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Title:

LINKCENTRAL

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Abstract:

This manual describes the functions of the program LINKCENTRAL, which is used for creating links to peripheral devices connected to RC3500/3600.

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Contents:

1. Introduction
2. The program LINKCENTRAL
 - 2.1 Definition of standardvalues
 - 2.2 Device-procedures
 - 2.3 Host-procedure
 - 2.4 Name-procedure
 - 2.5 How to use LINKCENTRAL
 - 2.6 Changing the standardvalues
 - 2.7 Errortexts
3. Standard names

1. Introduction

Some of the "new" words in connection with RCNET will be described. For further information see "RCSL 43-Ri0635 RCNET General Information".

Link logical connection between a process executed at a Jobhost and a device at a Devicehost.

Host generic name for Jobhost/Devicehost i.e. RC8000/RC4000/3600/3500.

Jobhost designation for the host at which programs are executed, accessing devices at the Devicehost.

Devicehost designation for the host at which the devices reside.

2. The program LINKCENTRAL

The Algol-program LINKCENTRAL is used for creating links to peripheral devices connected via RC3500/3600.

The commands are calls of Algol-procedures.

The LINKCENTRAL-program is divided in four parts:

1. Declarations of procedures and variables
2. Definition of standard values
3. Userdefined calls of the procedures
4. Termination of the program

2.1 Definition of standard values

To every device-kind is defined:

<modekind>:	mode < 12 + kind
<bufno> :	no. of buffers
<bufsize> :	buffersize in 8 bit units
<devname> :	devicename in RC3500/3600

The above mentioned values can be changed (see 2.6).

BSMKIND:=4;	
BSFUFS:=1;	backing storage
BSBUFSIZE:=768;	
TWMKIND:=8;	
TWBUFS:=1;	typewriter
TWBUFSIZE:=128;	
PTRMKIND:=2 SHIFT 12 +10;	
PTRBUFS:=1;	paper tape reader - even parity
PTRBUFSIZE:=128;	
PTPMKIND:=2 SHIFT 12 +12;	
PTPBUFZ:=1;	paper tape punch - even parity
PTPBUFSIZE:=172;	
LPTMKIND:=14;	
LPTBUFS:=1;	lineprinter
LPTBUFSIZE:=172;	
CDRMKIND:=10 SHIFT 12+16;	
CDRBUFS:=1;	cardreader 80 column
CDRBUFSIZE:=256;	
MTMKIND:=18;	
MTBUFS:=1;	magnetic tape odd parity
MTBUFSIZE:=4*768+18;	

2.2 LINKCENTRAL device-procedures

For creating links, there is a procedure to every standard peripheral device.

The call is:

```
<proc> (<devno>, <devname>);
```

<proc> is the procedure name (see below).

<devno> is the devicenummer in RC8000/RC4000 to which the link will be connected.

<devname> is the devicename in RC3500/3600 (see chapter 3)

<proc> is one of the following names, depending on device kind:

```

tw :      typewriter
lpt :     line printer
ptr :     paper tape reader
ptp :     paper tape punch
bs :      backing storage
cdr :     card reader
mt :      magnetic tape

```

```
Exp: ptr(21, <:reader:>)
```

2.3 LINKCENTRAL host-procedure

Before an attempt to create links, the host must be defined by a call of the procedure HOST. The parameters to this procedure are partly the devicenumber for the host-process matching the FPA/SCC-line in question, and partly identification of the RC3500/3600 in the network thereby addressed. For the present there are two dummy parameters:

```
host (<hostdevno>, <hostid>, <dummy>, <dummy>);
```

```
Exp: host(17, 2, 0, 0);
```

2.4 LINKCENTRAL name-procedure

The standard name of the external process, which represent the peripheral device, is a workname "subxxx" where xxx is a number from 000 up to 999. This standardname is unambiguous. If another name is desirable, insert a call of the procedure NAME just before the call of the device-procedure.

The parameter to NAME is the processname:

```
name (<devicename>);
```

```
Exp: name(<:reader1:>);
      ptr (21, <:reader:>);
```

2.5 How to use LINKCENTRAL

Insert the changings of the standardvalues and the calls of HOST, NAME and DEVICE-procedures in a file <filename>. Compile the program with <filename> as the copy source. After the compilation you run the program.

Exp:

```
procia = edit
i/
  <possibly changings of the standardvalues>
  host(17, 2, 0, 0);
  name(<:reader1:>);
  ptr (21, <:reader:>);
  /,f
p = algol copy.procia linkcentral
p
```

now the link is created.

2.6 Changing the standardvalues

If it is desireable to change some of the standardvalues, just insert the matching assignment statements before the call of the appropriate procedure.

Exp:

If you want to change the backing storage buffersize to 2 segments, it can be done in the following way:

Before the call of the bs-procedure write the assignment statement:

```
bsbufsize := 2*768;
```

2.7 Errortexts

Following self-explanatory errortexts can occur:

```
*** unintelligible
*** device trouble
*** device reserved
*** no resources
*** devname
*** operation rejected
```

Every errortext is preceded by an identification of the erroneous call:

error in call no. <number>

<number> is an identification of the erroneous procedure-call.

The numbering starts with one.

3. Standardnames in RC3500/3600

The peripheral devices are named depending on kind, possibly followed by a number.

Terminals:	TERMINAL1 1) TERMINAL2 TERMINAL3
Papertapereader:	READER 2)
Papertapepunch:	PUNCH 2)
Line printers:	PRINTER PRINTER1 PRINTER2
Magnetic tape:	MT0 MT1 MT2
Discdrives	DISC0 DISC1 DISC2

1) If a mainconsole (TTY), it has always the name TERMINAL1.

2) Only one device of this kind.

RETURN LETTER

Title: LINKCENTRAL

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