Kasse med Magnetbånd fra Rosenlund - april 2004
Stammer fra RC8000 testmaskine i Præstø (PKN)

SW2101/2/3.02	RC3502/2 Real-Time Pascal Cross Compiler	870320
SW2001/2/3.02	RC3502 Operating System	870320
PD8010/2/2.0	System Utility Release 2.0	850801
PD8740/1/1.0	RC8000 ADP Package	850901
PD8500/1/14.0	Algol Package Release 14.0	850801
SW8001/2/4.1	RC8000 Basis System Package	860115
PD8600/1/12.0	Assembler Package Release 12.0	850401

1 stk tape uden identifikation

1 stk strimmel (lille)   Bondegård Test   HJÆLP

information | repl. JABA 861015 | ident JABA 870320 | page 1/4

Package Description | | | RC3502 | | class ext.

subj. REAL-TIME PASCAL Package for RC3502/2, SW2101/2/3.02

PACKAGE DESCRIPTION

1.   PACKAGE NUMBER

        SW2101/2

2.   PACKAGE NAME

        RC3502/2 REAL TIME-PASCAL Cross Compiler

3.   RELEASE

        3.02, 87.03.20.

4.   ABSTRACT

        The package holds a REAL-TIME PASCAL cross com-
        piler for RC3502/2 running on an RC8000. Also
        included are three utility programs for source
        program indentation, cross referencing and text
        compression. Compiler output is relocatable
        binary code.

5.   PREREQUISITES

        Basis System Package   (SW8001/1 or SW8001/2)
        System Utility Package (SW8010/2)

6.   DOCUMENTATION

        The documentation is collected in SDO 116 and
        includes:

        RCSL No. 52-AA964:
        PASCAL80 REPORT
        Jørgen Staunstrup, January 1980

        RCSL No. 42-i1539:
        PASCAL80 User´s Guide
        Jan Bardino, October 1980

⬛ information	repl. JABA 861015		ident JABA 870320		page 2/4
Package Description			RC3502		class ext.

subj. REAL-TIME PASCAL Package for RC3502/2, SW2101/2/3.02

RCSL No. 31-D617:
PASCAL80 Driver Conventions
Ejvind Lynning, October 1980

RCSL No. 52-AA1167:
RC3502/2 REAL-TIME PASCAL
Reference Manual
Bo Bagger Laursen, October 1983

7.   INSTALLATION

The package is deliverd on a 9-track 1600 bpi magnetic tape.

The requirements of the package in segments and entries are given in section 8.

The tape is arranged as follows:

File No.	Contents	Format
0	label	text
1	package identification	text
2	job to load the compiler	text
3	programs	save/load (rel. 13)

File No. 1 is in text format and may be inspected by the utility program copy, e.g.:

```
t = set mto mtsw2101  0  1
copy list.yes message.no t
```

File No. 2 is a textfile, which contains a standard job with fp-commands to load the compiler, and it may be inspected in a similar manner as file No. 1.

The compiler is loaded by means of the job in this way:

```
t = set mto mtsw2101  0  2
i  t
```

RCSL No: 42-i 1321

information	repl. JABA 861015		ident JABA 870320		page 3/4
Package Description			RC3502		class ext.

subj. REAL-TIME PASCAL Package for RC3502/2, SW2101/2/3.02

8. ENTRY SURVEY

Installation of the package creates the following permanent entries:

```
rtp3502        1-o    user.disc    d.370320.0301
rtp3502        175    user.disc    d.370320.0301
rtp3502        216    user.disc    d.870320.0301
rtp3502        130    user.disc    c.370320.0301
rtp3502        132    user.disc    d.870320.0301
rtp3502en3       3    user.disc    d.870320.0301
rtp3502env      10    user.disc    d.370320.0301
rtp3502lib      16    user.disc    d.370320.0301
rtp3502err      12    user.disc    d.870320.0301
pascrun          5    user.disc    d.360217.1339
pascalib        17    user.disc    d.360217.1540
incent          39    user.disc    d.360519.0357
cross           17    user.disc    d.     7.1
rtpcompress     12    user.disc    d.370320.0301
   14 entr./    1000  se r.
```

9. VERIFICATION

Entries inspected by lookup will show the release dates, as listed above in the entry survey.

10. CHANGES

A number of errors, as reported in RTP3502/2 SIS, edition March 1987, have been corrected.

11. STATUS INFORMATION

11.1 Requirements

Core size: At least 45,000 halfwords, the size is dependent on the complexity of the program to compile.

| **information** | repl. JABA 861015 | ident JABA 870320 | page 4/4 |
| Package Description | | RC3502 | class ext. |

subj. REAL-TIME PASCAL Package for RC3502/2, SW2101/2/3.02

Area processes: The compiler uses 8 area processes.

Code: Binary relocatable object code with contents key of entry tail set to 16 and kind set to 1.

11.2 Known Errors

Declaration of a variable whose type depends on a parameter, is marked an error unless it is preceded by a non-empty type, routine, or process section. The error message is number 24 from pass 3: "only variables of surrounding scope allowed"

information	repl. BB 861015	ident BB 870320	page 1/11
Package Description		RC3502	class ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

PACKAGE DESCRIPTION

1. PACKAGE NUMBER

   SW2001/2

2. PACKAGE NAME

   RC3502/2 Operating System

3. RELEASE

   3.02, 87.03.20

4. ABSTRACT

   The package holds the programs comprising the RC3502 Model 2 Standard Operating System and a number of utility programs for manipulation of binary RC3502/2 Real-Time Pascal object programs.

5. PREREQUISITES

   RC8000
   RC3502 Model 2
   Basis System Package   (SW8001/1 or SW8001/2)
   System Utility Package   (SW8010/2)
   Real Time Pascal Package   (SW2101/2 release 3.01)

information	repl.	BB 861015	ident	BB 870320	page	2/11
Package Description				RC3502	class	ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

6.   DOCUMENTATION

The following manuals are included in SDO 115:

6.1   RCSL No.: 52-AA1167
RC3502/2 REAL-TIME PASCAL
Reference Manual

This manual contains a description of the implementation of Real-Time Pascal on the RC3502 model 2 computer.

Information of how to use the Real-Time Pascal compiler and related utility programs is included in appendices.

6.2   RCSL No.: 99 0 00771
RC3502/2 Operating Guide

This manual describes how to operate the RC3502 model 2: Power-on, power-off, commands to the operating system OPSYS, operation of the DEBUG console, autoloading.

(This manual substitutes RCSL No.: 52-AA1195).

6.3   RCSL No.: 52-AA1029
PASCAL80
FPA100 Driver

This manual contains a description of the FPA100 driver written in PASCAL80.

6.4   RCSL No.: 43-GL11703
RC3502 LAM108/116 Driver
Reference Manual

The RC3502 LAM driver supports full duplex V.24 asynchronous communications on 8 or 16 lines with transmission speed selectable between 10 bps and 1200 bps on a per line basis.

6.5   RCSL No.: 52-AA1093
RC3502 CPUSE

CPUSE is a small PASCAL80 process which can be used to measure the CPU load in an RC3502 computer.

IC information	repl. BB 861015	ident BB 870320	page 3/11
Package Description		RC3502	class ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

6.6   RCSL No.: 52-AA1116
RC3502 IMS Driver
Reference Manual

This document describes the RC3502 IMS Driver.
The different functions and the specific for-
mats are described as well as the necessary
process environment.

6.7   RCSL No.: 52-AA1137
RC3502 LOADER
Reference Manual

The RC3502 LOADER reads binary relocatable PAS-
CAL80 object programs, allocates memory for the
programs and performs the necessary linkage
editing.

6.8   RCSL No.: 52-AA1214
RC3546 HDLC Driver
Reference Manual

The RC3546 HDLC Driver implements a packet
switching data transmission in accordance with
CCITT revised Recommendations X.25 level 2 lap
B.

6.9   RCSL No.: 52-AA1200
RC3581 SS7 Driver
Reference Manual

The RC3581 SS7 driver implements a level 1
interface to the CCITT recommended Signalling
System 7.

6.10   RCSL No.: 99 0 00761
RC-FS File System Nucleus
Reference Manual

This is the reference manual for the RC-FS
(File System) nucleus as implemented on the
RC3502 computer.

information	repl. BB 861015	ident BB 870320	page 4/11
Package Description		RC3502	class ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

6.11   RCSL No.: 99 0 00879
        RC3502 BSC Multipoint Master Driver
        Reference Manual

        This document describes the RC3502 BSC-Multi-
        point Master Driver. Driver functions, inter-
        face, and process environment are described.

6.12   RCSL No.: 99 0 00881
        RC3502 BSC Multipoint Slave Driver
        Reference Manual

        This document describes the RC3502 BSC-Multi-
        point Slave Driver. Driver functions, inter-
        face, and process environment are described.

6.13   RCSL No.: 99 0 00889
        RC3502 MACRO
        User's Guide

        Macro makes it possible to store lines of text
        and later on send any of the lines to a target
        incarnation as if it was typed on the console
        by just giving the name of the line. Allso it
        is possible to have formal parameters in the
        lines whitch is substituted by actual
        parameters when the line is send. The lines may
        be changed by editing commands.

⌶⊂ information	repl.	BB 861015	ident	BB 870320	page 5/11
Package Description			RC3502		class ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

7.   INSTALLATION

The package is delivered on a 9-track magnetic tape.

The requirements of the package in segments and entries are given in section 8.

7.1   Installation from Magnetic Tape

The tape is arranged as follows:

File No.	Contents	Format
0	label	text
1	package identification	text
2	job to load file 5	text
3	job to load file 6	text
4	job to load file 7	text
5	programs	save/load
6	libfile and programs	save/load
7	programs	save/load

File No. 1 is in text format and may be inspected by the utility program copy, e.g.:

```
t = set mto mtsw2001 0 1
copy list.yes message.no t
```

File No. 2 is a textfile, which contains a standard job with fp-commands to load the package, and it may be inspected in a similar manner.

The package files on file 5 are loaded by means of the job in this way:

```
t = set mto mtsw2001 0 2
i t
```

The package files on file 6 are loaded by means of the job in this way (cf. 8.2):

```
t = set mto mtsw2001 0 3
i t
```

The package files on file 7 are loaded by means of the job in this way:

information	repl. BB 861015	ident BB 870320	page 6/11
Package Description		RC3502	class ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

```
t = set mto mtsw2001 0 4
i t
```

| **information** | **repl.** BB 861015 | **ident** BB 870320 | **page** 7/11 |
| Package Description | | RC3502 | **class** ext. |

subj. RC3502/2 Operating System Package, SW2001/2/3.02

8. ENTRY SURVEY

8.1 Entries on File 5

BSCENVIR is a text file used, when compiling user programs using the BSCMASTER or BSCSLAVE modules without using the Entity Management functionality of the modules.

BSCLCPENV is a textfile used, when compiling user programs using the Entity Management functionality of the same modules.

PLIBALL is a PASCAL program, which lists the programs in an RTP3502 object program library, inclusive all the external routines called by the programs in the library.

Installation of the package files on file 5 creates the following permanent entries:

```
system3502      117      user.disc      d.870320.1009
stdio            1       user.disc      d.870320.1036
brintexcept              user.disc      d.870320.1050
measurelit               user.disc      d.870320.1147
bprintstat               user.disc      d.870320.1151
ocpuse           4       user.disc      d.870320.1053
bmacro           1       user.disc      d.870320.1056
ufix                     user.disc      d.870320.1102
brdisc                   user.disc      d.870320.1120
bdd              1       user.disc      d.870320.1122
blsd             1       user.disc      d.870320.1106
bind             1       user.disc      d.870320.1135
bsclib                   user.disc      d.870320.1213
embddlib                 user.disc      d.870320.1220
lcpenvir                 user.disc      d.870320.1415
measureenv       1       user.disc      d.870320.1415
embddenv         1       user.disc      d.870320.1415
obcenvir         1       user.disc      d.870320.1415
bsclcpenv                user.disc      d.870320.1415
doublenv                 user.disc      d.870320.1415
pliball                  user.disc      d.870320.1415
plibclear                user.bindinsert  d.870320.1415
plibcompu                user.bindinsert  d.870320.1415
plibextract              user.bindinsert  d.870320.1415
plibdll                  user.bindinsert  d.870320.1415
plibconvert      1       user.disc      d.870320.1415
crosslink                user.disc      d.870320.1415
crode                    user.disc      d.870320.1411
pliberun                 user.disc      d.870217.1335
pliballdis       1       user.disc      d.870217.1340
doublerev        user.disc
```

	repl. BB 861015	ident BB 870320	page 8/11

information

| Package Description | | | RC3502 | | class ext. |

subj. RC3502/2 Operating System Package, SW2001/2/3.02

8.2 Entries on File 6

The package files on file 6 are intended for RC8000 installations with the LIB utility program. All the Real-Time Pascal programs comprising the Operating System are collected in one file ˊlibsw20012ˊ. Special attention should be paid to this mode of installation, because RC3502 Model 1 and RC3502 Model 2 files may create name overlap problems on RC8000 installations supporting both RC3502/1 and RC3502/2.

The package SW2001/1 RC3502/1 Operating System contains a file ˊlibsw20011ˊ, so overlap may be circumvented.

```
libsw20012      504     user.disc           d.870320.1413
plibinsert      17      user.disc           d.870320.1410
plibdelete      05      user.plibinsert     d.870320.1410
pliblookup      05      user.plibinsert     d.870320.1410
plibextract     05      user.plibinsert     d.870320.1410
plibell         05      user.plibinsert     d.870320.1410
plibconvert     14      user.disc           d.870320.1410
crosslink       17      user.disc           d.870320.1410
crc15           15      user.disc           d.870320.1411
pascrun         5       user.disc           d.860217.1339
pascallib       15      user.disc           d.860217.1340
    11 entr.,            segm.
```

8.3 Entries on File 7

RC takes no responsibility for the entry on file 7. The entry contains object file of a process ˊadjusttimerˊ, which adjust the RC3502 timer to run correctly. A tentative manual is available on request to RC.

```
adjust          17      user.disc           d.851107.1637
    1 entr.,            segm.
```

9. VERIFICATION

Entries inspected by lookup will show the release date as listed above in the entry surveys.

IC information	**repl.** BB 861015	**ident** BB 870320	**page** 9/11
Package Description		RC3502	**class** ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

10. CHANGES

The files comprizing the RC-FS File System Nucleus have been removed from this package. A seperate package is going to be defined for the RC-FS File System.

A number of serious problems, as reported in RC3502/2 SIS, Edition March, 1987, have forced us to make this subrelease. As compared to release 3.01 the following changes and extensions should be noticed:

EXCEPTION prints date, time, and version of the source, if the process is external linked.

TOFROM is changed to handle the parameters as unsigned integers, whereby 64K-1 bytes may be moved.

PLIBLOOKUP is extended to accept imagefiles as well.

PLIBALL is a new Pascal program in the family of Real-Time Pascal object program utilities on RC8000:

PLIBALL

Pliball produces a catalog listing of the programs in a library. A list of all the external routines called by the programs is produced for each program in the library. The call is identical to the call of PLIBLOOKUP.

BUFSIZE returns the size of the buffer in bytes and not in words.

11. STATUS

11.1 Known Errors

BSCMASTER: Polling may stop on a line, whereafter no further operations on the line is possible, e.g. start/stop requests.
A remove/run of the driver must be per-

information	repl. BB 861015	ident BB 870320	page 10/11
Package Description		RC3502	class ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

formed.

The problem seems to originate in the firmware, when an automatic slow down of the polling takes place. The slow down starts when the sum of all the linespeeds (8 lines) exceeds 10000 bytes per. sec.

If HDLC2 is started and the modem clock is not present, it is not always possible to connect the line.
Until now the problem has only been reported on 9600 bps lines.

BSCSLAVE: Response on polling stops on a single line. whereafter no further operations on the line is possible.
A remove/run of the driver must be performed.

The problem is probably a hanging USART in the controller. A possible solution is being analized.

IMS DRIVER: A ˉSet Conversionˉ request is returned with result = 16.
It happens when a number of modem attentions are returned simultaneously with result=16.

PLIBEXTRACT: The call (e.g.)
pip = plibextract entry.cpuse lib.cpuse
does not result in an error message.
The program ˉcpuseˉ wil occur twice in the resultfile.
The call is illegal according to the documentation. The call should be ˉentry.<number>ˉ and not ˉentry.<name>ˉ.

Sendtimer: The Global Time increases from 20 to 50 seconds per 24 hours. The problem is caused by the Control Micro Processor, which is unable to control an oscillator with sufficient accuracy.
A process ADJUSTTIMER is delivered in release 3.01 for experimental purposes. This process adjusts the RC3502 clock, so that an accuracy of +/- 6 seconds per 24

information	repl.	BB 861015	ident	BB 870320	page 10/11
Package Description				RC3502	class ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

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Ic information	**repl.** BB 861015	**ident** BB 870320	**page** 11/11
Package Description		RC3502	**class** ext.

subj. RC3502/2 Operating System Package, SW2001/2/3.02

hours is achieved. The process is described in RCSL: 99 0 00900. This manual may be delivered on request to the editor.

BFPA: If ´last+l-first = no of bytes received´ the driver returns ´result = 66´. The problem may be circumvented by defining the buffersize to maximum blocksize plus one.