

--

The Bits & Bytes Bulletin Board System for OS/2
B&BSYS/2

--

This documentation is for v0.98a

--

All included material is copyright 1991-94 by:

Terje Flaarvning
Boks 455 Sentrum
N-7001 Trondheim
Norway

Voice: +47-94655772
BBS: +47-DOWNNOW

--

Please note, the BITS0001 bulletin should also be read, it may include important changes to the information in this file.

--

INDEX

1 Introduction to B&BSYS(/2)

- 1.1 The history behind B&BSYS
- 1.2 B&BSYS/2 vs. other BBS-systems
- 1.3 First time B&BSYS/2 setup
- 1.9 The people behind B&BSYS/2

2 Configuration of B&BSYS/2

2.1 CONFIGURATION WITH THE U(til) Co(nfig) COMMAND

- 2.1.1 General
- 2.1.2 Path names
- 2.1.3 File protocols
- 2.1.4 Archive programs
- 2.1.5 Nodes (Comms)
- 2.1.6 Timed events
- 2.1.7 Net-links

2.1.8 Areas

2.2 DOOR.BAT

3 Menu by menu in the B&BSYS/2 interface

3.1 GLOBAL MENU FUNCTIONS

3.2 MAIN MENU

3.3 MESSAGE MENU

3.4 FILE MENU

3.5 BULLETIN MENU

3.6 CHAT MENU

8 Script language

8.1 Scripts called

8.2 Script variables

8.3 Script commands

9 Technical info

9.1 File structures

INTRODUCTION TO B&BSYS/2

Welcome to the wonderful world of B&BSYS/2, the next generation of BBS's that runs under OS/2.

THE HISTORY BEHIND B&BSYS/2

My first meeting with modem-communications was in the summer of 1989 when I realised there were telephone connectors in the back of my PC (a old ITT XTRA from 1984). I managed to connect to a local BBS and became a frequent user there. But unfortunately my local BBS had to close down and I had to start calling long distance which was not cheap. After a short while I got the idea of starting my own BBS. My first BBS was started using the MBBS (© Mike Robertson) BBS-system and I was online from early 1990. I connected to national networks and since I got more and more conferences the MBBS system became to limited, it only supported 75 conferences. Therefore I started making my own BBS-system which is known as "The Bits & Bytes Bulletin Board System" or B&BSYS for short.

Have to add something here, late in 1993 I heard about the OS/2 patches for Borland Pascal, and this was the start of B&BSYS/2. B&BSYS will no longer be developed in a

DOS-version.

B&BSYS/2 VS. OTHER BBS-SYSTEMS

B&BSYS/2 is in many way like other BBS-systems. The main difference that it is almost unlimited as to how big your system may become. B&BSYS/2 consist of a database-structure so advanced that many bigger systems can just dream about matching it. This system is not just another program but it does follow all major software development rules.

B&BSYS/2 has a user friendly interface and it is almost impossible to "break" the system by using bad commands or the like.

FIRST TIME B&BSYS/2 SETUP

B&BSYS/2 is easy to setup, and if you follow these few steps it should be up and running in minutes.

- [1] Unpack the main archive (B&BS*.ZIP) to your BBS directory (C:\BBS for example). Remember to unpack with the directory-structure intact!
- [2] Be sure til place your .KEY file in your BBS directory from now on called B&B-root. This file is supplied directly from me upon registering.
- [3] Execute the SETUP.CMD file with a list of your hard drive letters as and only parameter. For example, type: "SETUP CDE" at your OS/2 prompt.
- [5] Now, start B&BSYS/2 by typing BBS 0 (0 is your local SysOp node) and with the name "Sysop Sysop". Use your own password.
- [6] When you are on B&BSYS/2 command line, type UTIL NAME to change your from Sysop Sysop to the real one.
- [7] Now you may start to explore and configure your B&BSYS/2 BBS.
- [8] ... but before you do all this, print out these instructions or write them down.

That's all, now you should configure your B&BSYS/2 BBS the way you want it by using the Co(nfig) command in the SysOp menu. Good luck. A more detailed explanation of the setup-procedure is available in SETUP.DOC, which is found in the same directory as this file.

THE PEOPLE BEHIND B&BSYS/2

The main system B&BSYS/2 is entirely written by Terje Flaaronning during late evenings the last two-three years.

Thomas Stenhaug is writing QWK-support, and I'll let you know when it's ready.

Greetings go to:

Raymond L. Gwinn (Developer of the SIO drivers for OS/2) who has supported me with info

about SIO and the OS/2-API concerning async-communication.

Jan-Morten Havstein (Running the main beta board for B&BSYS/2) who has to live with all

the bugs in the prebeta versions of B&BSYS/2.

Thomas Stenhaug who is currently working on QWK support routines for B&BSYS/2, I suspect he have something ready when you read this.

Øyvind L. Eggen (Developer of the XBoard offline reader) who made support for the B&BSYS/2 grab format in XBoard. The grab format has changed today, but I hope that

coming versions of XBoard will support the new format.

Stian Seeberg who wrote this and all the other DOC's available for B&BSYS/2 (and is also

running a beta-test board)

My mother who has paid quite a few large phonebills the last couple of years. :-)

CONFIGURATION OF B&BSYS/2

CONFIGURATION WITH THE U(til) Co(nfig) COMMAND

To configure B&BSYS/2 you will first have to enter the SysOp menu. It is from here all systemwide changes are made. This menu is entered by typing \$ (for \$SysOp), and pressing ENTER. You will then see the following menu:

```
v1.0β1          >>> SYSOP MENU <<<          v1.0β1
```

```
Co nfigure your BBS   EF Edit file       PA Pack area
L og, Show logfile   AF Add files (install) DU Delete user (kill)
Us er editor         DF Delete file       CF Classify file
Mem ory/system info  D os shell/command   SF Sort files
```

```
B ulletin command    R ead (messages) comm. T ransfer scratchpad
C hat/Node command  S elect a new area    N o de message (send)
F ile transfer command U tility command     C om ment to SysOp
Q uit to main command O pen a external door  G oodbye (logoff)
```


in this field however.

The location and phonenumber of your BBS will also have to be entered by you manually.

Max inactivity time is the number of seconds a user may remain online without being ejected from the BBS. This is useful if the user falls asleep while online, or simply forgets that he/she is online. It prevents not only that your system remains busy, but saves the user from a rather large phonebill!

Access level is the level of access given new users. This will determine what areas of your system they will be allowed to enter. More about the different areas later, in the Areas submenu.

Time limit is the number of minutes a new user is given online.

Response time is how fast the system reacts to input from the user. The default value of 10 should be acceptable for most systems.

Path names

This is where you chose the different paths for your temporary files. The menu looks like this:

Configure Path Names

Use: Esc Letters Digits

RAM disk temp dir:

F:

Scratch-pad path:

E:\BBS\MAIN\SCRATCH.

CD-ROM drive letters:

1 - [] 2 - [] 3 - [] 4 - [] 5 - [] 6 - [] 7 - [] 8 - []

If you do not have a RAM disk then leave the field empty.

The scratch-pad should be placed on your fastest hard drive, or preferably on a RAM disk. This should only be done however if the RAM drive is large (at least 2MB for a single node system).

If your system has any CD-ROM drives, and you wish to make the files on it (them) available to the users, then place the drive letter in the checkbox(es) that match your system.

File protocols

This is where you configure your file protocols. The screen looks like this:

Configure File Protocols Use: Esc Letters Arrows

```
Letter: Z Name: ZModem              OkErr: 0 Type: B_A
Path: E:\BBS\MAIN\DSZ.COM
Upload: port &p speed &s ha both rz &u
Download: port &p speed &s ha both sz &l
AutoRec: "***"#24
```

```
Z - ZModem                      &p com port
Y - YModem Batch                &s speed
X - XModem                      &l send list
1 - XModem-1k                  &n node number
H - HS/Link                    &u upload directory
                                 &t minutes left
                                 &b base addr (com3+)
                                 &i irq (com3+)
                                 &h com handle
```

These are autodetected, and unless you wish to install a protocol that is not autodetected, you will not need to change any of these settings.

If you should have to enter any protocols that are not autodetected, you will have to fill out the following things:

Letter is the letter of the alphabet that represents this protocol in the list of available protocols that are presented to the user in the PProtocol part of the UTilities menu.

Name is the name of the protocol. This is also shown to the user in the PProtocol part of the UTilities menu.

*OkErr

*Type has three possible switches; B, B and A. These stand for ?, Bi-directional and Autodetect ????

Path is the path to the file, including the filename and extension.

Upload is the command string sent to the program to start the upload process.

Download is the command string sent to the program to start the download process.

1 indicates the number of the node that is being configured. You can have as many nodes as you wish in the registered version, but the \$hareWare version only supports nodes 0, and 1. Node 0 is the default Local Node, and can not be configured for modem-use.

Com Port is the port that the modem is connected to at the back of the machine.

Init baud rate is the speed that the system will communicate with the modem at. In the \$hareWare version this is set so that it can not exceed 9600. For v32bis modems 38400 is recommended.

Lock baud rate can be set to either Y(es) or N(o), but Y(es) is recommended. This determines whether or not the rate of data transfer between the computer and the modem should be locked, or be dictated by the connect baud rate.

Type of login can be set to several different types of logins, however for an external node (one where people can call in via a modem) the setting is:

Wait for RING/CONNECT: the BBS waits until it receives a RING signal from the modem, sends the answer string (covered below) and waits until it received a CONNECT message from the modem. The user is then allowed to log in.

The other possibilities are:

Direct local login: for purely local nodes (like node 0)

Direct login: don't know really???????

Wait for DCD (0-Modem): used for logins directly from another computer without the use of a modem. A so-called 0-Modem cable is used to connect the computers.

Rings before answer tells the BBS how many rings it should wait until it answers the call. This defaults to 0, but can be set to any number.

IO Device is the device that provides the data Input and Output. This is generally the same as the COM port.

The modem commands are different for each node, as each node has its own modem. These commands vary from modem to modem, and you will have to consult your modem's user's manual for the correct settings for your modem. However we have included some tips on what might be included (although the commands for these settings can be different from modem to modem!) in the init at the end of this document. See Appendix A: Init strings.

Init is sent to your modem to set it in the correct state for receiving calls. All commands that need to be sent to the modem should be present on this line. It is sent to the modem each time B&BSYS/2 is started up, and after every caller has hung up. If the result code from the modem is OK, then B&BSYS/2 will go into a state of "Waiting for RING/CONNECT" in the

case of external nodes.

Answer is the answer string for your modem. Usually this is ATA, and this is what B&BSYS/2 defaults to.

Off hook is the command string that instructs your modem to take the phone off the hook. This is usually ATH1, and this is what B&BSYS/2 defaults to.

On hook is the command string that instructs your modem to put the phone on the hook. This is usually ATH0, and this is what B&BSYS/2 defaults to.

Timed events

B&BSYS/2 is capable of running events at given times of the day/week. *Her må jeg ha hjelp, da jeg ikke aner hvordan det funker....*

Net-links

B&BSYS/2 BBS's all have the capabilities to become members of a network called bNet. This network consists of B&BSYS/2 BBS's only, and they exchange messages at given intervals. To become a member of bNet all you have to do is to register your copy of B&BSYS/2. You will then be given a number, indicating which BBS you are, and be given a HUB that you can connect to. This HUB will take care of all the message-transfers.

As of this day, the bNet and Net-links part of B&BSYS/2 are not perfected, and as such they have not been implemented. You are therefor strongly advised to not use this feature of B&BSYS/2, until an upgrade is available.

Areas

This is where you configure the different conferences, file areas and bulletin areas. The screen looks like this:

Configure Areas

Use: Esc Arrows Letters Del

Info from Bnet	Area name:
Mail Box	Main Board
B&B Support	Area type: Local area
Main Board	Area code: MAIN
	File code: MAIN
	Door code: MAIN
	Bull code: MAIN

Other:
of old msg to read: 100
Area flags:
New user autojoin
Message type:
Public messages
Area host: Not a bNet area

Access levels ->
Directories ->

These are the areas that are preconfigured with B&BSYS/2:

Info from bNet
Mail box
B&B support
Main Board

You may add as many as you wish.

The following things have to be configured for each new area:

Area name is the name of the area in the areas list. This area list has to be made by you, the SysOp. This will be covered later in this document.

Area type will usually be a Local area, as bNet areas are not fully supported as of yet.

Area code is a code of up to four letters, that specifies the area as a message area. NO two areas may share the same area code! If you enter an areaname, but omit the areacode "MAIN" will be entered automatically. If this is done you WILL NOT BE ABLE TO CHANGE IT!! You may therefore be wise in filling this in first, and leaving the name blank until this has been taken care of. *A change is to come here, making it impossible to have two areas with the same code!*

File code is also a code of up to four letters. Areas are allowed to share the same file code, and if you intend the files to be available to all users it may be wise to set this file code to MAIN. This is done because users need to be in the area that the file code is set for to be able to list and download the files in that area. If all files that are to be available to the users are kept in the file code MAIN, users will not need to change areas to see all files available to them. This also provides you with an easy way of shielding some users from certain files (typically adult pictures, or private files). You merely place those files in an area with a different file code, and change (raise) the access level needed to enter that area! (This will be covered in Access levels.)

Door code is also a code of up to four letters, and all the limitations that apply to the file codes are in effect here as well. You may wish to make certain doors available to only a limited number of users, and therefor specify a code that is different from MAIN, which is the default.

Bull code is the same code of up to four letters, but it controls the bulletins that are available in a certain area. MAIN is the default here as well, and like the File and Door areas you will only need to change the default if the bulletins should be hidden from scertain users.

of old messages to read is the limit for how many old messages a new user should read in that perticular area. This number can be set as high (or low) as you wish. However new users may not wish to read trough several hundred messages to become up to date, so set the number with care.

Area flags are certain limitations, or restrictions that pertain to that perticular area. The flags are as follows:

External area:	used about bNet areas
New user autojoin:	a new user is automatically a member of this confrence
No resign:	users may not resign from this confrence
New user autojoin; No resign:	a new user automatically joins this confrence, and may not resign from it.

The space can also be left blank, in which case no restrictions apply. This is the case for most local areas, and is also the default!

Message type lists the type of messages that are allowed in an area. The valid choices are:

Public messages:	all messages are public, and can be read by all
Private messages:	all messages are private, and can only be read by the author of the message, the recipiant of the message and the SysOp.

Public/Private messages: messages can either be public or private.

Please note that the SysOp can read all messages, even those marked as private! It is up to the SysOp how much privacy is to be expected on any given BBS.

Area host is used for bNet areas, and as such has not been activated yet.

Access levels have to be set for any area to become active. There are two very important things to remember when setting access levels. The first is to whom you wish to give access to this perticular area. This is up to you, but you should keep in mind that all users have at least the minimum access level, and if the data in the area is sensitive (adult pictures are one type of files that should be shielded from some users) you should specify a higher access level. Specifying the access level is done by entering the letter that corresponds to the level you wish to give that area. You then enter a code for what users with that access level may do. The codes for this are:

R ead
W rite

U pload
D ownload
O pen

All users with a higher access level will receive the same privileges as the first level you specify. This is only natural, and B&BSYS/2 will fill the remaining access levels to save you the work.

You may of course specify that some users will only be allowed to read messages, and perhaps write them in certain areas, and only users with a higher access level are given up/download privileges. The variations on this (and openness on your system) are up to you to decide!

In addition to these five codes comes the second of the very important things to remember. That is to place an S (for SysOp) at level 15 (the letter P). This is to ensure that you are given SysOp access in this area, and as such have all messages routed to you as well as the intended recipient. This also grants you the option of killing messages that are deemed not appropriate by you, either morally or legally. Please remember that as a SysOp you are responsible for the files and messages that appear on your system!

Directories is where you specify which directories are assigned to each area. The screen looks like this:

Configure Directories Use: Esc Arrows Letters Del PgUp DgDn

Directory name:

Disk directory:

Directory flags:

The field for directory name is the name that will be listed in B&BSYS/2 as the directory. This name should have some connection with the files in that specific directory. You may use spaces in the name, and any alphanumerical combination.

Disk directory is the directory that is on the hard drive. This does not have to have any connection to the directory name, but it **MUST** be exclusive. Two directory names can not share the same disk directory!

Directory flags are really only used for the Upload directories, but can be used in the other directories as well. The flags that are available are:

Uploadidir: the specified directory is the upload directory for that file code

Show uploader: the name of the person that uploaded a file is shown along with the file description

Uploadidir;Show uploader: the specified directory is the upload directory for that file code,

and the name of the uploader is shown along with the file description.

There must be an Upload directory for every file code! If there is not one, then an error code will be recorded in the Log!

After configuring an area it may be wise to move the highlight up a few notches to see if the changes have taken effect, and exit the area menu before entering a new area or changing an existing one. This is to ensure that all changes have been saved to disk, in case of a disaster, like a power outage or a hanging of the computer.

Return to BBS

This returns you to the BBS. You can also press Esc to exit the COntfigure menu. All changes will be saved regardless!

DOOR.CMD

B&BSYS/2 has the ability to run doors (external programs, games ...) all doors are executed via the DOOR.CMD file in your B&BSYS-root directory.

DOOR.CMD is called with these parameters:

```
DOOR.CMD [Node#1] [Node#2] [ComPort] [PortSpeed] [BaseAddr] [IrqVector]
         [DoorName] [DoorCode]
```

Node#1 is the number of the node, this is not prefilled.

Node#2 is the number of the node, this is prefilled with zero's to a length of three characters.

ComPort is current comport

PortSpeed is current comport speed

BaseAddr These are the base/irq data in the node setup (PS! Be sure to IrqVector set these to the same values as your fossil driver)

DoorName The name or number of the door to be executed

DoorCode The B&BSYS/2 DoorCode for current area

Examples:

```
DOOR.CMD 3 003 1 19200 02e8 3 1 MAIN
```

```
DOOR.CMD 2 002 3 9600 03f8 4 TheGame GAME
```

The DOOR.CMD file may run both OS/2 and DOS executables.

MENU BY MENU IN THE B&BSYS/2 INTERFACE

GLOBAL MENU FUNCTIONS

There are several global menu functions that are already built into B&BSYS/2. In addition to these you can create scripts that provide a global functions for your particular system. This is useful for customising your system. The global functions that are present in B&BSYS/2 are as follows:

B ulletin command R ead (messages) comm. T ransfer scratchpad
C hat/Node command S elect a new area N o de message (send)
F ile transfer command U tility command C om ment to SysOp
Q uit to main command O pen a external door G oodbye (logoff)

In addition to these that are available to everyone there is one that is reserved the SysOp. That is the \$-function that lets you enter the SysOp menu. This has it's own set of commands that will be covered later in this document.

MAIN MENU

The main menu has it's own functions that can only be evoked from within this menu. These are:

L ist users T i me left/used X pert mode(on/off)

List users will either list all the users that are registered to your BBS, or only the users whose names match the string of letters the user enters.

Time left/used shows the user how much of the time he/she is allowed on the system is left and how long he/she has been on the BBS today.

Xpert mode toggles whether or not the user sees the "(? for menu)"

MESSAGE MENU

It is from within this menu that you read and write messages. The functions that are available for reading messages are:

read that message . review last read < Read last in chain
+ read next message +# skip # forewr, read > Read reply to this

- read previous message -# skip # back, read

The following functions are used for the area as a whole:

E nter message	Sh ow area status	Ki ll message
R eply to message	V iew messages in area	Un kill message
M ark messages		Ed it message (change)
D ump message(s)	Res ign from area	Mo ve message (n/a)

When you write a message you have a choice of either a line-based editor or a full-screen editor that is built into B&BSYS/2. This full screen editor allows you to move around using the arrow keys on your keyboard or using the standard WordStar keys you may be used to from other systems.

When you R(eply) to a message you get the option of quoting the previous message. Quoting a message means that everything that was in the previous message will be added to the top of the message you are about to write, with the initials of the author and a vertical line in front of every line of text. This ensures that everyone knows who wrote what. You are also asked if the message should be marked as private (given that private messages are allowed in that particular area!). This assures you that only the intended recipient of the message (and the SysOp who can read anything!) can read it. You are also given the choice of editors.

You can M(ark) messages in different ways, giving you full control over messages to you. This is practical when you want to dump a number of messages to the scratchpad and download them for reading offline.

D(ump)ing messages to the scratchpad allows you to download these messages as a file and read them offline, thus saving you valuable time online. Dumping messages allows you to read messages, however you will have to go back online to reply to the ones meant for you. There are offline-readers that allow you to read messages and reply to them offline, and then upload the replies automatically next time you log on, but as of yet none of these support B&BSYS/2's messageformat. However QWK-support is to be built into B&BSYS/2 allowing you to both read and reply to messages offline, using a QWK-compatible mail-reader.

Users can search for unread messages either by pressing ENTER until they have read all messages, or they can get a list of unread messages in the different areas by using the Sh(ow area) function. This will tell you how many messages are in an area, and how many of these are for you.

The SysOp can define whether or not users will be allowed to R(esign) from certain areas. This is useful for having areas where you can be certain all the members of your BBS will get a message you have posted to ALL users! This is done in the \$SysOp COnfigure AREA menu, as described above under CONFIGURATION WITH THE U(til) Co(nfig) COMMAND.

K(killing) of messages can only be done by the SysOp and the originator of that message. If the message has been read by anyone the "killer" will be given a message to that effect.

FILE MENU

This is where the user will find files for Download and (hopefully) Upload. The functions that are used are as follows:

Up load a file L ist files available K eyword file search
D ownload file(s) N ew files scan (date)
V iew an archived file W ild-char file search

The user can Up(load) files using the upload command. The user is told to begin the upload at his/her end. B&BSYS/2 will then autodetect the file(s) being sendt, and also place the file in the appropriate upload-area depending on which area the user was in at the time she was in at the time. The user is then asked to type a simple description of the file. This description may be as long as 110 letters, including spaces, devided into two lines of 55 characters each!

D(ownload) allows the user to specify filenames until he/she enters a blank space and the file(s) are then sent using the protocol defined in the Ut(ilities) Pr(otocol) menu. There are several commands that can be evoked from within the D(ownload) command. These are:

? Show available commands
/a Abort download
/l List tagged files
/r Remove a file from the list of tagged files

Tagging files for download can be accomplished in one of two ways. The user can either specify a wildchard, and all files matching that wildchard will be tagged, or the user may specify one file at a time.

V(iew)ing a file causes B&BSYS/2 to give the user a complete list of files in an archived file (ZIP, ARJ, ARC or LHA), or in the case of GIF-files the resolution and number of colours (It will NOT display the picture itself).

L(ist)ing files will give the user a complete list of the files in the area he/she is in at the time, or one of the directories only. For a list of the available directories the "?" command is used. B&BSYS/2 will NOT create a list of available directories. That has to be done manually by the SysOp.

W(ild-char) searching is done by specifying a wild-chard for B&BSYS/2 to search for matches to. It searches through the filearea(s) and lists the files that mach the specified search-criteria. The common wild-chards "*" and "?" may be used. The difference between these two is that while "*" can represent one or more letters "?" can replace one letter only.

K(eyword) searching is more time-consuming but also more effective if you don't know the name of the file you are looking for, because it also searches the description of the files for a match. DO NOT use wild-cards in this search, as it is case-sensitive!!!

BULLETIN MENU

The bulletins that are to be a part of any BBS must of course be made by the SysOP, and the SysOp must also make a bulletin list to be named areaLIST.* where "area" is the four-letter code used for that specific bulletin-area in the configuration. The file areaLIST.* is to reside in the BULLETS subdirectory. The bulletins are numbered according to the name of the files they represent. The bulletins themselves are named areaxxx.* where xxx is the number of that particular bulletin. The first bulletin in the MAIN area would be called MAIN0001.*. These files also reside in the BULLETS subdirectory. The functions in this area are:

read that bulletin D ownload a bulletin

represents the number of the bulletin the user wants to read.

The user may also D(ownload) a bulletin if he/she wishes, and will be prompted for the number of that bulletin. The download will be completed using the default protocol for that user.

CHAT MENU

There is the possibility of chatting with other nodes on a multinode BBS or with the SysOp on a single node system. If the SysOp has made himself available he will receive a warning by the machine beeping that someone wants to talk to him/her. The same goes for other nodes, they will be notified with either a message on the screen or a message and a beep if their system allows it. The functions for this menu are:

W ho is online Sy sOp chat (request) A vailability (on/off)

Ch at with another node

W(ho) gives the user a list of active users on the different nodes and if the SysOp is available or not. If the SysOp is available there will be a red message to that effect at the bottom of the list of active nodes. If the SysOp is not available no message will be at the bottom of said list.

Sy(sOp) will call the SysOp if he/she has set him/herself available. If the SysOp is not available the user will be asked to leave a Com(ment) instead. The SysOp can answer a chat request by making the window that node is in active and pressing Alt-C. The chat-session is ended by the SysOp by pressing Alt-C again.

The user can set himself available for chat or turn this function off using the A(vailability) function.

Ch(at) is used in conjunction with the number of the node the user wishes to chat with, or he/she is prompted for the node-number. The user on the node that receives the chat request can answer by entering Ch(at) followed by the number of the node. The number of the node that initiated the chat-request is listed to the receiver of that request along with the request-message.

UTILITIES MENU

This menu allows the user to update his personal preferences and change his personal data and password. The functions are:

V iew user profile	N ame change	A N S I graphics toggle
A r chive format	A ddress change	I B M chars toggle
P r otocol change	P hone number change	C l ear scr. toggles
U se ANSI toggles	P a s s w o r d change	L a n g u a g e selection
T o g g l e switches	L i n e s on screen	T a s k M a n a g e r (on/off)

V(iew) gives the user a list of his/her active configuration. It is then easy to identify which things need to be changed to suit the users preferences.

Ar(chive format) tells the system which archiver (ZIP, ARJ, ARC and LHA are available) that the user would prefer used for the files to be archived using (this format is used for the messages that the user grabs and the bulletins that are downloaded, NOT the archived files on the system that are free for download!).

Pr(otocol) tells the system which transfer protocol the user would like to use as a default. The system will then use this protocol instead of prompting the user every time.

Use ANSI toggles whether the system should display ANSI graphics in menus, bulletins and messages.

To(ggle) is used to decide whether or not to display message status at logon.

N(ame) allows you to change the name you will be using on the BBS. This can be used to change your Alias on boards that allow this, or if your name has changed for whatever reason. This will NOT redirect messages addressed to your new name, but users will be given a message that as your old name is no longer be a part of that BBS's user-list! It will be up to the user to announce the name-change!!

A(dress) allows you to change the adress you have listed to the system. Your old adress will be displayed, and you can press ENTER if you do not wish to make any changes. This should be changed if you move however, as it allows the SysOp to get in touch with you should there ever be a need for it.

P(hone number) allows you to change the phone number you have listed. The number for your Home and Work numbers are both changable from this menu. If you do not wish to change the number that is highlighted, then press ENTER, and the next number will be highlighted. These numbers should be changed to reflect your current numbers, as it allows the SysOp to get in touch with you should there ever be a need for it.

Pa(ssword) allows you to change your password used during login. You are prompted for your old password once and your new password twice (to ensure you typed it correctly!). This new password will be used for all consequent logins.

Li(nes) sets the number of lines the system will let scroll across the screen before the user

gets a --more-- message. Set this to 0 and the system will not stop scrolling.

The AN(SI) function toggles whether ANSI should be used at all (useful if the user doesn't have ANSI-capabilities in his/her communications-package)

IB(M) toggles the IBM extended ASCII text mode.

Cl(ear) toggles whether or not to clear the screen before showing messages, bulletins or menus.

La(nguage) toggles between English and Norwegian language in menus and functions.

Ta(sk) toggles whether or not you want to allow background execution of tasks.

SYSOP MENU

This is where you change the look and feel of your BBS! You can make changes even while users are logged on to your system, allowing you to make changes without having to shut down!! This is a major improvement over several of the larger BBS-systems that are on the market. If one of the changes you make forces the BBS to reset because of an error the user is not logged off, but is instead given the opportunity to log on again without having to call back. No extra cost is forced upon him/her by your mistake (even though a mistake is unlikely!).

Co nfigure your BBS	EF Edit file	PA Pack area
L og, Show logfile	AF Add files (install)	DU Delete user (kill)
Us er editor	DF Delete file	CF Classify file
Mem ory/system info	D os shell/command	SF Sort files

Co(nfigure) is used to change the basics of the BBS. This is covered in detail in the section of this file called "CONFIGURATION WITH THE U(til) Co(nfig) COMMAND". This section was placed at the beginning of this document because it is necessary for the proper configuration of B&BSYS/2, and as such was covered as early as possible.

L(og) shows the user log for the node you specify. This contains a list of new users and files that have been uploaded, and to where. It also contains a list of the different errors that have occurred on the system.

Us(er editor) is used to grant users higher access levels or unkill an unintentionally killed user. You can also grant the user higher timelimits if you so wish.

The Mem(ory) function gives you a list of system information.

EF allows you to edit the description of a file or a list of files, depending on how you specified the file(s). The file(s) to be edited can be listed with wild-chards to increase the flexibility of the editing process. However if the SysOp plans to edit several files the CF command is superior!

AF adds files to the filearea the SysOp specifies. The areaname is to be used, and not the directoryname! The files in the directory specified for that filearea that do not have a description will be shown to the SysOp and he/she will have to type in a description. If one is not added the file will not be added to the filelist. The SysOp can specify a file that contains a list of the files that are to be added, and their descriptions. This allows ease of installation if the files come with a description file, or one can be made ahead of time. The default description file name is DESCRIPT.ION, which is the file used by 4DOS (4OS2) and NDOS for attaching long descriptions to files. This can be changed however to match any filename. The files that are to be added can have filenames that are up to 16 characters long (including periods!) on HPFS disks. FAT-disks have the familiar 8.3 filename restrictions.

DF will delete a file or several files (using wild-chards) from the filelist and the harddrive.

D(os shell) allows you to execute a DOS-command or run a file, either from within the BBS, or after you shell to the command line!

PA allows you to pack an area for storage, saving all the messages in that area for later reference.

DU allows you to kill a user so that he/she is not allowed back onto the BBS. This can be done for different reasons, but be careful! They are gone for ever!!

CF is a full screen file editor. It allows the SysOp to change the description of a file, move a file (with the description intact!) to a different filearea or delete files from the filelist and the harddrive. The files are tagged using the insert key, and may then be edited in the above mentioned ways.

SF sorts the files in the filearea you specify. This can be time-consuming if you have a large number of files, but it is recommended that you do this often, so that the file index is updated, and the searches will go faster. Files will also be placed in alphabetical order, which makes it easier to find files even without the search tools. You are given the option to update the 4DOS (4OS2) or NDOS DESCRIPT.ION files as well, allowing 4DOS (4OS2) or NDOS users to see the descriptions when using the DIR command at the commandline.

Creating the BBS-specific files

As your BBS is different from every other BBS it is essential that you create files that reflect this. There are several files that help users find their way around your system. These will have to be created by you using an ANSI drawing utility like TheDraw®. The files that are most important are the lists of the different conferences, and the different file areas. In addition it may be wise to create bulletins that contain information that are of interest to your users.

Creating a list of conferences

The confrence list comes up every time a user tries to Select an area but does not specify

SCRIPTS CALLED

The following script files will be executed if they are present in the SCRIPT sub-directory:

GOODBYE.* exit	This script is executed when a user use the G(oodbye) command to B&BSYS/2 or just drop the line. The script does also function as a good-bye bulletin.
LOGIN.* prompt	This script is executed just before the user gets his command (after display of users stats).
PREDOWN.* POSTDOWN.*	These scripts are executed before and after downloads, the scripts can be used to control download rules and so on The scripts also function as file transfer bulletins, but only with normal file transfers.
PREUP.* POSTUP.*	Same as the *DOWN.* scripts but for uploads.
PREOPEN.* POSTOPEN.*	Same as the *DOWN.* scripts but for door usage. Be aware of that these scripts function in all areas.
PREREG.* POSTREG.*	These scripts are executed before and after a new users register.
U-[com].*	Called from Utility menu if unknown command.
B-[com].*	Called from Bulletin menu if unknown command.
C-[com].*	Called from Chat/Node menu if unknown command.
\$_[com].*	Called from \$sysOp menu if unknown command.
F-[com].*	Called from File menu if unknown command.
R-[com].*	Called from Read menu if unknown command.
G-[com].*	Called from all menus if none of the above exits and unknown command.

The astrix is a language key or can be left blank for multilingual scripts. The language key for Norwegian scripts is *.N, and for English the language key is *.E.

SCRIPT VARIABLES

In scripts you have several variables for you usage, these are:

&[1-9]	User variables.
&ac	Current area code.
&ad	Current area door-code.
&af	Current area file-code.

&an Current area name.
&td Current date.
&th Current time (hour).
&tm Current time (minute).
&tu Time used so far this logon, in minutes.

&u - - - USER RECORD VARIABLES

&ua1 First line of address
&ua2 Second line of address
&ual Accesslevel
&uc City
&ud# Number of downloads
&udk KB downloaded
&uf First name
&ul Last name
&umw Messages written
&umr Messages read (Not counted in B&BSYS/2 yet)
&un Name
&uph Home phone
&upw Work phone
&uu# Number of uploads
&uuk KB uploaded
&uta Time allowed each 24 hours
&utl Time left when logging on (&utl - &tu = time left)
&utt Time totally used

&\$ - - - SYSTEM DATA VARIABLES

&\$h Systems current com-handle in hex.
&\$m Current menu level: M(ain), R(ead), F(ile) and so on.
&\$v Display current B&BSYS/2 version.

&! - - - DISPLAY SETUP/MANIPULATION PROCEDURES

&!l Do linefeeds until cursor resides at the bottom screen line.
&!m Do more prompt.
&!w Wait for keypress before continue.

These variables can be used anywhere in your scripts.

SCRIPT COMMANDS

A script language without commands is nothing so here they come! These commands are available for script programming:

@+ [uservar] [firstnumber] [secondnumber]
 ""

@- [uservar] [firstnumber] [secondnumber]

""

@* [uservar] [firstnumber] [secondnumber]

""

@/ [uservar] [firstnumber] [secondnumber]

""

@assign [uservar] [textstring]

""

Assigns a textstring to a uservariable

"@assign 1 This is a string"

@command [commandline]

""

Execute standard B&BSYS/2 command from a script.

"@command Read Enter Sysop"

@delfile [filename] {filename} {filename} ...

""

Delete one or more files on the harddisk.

"@delfile B&BSYS.EXE" (not try this)

@exit

""

End script execution and return to B&BSYS/2.

"@exit"

@file [filename]

""

Open a file for output, the file is created if it do not exist.

"@file scripts\tempfile.lst"

@goto [label]

""

Go to @[label].

"@goto firstlabel"

@if [firststring] [secondstring] [label]

""

Compare two strings, if equal then goto [label] of not then continue.

"@if String String ThisLabel"

@if [firstnumber] [<|=|>] [secondnumber] [label]

""

Compare two numbers, if condition is TRUE then goto [label] if not then continue.

"@if 1 = 2 OneLabel"

@iffile [filename] [label]

""

If file [filename] exist the goto [label] if not then continue.

"@iffile scripts\tempfile.lst"

@input [uservar] [prompt]

""

Let the user input a text string into the given uservar.

"@input 1 Type a command:"

@log [text]

""

Write a line to node log file. If [text] starts with "\$" the text goes to the .SYS log instead of the normal node log.

"@log \$User has failed"

@mod [uservar] [firstnumber] [secondnumber]

""

@run [program] [parameters]

""

Runs an external program, this must be a OS/2-text mode executable.

"@run b&bsys.exe"

@rundos [program] [parameters]

""

Same as @run, but this loads a new command interpreter before running your program, this may run .CMD files and DOS executables as well as OS/2 executables.

"@rundos test.cmd"

@select [words] [prompt]

""

Wait for user input.

"@select YesNo Delete message?" (this go to first @Y or @N after present line)

@set [sysvar] [value]

Set a specific system variable to given value.

[sysvar] [value]

menu M,R,B,F,C,\$,U

@show [filename]

Type a textfile.

"@show scripts\tempfile.lst"

@write [text]

Write a text to open file, no CRLF included.

"@write This is a text"

@writeln [text]

Write a text to open file, CRLF included.

"@writeln This is a text line"

TECHNICAL INFO

SYSTEM REQUIEIMENTS

This program runs under OS/2, and as a result you are forced to live with it's demands on your hardware. We feel that for any type of performance a 386dx with 8 MB of RAM is the minimum, although OS/2 (and therefore B&BSYS/2) will run on any 386 with over 4MB of RAM. (*er dette riktig?????*) In addition you will of course need a modem and a telephone line! The ShareWare version of B&BSYS/2 has certain features that are limited. The one thing you will notice is that it is not capable of exceeding 9600 baud, and you are limited to 20 users on the system. This means that the 21. person who logs on to your system will overwrite the 20. person.....so if you plan to start your own BBS this program can get you started, but if you are serious about it the small fee the author asks is not that excessive! *Si ifra hvis dette ikke stemmer...har jo bare prøvd på en 486dx 33 med 20MB RAM ;-)*

FILE STRUCTURES

The structures of all system files may be obtained directly from me.

μINTRODUCTION TO B&BSYS/21	
THE HISTORY BEHIND B&BSYS/2	1
B&BSYS/2 VS. OTHER BBS-SYSTEMS	1
FIRST TIME B&BSYS/2 SETUP	2
THE PEOPLE BEHIND B&BSYS/2	2
CONFIGURATION OF B&BSYS/23	
CONFIGURATION WITH THE U(til) Co(nfig) COMMAND	3
The Configure menu	3
General	4
Path names	5
File protocols	5
Archive programs	6
Nodes (comms)	7
Timed events	8
Net-links	9
Areas	9
Return to BBS	12
DOOR.CMD	12
MENU BY MENU IN THE B&BSYS/2 INTERFACE	13
GLOBAL MENU FUNCTIONS	13
MAIN MENU	13
MESSAGE MENU	14
FILE MENU	15
BULLETIN MENU	16
CHAT MENU	16
UTILITIES MENU	17
SYSOP MENU	18
Creating the BBS-specific files	19
Creating a list of confrences	20
Creating lists of file areas	20
Creating a list of bulletins	20
Creating bulletins	20
Scripts that need to be made	20
SCRIPT LANGUAGE	20
SCRIPTS CALLED	21
SCRIPT VARIABLES	21
SCRIPT COMMANDS	22
TECHNICAL INFO	25
System requiriements	25
FILE STRUCTURES	25