

---

Title:

LINE PRINTER DRIVER

Description

---

 **REGNECENTRALEN**

RC SYSTEM LIBRARY: FALKONERALLE 1 DK-2000 COPENHAGEN F

---

RCSL No: 43-GL 6583 (P1)

Edition: 4. April 1978

Author: Dan Holmer Andersen

---

Keywords:

RC3600, MUS, DRIVER, LINE PRINTER, DESCRIPTION

---

Abstract:

Description of the RC3600 MUS driver for RC3630 series of line printer and RC3641-43 line printers.

## LINE PRINTER DRIVER

### General Description

This driver can be used as standard driver for the RC3630 Series of line printers and RC3641-43 line printers.

It can be used in two modes, unformatted and formatted print. In unformatted mode only few special characters controls the VFU (Vertical Format Unit), in contrary to formatted mode, where full control of paper spacing and skip can be obtained.

### Control Messages

Reservation, conversion, position and disconnect messages are accepted.

### Reservation

If 1b13 is set in mess0 and mess1  $\neq$  0 the sender of the message is inserted as reserver of the device. If mess1 = 0 the reservation is cleared, enabling other processes to reserve the driver.

In MUSIL reservation/release is done with an OPEN/CLOSE (TRUE) procedure call.

### Conversion

If a message is received with conversion bit set (1b12) the mess2 is taken as the byte address of the conversion table.

If the table address is zero, and the process word standard table is non-zero, this address is taken as the conversion table address.

This standard conversion can be set by special utility programs.

In MUSIL an OPEN will transfer the conversion table address.

### Position

Mess2 of the message defines the new marginize, i.e. the number of spaces in front of each printline when printing in mode 7. MUSIL call SETPOSITION (FILE, MARGIN, NOTUSED) will generate the message.

### Disconnect

The margin is reset to zero.

### Input

All input messages are treated as control messages.

### Output

Two modes exist:

3: The converted characters are output to the line printer.

Special characters:

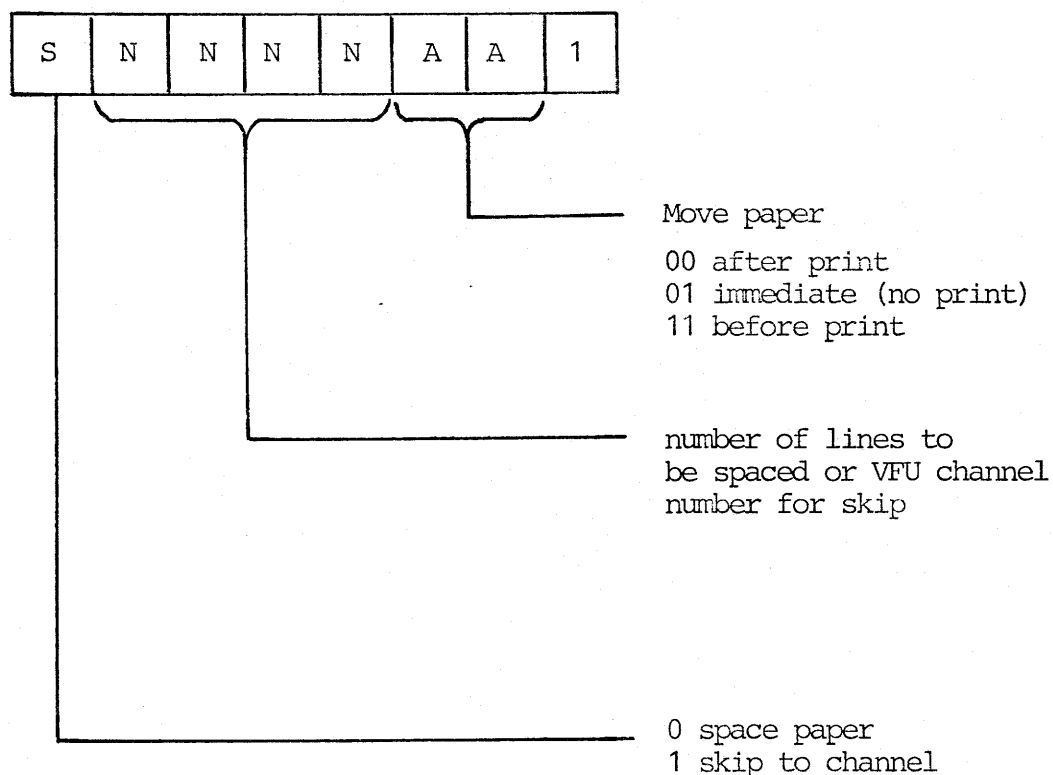
- 10: New line. The line is printed and the paper is spaced one line.
- 11: Vertical tab. The line is printed and the paper is skipped until channel 2 in the carriage control tape is reached.
- 12: Form feed. The line is printed and the paper is skipped until channel 1 in the carriage control tape is reached.
- 13: Carriage return. The line is printed.
- 26: The character is blind.

Next print position after output of 10, 11, 12 and 13 will be the leftmost on the printer.

All characters not defined in hardware will be output as spaces.

- 7: The first byte of an output message is interpreted as a carriage control word. No conversion is performed on this byte.

The standard RC3600 interpretation is used:



The character 26 is skipped, and use of special control characters are not recommended.

#### Status

- 1b0: Disconnected. The printer is not connected to the CPU. A powerfail has occurred and data can be lost.
- 1b1: Offline. The printer has gone offline due to errors or has been set offline by the operator. The message must be repeated.
- 1b3: Channel 12 in carriage control tape has been encountered. The bit can be ignored, or be used as paper position information.

- 1b6: The driver is reserved or an illegal carriage control word is found (program error).
- 1b8: Paper fault is returned with either 1b1 and 1b9, and message must be repeated.
- 1b9: Printer not ready. The message must be repeated.
- 1b10: Parity error. A CCW contains a zero bit in the least significant position (program error).
- 1b11: End of paper, less than 1.5 forms left. The status can be ignored until returned with either 1b1 or 1b9 in which case the last line on the last form has been printed, and the message must be repeated.

The status is hard, i.e. following transput messages are rejected with the not processed status, and the driver must be cleared by a control message.

- 1b14: Timeout. Either hardware error or a skip to a non existing channel has been performed (paper run away).

#### Programming

If file descriptors are used in the communication with the driver the kind must be blocked if mode 7 is used.

This ensure that the whole line is output again after repetition of a message. In mode = 3 the kind must be characteroriented, as only non-processed characters are output after repetition.



