   image it will be effective after @RESTART-SYSTEM or master-
   clear/load. See also SIN-I-28.

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                                         SINTRAN III version I
                                         SIN-I
Date: 840125   Report no: 37 B

Program:
Subject: Problem with direct cursor addressing over ND-NET.
              Do the patch on all machins in the same network.!!

- -

```
@FMAC
SINTRAN:DATA
141/7ENDC=^
7ENDC/RTOCH; REMOT
)SYSDF
)9ASSM SYMBOL-1-LIST
7ENDC/0; 0
)9EXIT
@CONTINUE
MACM-AREA:DATA
DISP=110000
RTOCH+67-DISP/ 376      % OLD: 235
REMOT+260-DISP/ 376     % OLD: 235
RTOCH:; REMOT:
)9EXIT
```

System must be restarted by)HENT.

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840111   Report no: 38

_____

_____

Program:
Subject: Asynchronous modem with fixed line.

- -

    To make an asynchronous modem work on a fixed line, the
    following patch must be done on the input datafield of the
    relevant modem.

    Use the CHANGE-DATAFIELD command in SINRAN-SERVICE-PROGRAM
    and change the content of location DFLAG from 0 to 20.

    Example:

    @SINTRAN-SERVICE
    @CHANGE-DATAFIELD <LOG.NO> INPUT NO YES YES
    DFLAG/ 20
    .
    @EXIT

Program:
Subject: When Rem.File acc. is generating but not loaded, Rem.File
             Acc. in ND-NET will not work.

- -

```
@SINTRAN-SERVICE
@SEGMENT-WRITE-PERMIT 22
@SEGMENT-WRITE-PERMIT 26
@EXIT
@DMAC
)CLOAD 22
110000/LDA (266      $ OLD: 170777
     */EXIT          $ OLD: 146142
     */)FILL

)CLOAD 26
110000/LDA (266      $ OLD: 170777
     */EXIT          $ OLD: 146142
     */)FILL

)9EXIT
@SINTRAN-SERVICE
@SEGMENT-WRITE-PROTECT 22
@SEGMENT-WRITE-PROTECT 26
@EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840111   Report no: 40

_____

==   ===================

Program: ALL
Subject: Power fail on terminals.

- -

```
@FMAC
SINTRAN:DATA
IOAPD=?
IOAPD+35/ JMP *+001              % OLD: 124010
IOAPD:
)9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

SINTRAN III version I
SIN-I
Date: 840111   Report no: 41

===

Program: ALL
Subject: Character conversion for printers on terminal interfaces.

- -

Due to the variety of character sets on different printers,
if may be necessary to convert characters from their   ASCII
internal   values to appropriate output values. A conversion
routine LPPUT exist in SINTRAN. The routine starts with   a
conversion table, of which the label is PTABL.

If   a match is found between the character to be output and
one of the values found to the left of the table,   the
character is converted to the corresponding element to the
right of the table. The table may be modified, and expanded
to   include up to 7 conversions and must be terminated by a
zero left hand element.

The   routine is utilised by patching in the relevant
terminal's output data field. Change the content   of
location IOTRANS from <TRTPUT> to <LPPUT>.

Exapmle:

```
@CC Patches in PTABL using @FMAC
@FMAC
SINTRAN:DATA
PTABL=?
PTABL/160 ;  30      % convert from 160B to CDC form-feed
         44 ; 135      % convert from ASCII $ to CDC ]
        135 ; 134      % convert from ASCII J to CDC \
         43 ; 133      % convert from ASCII Ø to CDC [
        100 ; 134      % convert from ASCII @ to CDC \
          0             % END
)9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 2

SINTRAN III version I
SIN-I
Date: 840111   Report no: 41

@CC Patch in output datafield using SINTRAN-SERVICE-PROGRAM:
@SINTRAN-SERVICE-PROGRAM
@CHANGE-DATAFIELD <LOGICAL UNIT> O Y N N
IOTRA/<LPPUT>
.
@EXIT

NB: For conversion for line printers on parallell interfaces
    see SIN-I 42 and SIN-I 43.

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                                           SINTRAN III version I
                                           SIN-I
Date: 840111   Report no: 42

Program: ALL
Subject: Character conversion for parallel I/O LINE-PRINTER.

- -

    There exist a conversion table in the line printer datafield
    which is located at address DMLP1+22, DMLP2+22, etc... The
    locations are located in pairs, the 1st. containing initial
    character value, the second containing the converted value.
    The table has space for 16 conversions.

    Example:

    @FMAC
    SINTRAN:DATA
    DMLP1=?
    DMLP1+22/ 101; 102   % CONVERT A TO B
              102; 103   % CONVERT B TO C
                 0   % END

)9EXIT

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                           SINTRAN III version I
                                           SIN-I
Date: 840111   Report no: 43

Program: ALL
Subject: Convert lovercase characters to uppercase on parallell
            line printers.

- -

     Be avare of that the standard conversion table and routine
     is disabled. See SIN-I 42.

     @FMAC
     SINTRAN:DATA

     CONVC=?   % CONVERSION ROUTINE
     DMLP1=?   % LINE-PRINTER DATAFIELD
     9SMRE=?

     % REMOVE PERCENT SIGN IN FRONT OF THE DESIRED CHANGE
     % (ONLY ONE)

     % MASC=157737   % LOWERCASE TO UPPERCASE
     % MASC=057537   % LOWERCASE TO UPPERCASE AND REMOVE PARITY
     % MASC=077577   % REMOVE PARITY

     CONVC/ BSKP ZRO 60 DA   % OLD: 146151
             AND *2
             EXIT
             MASC

     DMLP1+22:   % FLAG ADDRESS
     DMLP1+22/1   % OLD: 000000 THIS IS A FLAG FOR
                            % ENABLING/ DISABLING THIS FUNCTION

)9EXIT

     The system should be restarted by means of the '@COLD-START'
     command.

Program: ALL
Subject: Treat empty spooling form as a normal string.

- -

```
      @DMAC
      )CLOAD 12
      FORM=?; FORMS=?; SEMPL=?; SG12F=?
      FORMS+12/ JMP I *+001                    % OLD: 044102
            */ SG12F                           % OLD: 153122
      SG12F/    LDA  (SEMPL
                MON  122
                COPY 0    DD    AD1
                LDA  ,X  FORM
                SHA  ZIN SHR   10
                BSET ZRO 70    DA
                SAT  47
                SKP  IF  DA    EQL    ST
                JMP  I   (FORMS+24
                LDA  ,B  161
                SHA  ZIN SHR   10
                BSET ZRO 70    DA
                SKP  IF  DA    EQL    ST
                JMP  I   (FORMS+101
                JMP  I   (FORMS+60
      )FILL
      FORM: FORMS: SEMPL:
      )KILL SG12F; SG12F=*; SG12F:
      )9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                          SINTRAN III version I
                                          SIN-I
Date: 840215   Report no: 79

_____

Program:
Subject: The NTR emulator is running very badly using syncronous
            driver when a multiplexed modem is used.

- -

```
     @FMAC
     SINTRAN:DATA

     141/7ENDC=^
     7ENDC/MODIN; RBPUT

     )SYSDF
     )9ASSM SYMBOL-2-LIST
     ?

MODIN+352/  JMP I *1           % OLD: 135010
        */  7ENDC              % OLD: 171003
     7ENDC/    SUB   (377
               JAZ   *11
               ADD   (377
               SUB   (226
               JAZ   *5
               ADD   (226
               JPL I (RBPUT
               SAT   3
               JMP I (MODIN+354   %RETUR
               JMP I (MODIN+606   %MORET
               JMP I (MODIN+0b0   %MOSWY
     )FILL
     MODIN:; RBPUT:
     )KILL  MODIN RBPUT
     )KILL 7ENDC; 7ENDC=*; 7ENDC:
     141/7ENDC
     )9EXIT
     @CC Restart system by )HENT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840215   Report no: 80

_____

Program:
Subject: The NTR emulator is running very badly using HDLC-Syncronous
              driver when a multiplexed modem is used.

- -

```
        @FMAC
        SINTRAN:DATA

        141/7ENDC=^
        7ENDC/HODIN; RBPUT

        )SYSDF
        )9ASSM SYMBOL-2-LIST
        ?

        HODIN+407/  JMP I  *1          % OLD: 135010
               */   7ENDC              % OLD: 171003
        7ENDC/      SUB    (377
                    JAZ    *11
                    ADD    (377
                    SUB    (226
                    JAZ    *5
                    ADD    (226
                    JPL I  (RBPUT
                    SAT    3
                    JMP I  (HODIN+411   %RETUR
                    JMP I  (HODIN+643   %MORET
                    JMP I  (HODIN+116   %MOSWY
        )FILL
        HODIN:; RBPUT:
        )KILL  HODIN RBPUT
        )KILL 7ENDC; 7ENDC=*; 7ENDC:
        141/7ENDC
        )9EXIT
        @CC Restart system by )HENT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                             SINTRAN III version I
                                             SIN-I
Date: 840504   Report no: 130 B

_____

Program: ALL
Subject: Different patches concerning spooling header and trailer.

- -

     @DMAC
)CLEAR
)RESSM
)CLOAD 12
     %--
     % Library mark SPWID:
     %   Patch to change the width of the spooling header and
     %   trailer from 122D to 71D characters per line.
     %
     % Library mark SPCHA:
     %   Patch to change the '*' in the spooling header and
     %   trailer to any Ascii character.
     CHAR=00*   % Substitute '*' with any Ascii character.
     %
     % Library mark SPFAH:
     %   Patch to remove the form feed after the spooling
     %   header.
     %
     % Library mark SPFBH:
     %   Patch to remove the form feed at the start of the
     %   spooling print if the spooling header is present
     %   (i.e. before spooling header is printed).
     %
     % Library mark SPFBT:
     %   Patch to remove the form feed at the end of the
     %   spooling print if the spooling trailer is present.
     %
     % Library mark SPFAT:
     %   Patch to remove the form feed after spooling trailer.
     %--

     140001/ SG12L=^

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ND Norsk Data   Software MODIFICATION Report   Page: 2

                                        SINTRAN III version I
                                        SIN-I
Date: 840504   Report no: 130 B

```
     140002/ SG12F=^
     SG12F<SG12L
     )ZERO
     SG12F/
     %SPWID    % Remove %-sign at beg. of line if patch wanted
     %SPCHA    % Remove %-sign at beg. of line if patch wanted
     %SPFAH    % Remove %-sign at beg. of line if patch wanted
     %SPFBH    % Remove %-sign at beg. of line if patch wanted
     %SPFBT    % Remove %-sign at beg. of line if patch wanted
     %SPFAT    % Remove %-sign at beg. of line if patch wanted

     %SAVE     % Remove the %-sign at the beginning of the line
               % if you want the patches done in the save-area
               % (will survive a cold start).
               % Do not remove if you want the patches done on
               % the reentrant segment (will not survive a cold
               % start).

     "-SAVE
     )9EXIT
     @SINTRAN-SERVICE-PROGRAM
     @SEGMENT-WRITE-PERMIT 25
     @EXIT
     @DMAC
     )CLOAD 25

     "SPWID
     TOPPO=136;  OUTPO=465;  NAMPO=506;  TOFPO=707;  TXTPO=712
     GENPO=1131; PHIPO=1353; DATPO=1143; CLCPO=1365; BOTPO=1712

     172670/ TOPPO              % OLD: 000244
     172672/ BOTPO              % OLD: 003164
     172673/ TXTPO              % OLD: 001424
     172676/ NAMPO              % OLD: 001052
     173012/ DATPO              % OLD: 002023
     173010/ TOFPO              % OLD: 001420
     173014/ OUTPO              % OLD: 001030
     173016/ GENPO              % OLD: 002010
     173020/ PHIPO              % OLD: 002400
     173022/ CLCPO              % OLD: 002411
     173210/ TOPPO              % OLD: 000244
     173212/ BOTPO              % OLD: 003164
     173106/ SAA 111            % OLD: 170574
     173137/ SAA 111            % OLD: 170574

     )KILL TOPPO OUTPO NAMPO TOFPO TXTPO
     )KILL GENPO PHIPO DATPO CLCPO BOTPO
```

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ND Norsk Data   Software MODIFICATION Report   Page: 3

                                        SINTRAN III version I
                                        SIN-I
Date: 840504   Report no: 130 B

```
"SPCHA
INSTR=SAA+CHAR
173112/ INSTR            % OLD: 170452
173132/ INSTR            % OLD: 170452
173151/ INSTR            % OLD: 170452
)KILL CHAR INSTR

"SPFAH
172577/ JMP *+3          % OLD: 170414

"SPFBH
172555/ JMP *+3          % OLD: 170414

"SPFBT
173030/ RCLR DT          % OLD: 170414
   */ JMP *+3
"SPFAT
173053/ JMP *+3          % OLD: 170414

"-SAVE
)9EXIT
@SINTRAN-SERVICE-PROGRAM
@SEGMENT-WRITE-PROTECT 25
@EXIT
@DMAC
"
)9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840411   Report no: 133

Program: ALL
Subject: No error message is given in the PRSRV command if the device
            is already reserved by another program.

- -

```
@FMAC
SINTRAN:DATA
141/ 7ENDC=^
)9EXIT
@CONTINUE
MACM-AREA:DATA
CPLIS=?; RTFEL=?; SINCO=?; PRIRT=?;
ESCON=?; ESCOF=?; CRLF=?
SINCO-110000+63/ LDT *+113    % OLD: 146156
              */ JMP I *+1    % OLD: 044112
              */ 7ENDC        % OLD: 140660
)9EXIT
@CONTINUE
SINTRAN:DATA
7ENDC/ SWAP SA DT
       EXR  ST
       JAZ  OUT
       COPY SX DA
       SUB  (120155
       JAF  OUT
       LDA  (ERTX
       JPL  I ,B -50
       LDA  (CPLIS
       MON  140
       STA  ,B -175
       COPY SB DA
       AAA  -175
       JPL  I (RTFEL
       JMP  OUT
       JPL  I (ESCON
       JPL  I (ESCOF
       COPY SD DX
```

ND Norsk Data   Software MODIFICATION Report   Page: 2

```
        JPL  I (PRIRT
        JPL  I (CRLF
OUT,    JMP  I ,B -51
)FILL
ERTX,   'DEVICE ALREADY RESERVED BY '
)KILL 7ENDC; 7ENDC=*
141/ 7ENDC
)9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840602   Report no: 141

Program: ALL
Subject: Sintran-Service-Program commands for the new timeslicer.

- -

      The modified Sintran-Service-Program timeslicer commands

            DEFINE-TIME-SLICE,
            INSERT-IN-TIME-SLICE and
            REMOVE-FROM-TIME-SLICE

      plus two new commands

            LIST-TIME-SLICE-CLASS and
            LIST-TIME-SLICE-PARAMETERS

      for the new Timeslicer in Sintran-III version I, are now
      available on a separate patchfile floppy. The commands
      are documented in a report following the floppy. The
      floppy with the actual patches can be obtained by con-
      tacting your local ND support.

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SINTRAN III version I
SIN-I
Date: 840614   Report no: 148

Program: ALL
Subject: HOW TO DROP DTR WHEN LOGGING OUT

- -

```
    @FMAC
    SINTRAN:DATA
    7ENDC=? ; LOGOU=? ; CNTRE=? ; HDEV=?
    TYPRI=? ; XGTDF=? ; IOXT=?  ; LOGPH=?

    TTNO=22021-22200

    )9EXIT
    @CONT
    MACM-AREA:DATA
    LOGOU-110000+207/ JPL I *+1      % OLD : 44010
                */ 7ENDC             % OLD :153105
    )9EXIT
    @CONT
    SINTRAN:DATA
    7ENDC/ LDA ,B TTNO          % A= Logical number
           JPL I (LOGPH
           COPY SA DX           % Resident datafield (DTxxR)
           LDT ,X TYPRI         % A= Typring
           BSKP ZRO 040 DT      % Test if 'BAD'
           JMP ABORT            % DO NOT RESET, FINISHED
           LDA (HPAR1           % A::ADDRESS OF PARAMETERLIST
           MON 104              % DUMMY HOLD TO RESET REPEAT FLAG
           LDA (HPAR2           % A::ADDRESS OF PARAMETERLIST
           MON 104              % HOLD
           SAT CNTRE            % T= Displacement , X= D-F
           JPL I (XGTDF         % A= Contains now CNTREG value
           BSET ONE 40 DA       % Reset device clear bit
           STA  CRREG
           SAT HDEV             % T= Displacement , X= D-F
           JPL I (XGTDF         % A= Contains now HDEV value
           COPY SA DT           % HDEV to Treg
```

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                                         SINTRAN III version I
                                         SIN-I
Date: 840614   Report no: 148

```
            AAT DCONT        % Write Control Register
            LDA CRREG        % A = Control Register
            IOXT             % Execute IOX HDEV + 3
    ABORT, LDA (ABPAR        % A= Address of parameterlist
            MON 105          % Abort RT-program
            EXIT AD1         % Return
    CRREG,0                  % CNTREG (Control Register)
    ABPAR,  7
    HPAR1,  NOTI1            % Parameter list dummy hold
            TUNIT
    HPAR2,  NOTI2            % Parameter list hold
            TUNIT
    NOTI1,  0                % Time units = 0 => DUMMY HOLD
    NOTI2,  2                % Number of time units
    TUNIT,  2                % Time unit (2 = Second)

    )FILL
    LOGOU: TTNO : CNTRE: HDEV:  TYPRI:
    XGTDF: DCONT: LOGPH:
    )KILL HPAR2 ; HPAR1 ; NOTI1 ; NOTI2 ; TUNIT
    )KILL ABORT ; CRREG ; ABPAR ; TTNO
    )KILL 7ENDC ; 7ENDC=* ; 7ENDC:
    )9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 840831   Report no: 168

Program: All
Subject: To allow public users to execute ENTER-DIRECTORY and
             RELEASE-DIRECTORY on other device types than floppy discs.

- -

```
@DMAC
)CLOAD 12
145034/ JMP *+4          % OLD: 175105
145624/ JMP *+2          % OLD: 135116
)9EXIT
```

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                                        SINTRAN III version I
                                        SIN-I
Date: 840831   Report no: 169

Program: All
Subject: To allow FORWARD-SPACE-PRINT and BACKSPACE-PRINT to be done
            from the user who appended the job to the spooling system.

- -

```
@DMAC
)CLOAD 12
167100/ LDX 23,B          % OLD: 175155
     */ BSKP ZRO 150 DA   % OLD: 124004
     */ JMP *+3           % OLD: 054423
)9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                            SINTRAN III version I
                                            SIN-I
Date: 840919   Report no: 181

_____

_____

Program: VSX and VSX-500
Subject: Terminal input/output buffer size.

- -

    @FMAC
    SINTRAN:DATA
)RESSM

    SINTR=?; INTDF=?; 7ENDC=?;
)KILL XX YY DTR DTW XSIZE DISP1 DISP2 IBUFF OBUFF

    % --%
    % CHANGE THE VALUES OF THE TWO SYMBOLS 'IBUFF' AND   %
    % 'OBUFF' BELOW TO WANTED SIZE IN WORDS.   %
    % NB! 'IBUFF' AND 'OBUFF' MUST BE DEFINED SO THAT   %
    % THE SUM OF THE TWO GIVES EITHER   %
    %   212B, 412B, 612B OR 1612B WORDS.   %
    %   %
    IBUFF=57 % NO. OF WORDS OF TERMINAL INPUT BUFFER   %
    OBUFF=133 % NO. OF WORDS OF TERMINAL OUTPUT BUFFER   %
    %   %
    % --%

    DTR=111
    DTW=54
    XSIZE=DTR+IBUFF+DTW+OBUFF+1
    DISP1=DTR+IBUFF+10
    DISP2=DTR+IBUFF+DTW+1

    "SXMSG
    YY=702
    "-SXMSG
    YY=673
    "CXCPU
    SINTR+YY/ XX=^-120000   % OLD: 120113
    *+XX/ XSIZE   % OLD: 000400

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                                    SINTRAN III version I
                                    SIN-I
Date: 840919   Report no: 181

```
      )KILL XX

      INTDF+157/ XX=^-60000        % OLD: 060067
      *+XX/ DISP1                  % OLD: 000200
      )KILL XX

      INTDF+165/ JPL I *+1         % OLD: 170530
             */ 7ENDC             % OLD: 006015
      7ENDC/ LDA (IBUFF+IBUFF
             STA 15,X
             EXIT AD1
      )FILL
      )KILL 7ENDC; 7ENDC=*

      INTDF+325/ XX=^-60000        % OLD: 060070
      *+XX/ DISP2                  % OLD: 000245
      )KILL XX

      INTDF+327/ XX=^-44000        % OLD: 044067
      *+XX/ OBUFF+OBUFF            % OLD: 000266
      )KILL XX

      INTDF+342/ JPL I *+1         % OLD: 173170
             */ 7ENDC             % OLD: 170454
      7ENDC/ LDA (DTR+IBUFF
             RADD SA DT
             SAA DTW
             EXIT AD1
      )FILL
      )KILL 7ENDC; 7ENDC=*

      INTDF+352/ XX=^-60000        % OLD: 060045
      *+XX/ DISP1                  % OLD: 000200
      )KILL XX

      INTDF+372/ XX=^-50000        % OLD: 050026
      *+XX/ XSIZE                  % OLD: 000400
      )KILL XX YY DTR DTW XSIZE DISP1 DISP2 IBUFF OBUFF
      141/ 7ENDC
      "
      )9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                        SINTRAN III version I
                                        SIN-I
Date: 841126   Report no: 187

_____

Program: ALL
Subject: Preventing spooling files which are appended after a restart
            to be overwritten while they are in the spooling queue.

- -

    @cc   The patch given below will prevent the 'spooling-file
    @cc   -in-use' bit to be reset at @ENTER-DIRECTORY and thus
    @cc   avoiding the contents of the spooling file(s) to be
    @cc   accidentally overwritten when getting the system up
    @cc   again after a system stop.
    @cc   This patch requires that the spooling files which are
    @cc   in use, have to be appended to the spooling queue or
    @cc   opened for read and then closed, which can be done in
    @cc   the system files:
    @cc   HENT-MODE:MODE and
    @cc   LOAD-MODE:MODE

    @cc   Patch in the save-area which demands a 'cold-start'.
    @DMAC
)CLOAD 12
    145271/ AND ■+46   % OLD: 070045
)9EXIT

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                      SINTRAN III version I
                                      SIN-I
Date: 841219   Report no: 208

_____

Program: All
Subject: Systems with dual-port disk switch (ND-599).

- -

```
%      DUAL PORT DISK SWITCH  -  ND-599.
%
%      -----------                    -----------
%      I System  I                    I System  I
%      I    A    I                    I    B    I
%      I         I                    I         I
%      -----------                    -----------
%          .          ---------------      .
%          .          I  DUAL PORT  I      .
%      -------->I DISK SWITCH I<--------
%                     I  (ND-599)   I
%                     ---------------
%                            .
%                            .
%
%                      D I S K
%
%
% Disk drivers do not usually execute "release" (after
% "select") because of problems with old 'round cable'
% disks.
% This means that @RELEASE-DIRECTORY from system A and
% @ENTER-DIRECTORY from system B are not sufficient to
% switch the disk from A to B; one must, in addition,
% operate the switch on the front of ND-599.
% The modification patch given below will cure this problem
% with one exeption, namely when one of the systems A or
% B stops in the disk driver routine between "select" and
% "release". In this case, one can solve the problem by
% operating the switch on the ND-599.

%  (In later versions of SINTRAN this will be implemented:
```

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Date: 850129

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                                        SINTRAN III version I
                                        SIN-I
Date: 841219   Report no: 208

```
    % @ENTER-DIRECTORY ("priority select" will take channel
    % regardless) / @RELEASE-DIRECTORY ("release").)

    %************************************************************%
    % IMPORTANT!                                                %
    %                                                           %
    % The patch below must NOT be done on systems with 'round   %
    % cable' disks, because it will cause disk crash!!!         %
    %************************************************************%

    @FMAC
    SINTRAN:DATA
    141/ 7ENDC=^
    7ENDC/ BDISK
    )SYSDF
    )9ASSM SYMBOL-2-LIST
    )9ASSM LIBRARY-MARKS
    7ENDC<
    )ZERO
    "6BDIS+6BDIM -BDISK
    BDISK+1733/ BSKP ZRO 100 DA          % OLD: 000000
    BDISK:
    "
    )9EXIT
```

ND Norsk Data   Software MODIFICATION Report   Page: 1

                                              SINTRAN III version I
                                              SIN-I
Date: 850104   Report no: 209

Program: ALL
Subject: Reading from floppy diskette with write protection

- -

```
@FMAC
SINTRAN:DATA
7ENDC=?; WDIRE=? ; WOBJE=? ; WUSER=?
AREG=? ; LREG=? ; WBFBL=? ; MERRC=?

7ENDC/
TSTWP,  SAT 175
        SKP IF DA EQL ST
        EXIT
        MIN ,B LREG
        RINC DL
        EXIT AD1
LL1,    JPL I (TSTWP
        SAA 35
        STA ,B AREG
        JMP I (WDIRE+051
LL2,    JPL I (TSTWP
        STA ,B AREG
        JMP I (WUSER+246
        JMP *-1
LL3,    JPL I (TSTWP
        STA ,B AREG
        JMP I (WOBJE+273
        JMP *-1
LL4,    JPL I (TSTWP
        SAA 36
        STA ,B AREG
        JMP I (WBFBL+051
        JMP *-1

)FILL
)KILL 7ENDC; 7ENDC=* ; 7ENDC:
```

ND Norsk Data   Software MODIFICATION Report   Page: 2

                                        SINTRAN III version I
                                        SIN-I
Date: 850104   Report no: 209

```
    MERRC+24/ JMP I *+1        % OLD: 170571
         */  7ENDC            % OLD: 146142
    7ENDC/   COPY SD DA
             SHA ZIN SHR 11
             AND (77
             SAT 16
             SKP IF DA UEQ ST
             JMP *+3
             SAA 171
             EXIT
             SAA 175
             EXIT
    )FILL
    )KILL 7ENDC; 7ENDC=*
    MERRC: 7ENDC:
    )9EXIT
    @CONT
    MACM-AREA:DATA
    WDIRE+047+2000/ JMP I *+1      % OLD: 170435
               */ LL1            % OLD: 004402
    WUSER+253+2000/ JMP I *+1      % OLD: 004402
            */  LL2             % OLD: 124372
    WOBJE+300+2000/ JMP I *+1      % OLD: 004402
            */  LL3             % OLD: 124372
    WBFBL+047+2000/ JMP I *+1      % OLD: 170436
            */  LL4             % OLD: 004402

    )KILL LL1 LL2 LL3 LL4 LL5 TSTWP
    )9EXIT
```

Program: ALL
Subject: Warning in @test- and regenerate-directory commands
            Rt-programs must not enable escape on terminal 1

- -

```
      @DMAC
      )CLOAD 12
      SG12F=?; OUTRC=?; TESDI=?; TUSSY=?; TUSRT=?;
      ESCON=?; RTERR=?; RTREF=?; BACKG=?; 7ENDC=?;
      TESDI+205/ JMP I *+1         % OLD: 146105
              */ SG12F              % OLD: 146101
      SG12F/ JPL I (OUTRC
             '$* * * W A R N I N G * * *'
             JPL I (OUTRC
             '$THIS COMMAND MUST RUN TO COMPLETION!!'
             JPL I (OUTRC
             '$IF THE SYSTEM STOPS (OR IS STOPPED) WHILE '
             JPL I (OUTRC
             'THIS COMMAND IS EXECUTING,'
             JPL I (OUTRC
             '$THE COMMAND MUST BE RE-ISSUED AFTER SYSTEM '
             JPL I (OUTRC
             'RESTART BEFORE THE DIRECTORY'
             JMP LLASL; )FILL
      LLASL, JPL I (OUTRC
             '$IS TAKEN INTO USE, ELSE THE DIRECTORY '
             JPL I (OUTRC
             'WILL BE DESTROYED.$'
             RCLR DA
             RCLR DD
             JMP I (TESDI+207
      )FILL
      )KILL SG12F LLASL; SG12F=*
      TESDI: OUTRC: SG12F:
      )9EXIT
      @FMAC
      MACM-AREA:DATA
```

SINTRAN III Version I / SSR MODIFICATION
Date: 850129

ND Norsk Data   Software MODIFICATION Report   Page: 2

                              SINTRAN III version I
                              SIN-I
Date: 850107   Report no: 210

```
    TUSSY+22+2000/ 124374    % OLD: 124373
    TUSRT+14+2000/ 124011    % OLD: 124010
    TUSSY: TUSRT:
    )9EXIT
    @FMAC
    SINTRAN:DATA
    ESCON/ JMP I *+1         % OLD: 150401
       */ 7ENDC             % OLD: 030373
    7ENDC/ 150401           % IOF
            STF I (ESCON-4
            LDA I (BACKG
            JAF *+2
            JMP I (ESCON+102
            LDA I (RTREF
            LDT (RTERR
            SKP IF SA UEQ DT
            JMP I (ESCON+102
            LDF I (ESCON-4
            JMP I (ESCON+2
    )FILL
    )KILL 7ENDC; 7ENDC=*
    ESCON: BACKG: RTREF: RTERR: 7ENDC:
    )9EXIT
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%% 01 %%%%%%%%%%%%%%%%%%%%%%%%%%%%
```
SOFTWARE SYSTEM REPORTS   PATCH FILE: 010
```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
==========================================================
```
REPORT: SIN-I   1   PROGRAM: RT-LOADER   REASON: E

SUBJECT: Error in LIST-SEGMENT-NAMES command.
SYMPTOM: Wrong output from the LIST-SEGMENT-NAMES command.
DESCRIPTION:
```
==========================================================
```
REPORT: SIN-I   2   PROGRAM: RT-LOADER   REASON: E

SUBJECT: Error in CLEAR-SEGMENT-COMMAND.
SYMPTOM: When executing the CLEAR-SEGMENT command the
             segment name is deleted from the linking table
             but not from the rtfil table. (the name should
             not be deleted from any tables)

DESCRIPTION:
```
==========================================================
```
REPORT: SIN-I   3   PROGRAM: ALL   REASON: E

SUBJECT: Patch to avoid DISC TRANSFER ERROR when running
             with compare on disc (COMFL<0).
SYMPTOM: DISC TRANSFER ERROR in @ENTER-DIRECTORY.
DESCRIPTION:
```
==========================================================
```
REPORT: SIN-I   4   PROGRAM: All   REASON: E

SUBJECT: The commands @DUMP-PROGRAM-REENTRANT and @LOAD-
             REENTRANT-SEGMENT.
SYMPTOM: Error-message ILLEGAL ADDRESS REFERENCE IN
             MONITOR CALL when executing the @DUMP-PROGRAM-
             REENTRANT or the @LOAD-REENTRANT-SEGMENT command.
DESCRIPTION:
```
==========================================================
```
REPORT: SIN-I   5   PROGRAM: ALL   REASON: E

SUBJECT: Syntax checking on the file type in MON OPEN,
             SCROP, DOPEN and OLDOP.
SYMPTOM: If the A-register does not point to a valid
             string then the error message 'ILLEGAL CHARACTER
             IN STRING' is given.
DESCRIPTION: This patch moves checking of file type syntax.

```
==========================================================
```

%%%%%%%%%%%%%%%%%%%%%%%%%%%% 02 %%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 010
%%

===
REPORT: SIN-I   6   PROGRAM: ALL   REASON: E

SUBJECT: @RECOVER (by MON 317) from an ND-500 program.
SYMPTOM: The terminal will hang when an error-condition is
              detected in the @RECOVER command.
DESCRIPTION: Missing test for "illegal parameter" in the
              @RECOVER command before the ND-500 process is
              disconnected.

===
REPORT: SIN-I   7   PROGRAM: ALL   REASON: E

SUBJECT: @APPEND-BATCH command.
SYMPTOM: The message NOT READ ACCESS when trying to append
              a   file to the batch process and the user
              appending the file has not read access to the
              file he append.
DESCRIPTION:
===
REPORT: SIN-I   8   PROGRAM: ALL   REASON: E

SUBJECT: Sintran command table layout and the @UPDAT
              command.
SYMPTOM: 1. Error when trying to execute some commands
              after   the command @SET-COMMAND-PROTECTION is
              used. 2. Public user not allowed to execute
              @UPDATE after sysstart
DESCRIPTION:
===
REPORT: SIN-I   9   PROGRAM: ALL   REASON: E

SUBJECT: The @LIST-BATCH-PROCESS command.
SYMPTOM: Error   message   DIRECTORY   NOT   ENTERED   when
              executing the @LIST-BATCH-PROCESS command.
DESCRIPTION:
===
REPORT: SIN-I   10   PROGRAM: ALL   REASON: E

SUBJECT: Error in MON 240 (Append Spooling File).
SYMPTOM: 20 copies are always given because of undefined
              displacement (value from old spooling datafield
              is used).
DESCRIPTION:
===

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 03 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS                          PATCH FILE: 010
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
==============================================================
REPORT: SIN-I      11    PROGRAM: Sintran III VSE   REASON: E

SUBJECT:    Error in MON 325 (MBECHO).
SYMPTOM:    The INBT/OUTBT control, set by MON 325, does  not
            work in Batch/Mode.
DESCRIPTION:
==============================================================
REPORT: SIN-I      12    PROGRAM: ALL               REASON: E

SUBJECT:    Volume on floppy disk (used by the Backup-System)
SYMPTOM:    Volume on floppy does not work.
DESCRIPTION:
==============================================================
REPORT: SIN-I      13    PROGRAM: ALL               REASON: E

SUBJECT:    Error in MON INSTRING (MON 161).
SYMPTOM:    System looping and several other symptoms.
DESCRIPTION:
==============================================================
REPORT: SIN-I      14    PROGRAM: ALL               REASON: E

SUBJECT:    ND-500 Driver.
SYMPTOM:    1. XMSG calls does not work properly from ND-500.
            2. System stops in ERRFATAL.
DESCRIPTION:
==============================================================
REPORT: SIN-I      15    PROGRAM: ALL               REASON: E

SUBJECT:    Logout from TAD's
SYMPTOM:    A TAD may not be released if the LOCAL  character
            is given imideately after a LOGOUT command.
DESCRIPTION:
==============================================================
REPORT: SIN-I      16    PROGRAM: ALL               REASON: E

SUBJECT:    Automatic system restart after powerfail.
SYMPTOM:    The  system  does  not  restart correctly after a
            powerfail.
DESCRIPTION:
==============================================================
```

&&&&&&&&&&&&&&&&&&&&&&&&&&&& 04 &&&&&&&&&&&&&&&&&&&&&&&&&&&&
SOFTWARE SYSTEM REPORTS   PATCH FILE: 010
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

==
REPORT: SIN-I   17   PROGRAM: ALL   REASON: E

SUBJECT: Error in GET1L/PUT1L routines.
SYMPTOM: Error in @LOOK-AT command when a   reentrant
              segment overlaps (in logical address area), with
              the actual segment in the @LOOK-AT command.
DESCRIPTION:
==
REPORT: SIN-I   18   PROGRAM: ALL   REASON: E

SUBJECT: MON SPLRE (MON 323).
SYMPTOM: 1. Error message: ERROR 15; ILLEGAL SEGMENT
              NUMBER in MON SPLRE. 2. MON SPLRE does not work
              from a :PROG file.
DESCRIPTION:
==
REPORT: SIN-I   19   PROGRAM: ALL   REASON: E

SUBJECT: BATCH and MODE input files.
SYMPTOM:
DESCRIPTION:
==
REPORT: SIN-I   20   PROGRAM: ALL   REASON: E

SUBJECT: Date (Sintran III clock), at system startup.
SYMPTOM: The date is wrong when the system start.
DESCRIPTION:
==
REPORT: SIN-I   21   PROGRAM: ALL   REASON: E

SUBJECT: Monitor call DVIO on ND-500
SYMPTOM: Incorrect break strategy. Incorrect number of
              characters read. Incorrect number of characters
              returned.
DESCRIPTION: Same code as in DVINSTR used, but monitor call
             format was not equal.

==
REPORT: SIN-I   22   PROGRAM: ALL   REASON: E

SUBJECT: Monitor calls MCALL and MEXIT.
SYMPTOM: ERROR 45; NOT DEMAND SEGMENT in MCALL/MEXIT (also
              when using @LOOK-AT SEGMENT).
DESCRIPTION:
==

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 05 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 010
%%%

===
REPORT: SIN-I   23   PROGRAM: ALL   REASON: E

SUBJECT: Error in MON COPAG
SYMPTOM:
DESCRIPTION: Incorrect skip-skip return if there is a hole of
             7 pages or less.

===
REPORT: SIN-I   24   PROGRAM: ALL   REASON: E

SUBJECT: Error in MON RLDIR and @UNRESERVE-DIRECTORY
SYMPTOM:
DESCRIPTION:
===
REPORT: SIN-I   25   PROGRAM: ALL   REASON: E

SUBJECT: XMSG ON ND-500
SYMPTOM: SYSTEM MAY STOP OR OTHERWISE BEHAVE STRANGE IF
             XMSG CALL ON ND-500 IS DONE WHEN XMSG IS NOT
             RUNNING
DESCRIPTION: MUST TEST FOR XMSG RUNNING BEFORE USING MON XMSG
             ON DRIVER LEVEL

===
REPORT: SIN-I   26   PROGRAM: All   REASON: E

SUBJECT: ND-500 Timeslicer.
SYMPTOM: Processes executing monitor calls gets too little
             share of the ND-500 CPU.
DESCRIPTION:
===

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 01 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 200
%%

LISTED BELOW ARE CHANGES SINCE PATCH FILE 010

===
REPORT: SIN-I   9 B   PROGRAM: ALL   REASON: E

SUBJECT: The @LIST-BATCH-PROCESS command.
SYMPTOM: Error message   DIRECTORY   NOT   ENTERED   when
              executing the @LIST-BATCH-PROCESS command.
DESCRIPTION:
===
REPORT: SIN-I   26 B   PROGRAM: All   REASON: E

SUBJECT: ND-500 Timeslicer.
SYMPTOM: Processes executing monitor calls gets too little
              share of the ND-500 CPU.
DESCRIPTION:
===
REPORT: SIN-I   47 B   PROGRAM: ALL   REASON: E

SUBJECT: Forced print.
SYMPTOM: When in forced print the command @LIST-SPOOLING-
              QUEUE gives a ?-mark for the user name of the
              last user of a PSF or an incorrect user name is
              given.
DESCRIPTION:
===
REPORT: SIN-I   48   PROGRAM: ALL   REASON: E

SUBJECT: DIRECTORY STATISTICS.
SYMPTOM: MISLEADING TEXT STRING IS GIVEN.
DESCRIPTION:
===
REPORT: SIN-I   49 C   PROGRAM: REASON: E

SUBJECT: Problem with ND-NET and SIII-VSX.
SYMPTOM: Sintran will stop in ERRFATAL. Page fault on
              level 1. P-reg points to RTOCH and X-reg is
              17xxxx.
DESCRIPTION: Try to load TTIFIELD.TYPRING in RTOCH.

===

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 02 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 200
%%

===
REPORT: SIN-I   51 B PROGRAM: VSX, VSX-500   REASON: E

SUBJECT: Error in terminal output timeout routine.
SYMPTOM: System hangs on level 4 when terminal output
             timeout and carrier missing.
DESCRIPTION: Return address from terminal output timeout
             routine destroyed when calling 'monitor activate
             routine' (CXXRT).

===
REPORT: SIN-I   52   PROGRAM: ALL   REASON: E

SUBJECT: Error in DEFINE-SEGMENT-FILE.
SYMPTOM: Does not work if defining segment files on
             PHOENIX disk with subunit different from subunit
             0.
DESCRIPTION:
===
REPORT: SIN-I   65   PROGRAM: RT-LOADER   REASON: E

SUBJECT: Error in RT-LOADER routine SWAPOUT called when
             issuing *CLEAR-SEGMENT.
SYMPTOM: The RT-program is aborted with the error message
             'OUSIDE SEGMENT BOUNDS' when reactivated from
             RTWAIT if it tries to access the cleared segment.
             Problems to rebuild segment.
DESCRIPTION: The RT-LOADER routine SWAPOUT does not check if
             the RT-program using the segment, is in RTWAIT
             before the segment is cleared.

===
REPORT: SIN-I   66   PROGRAM: ALL   REASON: E

SUBJECT: REMOVE-SPOOLING-HEADER when specifying form-feed
             afer does not work.
SYMPTOM: Form-feed is not given after output to spooling
             device.
DESCRIPTION: Does not check whether form-feed is wanted after
             output. Carriage return/line feed is given if it
             not spooling device is in plot mode.

===
REPORT: SIN-I   67 B PROGRAM: ALL   REASON: E

SUBJECT: Problems with the HASP DMA communication on
             interface with new micro program.
SYMPTOM:
DESCRIPTION:
===

&&&&&&&&&&&&&&&&&&&&&&&&&&&&& 03 &&&&&&&&&&&&&&&&&&&&&&&&&&&&&
SOFTWARE SYSTEM REPORTS   PATCH FILE: 200
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

===
REPORT: SIN-I   68   PROGRAM: ALL   REASON: E

SUBJECT: Monitor calls, MON 170 and MON 171, operating on
             a buffer pool. (Used by NORD TPS, X21 server, X25
             Server.......).
SYMPTOM: Pagefault (in RTCOMMON) with interrupt off.
DESCRIPTION:
===
REPORT: SIN-I   69   PROGRAM: ALL   REASON: E

SUBJECT: Input/Output   from/to   internal   devices,
             (INBT,OUTBT,M8INB, M8OUT,B8OUT, etc..).
SYMPTOM: The Sintran clock (and calendar), will not be
             updated. The computer is active only on level 0
             and level 13 when no user is logged on.
DESCRIPTION:
===
REPORT: SIN-I   70   PROGRAM: All   REASON: E

SUBJECT: Monitor call OUTSTRING (MON 162) on Terminal
             Access Devices (TAD).
SYMPTOM: System stops in ERRFATAL, wrong output on the
             terminal and many other strange behavior of the
             system.
DESCRIPTION: Missing test for zero bytes in Mon Outstring.

===
REPORT: SIN-I   71   PROGRAM: ALL   REASON: E

SUBJECT: Error in MON DEABBREVIATE.
SYMPTOM: File System deadlock.
DESCRIPTION: The directory lock is not released in MON DEABB
             if the user have no access to the specified file.

===
REPORT: SIN-I   72   PROGRAM: ALL   REASON: E

SUBJECT: Treat empty spooling form as a normal string.
SYMPTOM:
DESCRIPTION: This patch enables the spooling files written
             without user- text to be printed only when the
             spooling form is empty.

===

%%%%%%%%%%%%%%%%%%%%%%%%%%%% 04 %%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 200
%%

==
REPORT: SIN-I   73   PROGRAM: ALL   REASON: E

SUBJECT: FORCED PRINT in SINTRAN-III spooling system.
SYMPTOM: Dependent of system configuration and system
             load, different symptoms may be seen. Usually
             system will hang.
DESCRIPTION:
==
REPORT: SIN-I   74 C PROGRAM: VSX/500,VSE/500 REASON: E

SUBJECT: Monitor call DVIO on ND-500
SYMPTOM: "   14" ERROR CODE OUTSIDE RANGE. Incorect number
             of bytes returned. Incorrect interpretation of
             max number of bytes. Incorrect break strategy.
DESCRIPTION: Same code as DVINSTR used but differences in
             format. PROCAD used after output to terminal had
             finished.

==
REPORT: SIN-I   75 B PROGRAM: VSX/500   REASON: E

SUBJECT: ND-500 with special MULTI-SWAPPER. Power fail on
             multi-CPU.
SYMPTOM: Fatal error 25 from swapper. IOX error. One or
             more CPUs not restarted after clear TSB on all
             CPU's. One or more CPUs not restarted after power
             fail.
DESCRIPTION: Incorrect computation of T in LCLTSB. CCPUINDEX
             not   incremented   correctly. LDMW to swapper
             segment table could result in extra save of
             swappers register block.

==
REPORT: SIN-I   76   PROGRAM: VSE/500,VSX/500 REASON: E

SUBJECT: XMSG on ND-500
SYMPTOM: Process hangs in DISCONNECT function in XMSG.
             System may stop or otherwise behave strange if
             XMSG call is done when XMSG is not running
DESCRIPTION: ND-500 driver waits for return from XMSG
             disconnect, but such return is not given to
             drivers. Missing test for XMSG running.

==

&&&&&&&&&&&&&&&&&&&&&&&&&&&&& 05 &&&&&&&&&&&&&&&&&&&&&&&&&&&&&
SOFTWARE SYSTEM REPORTS   PATCH FILE: 200
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

===
REPORT: SIN-I   77 B PROGRAM: VSE/500,VSX/500 REASON: E

SUBJECT: RESTART-PROCESS. Swapper restart after possible
              deadlock.
SYMPTOM: OUTSIDE SEGMENT BOUNDS if using RESTART-PROCESS
              command. Premature swapper restart.
DESCRIPTION: LOWACT500   called   in   ION from MMBREACTIVATE.
              Inaccurate test for possible swapper deadlock in
              time-out routine.

===
REPORT: SIN-I   78   PROGRAM: ALL   REASON: E

SUBJECT: XMSG called from drivers when XMSG not running.
SYMPTOM: Pagefault on level 3 (System stops in errfatal).
DESCRIPTION: Wrong parameter when calling XFIPV.

===
REPORT: SIN-I   81 B PROGRAM: ALL   REASON: E

SUBJECT: Change user context monitor call SUSCN (MON 241).
SYMPTOM: Local and remote user names as are used by COSMOS
              remote file access are not changed by this
              monitor call. User name is copied after user
              file buffer is unlocked.
DESCRIPTION:
===
REPORT: SIN-I   82   PROGRAM: ALL   REASON: E

SUBJECT: CREATE-DIR and ENTER-DIR on units 2 and 3 with
              phoenix disk.
SYMPTOM: System hangs on level 11.
DESCRIPTION: Redundant code in WTAPE causes an incorrect unit
              number to be used in the TEST SPARE TRACK
              FUNCTION.

===
REPORT: SIN-I   83   PROGRAM: ALL   REASON: E

SUBJECT: Delete character(s) in Sintran command mode.
SYMPTOM: Backspaces on VDU terminals even though the last
              character typed was not echoed (control
              characters).
DESCRIPTION:
===

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 06 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS                           PATCH FILE: 200
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
=============================================================
```
REPORT: SIN-I   84   PROGRAM: ALL   REASON: E

SUBJECT: Error in MON RLDIR, MON RESDI @RESERVE-DIRECTORY
             and @UNRESERVE-DIRECTORY.
SYMPTOM: Various: mainly "USER IS ENTERED".
DESCRIPTION: Replaces SIN-I 24.

```
=============================================================
```
REPORT: SIN-I   85 B PROGRAM: ALL   REASON: E

SUBJECT: DLOBJ.
SYMPTOM: Page zero on directories cleared in the bit map.
DESCRIPTION: Inadequate parameter testing.

```
=============================================================
```

&&&&&&&&&&&&&&&&&&&&&&&&&&&&& 07 &&&&&&&&&&&&&&&&&&&&&&&&&&&&&
SOFTWARE SYSTEM REPORTS   PATCH FILE: 200
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

SOFTWARE SYSTEM REPORTS REMOVED

==

   SIN-I 007
   SIN-I 010
   SIN-I 021
   SIN-I 024
   SIN-I 025

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%% 01 %%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS                    PATCH FILE: 300
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

LISTED BELOW ARE CHANGES SINCE PATCH FILE 200

```
==========================================================
REPORT: SIN-I       18 B   PROGRAM: ALL          REASON: E
```

SUBJECT: MON SPLRE (MON 323).
SYMPTOM: 1. Error message: ERROR 15; ILLEGAL SEGMENT
              NUMBER in MON SPLRE. 2. MON SPLRE does not work
              from a :PROG file.
DESCRIPTION:
```
==========================================================
REPORT: SIN-I       53 C   PROGRAM: ALL          REASON: E
```

SUBJECT: Command routine to enable/disable AUTOMATIC LOGIN
              for the User-Environment system.
SYMPTOM:
DESCRIPTION:
```
==========================================================
REPORT: SIN-I       54 C   PROGRAM: ALL          REASON: E
```

SUBJECT: To be implemented with USER-ENVIRONMENT
SYMPTOM:
DESCRIPTION: If the AUTOMATIC LOGIN feature is disabled, all
             status bits in the flagword (UEFLG) must be set
             to zero,preventing start up of   termination
             handler for user-environment.

```
==========================================================
REPORT: SIN-I       55 C   PROGRAM: ALL          REASON: E
```

SUBJECT: To be implemented with USER-ENVIRONMENT.
SYMPTOM:
DESCRIPTION: Clears error information on system segment when
             MON 0. In the routine UEPRELOGIN all bits in the
             flagword (UEFLG) will be set to zero except bit 3
             (5ueal=automatic login enabled).

```
==========================================================
REPORT: SIN-I       56 C   PROGRAM: ALL          REASON: E
```

SUBJECT: To be implemented with USER-ENVIRONMENT
SYMPTOM:
DESCRIPTION:
```
==========================================================
```

&&&&&&&&&&&&&&&&&&&&&&&&&&&&& 02 &&&&&&&&&&&&&&&&&&&&&&&&&&&&&
SOFTWARE SYSTEM REPORTS   PATCH FILE: 300
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

===
REPORT: SIN-I   57 D PROGRAM: ALL   REASON: E

SUBJECT: MON 330. Monitor call to get similar information
              as the command @TERMINAL-STATUS.To be implemented
              with TRUE.
SYMPTOM:
DESCRIPTION: Input para: T-reg=ldn, A-reg= addr.of receiving
              prog.arr. Prog.array: word 0-7: User name, 10:
              Mode, 11: State, 12: cpu min.used, 13:login
              min.,14==>: last command

===
REPORT: SIN-I   58 C PROGRAM: ALL   REASON: E

SUBJECT: Command: @CLEAR-BATCH-QUEUE <batch-number> To be
              implemented with TRUE.
SYMPTOM:
DESCRIPTION: Protection = SYSTEM

===
REPORT: SIN-I   59 C PROGRAM: ALL   REASON: E

SUBJECT: To be implemented with TRUE.
SYMPTOM:
DESCRIPTION: When @ABORT-JOB is executed the termination
              handler for USER-ENVIRONMENT is activated, if
              enabled.

===
REPORT: SIN-I   60 D PROGRAM: ALL   REASON: E

SUBJECT: Improved IDLETEST for batch processors, used by
              TRUE
SYMPTOM:
DESCRIPTION:
===
REPORT: SIN-I   62 B PROGRAM: ALL   REASON: E

SUBJECT: New monitor call to force the writing of index
              blocks to disk.
SYMPTOM:
DESCRIPTION:
===
REPORT: SIN-I   63 C PROGRAM: ALL   REASON: E

SUBJECT: Modification of automatic login if UE-LOGIN does
              not exist as a reentrant subsystem or :PROG file.
SYMPTOM:
DESCRIPTION:
===

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 03 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS                              PATCH FILE: 300
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
================================================================
REPORT: SIN-I         64 E  PROGRAM: ALL              REASON: E
```

SUBJECT: Modified TIMRT to give termination cause 6 if
              batch job is terminated due to CPU time-out. (UE
              and TRUE)

SYMPTOM:
DESCRIPTION:
```
================================================================
REPORT: SIN-I         67 E  PROGRAM: ALL              REASON: E
```

SUBJECT: Problems with the HASP DMA communication on
              interface with new micro program.

SYMPTOM:
DESCRIPTION:
```
================================================================
REPORT: SIN-I         86    PROGRAM: ALL              REASON: E
```

SUBJECT: Error in Accounting on spooling.
SYMPTOM: No spooling records written to ACCOUNTS:DATA.
DESCRIPTION:
```
================================================================
REPORT: SIN-I         87    PROGRAM: ALL              REASON: E
```

SUBJECT: Error in RT-LOADER command REORGANIZE-SEGMENT-
              FILE.
SYMPTOM: All reorganized segments are lost.
DESCRIPTION: 'Inhibit'-bit in the flag word of the segment
              table entries is not clear again after the
              segments have been reorganized.

```
================================================================
REPORT: SIN-I         88    PROGRAM: ALL              REASON: E
```

SUBJECT: Sintran command CHANGE-BACKGROUND-SEGMENT-SIZE.
SYMPTOM:
DESCRIPTION: The space used by the background segment should
              be cleared from the segment file bit map before
              space for the new segment size is allocated.

```
================================================================
REPORT: SIN-I         89    PROGRAM: ALL              REASON: E
```

SUBJECT: Floppy disc formatting on old (PIO) floppy
              controller.
SYMPTOM: Strange behaviour after floppy formatting if the
              floppy happens to be write protected.
DESCRIPTION: A bug in FDIRT corrupts one word in resident
              because FORMF (in FDIRT) can jump to ERR2 with X
              containing a pointer to the format number where
              the format itself is expected.

```
================================================================
```

%%%%%%%%%%%%%%%%%%%%%%%%%%%% 04 %%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 300
%%

===
REPORT: SIN-I   90   PROGRAM: REASON: E

SUBJECT: Error in ITB12 when generated with HDLC no.15.
SYMPTOM: When starting HDLC 15 an error message will occur
             xx.xx.xx ERROR 22 AT yyyyyy; FALSE INTERRUPT
             LEVEL(DEC.):   12; IDENT CODE(OCT.):   210
DESCRIPTION:
===
REPORT: SIN-I   91   PROGRAM: ALL   REASON: E

SUBJECT: Error in closing Scratch files with zero pages.
SYMPTOM: "SERIOUS ERROR IN BIT FILE" when running FILSYS-
             INV.
DESCRIPTION:
===
REPORT: SIN-I   92 B PROGRAM: All   REASON: E

SUBJECT: Too long "interrupt off" sequences.
SYMPTOM: Missing interrupts on driver levels.
DESCRIPTION:
===
REPORT: SIN-I   93   PROGRAM: REASON: E

SUBJECT: Problem with ND-NET and the monitor call MAGTP.
SYMPTOM: RT-Program using MAGTP will not work correctly.
DESCRIPTION: Wrong value of X-reg. in the routine "FERTR".

===
REPORT: SIN-I   94   PROGRAM: REASON: E

SUBJECT: Probelm with ND-NET and VSX sintran. Stop in
             ERRFATAL on level 14. Pagefault on level 1.
SYMPTOM: Sintran will stop ERRFATAL with L-reg. eq. 163xxx
             and B-reg. eq. 176xxx.
DESCRIPTION: Corected some errors in "MSSTI" and "MSSTO"
             routines.

===
REPORT: SIN-I   95   PROGRAM: ALL   REASON: E

SUBJECT: Page conflicts on disks involving the index block
             of a spooling file.
SYMPTOM: Index block overwritten.
DESCRIPTION: Index block pointer not set to zero in @DELETE-
             SPOOLINF-FILE

===

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 05 %%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS                          PATCH FILE: 300
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
============================================================
```
REPORT: SIN-I   96   PROGRAM: VSX   REASON: E

SUBJECT: Tape Punch.
SYMPTOM: Using the Tape Punch does not work.
DESCRIPTION:
```
============================================================
```
REPORT: SIN-I   97 B PROGRAM: ALL   REASON: E

SUBJECT: Device buffers for special use.
SYMPTOM: Device buffers remain in special use indefinitely
              even when R3BUF has been called by the RT-program
              concerned fo this LDN.
DESCRIPTION: RT-program has been aborted an RTRES = 0. R3BUF
              does not release then DBH's next time it is
              called. R5BUF must not test on RTREF (level 3).

```
============================================================
```
REPORT: SIN-I   98   PROGRAM: ALL   REASON: E

SUBJECT: Error in restart after power fail (or @STOP-
              SYSTEM).
SYMPTOM: System does not restart after power fail (or
              @STOP-SYSTEM).
DESCRIPTION:
```
============================================================
```
REPORT: SIN-I   99 D PROGRAM: ALL   REASON: E

SUBJECT: The @PRINT-ERROR-LOG command.
SYMPTOM: System hanging, system stops, background program
              looping etc
DESCRIPTION:
```
============================================================
```
REPORT: SIN-I   100   PROGRAM: VSE/500 VSX/500 REASON: E

SUBJECT: NEGATIVE XMSG ERROR CODES ON ND-500
SYMPTOM: NEGATIVE XMSG ERROR CODES ARE RETURNED AS 16 BIT
              INTEGERS
DESCRIPTION:
```
============================================================
```
REPORT: SIN-I   101   PROGRAM: ALL   REASON: E

SUBJECT: Error in segment table entries for segm. 22 and
              26.
SYMPTOM:
DESCRIPTION: Segm. 22 and 26 should be write-prohibit,demand
              segments.

```
============================================================
```

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SOFTWARE SYSTEM REPORTS   PATCH FILE: 300
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==
REPORT: SIN-I   102   PROGRAM: ALL   REASON: E

SUBJECT: DVINST ON ND-500
SYMPTOM: SYSTEM STOP WITH CCIN5MSG=0. MOST FREQUENT WHEN
              MUCH WORK ON TERMINALS
DESCRIPTION: ION DONE ON MONITOR LEVEL AFTER LINKING OUT OF
              MONITOR QUEUE BUT BEFORE LOADING MFUNC.

==
REPORT: SIN-I   104   PROGRAM: VSE/500,VSX/500 REASON: E

SUBJECT: PARAMTER RETURN FROM XMSG FUNCTION XFRRH ON ND-
              500
SYMPTOM: NONE OF THE RETURNPARAMETERS CHANGES VALUE EVEN
              IF OK RETURN STATUS IS RECEIVED..
DESCRIPTION: INCORRECT WRITEBACK MASK IN THE ARRAY XMRETMASK.

==
REPORT: SIN-I   105 B PROGRAM: ALL   REASON: E

SUBJECT: DELETING ND-500 STANDARD DOMAINS
SYMPTOM: ND-500 STANDARD DOMAINS MAY REAPPEAR IN LIST-
              REENTRANT IF A SYSTEM HAS BEEN RESTARTED AFTER
              DELETE-STANDARD-DOMAIN HAS BEEN USED. STARTING
              THE DOMAIN FROM ND-100 WILL FAIL.
DESCRIPTION: COMMAND SEGMENT SHOULD HAVE BEEN WRITTEN BACK TO
              IMAGE AFTER UPDATING THE REENTRANT TABLE.

==
REPORT: SIN-I   106   PROGRAM: ALL   REASON: E

SUBJECT: WSEG (ON ND-100)
SYMPTOM: DOES NOT ALWAYS WORK
DESCRIPTION: INCORRECT (RANDOM) INPUT TO CSEGS..

==
REPORT: SIN-I   107 B PROGRAM: ALL   REASON: E

SUBJECT: SET-TERMINAL-FILE MONITOR CALL.
SYMPTOM: File name is requested on the terminal.
DESCRIPTION: M flip-flop is used too far from where it is set.

==

%%%%%%%%%%%%%%%%%%%%%%%%%%%% 07 %%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 300
%%

===
REPORT: SIN-I   108 B   PROGRAM: VSX/500   REASON: E

SUBJECT: ESCAPE in UBCOM
SYMPTOM: Terminal hangs if ESC is pushed during execution
             of UBCOM. Swapper gets pagefault.
DESCRIPTION: Escape breaks and deallocates   the   process.
             Sintran tries to restart process after exit from
             monitor. This patch will restart the process at
             escape in UBCOM.

===
REPORT: SIN-I   109   PROGRAM: VSX   REASON: E

SUBJECT: Error in using displacement TYPRING in SINTRAN-
             SERVICE-PROG.
SYMPTOM: It is not possible to use TYPRING on IMAGE and/or
             SAVE-area.
DESCRIPTION:
===
REPORT: SIN-I   110   PROGRAM: All   REASON: E

SUBJECT: The   commands   @DEFAULT-SUBSYSTEM-ENABLE   and
             @DEFAULT-SUBSYSTEM-DISABLE
SYMPTOM: Various symptoms.
DESCRIPTION:
===
REPORT: SIN-I   112   PROGRAM: ALL   REASON: E

SUBJECT: Automatic login on USER-ENVIRONMENT.
SYMPTOM: Login does not work if USER-ENVIRONMENT has
             password.
DESCRIPTION:
===
REPORT: SIN-I   113 D   PROGRAM: ALL   REASON: E

SUBJECT: Patch to give time-out on disk, mag-tape and
             floppy.
SYMPTOM:
DESCRIPTION:
===
REPORT: SIN-I   114   PROGRAM: ALL   REASON: E

SUBJECT: MON 240 (APSPF).
SYMPTOM: 20 copies always given regardless of input value
             in the T-REG.
DESCRIPTION: T-REG destroyed in MMREENT routine.

===

```
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SOFTWARE SYSTEM REPORTS                        PATCH FILE: 300
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&
```

```
========================================================
REPORT: SIN-I     115     PROGRAM: ALL          REASON: E
```

SUBJECT: RTCOMMON load address is not correctly updated at
              END-LOAD.
SYMPTOM:
DESCRIPTION:

```
========================================================
REPORT: SIN-I     116 B  PROGRAM: ALL          REASON: E
```

SUBJECT: Patch to MTRANS for block internal devices.
SYMPTOM:
DESCRIPTION:

```
========================================================
REPORT: SIN-I     118     PROGRAM: ALL          REASON: E
```

SUBJECT: Error in monitor call MEXIT : message NOT DEMAND
              SEGMENT
SYMPTOM: If "right segment" in parameter to MEXIT is a
              NON-DEMAND segment, error message NOT DEMAND
              SEGMENT printed on error device
DESCRIPTION: X-reg doesn't point to RT-desc in second call to
              local routine DECO

```
========================================================
REPORT: SIN-I     120     PROGRAM: ALL          REASON: E
```

SUBJECT: MCM RUSER does not work against directory on
              floppy diskettes.
SYMPTOM:
DESCRIPTION: Erroneous parameter input to File   System
              routine MRUSE.

```
========================================================
REPORT: SIN-I     121     PROGRAM: ALL          REASON: E
```

SUBJECT: Use of user defined escape/local   handling
              (EUSEL/ELOFU) in application programs.
SYMPTOM: A program reading from device 0 using EUSEL/ELOFU
              will get STACK ERROR from SINTRAN after a few
              escapes/locals.
DESCRIPTION: User escape/local handling did not reset the
              stack when interupted by escape/local in command-
              segment code.

```
========================================================
REPORT: SIN-I     122 B  PROGRAM: All          REASON: E
```

SUBJECT: Sibas process number 5 (first Sibas proccess
              number is zero) used from ND-500.
SYMPTOM: Error-return from MON SIBAS (mon call number
              432B).
DESCRIPTION:
```
========================================================
```

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 09 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS   PATCH FILE: 300
%%

===
REPORT: SIN-I   123   PROGRAM: All   REASON: E

SUBJECT: Terminal input/output from ND-500.
SYMPTOM: The system stops in ERRFATAL with the P-register
              on level 10 pointing to various illegal values
              (often pointing to the terminal routines on level
              12).
DESCRIPTION:
===
REPORT: SIN-I   124   PROGRAM: ALL   REASON: E

SUBJECT: Error in the segment administration.
SYMPTOM: System hangs on interrupt level 3.
DESCRIPTION: If a page is to be taken from the requesting
              segment on a page fault, and it has only one
              page, the segment queue is corrupted.

===
REPORT: SIN-I   125   PROGRAM: ALL   REASON: E

SUBJECT: Error in remote FOBJN (Mon 274 to a remote
              system).
SYMPTOM: The monitor call does not return correct error
              message when one of the input parameters is
              wrong.
DESCRIPTION:
===
REPORT: SIN-I   126   PROGRAM: ALL   REASON: E

SUBJECT: Error in ALLOCATE-AREA command.
SYMPTOM: Current load address is not properly updated.
DESCRIPTION:
===
REPORT: SIN-I   127   PROGRAM: ALL   REASON: E

SUBJECT: Error in PRSRV command.
SYMPTOM: Terminal hangs (i.e. waits for the device) if the
              device is already reserved by another program and
              if carriage return or 0 is specified for the 'RT
              program name' parameter.
DESCRIPTION:
===

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SOFTWARE SYSTEM REPORTS   PATCH FILE: 300
‱‱‱

===
REPORT: SIN-I   128 B PROGRAM: ALL   REASON: E

SUBJECT: MON 216 (DWOBJ)
SYMPTOM: A object entry can be written to any unused entry
              for   the   same user if no other filesystem
              operations are occuring.
DESCRIPTION: ROBJE gives a skip-return for a non-existent
              object entry and does not clear the object entry
              buffer.

===
REPORT: SIN-I   129   PROGRAM: ALL   REASON: E

SUBJECT: Error on systems generated with   block   I/O
              accounting.
SYMPTOM: System hanging on level 1 with paging   and
              interrupt off.
DESCRIPTION: POF/PON sequence in routine BIOACCOUNT (executing
              on level one) must be PIOF/PION.

===
REPORT: SIN-I   131 B PROGRAM: ALL   REASON: E

SUBJECT: Error in Sintran command @APPEND-BATCH when the
              output file is given in double quotes.
SYMPTOM: The file is created but the job is aborted with
              the error message "FILE ALREADY EXISTS" written
              to the error device.
DESCRIPTION:
===
REPORT: SIN-I   132   PROGRAM: REASON: E

SUBJECT: X21 driver.
SYMPTOM: Computer may stops at level 12 or 13 when line
              cleared from DCE.
DESCRIPTION: Made some changes in X21 driver and SMCLEAR in
              the HDLC driver to provide a more safe way of
              returning message to the user.

===

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 11 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS                          PATCH FILE: 300
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

SOFTWARE SYSTEM REPORTS REMOVED

```
================================================================
```

SIN-I 083

```
================================================================
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 01 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
SOFTWARE SYSTEM REPORTS                          PATCH FILE: 310
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

LISTED BELOW ARE CHANGES SINCE PATCH FILE 300

```
===============================================================
```
REPORT: SIN-I   67 F PROGRAM: ALL   REASON: E

SUBJECT: Problems with the HASP DMA communication on
              interface with new micro program.
SYMPTOM:
DESCRIPTION:
```
===============================================================
```
REPORT: SIN-I   113 E PROGRAM: ALL   REASON: E

SUBJECT: Patch to give time-out on disk, mag-tape and
              floppy.
SYMPTOM:
DESCRIPTION:
```
===============================================================
```
REPORT: SIN-I   123 B PROGRAM: All   REASON: E

SUBJECT: Terminal input/output from ND-500.
SYMPTOM: The system stops in ERRFATAL with the P-register
              on level 10 pointing to various illegal values
              (often pointing to the terminal routines on level
              12).
DESCRIPTION:
```
===============================================================
```
REPORT: SIN-I   132 B PROGRAM: REASON: E

SUBJECT: X21 driver.
SYMPTOM: Computer may stops at level 12 or 13 when line
              cleared from DCE.
DESCRIPTION: Made some changes in X21 driver and SMCLEAR in
              the HDLC driver to provide a more safe way of
              returning message to the user.

===

===
```

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% 01 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
Software System Reports (SSR)                  Patch File: 320
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

   Software System Reports removed

   ==========================================================

   SIN-I 113E

   ==========================================================

# SOFTTIPS

| Produkt namn | ND-nummer | Prod nummer | Från | Datum |
|---|---|---|---|---|
| Sintran-J | | | UENI | 850812 |

---

PATCHFILE-6000 FÖR SINTRAN-J

Patchfil 6000 <u>kräver</u> en ny version av NEW-SYSTEM:PROG (som ligger
på Sintran-diskett 3). Alla system som är genererade efter den 12
augusti har den rätta versionen.

Den rätta versionen är daterad:          July 3, 1985
Ingen äldre version går att använda !!

Om ni ej vet när systemet är genererat, starta NEW-SYSTEM:PROG och
se vad den skriver i headern.

Om NEW-SYSTEM är för gammalt: Den rätta versionen finns på filen
————————————————————————→ MULTI-FUNCTION:PROG på
                           patch-disketten (Kopiera den till
                           NEW-SYSTEM:PROG och kör NEW-SYSTEM
                           från Sintran-disketten.

Om ni är smarta kollar ni det <u>innan</u> ni stoppar systemet för att
läsa in Sintran från disketten

PS. Om ni försöker använda en "gammal" NEW-SYSTEM blir det fullt
    på patch-fil disketten pga. att PATCH-FILE:OUT hamnar där!
    (Annars hamnar den på SYSTEM).

PATCHFIL 6000 - ANDRINGAR SEDAN PATCHFIL 5202
............................................

\* : Ny patch (eller ny revision).


\* SIN-J 223 B   Escape handling in ND-500 in combination with User
              Environment.

\* SIN-J 221 E   To make PIOC XMSG behave correctly when XMSG stops

\* SIN-J 220     Error in X21 driver

\* SIN-J 219 B   Error in ND-NET.

\* SIN-J 218     Spooling program puts a zero byte into the wrong device
              buffer.

\* SIN-J 216 C   Winchester DRIVER

\* SIN-J 215     RT-LOADER command REORGANIZE-SEGMENT-FILE.

\* SIN-J 213     SCRATCH-OPEN

\* SIN-J 212 F   ENABLE/DISABLE-TERMINATION-HANDLING and background
              allocation system.

\* SIN-J 210 C   Monitor calls STARTPR (500) and SWITCHP (502).

\* SIN-J 208 B   ND-500 Swapper accessing files (domains, swap-file or othe
              files), on other subunits than 0 on Phoenix disk.

\* SIN-J 207     ECC disk driver and the new backup system

\* SIN-J 206 B   SINTRAN service program command DEFINE-TIME-SLICE

\* SIN-J 205 C   No wait I/O from 500 programs on TADs.

\* SIN-J 201     Escape in the ND-500 MONITOR while executing a SINTRAN
              File system Command (Exs. N500M: @LIST-FILES,...).

\* SIN-J 200     Parallel operations on floppy and streamer

\* SIN-J 199     Restart after power failure occuring while a disk was not
              ready.

\* SIN-J  197    Error in HDLC driver

\* SIN-J 196 B   Error in ND-NET.

\* SIN-J 195     Error in ND-NET.

\* SIN-J 194 B   Sintran service command DEFINE-HDLC-BUFFER

\* SIN-J 189     Terminal Status monitor call does not return the correct
              state if the terminal is a TAD.

\* SIN-J 188     Several versions of files

* SIN-J    187    Using the routine PUTIL to update the "background" segment
                  while having a reentrant segment overlapping the backg. segm

* SIN-J    186    Use of reentrant segments.

  SIN-J    183    Problems to log in through UPNOD switches.

  SIN-J    182 C  Error on ND-NET segment.

  SIN-J    181    Error in IOTRANS routine for mag-tape , versatec on DMA
                  cassette and floppy disc

  SIN-J    180 B  Using RT BAKxx with background allocation system

  SIN-J    179    Batch processes running with wrong time slice class on the
                  500.

  SIN-J    176    OPEN-FILE on peripherals

  SIN-J    175    MON 70 and MON 317 does not reset output to own terminal
                  after command execution.

  SIN-J    174    Problems with logging in.

  SIN-J    173 C  Missing characters on V24-printers.

* SIN-J    172 B  Service command INITIALIZE-SYSTEM-SEGMENT

  SIN-J    171    Error in DISK-ACCESS-LOG

  SIN-J    170    X21 may hang in I/O wait.

  SIN-J    169 B  Error in HDLC driver.

  SIN-J    168    SEGFIL crossing disk page 100000B or 300000B

* SIN-J    167 C  New XMSG function XFERR from PIOC

  SIN-J    166    MAGTP with Remote File Access

  SIN-J    165 B  Error in TAD-driver.

  SIN-J    163    RT-LOADER

  SIN-J    162    RT-LOADER

  SIN-J    159    Allocation of memory for ND-500 message buffers.

  SIN-J    158    Octobuss interface

  SIN-J    157    The Sintran-Service-Program command CHANGE-GPIB-BUFFERSIZE

  SIN-J    156    The Sintran-Service-Program command CHANGE-BUFFER-SIZE
                  on the "Internal Error Device", logical device number 500B.

  SIN-J    155    Versatec printer/plotter on DMA interface.

  SIN-J    154    RT-LOADER command REENTRANT-LOAD used with files compiled
                  by the old FTN-compiler

SIN-J   153   Error in HDLC-Driver.

SIN-J   152 B   Microprogram stops on multi-CPU systems.

SIN-J   151   Fatal error conditions on multi cpu systems.

SIN-J   150 B   The monitor call FIXC5 (MON 61).

SIN-J   146   Remote open does not always work after some local files h
been opened for sequential access.

SIN-J   134   Segment files can not be defined on subunits other than 0

SIN-J   128 B   HASP-IIDMA does not work

SIN-J   127   Escape while giving parameters to a file system command
called by Mon Comnd from a reentrant subsystem.

SIN-J   126 C   Error in the ECC disk driver

SIN-J   125   Error in HDLC driver.

SIN-J   124   Restart after power-failure and Winchester disks.

SIN-J   123 C   Lineprinters (Fujitsu) on DMA interface.

SIN-J   122   Error in MON OUTBT on internal devices when TYPRING bit
SNORESERVE is set.

SIN-J   121   User Environment information is not cleared when a new ba
job is started.

SIN-J   120   Monitor calls GRTDA and GSGNO with parameter across addre
100000

SIN-J   119 C   The Service command CHANGE-BUFFER-SIZE on VSX terminals.

SIN-J   118   Change-password command

SIN-J   117   User file buffer is used on floppy directories after the
buffer is released.

SIN-J   116 B   Finish printing with CR LF when neither spooling trailer
'new' line printer has been specified.

SIN-J   115   Output file error while using MSG monitor call

SIN-J   114 F   The commands @APPEND-REMOTE, @LIST-REMOTE-QUEUE,
@DELETE-REMOTE-QUEUE-ENTRY

SIN-J   113 B   The @SINTRAN-SERVICE-PROGRAM commands *DEFINE-SEGMENT-FILE
and *DEFINE-DISC-ACCESS-LOG.

SIN-J   112   Servers cannot be started if User Environment is enabled.

SIN-J   111 D   Mon 333 (UDMA) PIO functions on system generated with fast
option from ND-500.

| | | | |
|---|---|---|---|
| * SIN-J | 109 E | Error in mon PIOC (255) on systems generated with PIOC on PIT-3 |
| SIN-J | 108 | RT-LOADER COMMAND READ-BINARY |
| SIN-J | 107 B | The function "Read-Extended-Status" on other mag.tapes than STC. |
| SIN-J | 106 B | "Big-floppy" driver. 1. Error detected by driver. 2. Read with wordcount equal zero. |
| SIN-J | 105 | ND-500 swapper calling get page address routine in file system. |
| SIN-J | 104 | Timeout in floppy disk driver. |
| * SIN-J | 103 B | File transfer to RTCOMMON. |
| SIN-J | 102 C | Error in Monitor call PIOC (Mon 255) on systems generated with PIOC in POF |
| SIN-J | 101 | F16 UNIVERSAL DMA |
| SIN-J | 100 | Error when logging in a batch process when the accounting system is running. |
| SIN-J | 96 | Deadlock involving ND500 RT-programs and filesystem. |
| SIN-J | 95 | Error in GPIB driver |
| SIN-J | 93 B | Faster memory allocation for ND-500. |
| * SIN-J | 91 G | PIOC , using version of PIOC-MONITOR-C00 |
| SIN-J | 90 D | Mon 333 (UDMA) from ND-500 on systems generated with fast option. |
| SIN-J | 89 | ABSTR to DMA Versatec from spooler. |
| SIN-J | 88 C | The monitorcall COMND, in a "HENT-MODE" file, after the @COLD-START command, running on another terminal than no. 1. |
| SIN-J | 86 | ND-NET |
| SIN-J | 85 D | Terminals hang after fatal ND-500 errors |
| SIN-J | 84 | Line-printer driver. (Also Versatec on non-dma interface). |
| SIN-J | 83 C | Automatic execution of "HENT-MODE" file after the @COLD-START command. (defined by SET-COLD-START-MODE-FILE). |
| SIN-J | 82 | IMPOSSIBLE TO TERMINATE ND-500 and master clear. |
| SIN-J | 81 | TREPP in VSE Sintran used on other terminal than own.. |
| SIN-J | 80 C | Block size greater than 32K in RFILE/WFILE. |
| SIN-J | 79 C | Swapping log on VSE |

SIN-J 78 The SINTRAN-SERVICE-PROGRAM command *DEFINE-TIME-SLICE.

SIN-J 77 C MAIL commands SEND-DIRECT-MESSAGE and DIRECT-BROADCAST on TADs.

SIN-J 76 Timeslice class of ND-500 mode jobs.

SIN-J 75 C Disconnected terminal (missing carrier) while using DVINS

SIN-J 74 Device buffers are not cleared when a directory is reserv or released for special use.

SIN-J 73 DEVICE CLEAR/MASTER CLEAR on HDLC with MON HDLC.

SIN-J 72 Error in 20ELETE-FILE.

* SIN-J 71 D Crash when using DVINST in NOWAIT mode.

SIN-J 70 The SET-COLD-START-MODE and RESET-COLD-START-MODE command

SIN-J 69 LIST-TIME-SLICE-CLASS Command

SIN-J 68 Carriage return delay on terminal interfaces.

* SIN-J 66 B Warning in 2TEST- and 2REGENERATE-DIRECTORY commands. RT-programs must not enable ESCAPE on terminal 1.

SIN-J 65 Stopping a TAD from TADADM.

SIN-J 64 PROCESS-LOG-ALL on large systems

SIN-J 63 Faster response from 2GIVES-SPOOLING-PAGES command.

SIN-J 62 B ND-500 swapper waiting for spooling pages.

SIN-J 61 SINTRAN-SERVICE-PROGRAM BACKROUND-ALLOCATION-UTILITIES subcommand DISPLAY

SIN-J 60 Error in monitor call COPAG.

SIN-J 59 XMSG disconnection from ND-500 processes

SIN-J 58 GPIB DRIVER who is on command.

SIN-J 57 B Stopping XMSG with TADs active.

SIN-J 56 Using NOWAIT mode on TADs.

SIN-J 55 Monitor call to change segments and page tables. (mon 337.

SIN-J 54 MONCALL-LOG on ND-500

SIN-J 53 Incorrect output from spooler when forced print.

SIN-J 52 Problems with Fix-Segment (explicitly or implicitly) when spooling program is running.

SIN-J 51 Array RTPWORKA

| SIN-J | 50 C | ⊇JEC TERMINAL-INPUT in connection with ND-500 programs and programs reading from device 0. |
|---|---|---|
| SIN-J | 49 | ND-500 hangs, all processes waiting for swapper. |
| SIN-J | 48 | 'No such page' from SETBT monitor call. |
| SIN-J | 47 | INBT/OUTBT to mass storage files after SETBT has given the the error message 'NO SUCH PAGE'. |
| SIN-J | 46 | UEADM Monitor Call does not return correct error information to calling program. |
| SIN-J | 45 B | Close scratch file when 'extra security' bit 2 (7ZSCRATCH) is set and closed scratch file size is greater than zero. |
| SIN-J | 44 B | Escape handling by background allocation system |
| SIN-J | 43 | ERROR DETECTED IN ND-500 SYSTEM when calling ND-500 Standard Domains from Sintran III Command processor. |
| SIN-J | 42 | START-HISTOGRAM |
| SIN-J | 41 | MON 315 (HLAMU) Used from 2-bank RT-prog. |
| SIN-J | 40 | Error in ⊇DUMP command error handling. (Also applies to ⊇LOAD/PLACE-BINARY and ⊇RECOVER commands.) |
| SIN-J | 38 | Output file is not closed if mode job is aborted. |
| SIN-J | 37 | Escape when running process in ND-500. |
| SIN-J | 36 | Error in ⊇CHANGE-BACKGROUND-SEGMENT-SIZE when illegal segment size is specified. |
| SIN-J | 35 | System may crash or hang when stopping the ND-500 |
| SIN-J | 34 D | Monitor call IOMTY (mon 336) |
| SIN-J | 33 B | Poor response from Cosmos File Server. |
| SIN-J | 32 C | Deadlock in Remote File Access from RT-programs. |
| SIN-J | 31 B | Xon/Xoff (Reader ON/OFF) on terminal lines. |
| SIN-J | 30 | Remote File Access from RT-programs does not work. |
| SIN-J | 29 | XMSG automatic disconnect |
| SIN-J | 28 | Directory lock is not always released when leaving File System Monitor Calls. |
| SIN-J | 27 B | ND-500 Time queue. |
| SIN-J | 26 C | Commands ENABLE/DISABLE-ESCAPE , DEFINE-ESCAPE-CHARACTER and SET-TERMINAL-TYPE on a TAD from another terminal. |
| SIN-J | 25 | Remote file access. |

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|---|---|---|
| SIN-J | 24 B | The Spooling Program does not write the spooling queue segment back. |
| SIN-J | 23 | The command DISABLE-ESCAPE and the monitor call OESCE, MON 71. |
| SIN-J | 22 | The command RECOVER from a ND-500 program. |
| SIN-J | 21 | Break point in DHAC |
| SIN-J | 20 | ND-100 program not restarted from HOLD (or THOUT) when using NOWT. |
| SIN-J | 19 | RT programs sometimes cannot be restarted after being aborted. |
| SIN-J | 18 C | Improved swapping in ND-100. |
| SIN-J | 17 | Error im MON REENT and MON SREEN. |
| SIN-J | 16 | Error in Sin.Service command DEFINE-SEGMENT-FILE when a illegal filename (Ambiguous, no such file etc), is given. |
| SIN-J | 15 B | Error in MLOGIN (MON 3261. |
| SIN-J | 14 B | Segment names and RT-program names. |
| SIN-J | 13 | Error in Monitor call PIOC (Mon 255) on systems generated with PIOC in POF |
| SIN-J | 12 | Illegal commands when connected to a ND-500 process. |
| SIN-J | 11 | Executing commands with rt-program names as input and/or output parameters from reentrant subsystems. |
| SIN-J | 10 B | Giving error message to TAD's when no background process i available. |
| SIN-J | 9 | Escape priority when connected to a ND-500 process. |
| SIN-J | 8 | RT-Programs in ND-500 and RT-Programs calling the filesystem. |
| SIN-J | 7 | Error in Monitor Call FDFDI (Mon 250). |
| SIN-J | 6 B | Error in MON SPLRE (MON 323) |
| SIN-J | 5 | Error in Read Spooling Queue Entry Monitor Call (Mon 55). |
| SIN-J | 4 C | Sync.Modem buffers outside physical memory bank zero (Very big configuration). |
| SIN-J | 3 B | Monitor calls on TAD when buffer is not available. |
| SIN-J | 2 | Printers on terminal interfaces. |
| SIN-J | 1C | SINTRAN-SERVICE-PROGRAM command DEFINE TITLE |

Removed reports: