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Title:

RC8000 UTILITY PROGRAM
TERMSPEC

Keywords:

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Abstract:

This manual describes the utility program termspec.

(18 printed pages)

Foreword

In RC8000 Basis System Version 2 (SW8001/2/2.0), a new facility is introduced on terminal processes:

all the various parameters controlling the actual device handling have become available to RC8000 users, on an easy message-basis. Previously, the program initamx had to be used.

The program termspec gives an easy access to the new facilities.

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A/S Regnecentralen, March 1984.

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1. INTRODUCTION

The program is intended for reading and changing the terminal specifications on terminals connected to RC8000 via a Device Controller and an FPA connection. This covers normal terminals connected via AMX as well as consoles, when the Device Controller is running the NCP program (may be either local Front End or Remote via RCNET). As the program uses the RC8000 process description for the terminal, it is required that the terminal is connected to the RC8000, i.e. a LINK exists.

Terminal specifications are described in "RC8000 terminal process, SW8001/2". (1).

2. EXAMPLES.

The FP-command:

```
termSpec
```

will display the specifications of the terminal being primary output to the process.

The FP-command:

```
termSpec normal
```

will change the specifications of the primary output terminal to the ones normally used.

The FP-command:

```
termSpec prom.42
```

will change the specifications of the primary output terminal, giving the prompt the character value 42 (an asterisk).

The FP-command:

```
termSpec sub0207
```

will display the specifications of the terminal described in RC8000 as an external process named "sub027".

The FP-command:

```
termSpec 0
```

is syntactically incorrect, and the program will display a short survey of the call syntax.

`<proc.name>` ::= name of RC8000 terminal process

```
<table> ::= integer in the range 0 - 9
```

```
<char> ::= integer in the range 0 - 255
```

$$\langle \text{parity} \rangle ::= \begin{cases} \text{odd} \\ \text{eve} \\ \text{no} \end{cases}$$

<secs> ::= integer in the range 0 - 255

<charbits> ::= $\left\{ \begin{array}{c} 5 \\ 6 \\ 7 \\ 8 \end{array} \right\}$

<bps> ::= integer, one of the following values: 9600,
4800, 2400, 1200, 600, 300, 220, 200, 150, 134,
110, 75, 50, 40.

<index> ::= integer in the range 2 - 8.

<shift> ::= integer in the range 0 - 23.

<bits> ::= integer in the range 1 - 24.

<value> ::= integer, any value.

4. FUNCTION.

The process specified by <proc name> is found, and selected parts of the process description are displayed.

Default is the name of the primary output process to the job process.

If the process specified is not the primary output process, it is required that processkind is 84 or 85 (permanent or temporary link), that the subkind is 8 (terminal), and that the job process has function bit 5 set (remove peripheral process), otherwise an error message is given.

A get-specification message is sent to the process.

If parameters for changing specifications are stated, they are encoded.

Now a set-specification message is sent to the process, followed by a get-specification message to get the resulting specifications. If the parameter "test" is stated, no set-specification message will be sent, instead a testoutput is displayed concerning the specifications obtained and the specifications changed as stated.

Finally the terminal specifications are displayed, including possible changes.

5. PARAMETERS

Most of the parameters are obviously related to the description in "RC8000 terminal process, SW8001/2", where details may be found (1). Parameters and corresponding changes are performed in the order they are stated.

normal : Equivalent to the parameters conv.yes cont.no
echo.yes soft.yes type.1 prom.7 flow.no time.60.

conv : Set/reset the upper case conversion facility.

cont : Set/reset the continued-input facility.

echo : Enable/disable of echo.

soft : Set/reset soft parity check.

type : Index for input-output conversion tables.

att : Enable/disable attention.

prom : Character value of prompt. If = 0, no prompt is sent.

flow : Flow control selection : no = no flow control, io =
both on input and output, in = input only, out =
output only.

stop : Set number of stopbits.

pari : Set parity check : odd = odd parity, eve = even
parity, no = no parity check.

time : Set input timeout value.

char : Set character length, in bits.

rate : Set linespeed. If one parameter is stated, both input
and output speed is set to this. If two parameters
are stated, it means rate.<receiver bps>.<sender bps>

set : Used for setting non-described bitmasks in set-speci-
fication message. <value> is inserted in mess
(<index>), in the bit positions from (1 shift
<shift>) to (1 shift (<shift>+<bits>)).

test : Used to check the final contents of get- and set-spe-
cification messages. The set-specification message is
avoided.

6. FORMAT OF THE OUTPUT DISPLAYED

The first line of output shows selected parts of the terminal process description:

```
<proc>:  jobhost=<jh>(<jhl>) devhost=<dh>(<dhl>) hws=<hws>
         kind=<k>(<sk>)
```

where:

```
<proc>  name of terminal process
<jh>    jobhost ident, i.e. RC8000 ident
<jhl>   jobhost linkno, i.e. device number in RC8000
<dh>    devicehost ident, i.e. ident of the Device Controller
<dhl>   devicehost linkno, i.e. device number in the Device
        Controller
<hws>   link buffer size, in halfwords
<k>     process kind (in RC8000 monitor). 84 is permanent
        link via FPA. 85 is temporary link via FPA
<sk>    subkind (in RC8000 monitor). 8 is terminal
```

If process kind is not 84 or 85, only <proc>, <jh> and <k> are output.

The second and third lines show the resulting terminal specifications, written in the same format as the FP-parameters.

7. ERROR MESSAGES

Any error message will set the FP mode bits:

ok.no, warning.yes.

***termspec syntax : <param> correct syntax is:

(a short survey of call syntax)

The parameter in <param> is incorred.

***termspec sorry : not found:<proc>

The terminal process <proc> cannot be found.

***termspec sorry : not terminal

The process description of the terminal process does not indicate that it is a terminal, after all.

***termspec sorry : no sepcs at: <proc> result <r> <s>

Not-ok answer to get-specification message.

<r> is result, <s> is status word.

***termspec sorry : specs not set at: <proc> result <r> <s>

Not-ok answer to set-specification message.

<r> is result, <s> is status word.

***termspec sorry : function bit 5 required.

Function bit 5 is required when changing specifications of a terminal which is not primary output.

8. REFERENCES.

- (1) LBJ 83.07.12 RC8000 Terminal Process, SW8001/2, Rel.2.0.

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