BBBS v3.14.95, SysOp Manual

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COLLABORATORS

	TITLE : BBBS v3.14.95, SysOp Manual		
ACTION	*NAME*	*DATE*	*SIGNATURE*
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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BBBS v3.14.95, SysOp Manual

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```
              BBBS Version 3.14.95 SysOp Manual
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        and Tapani T. Salmi.

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1.2   Quick Startup

If you already are reading this file, you must have unpacked the
distribution files or one of them. It is recommended to unpack them into
following directories:

```
Packet           Directory
==========================
BBBS_D           /BBS
BBBS_GEN         /BBS
SCRIPTS          /BBS
DOCS             /BBS
MENUS            /BBS/MENUS
```

The configuration program is loaded with the command 'BCFG4 node', where
node is the number of node you want to configure. Start it with node 1.
Most of the options should be already correctly, but you should
carefully check them all. You can press F1 at all times to get more
help, so we will not cover the options here. At the end save the config.
It can take a long time, but patience is a virtue!

Now you can log in the system and see what BBBS is about. You should
also check GROUPS and EXTERNAL.BBB files (see below), but that can be
done later.

See Also:
                        Logging in to the System

                        EXTERNAL.BBB File

                        GROUPS File

1.3   Logging in to the System

BBBS is run with the command 'BBBS [x] \{node\}', where x is the number of
the COM port to be used and node is the node number to be used. If you
want to start a local node of BBBS you specify the COM port to 0. After
that BBBS will ask your first name. You can give your name separately as
your first name and your last name or both in the same line. By adding a
'Q' at the end of it you can speed up the login by not showing the login
screen. By adding an exclamation mark ('!') in front of your name you
can login in with the HIDE mode if you are SysOp. Your password will be
asked after the name but can be included it in the first line.

Example: What is your FIRST name? Kim
         What is your LAST name? Heino
         Please enter your password (dots will echo): ......

         What is your FIRST name? !Kim Heino q mypass

There are also some special keys SysOp can use while there is somebody
logged in. Press Shift-F10 in BBBS to get brief help about them.

1.4 SysOp's local keys

When a user is logged in to your BBBS, there are several keys that are
available at the local monitor screen if you have enabled them in BCFG4.

See bcfg4 under local: general for enable/disable SysOp local keys.

```
        KEYS:
        F6      Start SysOp chat - Fullscreen mode.
                Press <esc> to end chat.
        F7      Start SysOp chat - Line-by-line mode.
                Press F7 again to end chat.
        F10     Show information about the user that is online.
                This will give you the online user's name, address, phone,
                birth, up'n downloadstats., SysOp access, limits, online
                time, number of calls and date of last call.
        alt-A   Set yourself available for chat requests.
        alt-C   Same as F6.
        alt-D   Jump to OS. The online user will get a message telling
                him that SysOp has jumped to OS, and that he should wait
                until SysOp is back.
        alt-E   Echo on/off. Toggles whether Screenwrites will be sent
                to remote user or not.
        alt-F   Grant fileaccess to online user. This is a permanent
                access change. Next time this user logs in, he will have
                fileaccess.
        alt-K   Hangup this node now.
        alt-L   Lock remote keyboard. With this you can make sure that
                the remote user don't interfere with your doing on the node.
                Very usefull when you grant temporarly SysOp access.
        alt-N   Set yourself not available for chat requests.
        alt-Q   Take down BBBS after user logs out. Sets the phone
                busy.
        alt-S   Grant temporarly SysOp access to online user. The
                access will only be in effect as long as the user is online.
```

```
               Press alt-S again to remove temporarily SysOp access.
       alt-U   In HYDRA sessions will add file to outgoing batch.
       alt-F1  Take 5 minutes online time away from online user.
       alt-F2  Take 1 minute online time away from online user.
       alt-F3  Grant online user with 1 more minute online time.
       alt-F4  Grant online user with 5 more minutes online time.
       alt-F5  Same as alt-F1.
       alt-F6  Same as alt-F2.
       alt-F7  Same as alt-F3.
       alt-F8  Same as alt-F4.
       alt-0   Run keyboard macro 0. See bcfg4.gui for more
               information on keyboard macros.
       alt-1   Run keyboard macro 1.
       alt-2   Run keyboard macro 2.
       alt-3   Run keyboard macro 3.
       alt-4   Run keyboard macro 4.
       alt-5   Run keyboard macro 5.
       alt-6   Run keyboard macro 6.
       alt-7   Run keyboard macro 7.
       alt-8   Run keyboard macro 8.
       alt-9   Run keyboard macro 9.
```

1.5 GROUPS File

BBBS's access control system is based on the GROUPS file. This file
resides in the /BBS directory. The file is plain ASCII file, so it can
be edited with any text editor. Groups which are defined in this file
are global, they are used everywhere in the system.

The format of the file is simple:

```
groupname1:user_name1\{,user_name2\{,...}}
groupname2:user_name1\{,user_name2\{,...}}
```

```
Predefined groups:
       all                All users are allways a member.
       firstname.lastname All users are allways a member of the group
                          with their own name.
       limit*             All users are allways a member of the group
                          Where * is his/her "u limit"-value.
       nochat             For members of this group  SysOp is allways
                          unavailable.
       okuser             Members  of this group  may log in during a
                          nouser-event.
       telnet             Members of this group can TELnet out. (OS/2
                          version only.)
       rlogin             Members of this group can RLogin out. (OS/2
                          version only.)
       noaccount  If no account defined.
       account    If account defined and has some money/credit left.
       nomoney    If account defined but no money/credit left.
```

```
First example:  bz:kim heino,tapani salmi
                fsysop:bz,kimmo ketolainen
                tarufans:jari saarenmaki,kim heino
```

```
                    cindyfans:marko ruotsalainen
```

You must create groups if you want to have so called private conferences
or want to limit access of some users. You can use the semicolon (';')
to mark the comment line. Comments are recommended because that makes
your group file easier to read.

Let's take more complex example:

```
----- cut -----
; General Groups

bz:kim heino,tapani salmi
fsysop:bz,kimmo ketolainen
tarufans:jari saarenmaki,kim heino
cindyfans:marko ruotsalainen
false:tatu lund,toni lund

; Age groups

kids:<18
oldfart:>17

; Conferences

news@r:all
news@w:fsysop
users@r:all
fileinfo@r:all
49beta@:all
49beta@w:bz
bbbs.sysop@:all
bbbs.sysop@r:49beta@w,false
netmail@:jori kuusinen@950101
myynti@r=(markki|market):teemu peltonen
----- cut -----
```

General groups are simple, just the groupname and users/groups. You can
also use user's ages in groups with the '<' and '>' chars. See "kids"
lines in upper example.

If you want to limit users access to conference, you have to specify
a conference group. Let's take a closer look:

Basis is very clear, you give the name of the conference in which you
want user to have limited access. Again you can use multiple groups for
one conference. By default every user has full (read and write) access
to all conferences, notify this when creating new conferences. Accesses
are given with the following flags:

```
@:group        removes read and write access from group
@r:group       gives read access to group
@w:group       gives read and write access to group
@s:group       gives read, write and SigOp access to group
```

If you want to have a conference with just a few users, you first must
to remove access from all and then give write access to those users. See

"49beta" from upper example.

Three last lines shows you clearly the power of the groups. Lets go
through those very carefully. Line "netmail@:jori kuusinen@950101"
removes all access from the user called Jori Kuusinen in the conference
NetMail. This limitation will be automatically removed 01.01.1995, ie.
then he will again have full read and write access to the conference.
Three days before the user expires from the group he will recieve a node
message telling him so. He will also recieve a node message the day he
expires letting him know that his access is now expired.

Next line "myynti@r=(markki|market):teemu peltonen" is even more
powerful. First it specifies new group called "myynti", which contains
user Teemu Peltonen. He will have only the read access to all
conferences matching regular expression "(markki|market)" (like
SF.Markkinat, Market and LV/Markkinat).

Whenever it is possible, please use regexp-groups, like this:

----- cut -----
sysconf@=\.sysop:all
sysconf@w=\.sysop:fsysop
----- cut -----

It is important that you really understand what regexp is, see bbbshelp
for more information about it. "Normal" OS-alike wildcards (* and ?) are
part of regexp, but they have totally different meaning in it.

Using regexp-groups will save memory, diskspace and your effort! (And
BBBS might crash if your groups get too big.)

1.6 Filearea Setup

                You must make FILEDIRG.000 file (to your /BBS directory), ↩
                  containing
following information about your file areas:

virtual_directory   real_directory   description_and_flags

DESCRIPTION:
Virtual directory: The name of the directory user sees.

Real directory: Files are stored here on your disk drive(s). You must
                   create these directories.

NOTE! It is very important to use lower case letters only. Do not use
      /Windows/Games etc, this will only show directory /windows and not
      its sub-directories. This is one of the
              top-17 errors
                 .

Description: Description of the directory. User sees this when
                   (s)he lists the files/dirs.

Flags: With following flags you can specify groups accesses

```
                          to the directory. If no read access is defined, it
                          will be the default for all users. (R=Read, W=Write)

                              @r:group1\{,group2\{,...}}
                              @w:group1\{,group2\{,...}}
                              @rw:group1\{,group2\{,...}}
                              @wr:group1\{,group2\{,...}}
```

With the @e flag you can prevent scanning of the new files from the
directory.

Different description files can be specified by @0 flag.

You can format text output with @n and @@ flags. @n generates the
line feed character and @@ generates one @ character.

You can split directory lists for multiple files. Files are numbered
from 000 to 999, and named FILEDIRG.nnn. For the each node you can
specify independent directories. First directory in the FILEDIRN.nnn
file will be the node's "hold" directory. Hold directory can be used for
temporary storage. File FILEDIRN.001 is for node one, and so on. To make
things universal over all BBBSes, please use /tmp as your hold
directory.

The "point-line" can be used with the removable drives, like CD-ROM. If
the file specified after the point is not found, the rest of the
directory list is skipped. The part after "point-line" will be skipped
by BBBS BLIST command. If filedirg begins with "point-line" the whole
filedirg will be skipped from the filelist. Again to keep it simple,
please use directory /cdrom for the all of your CD-ROM disks. You can
use same directory for all of your disks as long as you are using
correct point-lines to auto-detect the disk in the drive.

Example:

```
----- filedirg.000 -----
/                  d:/bbs/files/root            @w:fsysop Root directory
/incoming          d:/bbs/files                 @rw:fsysop New uploads
/bbbs              z:/bbbs                       @w:fsysop BBBS software
/bbbs/conv         d:/pub/bbbs/conv             @w:fsysop Update utilities
/graph             d:/bbs/files/graph           @w:fsysop Pictures
/graph/gif         e:/bbs/files/graph/gif        GIF-pictures
/graph/gif/cindy   c:/bbs/files/graph/gif/cindy  @r:cindyfans Cindy Crawford
/graph/gif/taru    c:/bbs/files/graph/gif/taru   @r:tarufans Taru Valkeapaa
/graph/jpeg        a:/jpeg                       JPEG-pics @0c:/desc/jpeg.d
----- cut -----


----- filedirg.001 -----
. h:/index/simtel.20
/cdrom             h:/              CD-ROM! @1c:/desc/root.cd1
----- cut -----


----- filedirg.002 -----
. h:/index/garbo.fi
/cdrom             h:/              Another CD-ROM! @1c:/desc/root.cd2
----- cut -----
```

```
----- filedirn.001 -----
/tmp          d:/bbs/h1              @rw:all @e Your personal hold directory
----- cut -----
```

1.7 Description Files

BBBS stores the file descriptions in DESCRIPT.ION files (4DOS compatible
format). These files may have hidden-attribute, but not readonly.

Remember that the description for one line must not exeed 750 characters.

File format is following:

filename description_and_flags

You can use the following flags:

```
        @r:group1\{,group2\{,...}} -> set read access to group
        @w:group1\{,group2\{,...}} -> set write access to group
        @p:group1\{,group2\{,...}} -> set private access to group
        @@                         -> write the "@" char
        @n                         -> insert new line
        @f                         -> mark file as free
        @lfilename                 -> link to the real file
        @a                         -> spesifies filedate for desctype-1
        @s                         -> spesifies filesize for desctype-1
```

The @r, @w, @@ and @n flags are used like in the directory
listing. The @p flag specifies private file for the group(s). File can
be marked as free with the @f flag. Especially useful files (like
virus scanners and BBBS) should be made free, that way an user with no
download access can download the file immediately.

With the @l (link) flag you can specify different filename and
directory for the file. Otherwise than another flags this flag must be
the first entry in the description field. There also must be a file
named as the link (we suggest zero byte length files, but that does not
matter).

You can specify different name and path for the descript.ion file by
using the @0-flag in the directory list.

There is also a special desctype-1 file, which can be used on read-only
drives, like CD-ROM. It has two new flags, @s which specifies the
filesize in bytes and @a for the file date. Desctype-1 file can be
specified by using the @1-flag in the directory list (instead of the
@0).

You can use two different special files in the descriptions. First is
"." and the second is "..". The "." entry is shown as is (without ".",
of course) when user lists files in this directory. Files before and
after "."-line are sorted separately (in bfilsort). The ".." lines are
shown right after when user changes directory to this directory. You can
use multiple entries for both special files.

Example:

----- cut -----
.. Here are all of the files for BBBS
. The main files are:
.
bbbs_d.lzh BBBS for PCDOS @f @d45
bbbs_gen.lzh Shared parts of BBBS
.
. And some utilities:
.
bag.exe BBBSHELP-reader for PCDOS
----- cut -----

1.8 EXTERNAL.BBB File

              Like GROUPS file, EXTERNAL.BBB is plain ASCII file. It contains ←
                  external
protocol configuration, packer configuration, nodelist names and TICK
configuration. Again you can use the semicolon (';') to mark the comment
line.

This file is divided into different sections, each starting with the
header "[section_name]". To have different sections for OS2 and DOS you
can use sections named as "[section_name.OS2]" and
"[section_name.DOS]"

See also the example in the distribution archives about this file.

                  Protocols

                  Packers

                  Nodelists

                  Tickfiles

                  Bogus and BackDoor

                  Metastrings

1.9 Protocols

              [t_name]   Defines the internal/external protocol names. If ←
                  you
              want to add more protocols, just add one line here.
              Protocol numbers 1, 2, 3, 5, 6 and 8 can be handled
              internally, but you can redefine them all here. If you
              add more protocols, you must to add them to BBBSTXT line
              358, too. Please note that when you delete one line, the
              other lines are renumbered (which must be fixed).

[t_download]   This is DOS command string to start specific protocol.
                   With the internal protocols you can use -.

[t_gr_down]   The automatic protocol start string to be send to remote
                   before download starts, if user has selected the G&R
                   transfer commands. - disables this feature.

[t_upload]   These are the same as [t_download] and [t_gr_down], but
[t_gr_up]   for uploading. BBBS can handle internally protocols 1,
                   2, 3, 5, 6 and 8.

SEE ALSO:

                   meta strings

1.10 Packers

                   [af_ext]   The extension of the file this packer generates. ↩
                     Also
                   used to identify packer which user has chosen.

[af_ident]   These bytes are used internally to identify packer's
                   "fingerprint", numbers are in hexadecimal. First number
                   is the offset in the file (beginning from 00), followed
                   by a comma and the ident-byte(s). If the ident-bytes are
                   found from the offset, the file is packed with this
                   packer.

[af_pack1]   DOS command string to pack multiple files (filenames are
                   in text file) into one packet.

[af_pack2]   DOS command string to pack one file into the packet.

[af_unpack]   DOS command string to unpack the packet to the current
                   directory.

SEE ALSO:

                   meta strings

1.11 Nodelists

[nodelist]   You should list full names of all of your nodelists
                   here. Wildcards are allowed.

1.12 Tick files

```
[tick.adopt]    BTICK will generate TICK file for the files listed in
                this entry. There are three lines per one file and there
                may be more than one file to adopt by writing multiple
                three line entries.

                    areaname        TICK areaname used with this file.
                    filename        Filename, wildcards are allowed.
                    description     Description for the file.

                Please be carefully with this, as there is no way to
                check who originally sent the file for you!


[ticks]         TICK areas areas are defined here. The setup is divided into
                several different parts on one line. Here is some
                information about the different parts:

                gr          Group ID for tick area. Any character can be used
                            as a group ID. You can put different areas under
                            different group IDs. If you are a host or hub you
                            give accesses to echomail areas to your downlinks
                            by using these group IDs, so define them clearly.

                tag         Name of this file echo area.
                path        Directory where to move incoming files.
                aka         Nodenumber for this area.
                afl         Area flags. See below.
                export      Where to export this area. See flags below.
                desc        Description of this area. Must start with '/'.

                Area flags, you can also use export flags here:

                    V   Visible for all nodes
                    Z   Don't use file_id.diz
                    R   Don't check CRC of incoming file
                    !   Passthrough, don't update descript.ion
                    A   Append info to announce message (temp/tickinfo.txt)

                Export flags:

                    @   Node is unlinked
                    +   Do not send tick to this node, just forward the file
                    <   Accept files from this node, but don't send
                    >   Send files to this node
                    H   Mark files as 'hold' (node must pickup them)
                    C   Mark files as 'crash' (you will poll them)
                    N   Mark files as 'normal'

EXAMPLE
; gr tag    path        aka        afl export        desc
; -- ----- ------------ ---------- --- ------------- -------------------
A BBBS     d:/pub/bbbs/ 2:222/151  AH  >2:222/222 @42 /BBBS and utilities
V LUKKI    d:/pub/txt/  40:765/151 HS  40:765/765      /LukkiVerkko
```

1.13 BOGUS Mail Tosser and BackDoor Mailer

[echomail] Echomail areas are defined here. The setup is divided into
            several different parts on one line. Here is some
            information about the different parts:

            gr   Group ID for echomail area. Any character can be used
                        as a group ID. You can put different areas under
                        different group IDs. If you are a host or hub you
                        give accesses to echomail areas to your downlinks
                        by using these group IDs, so define them clearly.

            areatag   Echomail area areatag. Echomail is distributed between
                        nodes using this area name.
            bbbs name   Conference name in BBBS, write – if
                        it is the same as the areatag name. Conference
                        name with spaces can be enclosed to quotes.
                        Areaname "!" is a passthrough area.
            add akas   List of akas to be added for this area. BOGUS also
                        adds your default aka for this conference.
            flags   S Secure: accept incoming mail only from the
                                  nodes listed in the export list.
                                  Whenever possible, use this flag.
                              V Visible: area is visible (areafix) to nodes
                                who don't have access to it.
                              D Don't perform dupe check for this area.
                              – None
            export   Export this conference to theese nodes.
                        You can list only net/node if the node is in the
                        same zone than the last one, or only node if
                        net:zone is the same.
                        Write > in front of node for export only
                        Write < in front of node for import only

EXAMPLE:
; gr areatag   bbbs name   add akas   flags export
; -- -------------- -------------------- ----------- ----- --------------
B BBBS.ENGLISH   –   –   S   47:1000/101
G GENERAL   "MAIN BOARD"   40:765/151 S   40:765/765 49
P TESTAREA   !   –   S   40:765/765 49

[nodes]   Node setup.

            node   The FidoNet address of remote node
            spass   Mail session password used with BackDoor. If
                        you want run secure system, you must specify both
                        mail session password and packet password for all
                        nodes.
            apass   BRoboCop requests from this node must have this
                        password in the subject of the message.
            ppass   Password to be stored with outbound packets
                        for this node. This will also be required for
                        incoming packets from this node to ensure that
                        packets are really from this node.

```
              tpass       TICK password.
              gr          Groups of echomail areas available to this node
                          for reading and writing. Group listed after '!'
                          character (including group '!') can only be
                          connected, not disconnected.
              st          Spesifies the flags for this node and status
                          for outbound mailfiles.
                                  Crash
                                  Hold
                                  - normal
                                  ! don't route netmails directly
                                  B don't use HYDRA protocol

              pa          Spesifies the type of packer to be used  for
                          packing mail packets for this node. Numbers are:
                                  1 arc  4 arj
                                  2 zip  5 zoo
                                  3 lzh  6 hpk
                          More packers can be defined in packer section of
                          external.bbb.
              route       Routings for this node. By default BOGUS
                          routes all netmail to this node directly to it,
                          here you can specify more. Addresses can be
                          "zone:/*" (all in that zone), "zone:net/*" (all
                          in that net) or "zone:net/node(.point)". You can
                          also  use "*zone:net/node", when BOGUS will scan
                          your nodelists for all downlinks of this hub and
                          route their mails too via this node.

EXAMPLE:
; node         spass    apass    ppass    tpass gr  st pa route
; ---------    -------  -------  -------  ----- --- -- -- ------------------
2:222/151      session  foopass  pktpass  tick  B   C  3  *2:222/151
47:1000/101    privat   passw    -        fub   BCD H  3  47:* 27:47/* 2:20/0
2:222/222      sesonly  -        -        -     -   !  3
2:222/0        boot     boot     boot     boot  BD  !  3
2:222/70       boot     boot     boot     boot  C   -  3   1:* 2:* 3:* 4:* 5:* 6:*
2:222/71       boot     -        boot     -     -   !  3
2:222/72       boot     -        boot     -     -   !  3
```

1.14 Meta strings

Following meta-strings are available when configuring packers and
protocols. They are replaced with corresponding string or number.

```
        %e      Character 27, ESC, ^[.
        %r      Character 13, CR, ^M.
        %%      Character 37, '%'.
        %p      Packet name to (un)pack.
        %f      File to be send/received or file to (un)packed into/from
                 packet.
        %F      Filename (%f), but "*.*" will be converted to "*".
        %d      Filename (%f) without dir.
        %D      Filename (%d), but "*.*" will be converted to "*".
        %c      The value of 'COMSPEC' environment variable.
```

```
        %n      The value of 'cfg.newdir' (internal) variable.
        %o      Comport number.
        %b      Comport baseaddr (hex).
        %i      Comport IRQ.
        %a      Comport handle (OS/2 version only).
        %s      Comport real baud.
        %l      Comport baud (line speed).
        %h"text"
                If  RTS/CTS handshake is enabled, text 'text', otherwise
                nothing.
```

1.15   ALIAS.BBB File

```
The ALIAS.BBB file has three purposes. First, you can create short
aliases for usernames and their home FidoNet addresses, second, you can
create mailinglists for sending messages to and third, you can create
alternative recievers for comments to sysop.

alias names
        An alias name line has this syntax:
        alias:fidonet_number, user_name
mailinglists
        A mailinglist line has this syntax (in same line):
        alias:fidonet_number1, user_name1,
            fidonet_number2, user_name2,
            fidonet_number3, user_name3
            ...
comment recievers
        comment recievers can be two thing; other users or just showing
        a file to the user. Syntax is COM_x where x is a option letter
        to choose from. See also the file precom for where to list
        options:
        COM_x:user_name
        COM_x:mailing_list
        COM_x:<path and filename of file to show

        (x is a letter/number of your choice.)

EXAMPLES:
        --- cut ---
        B: 2:222/151, Kim Heino
        Z: 2:222/151, Tapani Salmi
        BZ: 2:222/151, Kim Heino, 2:222/151, Tapani Salmi
        COM_B:Kim Heino
        COM_Z:bz
        COM_F:<c:/bbs/menus/access
        --- cut ---
```

1.16   Directories and files in BBBS

```
                Here you will find information about all the different directories ←
                    and
```

files that BBBS creates and uses.

            Directories:

                    Directories
                            Files:

                /BBS dir

                /BBS/MAIN dir

                /BBS/MENUS dir
                        A star (*) after the filename indicates that you may or ↩
                            should
        edit this file before you opens your system to the public.

1.17 Directories

The names of the directories may be changed, but it's recommended to
have them as is, it will make it easier to refer to them in case of
difficulty.

        MAIN   The main directory where messages and logfiles are
                 stored.

        MENUS   All the menus for BBBS are kept here. The menus can be
                 changed to look like whatever you want to.

        FILES   Uploads will appear in this directory.

        TEMP   This is where all temporary files are stored. RAMdisk is
                 recommended. All the files here are created by BBBS.

The following directories are specific to each node and must be empty!

        MSG1   Hippo/QWK/OMEN reply directory.
        GRAB1   ASCII/Hippo/QWK/OMEN grab directory.
        UP1   Temporary upload directory.
        HOLD1   Hold directory.

1.18 /BBS dir

alias.bbb   *   You can specify alias names for users here.
areatoss.1   Areatoss infofile for node one, created by BBBS after
                  user logs off. If he/she wrote messages to FidoNet
                  areas, the number(s) of the conference(s) will be
                  written into this file. For node two it has extension 2.
bbbs.001   Library file.
bbbs.002   Library file.
bbbs.exe   The main program.

```
bbbs.key          Your personal registration key.
bbbs.telnetd.exe Telnet daemon for login into BBBS/2 through TCP/IP
                  network. IBM TCP/IP 2.0+, Warp IAK or Warp Connect is also
                  needeed for this.
bbbscfg4.000      General configuration, used by all nodes (global).
bbbscfg4.001      Configuration file for node one (local in BCFG4).
bzc.exe           Script file compiler.
bcfg4.exe         Configuration program.
bbbsdef.h         If you want to do some programming for BBBS you can look
                  here for variables and record declarations.
bbbsrun.1         Flagfile for node one, BBBS is now running on that node.
bbbstxt           Most of the text that BBBS will write to screen are
                  stored here.
bbbstxt1          Language file for language number one.
external.bbb *    External  program  configuration file (packers, transfer
                  protocols). Nodelists are also defined here.
filedirg.000 *    Global filedirs. See BBBSSYS.GUI for more info.
filedirn.001 *    Local filedirs for node 1.
groups       *    Group defination file.
bterm.log         Logfile for BTerm.
bterm.pho    *    Phonebook file for BTerm.
hippo.wht         The  messages that Hippo uses for communicating with the
                  users.
jargon.txt        Optional online hacker's dictionary.
up_scan.bat       Can be used to process files uploaded. BBBS will run this
                  file automatically for all uploads. PC-DOS version.
up_scan.cmd       Same as above, but for OS/2 version.
_mg               MG startup file. See MG.TEX for more information.
*.bz*             See SCRIPT.GUI for specification on the scripts.
```

1.19 /BBS/MAIN dir

```
00000000.dat   Headers for the messages in conference 0.
00000000.txt   Message texts for conference 0.
bbbsdown.dat   Records kept about up/downloaded files. If missing, BBBS
               creates it again.
bbbshi.dat     Hippo messages for the users. Can be deleted.
bbbsset.dat    Aliases and sets created by users. Can be deleted.
bbbsstat.dat   Statistics file. Can be deleted.
bbbsusr.dat    The main userfile. Backup this often!
bbbsusr.idx    Index for bbbsfil.dat. Can be recreated with 'BBBS BPUS'.
btickube.dup   Duplicate file database for BTICK.
confcfg4.dat   Conference setup.
confh2o4.dat   Highwater marks. Can be recreated with logging in to the
               system.
confusr4.dat   User accesses to conferences.
log1           The log that is kept for each node. The name can be
               changed in config.
okfiles        Only files listed in this file may be uploaded.
okuser         Only users listed in this file may register as a new
               user.
nodelist.idx   Nodelist index for, created by BNC.
sysnote        Notes that BBBS writes to the sysop (newusers, changed
               names, uploaded files, etc)
trashcan       Opposite of okuser, users listed in this file may not
```

```
                    register.
trashfil          Opposite of okfiles, files listed in this file may not be
                  uploaded.
```

1.20   /BBS/MENUS dir

The files in /BBS/MENUS directory can be recognized by their extension.

```
        Extension         When user sees this file
        ========================================
        <none>            Language 0, no ANSI, novice
        .1                Language 1, no ANSI, novice
        .GR               Language 0, ANSI, novice
        .GR1              Language 1, ANSI, novice
        .X                Language 0, no ANSI, expert
        .X1               Language 1, no ANSI, expert
        .XG               Language 0, ANSI, expert
        .XG1              Language 1, ANSI, expert
```

```
areainfo.000   * Displayed by 'r ai' command on the conference zero.
bang             Russian roulette bang-file.
bbbshelp         File with the help displayed with 'h'.
birthday         The list of those who celebrating their birthday.
brobo_af         Header for BAllFix replies.
brobo_ff         Header for FileFix (BTICK) message.
brobo_fr         Header for file request replies.
brobo_nf       * Header for NameFix replies.
bull           * The bulletin menu.
bull0          * Welcome-bulletin.
bull1            Bulletin number one.
c019b            Bulletin menu for conference 19.
c019b0           First-join-bulletin for conference 19.
c019b1           Bulletin one for conference 19.
c019j            Always-join-bulletin for conference 19.
charmenu         Menu used for character choice command.
chathelp         The help screen for groupchat.
chatmenu         Menu used for chat command.
confer         * The list of the conferences. Delete it to use
                 BBBS internal comments
doormenu       * Menu used for door command.
edithelp         The help screen showed in the editor.
fil4mens         Menu used for file command, SysOp only.
fil4menu         Menu used for file command.
flaghelp         Help file for file flagging.
formmenu         Menu used for choosing archiving method.
getlost        * This file will be shown to user with "getlost" status.
globmenu         Menu  used  for  global commands, will be shown after the
                 listing of a main, read, file, utility or sysop menu.
hello          * Hello-message for the new user.
helplink         Index file for bbbshelp.
huntmenu         Menu used for search command.
joinhelp         Help file for joining.
langmenu         Menu used for language choice.
lostpass         This file will be shown to user who has lost password.
```

```
mainmens        Menu used for main command, SysOp only.
mainmenu        Menu used for main command.
markmenu        Menu used for mark command.
postlog         The file will shown after the 'g y' command.
postreg         The file will be listed after a user has registered.
prechat       * The file will be shown before reason for SysOp chat is asked.
precom        * The file will be shown before 'comment' command.
precreg       * The file will be shown before closed system password question.
predesc       * Will be shown to user before asking descriptions for files.
predown       * The file will be shown before a user downloads a file.
pregrab       * This file will be shown before the scratchpad is sent to the
                user using the grab command.
prelog        * The file that is listed before the user logs in.
prepreup        The file shown before asking the filename in upload command.
prereg          The file is shown before a user is registered.
preup           The file will be shown prior to an upload.
protmenu        Menu used for protocol choice.
readmens        Menu used for read command, SysOp only.
readmenu        Menu used for read command.
utilmens        Menu used for utility command, SysOp only.
utilmenu        Menu used for utility command.
```

1.21 Local screen

The local screen is the screen on your local monitor when a BBBS ↩
               node is
up and running and waiting for a caller.

```
        KEYS:
        space  Rescan now.
        alt-A  SysOp available. The whotext in BBBS will show a line that
               says that the sysop is available. Same as alt-a in sysop
               keys when users are logged in.
        alt-B  Exit to OS, leave the line busy
        alt-D  Drop to OS
        alt-F  Answer now - Manually answer an incoming call.
        alt-G  FREQ files from remote system
        alt-J
                BTerm
                        alt-L  Local login
        alt-N  SysOp not avialable. Oposite as SysOp available above.
        alt-O
                Outbound Manager
                        alt-P  Poll a node. If the node you want to poll is within ↩
                                the same
               net as you are, you need only to type the last part of
               the nodenumber. I.e. you are 47:1000/101 and want to call
               47:1000/110, you need only to type 101.
        alt-Q  Exit to OS, leave the line open
        alt-S  Send files to remote system
        alt-X  Reset modem
        ctrl-L Refresh screen
```

1.22   BTerm Terminal Emulator

                  BTerm is a small Terminal Emulator that can be accessed from a ↩
                     running
BBBS system through Alt-J. The purpose of this emulator is just to give
SysOps a small utility to call out without having to close down the BBBS
and start another program.

The correct settings for BTerm are:
         - ISO Latin-1 charset
         - VT320 emulation
         - "real" VT100 keyboard

BBBS command: u s iso te vt320 key -yes

AVAILABLE KEYS
         Alt-Q Quit   Alt-H Hangup   Alt-D Download
         Alt-Z Shell   Alt-P Phonebook   Alt-U Upload
         Alt-X Quit BBBS   Alt-L Log   Alt-J Clear screen
         F1   help   Alt-B Send break   Alt-T Backscroll
         Alt-O Play voice   Alt-A Toggle audio   Alt-I Send fax
         Alt-C Charset   Alt-E Elapsed time

SUBTOPICS

            Alt-A
             Toggle audio

            Alt-B
             Send break

            Alt-C
             Charset

            Alt-D
             Download

            Alt-E
             Elapsed time

            Alt-H
             Hangup

            Alt-I
             Send fax

            Alt-J
             Clear screen

            Alt-L
             Log

            Alt-O
             Play voice

            Alt-P

```
                Phonebook

            Alt-Q
             Quit

            Alt-T
             Backscroll

            Alt-U
             Upload

            Alt-X
             Quit BBBS

            Alt-Z
             Shell

            F1
             help
```

1.23 Toggle audio

Alt-A will toggle audio on/off.

1.24 Send Break

Alt-B will cause BTerm to send break to remote system.

1.25 Charset

Alt-C will chage used charset. Default is ISO Latin-1. Possible choises are:

```
        <I>SO Latin-1
        IBM <P>C
        <F>innish
        <N>orwegian
        <U>K
        <M>AC
```

1.26 Download

Alt-D BTerm supports the following protocols for download:

```
        Hydra
        ZModem
        YModem
        ZedZap
```

When you use Hydra you can also upload files at the same time. To add
files after you have started a download session, press alt-c in Hydra
download to enter the chat window. Then type the filename with full
path if the file is not in your pre-defined BTerm directory. Then start
the upload by pressing alt-u.

1.27   Elapsed time

Alt-E will show elapsed time on this call.

1.28   Hangup

Alt-H will cause BTerm to immidiate hang up the line. Don't use this to
log out of systems unless the system hangs!

1.29   Send fax

Alt-I will send a fax file.

1.30   Clear screen

Alt-J will just clear your screen

1.31   Toggle Logfile

Alt-L will toggle the logfile (BTerm.log) on or off. BTerm saves all
codes, including ansi codes to the logfile.

1.32   Send voice

Alt-O will send a voice file over the modem

1.33   Phone book

Alt-P will open the phonebook.

Use arrow keys to move around.

You can select several entries for dialing by pressing space.

If a board has more than one line, you can skip to the next number when
dialing by pressing <space> at the "dialing dialog".

If you press <E> BTerm show you a window allowing editing of the current
board. To add more node's (phonenumbers) to a board just keep on entering
the numbers one by one. Press enter on a empty node-line to return to the
list of boards.

Remember to write phonenumbers in international format!

You can delete entries by pressing del and add new entries with the
ins keys.

Phonebook file is BTerm.PHO and it's format is:

<system name>:<charset>:<phonenumber>:[other number]:[etc.]

BBBS/2 only:

<system name>:<charset>:<domain.name[#port number]|ip address[#port]>:[etc.]

example:

BCG-Box 4:I:358-21-2404036:358-21-2407755
ICON BBS:P:bbs.icon.fi#23

1.34   Quit BTerm

Alt-q will quit your BTerm session and return you to BBBS local login
screen.

1.35   Backscroll

Alt-t will set BTerm in scrollback mode. Use arrow keys to scroll back
and forth. Press <esc> to return to BTerm.

1.36   Upload

BTerm supports the following protocols for upload:

        Ascii
        Hydra
        ZModem
        YModem
        ZedZap

When you use Hydra you can add files after you have started a session.
Press alt-c in Hydra to enter the chat window. Then type the filename
with full path if the file is not in your pre-defined BTerm directory.

Then add the file to outgoing batch by pressing alt-u.

1.37   Exit BTerm and BBBS

Alt-X will exit BTerm AND BBBS in one go.

1.38   Shell to OS

Alt-Z will shell to you OS without dropping the line. Write exit at the
command prompt to return to BTerm.

1.39   This help

F1 will give you this help text. Press Q to quit back to BTerm
or H to get help about help.

1.40   Using BBBS as a SysOp

```
                SysOp Commands:

        Main Menu Commands
          ...   Special commands

        Read Menu Commands
          ...   Message commands

        File Menu Commands
          ...   Filearea maintenance commands

        Util Menu Commands
          ...   Managing group/user settings
```

SEE ALSO:
menudir/bbbshelp

1.41   Main menu

```
                Sysop command in main menu

            blog
             Show logfiles backwords

            bshell
             Shell to OS/2 prompt
```

```
                        bstat
                         Showt B Statistics

                        compu
                         Show free RAM and DISK

                        dell
                         Delete logfiles

                        dos
                         Do OS command

                        ej
                         Eject other nodes

                        hide
                         Hide yourself

                        hippo
                         Send Hippo message

                        log
                         Show logfiles

                        mg
                         Text editor

                        ou
                         Outbound manager

                        reset
                         Reset the periodical statistics

                        shell
                         Shell to OS

                        spy
                         Spy on a user

                        ul
                         User login
```

1.42 Backward Log

```
                COMMAND
           [q] blog
```

```
DESCRIPTION
        Will show you the log in the opposite chronological order.
```

```
SEE ALSO
```

```
                log
```

```
                      dell
```

1.43   B Statistics

```
COMMAND
        [q] bstat
```

```
DESCRIPTION
        Will show you a statistical screen on time usage, number of logins
        and number of messages written.
```

1.44   Show free memory & disk space

```
COMMAND
        [q] compu
```

```
DESCRIPTION
        Shows free memory & available disk space.
```

1.45   Delete log

```
                COMMAND
        [q] dell
```

```
DESCRIPTION
        Deletes the log. If the BBS has several nodes you have to give a
        node number after DELL. The configuration can be made so that
        the log will be the same for all nodes, in that case the node
        number will probably be 1.
```

```
SEE ALSO
```

```
                log
```

```
                blog
```

1.46   Do OS Command

```
COMMAND
        [q] dos
```

```
DESCRIPTION
        Will let you issue a OS command from inside BBBS. If you are
        using BBBS via modem you can redirect the output from the
        command to the serial port like this:
          DOS DIR >COMx
```

1.47   Eject other node

COMMAND
        [q] ej

DESCRIPTION
        EJ allows you to eject user on another node. After EJ you must
        enter the nodenumber you want to eject.

1.48   Hide yourself

COMMAND
        [q] hide

DESCRIPTION
        HIDE will make the W listing show the users that you're logged
        off. You can restore your presence with the chat a command.

1.49   Hippo command

COMMAND
        [q] hippo

DESCRIPTION
        Send hippo message. With this function you can send a node
        message to a spesific user/group X number of times. When the
        user/group logs in he will recieve the hippo message.

1.50   Show logfiles

            COMMAND
        [q] log

DESCRIPTION
        Will list the log in chronological order, oldest login first
        newest last. If the BBS has several nodes you have to give a
        node number after the LOG. The configuration can be made so that
        the log will be the same for all nodes but this will get very
        confusing when trying to list and look at it.

SEE ALSO

                blog

                dell

1.51 Outbound manager

```
        COMMAND
[q]
        ou
```

1.52 Reset the periodical statics

```
COMMAND
        [q] reset

DESCRIPTION
        Will reset the statistics for a new period. This command
        reflects statistics shown in MAIN/STAT command.

SEE ALSO
        main/stat
```

1.53 Shell to OS

```
            COMMAND
[q] shell

DESCRIPTION
        SHELL will take you to a OS shell by running SHELLx -script
        (extension for the script will vary depending your OS).

SEE ALSO
        [q]
                bshell
                        [q]
                dos
```

1.54 OS/2 prompt

```
            COMMAND
[q] bshell

DESCRIPTION
        BSHELL will let you into OS/2 prompt from BBBS/2. BShell is done
        with BBBS/2's internal redirection routines.

SEE ALSO
        [q]
                dos
                        [q]
                shell
```

1.55   Text editor

```
COMMAND
        [q] mg [filename]

DESCRIPTION
        You can edit textfiles like external.bbb with MG text editor.
```

1.56   Spy on a user

```
COMMAND
        [q] spy

DESCRIPTION
        Lets you see what commands a user is issuing. The commands will
        be echoed to you as node messages.

SWITCHES
        -d  End spy-mode
```

1.57   User login

```
COMMAND
        [q] ul

DESCRIPTION
        Lets you enter the BBS without entering password. Use this
        command to enter BBS with some other users name.
```

1.58   Read menu

```
                    Sysop command in read menu

            fix
             Fix Resume links

            fm
             Mark as sent on fido type area

            unfm
             Mark as unsent on fido type area

            user
             User Editor

            zap
             Zap names
```

1.59   Fix resume links

COMMAND
        [r] fix

DESCRIPTION
        Used for fixing the links between user numbers and the messages
        in your user resume conference. Don't use it if you don't have
        problems with the user resume links since it takes some time to
        complete.

1.60   Mark as sent

                COMMAND
        [r] fm

DESCRIPTION
        FM will mark all the messages in the current conference sent. Ie
        it will tell BOGUS or BMSG not to send the current messages
        forward. This has no effect if the BBS is not 'connected' to any
        message network. It is usually used if you 'connect' to a
        network and include one of the conferences in the network, then
        you would want to mark all prior messages not to be forwarded.

SEE ALSO
        [r]
                unfm

1.61   Mark as unsent

                COMMAND
        [r] unfm

DESCRIPTION
        UNFM will mark all the messages in the current conference new.
        Ie it will tell BOGUS or BMSG to send the current messages
        forward. This has no effect if the BBS is not 'connected' to any
        message network. It is usually used if you want to resend
        messages in fido type area.

SEE ALSO
        [r]
                fm

1.62   User editor

COMMAND
        [r] user

DESCRIPTION
        Will take you to the util menu and automaticly find the user-
        record of the author of the message you just read.

1.63   Zap names

COMMAND
        [r] zap

DESCRIPTION
        Will give you the possibility to change the header of the message
        you just read. You can change the FROM, TO and SUBJECT fields.

1.64   File menu

                        Sysop command in file menu

                des
                 Describe a file

                free
                 Make files free

                in
                 Install a file (hard)

                lin
                 Install a file (soft)

                tou
                 Touch a file

                unfree
                 Unfree free files

1.65   Describe a file

COMMAND
        [f] describe

DESCRIPTION
        Is used to enter the description for files. You must have write
        access to the directory to use this command.

1.66   Free a file

```
            COMMAND
     [f] free
```

DESCRIPTION
     FREE will make a file public, free to download. The user must
     not have download rights to download a file FREEd file. You must
     have SysOp access for this command.

SEE ALSO

             unfree

1.67   Install files (hard)

```
            COMMAND
     [f] install
```

DESCRIPTION
     Install a file into BBBS (hard). This command will physically copy
     the file to your destination. You must have SysOp access for
     this.

SEE ALSO

             lin

1.68   Install files (soft)

```
            COMMAND
     [f] linstall
```

DESCRIPTION
     Install a file into BBBS (soft). This command will not physically
     copy the file, but just creates a link to the physical path in
     your destinations descript.ion file. Requires SysOp access.

SEE ALSO

             in

1.69   Touch files

COMMAND
     [f] touch

DESCRIPTION
     Will touch the file with todays date, ie. sets the file's date
     to today. You must have write access to the directory.

1.70   Unfree a file

```
          COMMAND
      [f] unfree
```

DESCRIPTION
       UNFREE will remove the FREE flag from a file FREEd earlier. You
       must have SysOp access for this command.

SEE ALSO

             free

1.71   File menu

```
              Sysop command in util menu
```

         aad
          Account add

         aas
          Account assing

         ac
          Account change

         am
          Account members

         av
          Account view

         ba
          Banktime

         facc
          File Access

         find
          Find a user/group by name

         +
          Next user

         –
          Previous user

         inv
          Invite a user/group to conference

         kill
          Kill user

         limit

```
                    Limits

            sys
             SysOp Access

            sta
             Status change

            tli
             Timelimit

            uninv
             Un-invite user/group

            wotu
             WandOfTurnUndead
```

1.72 Account add

```
COMMAND
        [u] aad

DESCRIPTION
        Adds money to selected user's account.
```

1.73 Account assing

```
COMMAND
        [u] aas

DESCRIPTION
        Assing user to account. Gives user access to account. Account
        can be new or existing.
```

1.74 Account change

```
COMMAND
        [u] ac

DESCRIPTION
        Changes account state of selected user. Account can be with or
        without credit.
```

1.75 Account members

COMMAND
        [u] am

DESCRIPTION
        Shows members of account.

1.76   Account view

COMMAND
        [u] av

DESCRIPTION
        View account.

1.77   Bank Time for user

COMMAND
        [u] ba

DESCRIPTION
        With this you can change the amount of time a user has stored
        in his timebank.

1.78   User File access change

COMMAND
        [u] facc

DESCRIPTION
        lets you change the users fileaccess rights. First use the find
        These are the different access types:
           0 - for no access at all
           1 - for download only
           2 - for upload only
           3 - for both up and down
        The file access will be change globally for the user.

1.79   Find user or group by name

COMMAND
        [u] find

DESCRIPTION
        FIND will search the user database and the groups file for any match
        of the expression you enter. This is used to change and review users
        settings. Entering a group name here will list all users that are
        a member of the specified group.

```
        If the result you get on the screen  is only on line and  written in
        green color, the search did not come up with any match. If the color
        is cyan, BBBS has set it's record pointer at that user.
```

SEE ALSO
```
        [u] wotu
```


1.80   WandOfTurnUndead

```
                COMMAND
        [u] wotu
```

DESCRIPTION
```
        WOTU works like
                FIND
                 but looks
                killed
                 users from
        userbase.
```


1.81   Next user

COMMAND
```
        [u] +
```

DESCRIPTION
```
        set pointer to the next user. (accending by usernumber.)
```


1.82   Previous user

COMMAND
```
        [u] +
```

DESCRIPTION
```
        set pointer to the previous user. (decending by usernumber.)
```


1.83   Invite a user to conference

COMMAND
```
        [u] inv
```

DESCRIPTION
```
        Invites a user or a group to the current conference, if he has the
        sufficient  access  rights,  if he hasn't  you can change  them by
        editing the GROUPS file.
```

1.84   Kill user

COMMAND
        [u] kill

DESCRIPTION
        KILL will delete the user name from the BBBS. New user can use the
        name again to log in. If you don't want that name to log in ever
        again, add the name to your trashfile.

1.85   Limits for users

COMMAND
        [u] limit

DESCRIPTION
        Put a user or a group in a limit class. See bcfg4.gui for further
        information about limits.

1.86   Sysop Access

COMMAND
        [u] sys

DESCRIPTION
        Change the SysOp level for the current user. SysOp's access is
        a bitfield integer. You can use values from 0 to 255, as
        following:

            1: Can shell to OS and execute OS commands
            2: Full access to all conferences
            4: Full access to all files
            8: May read private messages from all conferences
           16: May change passwords
           32: May edit user's status (kill, status)

        To give a certain access just add the numbers. For example, if
        you want a user to have access to all conferences and private
        messages, the value is 10 (2+8).

1.87   Status Change for user

COMMAND
        [u] sta

DESCRIPTION
        Change current users status. Available statuses are:

          Active: normal status

```
            Booted:  user can not log in
            Killed:  user is killed
```

1.88   Time Limit for user

COMMAND
        [u] tli

DESCRIPTION
        Changes the maximum amount of time the user may using during one day.

1.89   Un-invite

              COMMAND
        [u] uninv

DESCRIPTION
        Will resign the user or group from the current conference, but his
        rights will be unchanged, i.e. the user will be able to join the
        conference again.

SEE ALSO

              inv

1.90   Outbound manager

              DESCRIPTION
        With outbound manager you can manage your outbound mail.

        When you enter into your outbound manager window, you will get
        list of our outbound mail. List format is following:

```
Nodenumber         Age Flags     Bad Busy ArcMail Files
------------------ --- --------- --- ---- ------- -------
2:222/222.0          0 IC RFDE     0    0    45kB  1994kB
2:220/666.0          0  H FDE      0   12     3kB    10kB
```

        Age tells you how old is oldest outgoin netmail Ie how long time
        ago did that node poll you.

        Flags are:

        Immidiate
        Crash
        Hold
        File Request
        File attach
        Direct
        Erase file when sent

```
        Bad tells you number of many unsuccessfull mailsessions there
        is. You can limit number of these from BCFG4.

        Busy tells you number of busy calls. Busycalls area cleared
        every night.

        ArcMail tells you amount of outbound ArcMail.

        Files tells you amount of outbound Files.
```

SUBTOPICS

```
            b
             Change number of busy polls for node

            ba
             Change number of bad polls for node

            c
             Create message for node

            ch
             Change message number/all messages for node

            cl
             Clear tickdir and attach messages

            d
             Delete message

            l
             List messages (for node)

            q
             Quit back to main menu
```

1.91   Change number of busy polls for node

```
            DESCRIPTION
        With B command you can change number off busy polls for node.

        Following command will set busypolls for node 2:222/222 into 10.

        b 2:222/222 10
```

SEE ALSO

```
            ba
```

1.92   Change number of bad polls for node

                    DESCRIPTION
        BA command is used to clear/set bad polls. With BA command you
        can clear bad polls which prevents polls to node. You can of
        course prevent polls to a node with it!

SEE ALSO

                b

1.93 Create message for node

                    DESCRIPTION
        With C you can create a message for a node.

SYNTAX
        c [node#] +Immediate +Crash +Hold +Request +File +Direct +Erase
        +Trunc +Lock Subject_of_the_message

SEE ALSO

                ch

                d

1.94 Change message number/all messages for node

                    DESCRIPTION
        With CH command you can change flags and subject of a message,
        or flags of all messages for node.

SYNTAX
        ch [message#|node#] {New_to_Node#} {+|-}Immediate {+|-}Crash
        {+|-}Hold {+|-}Request {+|-}File {+|-}Direct {+|-}Erase
        {+|-}Trunc {+|-}Lock {New_Subject}

EXAMPLE

        ch 2:222/151 2:222/222 +c +i

        Will redirect messages to 2:222/151 via 2:222/222 and add Crash
        and Immidiate flags.

SEE ALSO

                c

                d

1.95 Clear tickdir and attach messages

        DESCRIPTION
    CL will clear tickdir and maildir. All tickfiles without attach
    messages and attach messages without attach files are delted.

SEE ALSO

        d

1.96   Delete message

        DESCRIPTION
    D command is used for erasing messages. Syntax is:

SYNTAX
    D [message#]

SEE ALSO

        l

1.97   List messages (for node)

        DESCRIPTION
    With L command you can list messages for all your links or
    specified node.

SYNTAX
    L {node#}

EXAMPLE

(17:22) outb:/NEWS> l 2:222/222

```
Nodenumber          Age Flags     Bad Busy ArcMail Files
------------------ --- --------- --- ---- ------- -------
2:222/222.0          0  C  FDE     0   25    3kB    10kB


Number Age Flags     Type Size   Subject
------ --- --------- ---- ------ -------------------------------
9161    0     FDE    ArcM   3kB c:\bbs\outbound\85100805.su1
9165    0     FD     File   9kB c:\pub\os2\info\foo.bar
9166    0     FDE    File   1kB c:\bbs\ticks\bb18b190.tic
9184    0  C         Mail   0kB FOO BAR!
```

(17:23) outb:/NEWS>

SEE ALSO

        ch

        d

1.98   Quit back to main menu

```
DESCRIPTION
        Q will quit back to main menu from Outbound Manager
```

1.99   Operational System

```
BBBS should work on all IBM PC compatible computers running IBM DOS v3.1
(or compatible) or IBM OS/2 v2+. BBBS for DOS can be run under DESQview
or other similar multitasking environment, but not under Microsoft
Windows or Microsoft Windows NT. BBBS/D requires about 350kB of free
memory. It can use your EMS/XMS memory for swapping in DOS shells (where
it uses only 3.5kB of your conventional memory). You may not load any
memory resident (TSR) programs when you are in DOS shell. You can run
BBBS on Local Area Networks, except on Microsoft Windows for Workgroups.
Using a disk caching program (not SmartDrive) will speed things up
dramatically. Optionally FOSSIL communications driver (revision level 5
or higher) can be used with BBBS/D, but is not required.
```

```
You can use following settings in DESQview with BBBS/D:

Memory Size (in K)................: 350
Writes text directly to screen....: [Y]
Displays graphics information.....: [N]
Virtualize text/graphics (Y,N,T)..: [T]
Maximum Program Memory Size (in K): 640
Maximum EMS/XMS/VCPI/DPMI (in K)..:
Uses its own colors...............: [Y]
Runs in background (Y,N,blank)....: [Y]
Uses math coprocessor.............: [N]
```

```
On multinode systems it is highly recommended to use OS/2, not DESQview,
even with BBBS/D. The DOS-version of BBBS automatically detects OS/2 and
DESQview, but some advanced timesliding options are only available under
OS/2 (in dosbox with BBBS/D or native BBBS/2). Using HPFS instead of FAT
speeds things up a lot, especially filescan and BMSG. With BBBS/D in
dosbox you should use VX00 (look for a package called SIO*) or other
similar OS/2 FOSSIL driver. If you are running BBBS/D in VDM, run remote
nodes on full screen session, not in WPS window. With BBBS/2 there is no
difference. BBBS/2 does work with FAT, but your file areas should be in
HPFS partition.
```

1.100   Communication Setup

```
                    BBBS setup:

                DOS environment communication
```

OS/2 communication environment

1.101 Communciation setup, BBBS/D

BBBS supports all standard FOSSIL driver (revision level 5 or ←↩
higher).
However, if you don't want to use the FOSSIL driver, BBBS offers you
reliable internal communication routines. On the startup BBBS will
automatically detect whether or not you are using a FOSSIL driver and
will use the correct routines. Using FOSSIL driver is recommended,
though. Remember to load FOSSIL before DESQview.

If you are having some problems with the automatic FOSSIL detection you
can force FOSSIL usage by putting "FOSSIL" into your BBBS environment
variable. If you want to use internal routines even if the FOSSIL driver
is loaded you can put "BCOM" into your BBBS environment variable.

Usually when loading the FOSSIL driver you can set up receive and
transmit buffer sizes. Using 4kB buffers will give you good performance
and will speed up your system. It will also give you more reliable file
transfer with some internal and external protocols. Of course bigger
buffers will allocate more memory so if you are very tight on memory you
can use smaller transmit and receive buffers, like 512 bytes (usually
FOSSIL driver's default settings).

See your FOSSIL user's guide for more information.

See Also:
            Environment Variables

1.102 Communciation setup, BBBS/2

You can start BBBS/2 with command line "BBBS comport \{node} \{ ←↩
device}
\{*} \{handle}", where device is the comport device name and handle is a
filehandle number to already opened comport. You should specify device
only if you use some special hardware, like DigiBoard. You must specify
device if you want to specify handle, which is used with mailers and
other such program. The asterisk must be used if you want BBBS to act as
a named pipe client (default is server). To do named pipes, comport
device must be a valid named pipe name, for example "\PIPE\BBBSpipe".

If you want to use BBBS/2 with COM5 device, you should start it:

bbbs.exe 1 5 COM5

SEE ALSO

            Environment Variables

            BBBS/2 in TCP/IP network

```
                  BBBS/2 with ISDN CAPI
```

1.103 BBBS/2 TCP/IP support

```
By starting BBBS with additional "TCPIP" device, you can "dial" out
with standard telnet protocol (OS/2).

Starting Telnet poller node:

bbbs.exe 1 5 TCPIP          // port is ignored

Setup for TCPIP dialling:

Modem init string:               ATZ|
Dial string:                     ATD
Slow protocols in EMSI session: Yes

You can try this from BTerm with:

atdbbs.icon.fi#23          // port 23 (=default)
atd193.210.17.24           // no name server, default port

Nodelist format for telnet poller should be:

,1000,ICON,Helsinki,Kari_Tiihonen,bbs.icon.fi#666,300,CM,U,DN
,1000,ICON,Helsinki,Kari_Tiihonen,193.210.17.24#666,300,U,IP
,1000,ICON,Helsinki,Kari_Tiihonen,193.210.17.24,300,CM,U,TEL

Two first examples are same. Last example uses default telnet port, 23.

You can use BBBS.TELNETD.EXE for incoming Telnet communication. Both
user login and polls are supported. Polling needs enabled BackDoor. It's
parameters are:

bbbs.telnetd.exe <min_node> <max_node> <socket_number> [priority_class]

bbbs.telnetd.exe will spawn into dotbbbs.cmd (in currect directory) and
will start BBBS node for caller. Node numbers from telnet daemon command
line are used. Telnet daemon configured nodes should have:

bcfg4://local/general/FD's DOBBS.BAT: telnet

Priority value you should type in can be calculated as following:

value = class * 64 + delta + 32,

where delta is a number between -31 .. 31 and class is one the
followings:

0 = IDLETIME
1 = REGULAR
2 = TIMECRITICAL
3 = FOREGROUNDSERVER

EXAMPLES:
```

```
bbbs.telnetd.exe 5 7 23 224   // nodes 5, 6 and 7 are used. Telnet port
                              // 23 (standard telnet port) is used,
                              // daemon is running with
                              // Foregroundserver,0 priority.


Sample dotbbbs.cmd:

----- cut -----
c:
cd \bbs
bbbs.exe %1 %2 %3 %4 %5 %6 %7
----- cut -----
```

1.104   BBBS/2 ISDN CAPI support

By starting BBBS with additional "ISDN" device, you can dial out and
have incoming calls with ISDN equipment supporting 32bit CAPI 1.1 under
OS/2.

Starting ISDN node:

```
bbbs.exe 1 5 ISDN         // port is adapter number, 1 is the first (#0)
```

Setup for ISDN dialling:

```
Modem init string:              ATZ|
Dial string:                    ATD
Answer string:                  ATA|
```

1.105   BBBS/D vs. BBBS/2

              To make things simple: BBBS/2 is better than BBBS/D. BBBS/2 is ←
                 much more
friendlier to multitasking than BBBS/D (PC-DOS is _not_ a multitasking
environment, or never will be).

Keep the following things in mind:

– BBBS/2 works in FAT-drive, but it is recommended to use HPFS.

– Unsetting DELDIR-environment makes BBBS to run faster (especially when
  using BBBS BMSG).

Following features are already known:

– If you run BBBS under CMD.EXE (not 4OS2 or start or icon or...) you
  must give full name when starting it! Ie. "C:\BBS> C:\BBS\BBBS.EXE"
  This is a feature of CMD.EXE.

See Also:
                 Communication Setup

```
                    Operational System

                    EXTERNAL.BBB File
```

1.106 Environment Variables

You can set BBBS-environment variable from DOS. Available values are:

```
BBBS=
  FOSSIL        Always use FOSSIL (BBBS/D only)
  BCOM          Use internal async routines (BBBS/D only)
  DEBUG         Gives you some statistics and other stuff.
TZ=             TimeZone. Use this to set correct timezone where you are.
  GMT[+|-]{n}
  EET-2         Eastern Europian Time
  EET-2DST      Eastern Europian Time with Daylight Saving Time
  CET           Central Europian Time
TZUTC=          Difference of your local time and GMT (UTC) time.
  [+|-]diff
  +0200         Add two hours to GMT to get EET


EXAMPLES:

C:/BBS> SET BBBS=BCOM,DEBUG
C:/BBS> SET TZ=EET-2           Set TimeZone for Finland
C:/BBS> SET TZ=CET-1DST        Set TimeZone for Norway
```

1.107 Parameters

```
                  Parameters:

            X [node]
            Start BBBS node for COMx (0=local)

            BCONF
            Show conference status

            BDATE
            Update birthday list

            BFILEIDX
            Make index file for filedirs

            BFILSORT
            Sort filedirs

            BHATCH
            Send TICK file

            BLINKFIX
```

```
                    Update link's datestamps

                    BLIST
                    Make ASCII-version of filelist

                    BMSG
                    Import/export FidoNet mail

                    BMT
                    Message track

                    BNC
                    Compile nodelist(s)

                    BNDIFF
                    Update NODELIST from NODEDIFF

                    BNEWF
                    Make ASCII-version of new files

                    BNMSG
                    BNMSG     Send node message

                    BOGUS
                    Import/export FidoNet mail

                    BOK
                    Make OKFILE.TXT for FrontDoor

                    BOM
                    Outbound Manager

                    BPC
                    Pack conference

                    BPUS
                    Pack users

                    BSETPACK
                    Pack set file

                    BSTAT
                    Show statistics list

                    BTICK
                    Process incoming TICK files

                    BTXT2BBS
                    Convert text file to message

                    BUUCP
                    Import UUCP mail
```

1.108   X [node]

BBBS X [node] will run BBBS and use comport X. To run a local node use
'0' for the comport. Node is the nodenumber you wish to run, default is
node 1.

In OS/2 version you can add three more parameters. Third parameter is
the comport device name, usually COM2 or such. Fourth optional parameter
must be "*" if you want BBBS to work as a named pipe client (default is
server). To do named pipes, comport device must be a valid named pipe
name, for example "\PIPE\BBBSpipe". Last parameter is the comport handle
to already opened port (use only with front ends!).

1.109 BCONF

This command generates short report about all of your conferences. It
will produce an output something like follows:

```
    A#  | Name                 | First | Last  | kB     | MIFPN
    ----+----------------------+-------+-------+-------+------
    0000 | News                | 1     | 9     | 3      | MI
    0001 | Flame               | 19    | 138   | 36     |  I
    0002 | NetMail             | 32    | 139   | 43     | MIFP


    A#      is the area number
    Name    is the area name
    First   is the number of the first message
    Last    is the number of the last message
    kB      reports how many kilobytes of messages there are

    In MIFPN the letters mean as follows:
    M    Must be a member of this conference
    I    Invited to area with first login
    F    The area is a FidoNet area
    P    The area is for private messages
    N    No-reply area
```

1.110 BDATE

Updates "Happy Birthday" file in your global menu directory. Run this
command every day.

1.111 BFILEIDX

This command creates an index file of all your file directories based
up on your filedirg.xxx files. Using BFILEIDX will increase the speed
on file searching. Run this command every day.

1.112 BFILSORT

This command sorts the file entries in your descript.ion files.

1.113 BHATCH

You can use this command to hatch new file to TICK file echo. You should
write full pathname to the file, areaname and optionally a description
for the file. Remember that some old systems are limited to small
descriptions.

If no description given, BHATCH tries to read it from your file area.

See sysop.gui for more information about TICK.

1.114 BLINKFIX

Updates filelinks' dates to match real file's date. You should run this
command every day if you are using links.

1.115 BLIST

                     Makes an ascii list of all the files in your BBS. The file will be ←
                  in
the same format than seen with 'F S *' command. Requires the name of the
output file as a parameter. Second, optional parameter is group, which
defaults to all. With this parameter, you can make different filelists
for different groups, etc. Third parameter is starting directory.
Default starting directory is /.

EXAMPLES:

bbbs.exe blist e:/pub/fubba.lst fubba /fubba/

SEE ALSO

                  BNEWF

1.116 BMSG

Converts messages from BBBS to FTSC-001 (*.msg) format and vice versa.
Used with FidoNet. There are three options:

BBBS BMSG R

        Collects all the new messages from BBBS to be send to other
        systems.

```
BBBS BMSG W
```

> Write *.MSG format messages back to BBBS.

```
BBBS BMSG F [filename]
```

> Almost the same than R, but does not check all of the
> conferences, just areas numbered in filename. BBBS automatically
> generates areatoss.[nodenumber] files for this usage.

1.117 BNC

Compiles nodelist(s) defined external.bbb to be used with BBBS. If no
parameter given, it does not compile nodelist if index is already up to
date.

1.118 BMT

BMT will scan your netmail directory for messages with unlisted
destination address. It also logs sender, receiver and subject.

1.119 BNDIFF

Updates nodelist file using nodediff file. Both files have to be in
unpacked format in the directory you specify. No files will be deleted.

1.120 BNEWF

> Like
> BLIST
> , but takes only files dated in last two weeks.

1.121 BNMSG from to message

Sends nodemessage to BBBS.

1.122 BOGUS Fidonet mail processor

BOGUS is BBBS's internal Fidonet mail processor. Because BOGUS has ←
a
direct support for BBBS message base, it works faster with BBBS than
most other mail processors.

BOGUS configuration is in external.bbb, section names are [echomail] and
[netmail]. BOGUS (OS cmd: 'BBBS BOGUS') has three different parameters to
run with:

BBBS BOGUS R   scan/pack, BOGUS scans BBBS message base for mail
                        to export.

BBBS BOGUS W   toss/pack, BOGUS tosses incoming mail packets found
                        from your FidoNet inbound directory, forwards mail to
                        your downlinks and imports mail to BBBS message base.

BBBS BOGUS F [filename] scan/pack areas found in areatoss file.
                        See
            BMSG F
             for more information about
                        areatoss files.

If BBBS reports BOGUS ALLREADY RUNNING when you try to execute BOGUS, check
first that you really aren't running BOGUS in another window, and if you
don't, delete the file BOGUS.RUN from your temp directory.

1.123   BOK

BBBS BOK makes a list of the files for FrontDoor.

Usage is "BBBS BOK FD_path", where FD_path is directory where your
FrontDoor is installed. The users may then make a file request directly
to FD using another FD or similar program. To install files to FD you
have to configure it in FDSETUP in section Mailer – Miscellaneous – File
Requests menu.

Two files will be created, reqlist.txt (directories) and okfile.txt
(links).

```
   File    Global   Mailer    Editor   Terminal   Modem    Pri
==================+==================+====================
##################| Miscellaneous    |####################
+============================================================
|
| Mode      Anyone can request
| List      C:\FD\REQLIST.TXT
| SecList
| Alias     C:\FD\OKFILE.TXT
| SecAlias
```

If you are not using FD, you should not bother.

1.124 BPC

BBBS BPC packs message conference(s). There are four different syntaxes for this command:

BBBS BPC A areaname min# max#

> Deletes messages in a way that there will be at least min# messages available but not more than max#.

BBBS BPC B

> Like A, but reads min and max from the conference config file. Packs all the conferences.

BBBS BPC S areaname num#

> Deletes all the messages below number num#.

BBBS BPC R areaname

> Renumber messages in the message area to start from number 1.

WARNING! Do not run this command where there is another BBBS node
         running!

1.125 BPUS

Cleans your userfile by removing killed users.

1.126 BSETPACK

Packs set-file. You should run this command every day!

1.127 BSTAT

Generates general usage of the system for last week.

1.128 BTICK

> Processes incoming TICK files. See
> BTick
> for more information.

1.129 BTXT2BBS

BBBS BTXT2BBS converts textfile to message.

Syntax BBBS BTXT2BBS area txtfile \{/F from_firstname from_lastname}
        \{/T to_firstname to_lastname} \{/S topic}

Area is the name of the conference, txtfile is the name of the file to
be written. Other parameters are optional, defaults are from SysOp to
all with subject filename.

1.130 BUUCP

Converts UUCP-files produced by pgnews (modified by Kim Heino) to
FTSC-001 format.

1.131 Errorlevels

BBBS returns following errorlevels:

```
00      No error
01      main(): BBBSCFG not found
02      Bogo Meditation
03      seek4user(): Out of memory
04      gettxt(): BBBSTXT not found
05      gettxt(): Out of memory
06      gettxt(): Old version
07      No command line parameters
10      btxt2bbs(): Invalid command line
11      btxt2bbs(): Invalid command line
12      btxt2bbs(): Invalid command line
13      btxt2bbs(): File not found
14      bpc(): Invalid command line
15      bpc(): Invalid command line
16      bpc(): Invalid number
17      bpc(): No messages
18      bpc(): No packing needed
19      bpc(): Invalid number
20      bpc(): Invalid command line
21      read_water(): Out of memory
22      read_confs(): Out of memory
23      read_lastread(): Out of memory
24      bndiff(): Invalid command line
25      bfilsort(): Out of memory
26      bpus(): Too many users
27      bpus(): No users
28      bndiff(): Nodelist not found
29      bndiff(): Nodediff not found
30      bndiff(): Invalid diff version
31      bndiff(): Short nodediff (A)
32      bndiff(): Short nodelist (C)
33      bndiff(): Short nodelist (D)
```

```
34      bndiff(): Invalid diff command
35      bndiff(): Wrong CRC
36      bnmsg(): Invalid command line
37      bnmsg(): Invalid command line
38      bsetpack(): Out of memory
47      bmsg_write(): Out of memory
48      bmsg(): Invalid command line
49      bmsg(): Invalid command line
50      mainmenu(): Out of memory
51      bmsg_read(): Invalid areatoss file
52      readgroup(): Out of memory
53      file4(): Out of memory
54      ioctl() call fails (SPARC version only)
55      bnc(): Out of memory
56      bhatch(): Invalid command line
57      bhatch(): File not found
58      Invalid operating system
59      Invalid network driver
```

1.132   OS Errors

```
Swap Error      OS-Error        Description
---------------------------------------------------------------------
0               ???             SWAP OK, OS returned errorlevel
1                               Could not shrink OS memory size
2                               Could not save program to XMS/EMS/disk
3               1               Bad OS function number
3               2               File not found
3               5               Access denied
3               8               Insufficient memory to run program
3               10              Invalid environment segment
3               11              Format invalid
```

1.133   Example BATch Files

The first BATch is perfect to one node operation, no FidoNet, only one
event. In this example the event's errorlevel is 100. See also examples
two and three below.

```
@echo off                               // Turn local echo off
cd \bbs                                 // Go to BBS directory
x00 e r=4096 t=4096                     // Load FOSSIL driver
xu port:0:on lock:0:38400:8n1          // Lock port 1 to 38400bps

:loop                                   // Repeat this
bbbs 1 1                                // Load BBBS, comport 1, node 1
if errorlevel 100 goto event            // Got event errorlevel
if errorlevel 0 goto end                // OK, keyboard quit
goto loop                               // Something wrong, try again

:event                                  // Daily Event
bbbs bdate                              // Make birthday files
```

```
bbbs bsetpack                         // Pack setfile
bbbs bpc b                            // Pack message base
bbbs blinkfix                         // Corrects link file's dates
bbbs bfilsort                         // Sort filedirs
bbbs blist allfiles.txt               // Make ASCII filelist
goto loop                             // And start BBBS again


:end                                  // Quit
xu port:0:off                         // FOSSIL off
echo Have a nice day!                 // End of Batch
```

Example two, in this example BBBS is used with BackDoor and BOGUS.

```
@echo off                             // Turn local echo off
:loop                                 // Repeat this
cd \bbs                               // Go to BBS directory
bbbs 2 1                              // Run BBBS for node 1 in comport 2
if errorlevel 255 goto domail         // Got mailcall (bcfg4: mailerror)
if errorlevel 100 goto eventmail      // Got event (bcfg4: events)
if errorlevel 1 goto okcont           // User entered mail (bcfg4: usererror)
goto eof                              // Keyboard quit

:okcont                               // Read new messages from BBBS
bbbs bogus f e:\areatoss.1            // ...by using areatoss file
goto loop                             // And start BBBS again

:domail                               // Import/forward mail from remote
bbbs bogus w                          // ...system just received.
goto loop                             // And start BBBS again

:eventmail                            // Daily event
bbbs bdate                            // Make birthday files
bbbs bsetpack                         // Pack setfile
bbbs bpc b                            // Pack message base
bbbs blinkfix                         // Corrects link file's dates
bbbs bfilsort                         // Sort filedirs
bbbs blist allfiles.txt               // Make ASCII filelist
bbbs bnc                              // Compile BBBS's nodelist index
bbbs bfileidx                         // Create new index for filearea
goto loop                             // And start BBBS again

:eof                                  // Quit
```

Example three, this is more complex with FidoNet. Uses FrontDoor to
answer calls and transfer mail and GEcho to toss and pack messages.
Using example two is preferred.

```
@echo off                             // Turn local echo off
cd \bbs                               // Go to BBS directory
x00 e r=4096 t=4096                   // Load FOSSIL driver
xu port:0:on lock:0:38400:8n1         // Lock port 1 to 38400bps


:loop                                 // Repeat this
```

```
cd \fd                                    // Go to FrontDoor directory
fd                                        // Execute FrontDoor
if errorlevel 60 goto event               // Got daily event
if errorlevel 50 goto human               // Got human call
if errorlevel 40 goto mail                // Got mail call
if errorlevel 10 goto end                 // Keyboard quit
if errorlevel  1 goto loop                // Error in FrontDoor
goto loop                                 // Repeat

:human                                    // Human caller
cd \bbs                                   // Go to BBS directory
bbbs 1 1                                  // Load BBBS, comport 1, node 1
goto loop                                 // Jump back to FrontDoor

:mail                                     // Got some mail
cd \bbs                                   // Go to BBS directory
bbbs bmsg r                               // Read mail from BBBS
gecho scan                                // Scan outgoing mail
gecho toss                                // Toss incoming mail
gecho pack                                // Handle NetMail
bbbs bmsg w                               // Write incoming mail to BBBS
bbbs btick                                // Handle incoming TICK files
goto loop                                 // Jump back to FrontDoor

:event                                    // Daily Event
bbbs bdate                                // Make birthday files
bbbs bsetpack                             // Pack setfile
bbbs bpc b                                // Pack message base
bbbs blinkfix                             // Corrects link file's dates
bbbs bfilsort                             // Sort filedirs
bbbs blist allfiles.txt                   // Make ASCII filelist
bbbs bnc                                  // Compile BBBS's nodelist index
bbbs bok \fd\                             // Make FD's file request files
cd \fd                                    // FrontDoor's directory
fdnc /f                                   // Compile FD's nodelist index
goto loop                                 // And start BBBS again

:end                                      // Quit
xu port:0:off                             // FOSSIL off
echo Have a nice day!                     // End of Batch
```

1.134 Top-17 Errors

1Q: BBBS reports "Directory not found." when I try to enter the file
        areas.
1A: Your "filedirg.000" file is missing root-directory, '/'.

2Q: BBBS does not find subdirectories in the file area.
2A: Write directories in lower case, not upper. Use '/' as directory
        separator, not '\'.

3Q: BBBS does not initialize modem.
3A: Your initialization string misses '|'. Also remember to use it
        in your busy and answer strings.

4Q: BBBS reports mysterious disk errors.
4A: You are using SmartDrive or some other non-working disk utility.
         Please remove them and try again. You should also specify big
         value for files-setting in your config.sys.

5Q: I get "Access denied." when I try to DEScribe or delete a file.
5A: Give yourself a write access to file directories with '@w' flag.
         Remember to edit "groups" file too.

6Q: BBBS reports "Hold not found." every time somebody logs in.
6A: You have not specified correct hold directory in filedirn.???
         file(s). Remember to give all users a write access to the hold.

7Q: BBBS reports swap error when shelling to external program?
7A: You have wrong path in external.bbb file or the filename is
         missing extension.

8Q: What is question 8?
8A: We don't know yet.

9Q: BBBS does not work.
9A: Use a soft, lint-free cloth to clean your hard disk. The
         magnetic dust interferes with high-fidelity applications. Also
         delete your copy of Microsoft Windows.

10Q: When will the next version be available?
10A: Dunno.

11Q: "Download", "MOve" and "COpy" commands does not work in the file
         area.
11A: You have too long description for some file(s) in the current
         directory. Maximum length is about 750 characters.

12Q: When starting BBBS it just returns to OS. It works fine with FD.
12A: You have defined local/general/dobbs.bat in BCFG4. Clear it.
         You should also read help for that option.

13Q: BBBS does not find the phonenumber of system listed in nodelist.
13A: Remember to compile nodelists every day by running BNC.

14Q: Sometimes I see descriptions like "-Q81028001e000001c83acc0" for
         the files in my filearea.
14A: You've been running QPEG with "write descriptions" option on.
         That's a error/problem in QPEG. Turn the option off.

15Q: BackDoor doesn't poll to some system
15A: The system has been busy too many times or there has been too
         many errors while calling it (see: maindir/busypoll.dat and
         maindir/badpoll.dat). You should also check that node is CM or
         you have correct event running and your nodelist index is up to
         date. "Send crashmail" toggle must also be enabled.

16Q: BBBS reports "Can't open the program" when executing it.
16A: You must start BBBS/2 by using command "bbbs.exe", not "bbbs".

17Q: I have noticed that some messages are disappearing faster than
         others. Why is that and who decides?

17A: Its the size of the message. You see, the messages are stored on
         disk. A message is encoded in things known as 'bits' which are
         written on the disk. A disk is a rotating platter. As anyone
         knows centrifugal force will force anything off of a rotating
         surface.

         As time goes on, the message moves closer and closer to the edge
         of the disk, and finally, it flies right off. Of course, the
         larger messages (more bits == more weight) tend to fly off
         faster.

1.135 References

See Also (if you want to know more about):

Byte, March 1991, page 309, Lossless Data Compression, by Steve Apiki
        This article describes Huffman coding and LZW coding.

Davis, Stephen R.: DESQview
        A Guide to Programming the DESQview Multitasking Environment.
        ISBN 1-55851-028-1

fts-0001
        A Basic FidoNet(r) Technical Standard.

fts-0005
        The distribution nodelist.

fts-0006
        YOOHOO and YOOHOO/2U2, The netmail handshake used by Opus-CBCS
        and other intelligent Fidonet mail handling packages.

fts-0009
        Message identification and reply linkage.

fsc-0011
        Some thoughts on fsc-0001.

fsc-0015
        FOSSIL 5.0 Documentation.

fsc-0016
        FidoNet Mail Session Startup.

fsc-0025
        AVATAR Video Spec.

fsc-0028
        A Collection of Notes on Moving Files in FidoNet.

fsc-0037
        AVATAR 0+ Video Spec.

fsc-0039
        A Type-2 Packet Extension Proposal.

```
fsc-0045
        A Proposed Type-2 Packet Extension.


fsc-0048
        A Proposed Type-2 Packet Extension.


fsc-0050
        A Character Set Identifier For FidoNet Message Editors.


fsc-0053
        Specifications for the ^aFLAGS field.


fsc-0054
        A  System-Independent  Way  of  Transferring Special Characters,
        Character Sets and Style Information in FIDO Messages.


fsc-0056
        EMSI/IEMSI Protocol Definitions.


fsc-0068
        A Proposed Replacement For FTS-0004.


fsc-0072
        The HYDRA file transfer protocol.


grep(1) manual page
        Regular expression.


Murphy's Law
        Why BBBS does not work?


National Semiconductor: Data Communications, Local Area Networks, UARTs
        What the heck is this NS16550AFN anyway? Also describes other
        NS's UARTs with great details.


PC Magazine, May 26, 1992, page 361, Lab Notes, by Douglas Boling
        Putting Serial-Port Technology in Perspective, Part 2. This
        article describes serial port communication with normal and FIFO
        UARTs and IBM Type 3 UART.


rfc0822
        Standard for the format of ARPA InterNet text messages.


rfc0854
        Telnet protocol specification


rfc0855
        Telnet option specifications


rfc0856
        Telnet binary transmission


rfc0857
        Telnet echo option


rfc0858
```

```
        Telnet suppress go ahead option
```

rfc0859
```
        Telnet status option
```

rfc0860
```
        Telnet timing mark option
```

rfc0861
```
        Telnet extended options - list option
```

rfc1321
```
        The MD5 Message-Digest Algorithm.
```

rfc1345
```
        Character Mnemonics & Character Sets.
```

rfc1437
```
        The Extension of MIME Content-Types to a New Medium. The matter-
        transport/sentient-life-form MIME type is intended to facilitate
        the wider interoperation of electronic mail messages that
        include entire sentient life forms, such as human beings.
```

rfc1521
```
        MIME (Multipurpose Internet Mail Extensions) Part One:
        Mechanisms for Specifying and Describing the Format of Internet
        Message Bodies.
```

rfc1522
```
        MIME (Multipurpose Internet Mail Extensions) Part Two:
        Message Header Extensions for Non-ASCII Text.
```

rfc1563
```
        The text/enriched MIME Content-type.
```

```
RC96AC and RC144AC Modem Designer's Guide
        All the possible info about modems based on Rockwell chip.
```

```
Tremblay, Sorenson: The Theory and Practice of Compiler Writing
        How to write your own BZC replacement. ISBN 0-07-066616-4
```

```
Your Modem Reference Guide
        How to set up your modem and initialization strings.
```

1.136 Addresses of the Authors

If you after trying about hundred times to get your system running but
don't succeed, you have some improvment suggestions, you have found some
bugs or just have some things to ask about you can contact the authors
by the following means:

```
Kim Heino                               Tapani Salmi
Paavolankatu 3 D 34                     Munterinkatu 12 D 66
FIN-20240  TURKU                        FIN-20360  TURKU
Finland                                 Finland
```

```
InterNet: Kim.Heino@utu.fi
BBS: +358 21 240 4036
     +358 21 240 7755
FidoNet: 2:222/151
```

```
To registeration information see license.txt.
```

```
[A small note from Kim:
 I'm usually logged in to my BBBS, so don't worry if I do not answer to
 your node messages (I am not available for a chat). And sorry to say,
 but sometimes it takes a long time (week or so) to answer to the huge
 amount of mails I receive every day. Patience is a virtue.]
```

1.137   How to use the help system

```
        The help system commands:

        Contents  - Shows the contents (the main help menu)
        Index     - Shows an alpateical index
        Help      - Shows you this help
        Retrace   - Shows the last helpscreen you looked at
        Browse <  - Shows the previous helpscreen in the helpfile
        Browse >  - Shows the next helpscreen in the helpfile
        Quit      - Quits back to BBBS

        When you are in the helpsystem you can move up and down with
        arrow keys. The keys Ctrl-R and Ctrl-C will scroll one page Up
        or Down.

        Often you will see words or sentences that are marked with a
        different background color. These are links to other related
        information. Just press enter when you have selected a link to
        get more information about that subject.
```