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PRINTER SPOOLER
                      USER GUIDE

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0.0 Introduction

 From the users point of view the spooler is identical to the ACORN printer
server. So to use the spooler, exactly the same procedure is followed:

The network printer is selected   - *FX 5,4
The printer ignore character is set - *FX 6,?
The print is started   - ctrl+B
Text is sent to the printer   <TEXT>
The print is ended   - ctrl+C

 The printer server takes the text sent over the network and immediately
prints it, however the printer spooler creates a file and sends the text
there. Then, when the print is finished, the print job is placed in a queue
and waits for the printer. This allows more than one person to use the
network printer at the same time (in fact, up to four may print at once).
The text file so formed is then printed out when it reaches the front of the
queue, i.e. when all previous jobs have been printed. This may result in a
delay between sending the print over the network and it actually being
printed out (especially if a slow printer is in use, or many people are
using the printer at once).
 One of the facilities of the printer spooler is that the Network Manager
may set a maximum size of print allowable. If a larger print is sent to the
spooler, it will mark the print as 'Too big' and the network manager is
required to restart it.

2.0 The Format of the Print

 When the file containing the print text is at the head of the queue, it
will start to print. Firstly there is a line of text containing the
time/date etc, of the form:

Date 01/04/1984   Time 11:59:45   Station 006   Time spooled 11:58:32

 This is followed by a print out of the header file (see 2.1), and then the
actual print sent to the spooler by the user. When this finishes a message

of the form:

Ended at : Date 01/04/1984 Time 12:04:01

is printed, followed by the footer file (see 2.1).

2.1 Header and Footer files

 The purpose of these files is to allow a banner to be printed at the start
and end of every print. The user has no control over them as they are set up
by the Network manager.

3.0 Utilities

 Certain utilities should be provided in the Library on the fileserver, if
they are not then contact the Network manager. These utilities may also be
copied to local filing systems (floppies or winchester), and used if DFS or
ADFS is the currently selected filing system.

3.1 POLLPS (<text|station number>)

 With no argument this utility returns the station numbers and state of
all printer servers/spoolers attached to the Network.

e.g.

    Typing

    *POLLPS[RETURN]

    will result in output of the form,

    PS= 235   ; This is the currently selected printer
        234 is busy with 006 ; The printer server at 234 is in use
    003.200 is free   ; This printer spooler/server is free
        008 is busy   ; A spooler at 8 is in use
        235 is jammed   ; The physical printer at 235 is broken

The printer spooler will return busy only if there are four people currently
printing to it.

   If a text argument is given to POLLPS then this is broadcast to all
printers, however only those who recognise it will respond. For example all
printer spoolers respond to SPOOL.

 If a numeric argument is given only that particular station number will be
polled.

3.2 PRINTERS

  Returns the station number and 'name' of printers (only spoolers will
respond until implemented on the PRINTER SERVER). This name can then be used
to poll that particular printer by use of POLLPS.

 Note that the following five utilities (COPIES, SPOOLQ, RESUME, SUSPEND,
KIKLPRINT) communicate only to the currently selected printer server.

3.3 COPIES (<1..8>) (<text>) (HOLD)

 Will print up to 8 copies of a job and associate a six char text string
with that job. The job must then be started as normal with the ctrl-B within
30 secs (approx.). The keyword 'HOLD' causes the print to be placed in a
suspended state (see 'Suspend', 'Resume'). Note that the Network manager may
limit the number of copies printed in this way to any number between 1 and
8.

e.g. To use COPIES you simply type

    *COPIES 2 Mac's[RETURN]

    Then a print started to the spooler within about 30 seconds by the
    usual ctrl+B will have associated with it the text string "Mac's", and
    will be printed twice.

3.4 SPOOLQ (<d|s>)

 This allows the current state of the spooler to be interrogated.

Typing

*SPOOLQ with No parameter returns the total queue.
         with S as parameter returns the spooling jobs only.
         with D as parameter returns the despooling job only.

e.g

    Typing

    *SPOOLQ[RETURN]

    will result in a spooler queue of the form,

        Spooled   8 copy(s) of &00010422 bytes
        Station   006 time 17:34:40 '   '
        Printing copy 2 : &00001B00 bytes

        Spooled   1 copy(s) of &0000F1AD bytes
        Station 003.019 time 17:35:17 '   '

        Spooled   1 copy(s) of &000000F5 bytes
        Station   225 time 18:25:18 '   '

```
        Spooling  3 copy(s) of  &000011B3 bytes
        Station     006 time 18:25:30  'Mac    '

        Too big   1 copy(s) of  &0009A1EA bytes
        Station     190 time 16:25:52  'Hugo's'

        Suspended 1 copy(s) of  &000002D8 bytes
        Station     174 time 17:35:45  '      '
```

If the network manager has placed a limit on the size of print jobs, you may find your job marked 'Too big'. If this print was a mistake you may delete it yourself (see KILLPRINT), however if you want it printed out you must contact the network manager who will place it in the queue, ready for printing.

Further examples with arguments :

e.g. *SPOOLQ D(espool)

    returns the state of the currently printing job

```
        Spooled 1 copy(s), of  &00019FF3 bytes
        Station     212 time 15:17:57  '        '
        Printing copy 1 : &00011A00 bytes
```

e.g. *SPOOLQ S(pool)

    returns the state of the currently spooling jobs

```
        Spooled 2 copy(s), of  &00010000 bytes
        Station     006 time 15:18:37  'Mac's '

        Spooled 1 copy(s), of  &00030000 bytes
        Station     174 time 15:18:45  'Thack '
```

 In the complete spoolq the despooling job is easily seen as it has the amount printed given also. The multiple copies facility, and the text string in single quotes are explained below in the COPIES utility.

 Note the following three utilities will only affect jobs from the same station that the print originated from.

3.5 RESUME <hh:mm:ss>

 Will place a suspended job back in the spool queue.(See suspend).

3.6 SUSPEND <hh:mm:ss>

 Any of your prints may be placed in a 'suspended state'. This can be done either by using *COPIES HOLD before printing, or *SUSPEND when finished. This 'suspended state' means that the job will not be printed out until

replaced in the queue with the RESUME utility.

3.7 KILLPRINT (<hh:mm:ss>)

 When printing to the spooler no arguments need be supplied and this will
terminate and delete the current print.
 If the print job is in the queue it is identified by the time it was
spooled. If this time is given to KILLPRINT it will remove the print job
from the queue. This works for a job in any state (i.e 'Suspended', 'Too
big', 'Printing' or simply 'Spooled').