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### **Short Overview**

The bootmanager **BootStar** offers you the following functions:

- · Several DOS / Windows Versions (95/98/ME/NT/2000) parallel on one or several harddisks
- · Unlimited support of all operating and all file systems (as well as Windows 2000)
- · Unique extension from 4 up to **15 primary partitions** (operating systems)
- · While computer is booting, freely selectable booting from any harddisk / disk
- · Distinctive security features for entire partitions using passwords and "true" hiding
- Pprograms for DOS and for Windows 95/98/ME/NT/2000
- · Integrated partitioner with comfortable interface and many additional features
- · much more...

#### See also:

How It Works (Overview)
System Requirements
Security Features (Overview)

# **System Requirements**

In order to be able to use the bootmanager **BootStar**, you will need an Intel-compatible **80486** PC (or later model).

**All** operating systems and **all** file systems are supported, since the bootmanager's How It Works is not dependent on the operating and/or file system.

There are two programs: One for DOS (starting with version 4.0) and one for Windows (starting with Windows 95 / NT 3.51).

#### See also:

Short Overview
How It Works
Security Features

Problem (Overview)
Problems with DOS / Windows 95/98/ME
Problems with Windows NT
Problems with Linux
Problems with Hardware

### **How it works (Overview)**

The bootmanager **BootStar** manages two partition tables:

- · The master boot record partition table
- · The **BootStar** partition table

The master boot record partition table is a table describing the subdivision of the harddisk into partitions. This table has been defined since the advent of harddisks during the beginning of the 80s and is absolutely required by all operating systems. This table can encompass up to four primary partitions.

The bootmanager **BootStar** manages a second partition table internally (invisible to other programs / operating systems) with up to 15 entries. This table is called the "**BootStar** partition table".

While the computer is booting, up to four entries are copied by the bootmanager **BootStar** with the aid of the bootprofiles. These entries are copied from the internal **BootStar** partition table to the master boot record partition table.

The bootmanager is located on the harddisk on the first cylinder ("track 0"). This location is used by a few harddisks and bootmanagers. Therefore, the capacity of your harddisk is not limited by the bootmanager **BootStar**.

While the bootmanager **BootStar** is installed, no other harddisk partitioner may be used (e.g., FDisk or PartitionMagic)!

#### See also:

Master Boot Record
Bootmanager BootStar
Bootprofiles
Security Features
BootStar Dummies

### **Master Boot Record**

The master boot record is the first sector on the harddisk.

It contains the "bootstrap." This is a program, which is called by the BIOS to load the actual operating system.

This sector also contains a description of how the harddisk is divided into separate areas (partitions). This description is listed in the so-called "partition table." It contains one entry for each partition. The entry lists the location of the partition on the harddisk and the "type" of this partition.

Due to historical reasons, this partition table can include only four entries.

The format of this master boot record (bootstrap / partition table) is permanently defined and is **absolutely** required by all operating systems.

#### See also:

Partition Types
Bootmanager BootStar
Open Master Boot Record
Save Master Boot Record

# **Bootmanager BootStar**

The bootmanager **BootStar** is an independent bootstrap program. Thus, it is not dependent on the program. However, it will be generated by this program automatically during installation and written to the harddisk.

This bootstrap (bootmanager) makes it possible to select a bootprofile while booting.

While the bootmanager **BootStar** is installed, no other harddisk partitioner may be used (e.g., FDisk or PartitionMagic)!!!

#### See also:

Installing
Bootprofile
Master Boot Record
BootStar Dummies

# **Bootprofiles**

While the computer is booting, you do not just use the bootmanager **BootStar** to select an operating system (or a partition) but rather an entire bootprofile. This bootprofile contains the following settings:

#### Visible partitions:

You may mark up to four of the fifteen primary partitions as "visible." The remainder will be "truly" hidden.

#### Active partition:

You may choose which of the visible partitions should be booted. In this case, it is unimportant which harddisk contains this partition. It is also possible to boot from disk as an alternative. (An additional option is to change to booting from disk while the computer is already going through the booting process.)

#### Order of the visible partitions:

You may change the order of the partitions. This may be used to influence the drive designation (e.g.: "C:").

#### Keyboard buffer:

You may write up to 16 automated keys into the keyboard buffer. This may be used, for example, to control subsequent bootmanager such as LILO or NTLoader.

#### Security settings:

You may indicate the following separate entries for each bootprofile:

- · whether it may also be booted from disk,
- whether a password is required for booting, or
- · whether this bootprofile should be displayed at all.

#### See also:

Properties of Bootprofile
Bootmanager BootStar
Security Features

### **BootStar Dummies**

During booting entries are copied from the internal BootStar partition table to the master boot record partition table. The remaining entries of the master boot record partition table are filled with so-called "BootStar Dummy" entries.

Other partitioners read the dummy entries as invalid values. This prevents for the most part that unauthorized or inexperienced users apply other partitioners while the bootmanager **BootStar** is installed.

Operating systems read the "BootStar Dummy" entries like normal partitions.

If you do not wish the effect of the "BootStar Dummy" entries you can deactivate this via the command line option. (To protect inexperienced users, this is only possible via the command line option.)

Be aware that other partitioners now have unprotected access to the partition table.

#### See also:

How it works (Overview)
Problems with Hardware

# **Security Features (Overview)**

The bootmanager **BootStar** offers your data (partitions) a high level of security.

Due to the extension of the second partition table (**BootStar** partition table) and the bootprofile concept, partitions from the master boot record partition table will be deleted.

Since these deleted partitions are no longer listed in the master boot record partition table, they cannot be seen by other harddisk partitioners either. Thus, they are "truly" hidden. Almost all other bootmanagers change nothing more than the partition type, which then can be changed back without any problems; it also means that the partitions are not hidden with only the access being restricted. (The encoded **BootStar** partition table is invisible to other harddisk partitioners.)

The visibility of the partitions may be "switched on" using the bootprofiles. These may be protected individually using passwords, so that no one without the proper password may have access to your data.

Furthermore, it is also possible to hide bootprofiles, so that these may only be offered after a specific key combination has been used. Thus, a non-authorized person cannot even detect, whether additional bootprofiles (partitions) even exist.

Booting from disk may also be permitted or restricted via a password.

The reliability of such a protection and safeguarding of the partitions has a high rating, since probably only about 1% of all users is able to circumvent this type of password protection.

#### See also:

How It Works of Security Features
Application of Security Features
Bootprofiles
Properties of Bootprofile

## **How it works of the Security Features**

The bootmanager **BootStar** does not protect your partitions but your bootprofiles. The principle applied is the same as for the distribution of rights on the Internet. There too passwords are required when registering, with these passwords then referencing certain various resources.

Thus, it follows that if you want to protect a partition on your computer, you have to protect all those bootprofiles with a password that contain these partitions.

In some cases, a bootprofile is created solely for the system administrator. Such a bootprofile should be hidden completely. It will be displayed only after a specific key combination (hot key) has been pressed. This function may be activated separately for each bootprofile.

You should definitely protect the bootmanager **BootStar** itself with a password, so that none of the users can view or even change the settings after downloading the program (from the Internet).

#### See also:

Security Features (Overview)
Application of the Security Features
Bootprofiles
Edit Security Settings
BootStar Settings
BootStar Password

# **Application of the Security Features**

While booting (after selecting bootprofile), the bootmanager **BootStar** fills the master boot record partition table with the partitions to be used.

These partitions are temporarily unprotected, because they can be (and are supposed to be) seen by all users and operating systems.

In order to protect the partitions again, the entries from the master boot record partition table have to be deleted again. This can be done in two ways:

- 1. Booting the computer (partitions are deleted when **BootStar** is started)
- Calling the program using "/ClearMBR"

Operating systems read the partition table only during booting. Therefore, the program may already be called in the "AUTOEXEC.BAT" file. The computer will then remain protected if not newly rebooted.

The booting sequence in the BIOS should **always** be "C:, A:," and the BIOS should **always** be protected by a password. This will prevent that a user does not boot from disk without having authorization to do so. However, booting from disk may still be possible if you permit it with the aid of the bootprofiles.

Modifying the booting sequence also ensures that the bootmanager **BootStar** will always be called and that the entries from the master boot record partition table are thus deleted. (This is only reliable if the harddisk will not be taken out of the computer and then reinstalled into another computer.)

#### See also:

Overview over the Security Features
How It Works of the Security Features
Bootprofiles
Master Boot Record

# **Example for Several Operating Systems**

#### Problem:

Generally, it is possible to install several operating systems on a PC. Unfortunately, it is usually not possible to choose a specific OS during booting. There are bootmanagers (e.g., integrated into OS/2), which enable a switch, but switching is rather cumbersome - and they need extra space on the harddisk. Another problem is the partitioning limitation of the harddisk restricted to only four areas (partitions). In the end, almost no one is able to start his or her computer from a second or additional harddisk.

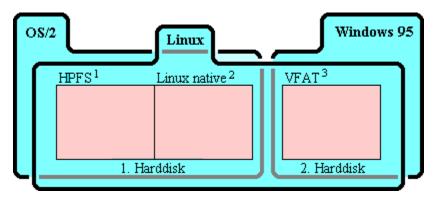
#### Solution using the bootmanager BootStar:

These three limitations are eliminated by **BootStar** without any problems: The bootmanager **BootStar** enables the user to choose an operating system while the computer is booting by simply using a menu.

Your choice depends on

- · which operating system you want to use
- · on which harddisk with
- · which partitions.

For example: You can install OS/2 and Linux on your first harddisk without any problems and at the same time install Windows 95 on your second harddisk:



- 1: OS/2 file system
- <sup>2</sup>: Linux file system
- 3: Windows 95 file system

Which operating system you would like to use can be selected quite comfortably from a menu while the computer is booting. To change to a different OS, simply restart your computer.

#### **Technical realization:**

The realization of the application example listed above is as follows:

	Partitions Drive 1		Partition Drives 2
Boot-Image	HPFS 1	Linux native 2	BIGDOS 3
Windows 95			A
Linux	X	A	X
OS/2	A	Х	

X : Partition visible

A: Partition visible and active (booting from this partition).

- <sup>1</sup>: OS/2 file system
- <sup>2</sup>: Linux file system <sup>3</sup>: Windows 95 file system

### See also:

Example for Backup
Example for "Local Firewall"

Example for Virus Protection

Example for Password Protection
Example for Training Center

**Example for Several Computers** 

## **Example for Backup**

#### Problem:

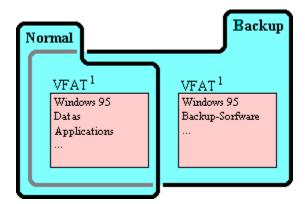
Modern operating systems usually have already integrated backup programs. This, however, can cause significant problems when restoring data. For example: It is not possible to restore Windows 95 if Windows 95 itself is defective.

Backing up data also requires a lot of time during which the computer is not available or only partially available for other tasks. Most people also lack the necessary discipline to actually perform a data backup on a regular basis.

#### Solution using the bootmanager *BootStar*:

**BootStar** eliminates this problem by offering the option to install another operating system on your computer, which will be used exclusively for backup / restore.

This additional operating system can be, e.g., Windows 95. The first installation of Windows 95 is used for "normal" operation, while the second one remains invisible. Use your secondly installed Windows 95 - which can see the first one but does not use it - to backup and/or restore data. Since you normally would not use the second operating system, this OS will be stable and function properly at all times, guaranteeing a trouble-fee backup and/or restoration of your data. (Of course, this process will also work with any other operating system.)



1: Windows 95 file system

During booting, choose easily from a menu whether you would like to use your computer "normally" or for the purpose of backup/restore. To change, simply restart your computer.

An alternative is to start the partition to be used for the data backup **automatically every night** without user input. Just set the automatic boot option in the BIOS to nighttime. The boot manager program BootStar is then set to boot the data backup partition at the indicated time (activate night service). Once the data backup is complete, the computer can then be turned

off again using the program of the boot manager **BootStar**. This means you will have a fresh backup of all your data every morning without having to think about it. The drive imaging software **DriveStar** is especially well suited to backup data because it works seamlessly with the boot manager **BootStar**.

#### **Technical realization:**

The realization of the application example listed above is as follows:

	Partitionen	
Boot-Image	VFAT 1	VFAT 1
Normal	A	
Backup	X	A

X : Partition visible

A: Partition visible and active (booting from this partition).

1: This bootprofile is protected with password

### See also:

Example for Several Operating Systems
Example for "Local Firewall"
Example for Virus Protection
Example for Password Protection
Example for Training Center
Example for Several Computers

Night Service

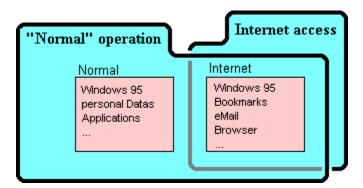
## **Example for "Local Firewall"**

#### Problem:

The Internet always brings with it the danger that a stranger might view and explore your system and even copy data from your harddisk. (The manufactures of the leading browsers, Netscape and Microsoft, had to admit to this security gap repeatedly.)

#### Solution using the bootmanager BootStar:

Just install another operating system on your computer. For example, a second Windows 95 specifically for surfing the Internet ("Internet access"). While you use this Internet access, your actual operating system ("normal" operation) together with your personal data remain invisible. However, the data of the Internet access remain accessible to you during "normal" operation.



Whether you want to use your computer "normally" or whether you want to surf the Internet, you can choose either option easily from a menu during booting. In order to change your selection, all you have to do is restart your computer.

#### **Technical realization:**

The realization of the application example listed above is as follows:

	Partitionen	
Boot-Image	Normal <sup>1</sup>	Internet <sup>1</sup>
"normal" operation	A	X
Internet access		A

X : Partition is visible

A: Partition visible and active (booting from this partition).

1: Both partitions can be of the same type (but do not have to be)

#### See also:

Example for Several Operating Systems

Example for Backup

**Example for Virus Protection** 

**Example for Password Protection** 

**Example for Training Center** 

**Example for Several Computers** 

### **Example for Virus Protection**

#### Problem:

Usually you will test a new program once in a while. If this new program contains a virus (or maybe even a grave programming error), this can mean a lot of trouble for you.

#### Solution using the bootmanager BootStar:

You can solve this problem in a similar way as the Internet problem: You simply install another operating system for testing the new software.

If you find a virus, you can normally eliminate it fast and easily with the data security/backup solution.

Whether you just want to try out a new program or want to use your computer "normally", you can choose either option easily from a menu during booting. In order to change your selection, all you have to do is restart your computer.

#### **Technical realization:**

The realization of the above listed application example is depicted in the following graphic:

	Partitionen		
Boot-Image	Normal <sup>1</sup>	(Virus-) Test <sup>1</sup>	
"Normal" operation	A	X	
Test operation		A	

X : Partition is visible

A: Partition visible and active (booting from this partition).

1: The both partitionen could, but don't have to be, get the same type

#### See also:

**Master Boot Record** 

**Bootprofile** 

**BootStar Settings** 

**Example for Several Operating Systems** 

**Example for Backup** 

Example for "Local Firewall"

**Example for Password Protection** 

**Example for Training Center** 

**Example for Several Computers** 

### **Example Password Protection**

#### Problem:

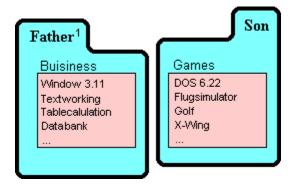
In some companies and private sectors, several users have access to one computer. However, not every user is supposed to gain access to the data of all other users.

Maybe you would like to ensure safeguarding of your data, even in the case of theft of the computer (or harddisk).

#### Solution using the bootmanager BootStar:

The bootmanager **BootStar** makes it possible for you to protect individual areas of the hard drive (partitions) by using a password query during the start of the computer. Thus, you can create an individual partition for every user. Different hierarchical levels can also be created in this connection.

Maybe you are also familiar with the problem that a self-employed freelancer or entrepreneur wants to use the computer for his or her work, but at the same time the children of the family want to use the computer to play games.



<sup>1</sup>: This bootprofile is password protected.

Whoever would like to use the computer at the moment only has to select his or her environment from a menu during booting.

In order to change the selection, the computer just needs to be restarted.

### **Technical Realization:**

The realization of the application example listed above is as follows:

	Partitionen		
Boot-Image	Buisiness	Games	
Father¹	A		
Son		A	

X : Partition is visible

A: Partition visible and active (booting from this partition).

1: This partition is password protected

#### See also:

Example for Several Operating Systems

Example for Backup

Example for "Local Firewall"

Example for Virus Protection
Example for Training Center
Example for Several Computers

# **Example for Training Center**

#### Problem:

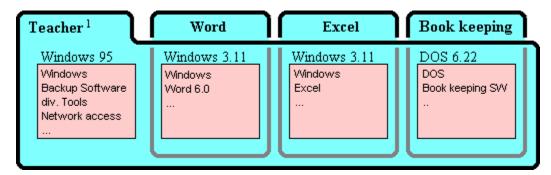
It is not uncommon that the computers in training centers are frequently used by several courses with completely different application needs. Some of the participants of training seminars also attempt to modify or even willfully destroy configurations.

#### Solution using the bootmanager BootStar:

By using the bootmanager **BootStar**, the participants can select the environment for their training. Thus, the instructors can set up separate configurations for different training courses.

This also offers the option that the participants of one course cannot access and see the environment of the other courses.

Similarly to the data backup example and/or password example, a configuration can be installed for the instructors on each system that cannot be used and/or destroyed by course participants, which allows the restoration of the system.



<sup>&</sup>lt;sup>1</sup>: At least this bootprofile should be password protected and / or hidden.

Now each course participant can easily select his or her training from the menu during booting. In order to change the selection, the computer just needs to be restarted.

#### **Technical realization:**

The realization of the application example listed above is as follows:

	Partitionen			
Boot-Image	Windows with Word	Windows with Excel	DOS with book-keeping	Backup
Word course	A			
Excel course		A		
Book-keeping course			A	
Teacher <sup>1</sup>	X	Х	X	A

X : Partition visible

A: Partition visible and active (booting from this partition).

1: At least this bootprofile should be password protected and / or hidden

#### See also:

Example for Several Operating Systems
Example for Backup
Example for "Local Firewall" Example for Virus Protection Example for Password Protection
Example for Several Computers

### **Example for Several Computers**

#### Problem:

In larger companies and institutions, it is often necessary to reinstall a series of new computers. In this case, each computer has to be set up individually "by hand" (a lot of work!), because there is no software, which automatically creates partitions.

#### Solution using the bootmanager BootStar:

The program of the bootmanager **BootStar** can be automated using a so-called "batch programming" routine, which can also be used to create partitions at the same time.

The computer can be booted from a boot diskette, which triggers this batch program automatically. It installs all desired partitions and the bootmanager **BootStar** as well -- if that is desired. It also offers support for installing operating systems.

This process can be used for any of the application examples.

#### Technical realization:

The realization of the application Example of Several Operating Systems listed above is as follows:

:LABELStart

BSDOS.EXE /Status ; Is BootStar installed?

If Errorlevel 1 Goto LABELClear ; No: Jump

BSDOS.EXE /Uninstall

:LABELClear

BSDOS.EXE /CLEARMBR ; Delete all existing partitions

BSDOS.EXE /Install ; Install BootStar

BSDOS.EXE /Partition:OS2-100 ; Create partition with 100 megabytes BSDOS.EXE /Partition:Linux- ; Partition with remaining hard drive BSDOS.EXE /Partition:Win-,HDD2 ; Partition on 2nd Hard drive

BSDOS.EXE /BootProfile:2 ; Activate Linux

#### See also:

Command Line Options
Script File

Config File

Return Values Using Exit Code

**Example for Several Operating Systems** 

Example for Backup

Example for "Local Firewall"

**Example for Virus Protection** 

**Example for Password Protection** 

**Example for Training Center** 

## **Installation (Overview)**

Unzip the file "BootStar.ZIP". It contains the following files:

BSDOS.EXE
BSDOS.HLP
BSWin.exe
BSWin.hlp
BSWin.hlp
BSWin.blp
BSWin.

BSWin.cnt Supplement for the Windows help file

FreeDOS.bin FreeDOS binary files

ReadMe.txt Brief description of the bootmanager

Manual.pdf Manual in Adobe Acrobat Portable Document Format

Order.txt Order form for orders via mail / fax

Both programs are completely compatible. The only difference is the operating system (DOS / Windows) under which they can be started. All other items (functionality and menu structure) are completely identical.

After all files have been unzipped, you can start the correct program directly.

However, you should first plan your system well, because it is very difficult to modify the configuration (partitions) at a later time.

#### See also:

Planning a System
Installation on New System
Installation on Existing System
Installation of New Operating System
Configuration of Bootprofiles

# **Planning a System**

**Before** you begin with the installation of the bootmanager or operating system, you should think about how you would like to organize your system:

Most important is here that you will first decide which operating systems you would like to use!

The next step should be determining how much harddisk space is required by which operating system (size of the harddisk). The manufacturer of the operating system usually already suggests a certain size, which you should use as your minimum.

It might be beneficial to reserve a part of your harddisk (a partition) to make data available for all or at least several operating systems.

It is best to leave some part of your harddisk unused (if it is large enough), so that you can use this part for later extensions.

It is very difficult to reconfigure a system once it has been set up.

Each operating system should have its own partition. You can use the bootmanager **BootStar** to manage up to 15 partitions per harddisk.

It is also possible to boot most of the operating systems from the 2nd harddisk (or higher), so that you might want to think about which operating system you would like to install on which harddisk. (The bootmanager **BootStar** supports up to four harddisks.)

Finally, the last step should consist of deciding which operating system is supposed to "see" which partitions, and which partitions should be hidden.

Some operating systems have limitations regarding booting and visibility, which have to be observed:

Problems with DOS, Windows 95/98/ME

Problems with Windows NT/2000

Problems with Linux

Some hardware have limitations regarding booting and running the setup, which have to be observed: <u>Problems with Hardware</u>

Once you have decided how to set up your system, you should then install the bootmanager **BootStar** on the harddisk(s). It is advisable to install the bootmanager **BootStar** before installing the operating system(s), so that the separation of the operating systems functions better.

<u>Installation on New System</u> <u>Installation on Existing System</u>

The you need to configure the bootprofiles: Configuration of Bootprofiles

Finally, install the operating system(s): Installation of Operating System

# **Installation on New System**

Installing the bootmanager *BootStar* on a new system is very easy. All you have to do is start the program. The program will ask you immediately whether you want to install the bootmanager. Answer with "Yes."

Then you will be asked to build an emergency disk for safeguarding purposes. If a system really is brandnew and has not been used yet, then this backup is not necessary.

Now you can start the installation of the operating systems.

#### See also:

Installation (Overview)
Installation of Operating System
Master Boot Record

Problems (Overview)
Problems with DOS, Windows 3.x/95/98/ME
Problems with Windows NT/2000
Problems with Linux
Problems with Hardware

# **Installation on Existing System**

It is very easy to install the bootmanager **BootStar** on an existing system: Simply start the program. You will be asked whether you would like to install the bootmanager. Answer with "Yes."

Then you will be asked to build an emergency disk for safeguarding purposes. You should seriously consider doing so, because otherwise you cannot restore your system 100% if any problems should occur.

After the installation is complete, the bootprofile table will appear. Here you will now need to configure your boot settings:

Configuration of Bootprofiles

#### See also:

Installation Overview
Build Emergency Disk
Installation of Operating System

General Problems and Limitations
Problems with DOS, Windows 3.x/95/98/ME
Problems with Windows NT/2000
Problems with Linux
Problems with Hardware
Problems with Software

### **Installation of New Operating System**

If you would like to install an operating system **before** you install the bootmanager **BootStar**, you may disregard the following details!

Installing operating systems after the bootmanager has been installed enables a better separation among the operating systems.

To install a new operating system while installing the bootmanagers **BootStar**, please carry out the following steps:

- · Create a partition for the new operating system (see also details about the partition types).
- · Create a bootprofile, which contains nothing but the just created partition.
- Install the operating system in this partition. (During the first booting, select the bootprofile using <Ctrl+Enter> to boot from disk.)
- Configure the bootprofiles according to your wishes.

If the new operating system is supposed to be installed from CD-ROM, please execute the following steps:

- · Insert a bootable floppy disk with a CD-ROM device driver
- · Select bootprofile with "<Ctrl+Enter>" (this will booting from the floppy disk)
- · Start the program of the operation system

If the new operating system **must** to be installed from **bootable** CD-ROM, please execute the following steps (the current level of BIOS technology does not permit any other solution):

- · Select bootprofile
- · Perform reset
- Set the "boot sequence" in the BIOS to "CDROM, ..."
- Install operating system
- · Return the "boot sequence" in the BIOS back to "C:, A:"
- · Select bootprofile

#### See also:

Installation (Overview)
Planning a System
Configuration of Bootprofiles
Partition Types

General Problems and Limitations
Problems with DOS, Windows 3.x/95/98/ME
Problems with Windows NT/2000
Problems with Linux

# **Partition Types**

Almost each operating system uses its own file system to save its data. Recognition of the file system is triggered by the partition type. Thus, for each file system, the correct partition type has to be entered. (In this program, the partition type is indicated using a hexadecimal system.)

The following list can never be complete because every manufacturer of operating systems is basically able to define his or her own types at any time.

#### MS-DOS:

FAT 12, partition smaler than 32 MB: Type "01"

FAT 16, partition smaler than 504 MB version higher than 3.3: Type "04"

FAT 16, partition smaler than 2 GB and end not higher than 8 GB: Type "06"

#### Windows 95:

FAT 16, partition smaller than 2 GB and end not higher than 8 GB: Type "06"

FAT 16, partition smaller than 2 GB and end higher than 8 GB: Type "0E"

#### Windows 95b OSR 2, Windows 98:

FAT 16, partition smaller than 2 GB and end not higher than 8 GB: Type "06"

FAT 16, partition smaller than 2 GB and end higher than 8 GB: Type "0E"

FAT 32, end not higher than 8 GB: Type "0B"

FAT 32, end higher than 8 GB: Type "0C"

#### Windows NT:

FAT 16, partition smaller than 4 GB and end not higher than 8 GB: Type "06" NTFS; start not higher than Cylinder 1024: Type "07"

#### Windows 2000:

FAT 16, partition smaller than 4 GB and end not higher than 8 GB: Type "06"

FAT 16, partition smaller than 4 GB and end higher than 8 GB: Type "0E"

FAT 32, partition smaller than 127 GB and end not higher than 8 GB: Type "0B"

FAT 32, partition smaller than 127 GB and end higher than 8 GB: Type "0C"

NTFS; start not higher than Cylinder 1024: Type "07"

#### OS/2:

HPFS; partition smaller than 2 GB and end not higher than 8 GB: Type "07" FAT 16, partition smaller than 2 GB and end not higher than 8 GB: Type "06"

#### Linux:

ext2fs, start not higher than Cylinder 1024: Type "83" Swap partition (should be set up additionally): Type "82"

#### **Extended Partitions:**

Normal: Type "05"

Partition bigger than 8 GB or higher than 8 GB: Type "0F"

#### **Novell NetWare:**

Netware 286: Type "64" Netware 3.11: Type "65"

#### Other:

If one partition type is not listed here, type "06" is usually suitable for the installation of an operating systems. The type is often going to be corrected automatically during the installation.

If needed, consult the manual of your operating system to obtain further information and tips.

### See also:

Installation of New Operating System
Select Partition Type
Properties of partition
Problems with DOS / Windows 95/98/ME
Problems with Windows NT/2000
Problems with Linux

# **Configuration of Bootprofiles**

The bootprofiles constitute the individual choices, which are offered to you by the bootmanager **BootStar** while the computer is being booted. They contain all information needed for booting.

The minimum amount of information required in these bootprofiles consists of which partition should be visible and which partition should be the boot partition (disk).

These settings are inserted into the bootprofile table after the bootmanager has been installed.

The bootprofiles can be reconfigured at **any time without any problems**, so that any extensive planning ahead of time is not necessary. You probably will change the settings of individual bootprofiles at one or another or add new ones.

Please note that some operating systems (e.g., Windows NT/2000 and Linux) require the die exact position of your partition entry in the master boot record partition table. This has to be configured in the bootprofile under "Positions in MBR."

#### See also:

Installation Overview
Installation of New Operating System
Bootprofiles
Bootprofile Table
Security Features

General Problems and Limitations
Problems with DOS, Windows 3.x/95/98/ME
Problems with Windows NT/2000
Problems with Linux

### **Uninstallation**

The uninstallation of the bootmanager **BootStar** is as easy as the installation: Just start the program and choose the menu item "BootStar / Uninstallation".

Of course, the uninstallation is only possible if not more than 4 primary partitions have been set up. The reason is that all partitions have to be entered into the partition table of the master boot record.

A "default" bootstrap is written into the master boot record during the uninstall process.

If you require exactly the same conditions after the uninstall process as existed before the installation, you can open the master boot record from the file you created during installation.

#### See also:

Installation (Overview)
Installation on New System
Installation on Existing System

# **Problems (Overview)**

#### General:

- The bootmanager **BootStar** is written into the first cylinder (track 0) of the respective harddisk. That is the reason the program cannot be used with other programs (usually also bootmanagers), which occupy and use the same memory location.
- For most operating systems, it might be necessary to set the harddisk in the BIOS to the "LBA" mode.
- Hard drives, which need a software driver (either because of their size and/or age) usually cannot be used with the bootmanager **BootStar**.
- While running Windows the partition Windows has been started can't be modified. The reason for this is Windows blocked the partition. You can solve this problem by using the **DOS version of this program**. Please note that this does **not function from within the DOS box** offered by Windows because the same problem would occur.

#### See also:

Problems with DOS / Windows 95/98/ME
Problems with Windows NT
Problems with Linux
Problems with Hardware

### Problems with DOS / Windows 95/98/ME

#### General:

- · For FAT 16 partitions, the maximum partition size is 2 GB.
- For MS-DOS up to version 4.x, only one primary partition at one time (bootprofile) may be visible. (However, it is not a problem to install several.).
- · It is possible to boot from the 2nd harddisk only if no primary partition is visible on the 1st harddisk.

#### Installation:

The program of Windows 95/98/ME writes over the master boot record during installation. This damages the bootmanager *BootStar*. Therefore, after the installation, the file program of the bootmanager *BootStar* should be executed in order to correct the error automatically.

#### Installation starting above 2 GB:

(works only with Window 95 and higher)

- · Set up type "0E" partition.
- · If other operating systems are to access this partition, type "0E" should perhaps be changed to "06" after the installation process.

#### Installation on second hard drive:

When installing on the second hard drive, the power has to be disconnected to the first hard drive during the installation process.

An alternative is to "manually" install DOS (with FORMAT, SYS, and COPY).

#### See also:

**Partition Types** 

Problems (Overview)
Problems with Windows NT/2000
Problems with Linux
Problems with Hardware

### **Problems with Windows NT/2000**

#### General:

- · For FAT 16 partitions, the maximum partition size is 4 GB.
- Windows NT: It is possible to boot from FAT 16 (type "06") partitions only if the partition starts before cylinder 1024.
- Only one Windows NT/2000 partition (bootprofile) may be visible at any one time. (However, more than one can be installed without any problems.)

#### NTLoader:

Windows NT/2000 requires the files NTLDR, NTDETECT.COM, and BOOT.INI for booting. These files are usually located in the same partition, in which Windows NT/2000 has been installed. However, if Windows NT/2000 has been installed **after** another Microsoft operating system (e.g., Windows 95/98/ME), these files are located in the partition of the first Microsoft operating system. If this is the case, you have to copy these files to the Windows NT/2000 partition "manually" after installing the bootmanager **BootStar**.

#### **BOOT.INI:**

The file BOOT.INI contains the information on which partition Windows NT/2000 is installed. In this case the information concerns the position of the partition in the partitioning table of the master boot record (empty entries are only counted while bootmanager **BootStar** is installed). That means that the master boot record partition table and the file BOOT.INI from Windows NT/2000 have to be in agreement with one another.

The position in the master boot record partition table can be set in the bootprofile ("Positions in MBR").

The position in the BOOT.INI can be set as follows:

[boot loader]

default=multi(0)disk(0)rdisk(0)partition(1)\WINNT

[operating systems]

multi(0)disk(0)rdisk(0)partition(1)\WINNT="Windows NT"

The information specified in "partition(1)" is decisive. If needed, all specifications entered have to be corrected! The specification for the first partition is the number 1.

If Windows NT/2000 is installed **after** the bootmanager **BootStar**, then these problems will not occur.

While the bootmanager **BootStar** is installed, empty entries are always counted as well as along as the "BootStar Dummy" entries are activated. Otherwise, the empty entries are ignored.

#### Windows NT: Installation above 2 GB:

- · To install above 2 GB, the partition has to be formated (FAT 16) with this program.
- IDE hard drives with 8 GB and larger are supported without any problems starting with Windows NT 4.0 Service Pack 4 (SP4). Contributing to the solution is a new "Atapi.sys" driver. More information can be found on the Internet at: http://support.microsoft.com/support/kb/articles/g197/6/67.asp

#### Installation on 2nd harddisk:

**To install** from the 2nd hard drive, the power has to be **disconnected** to the 1st hard drive. After the installation of Windows NT/2000 is complete, the power is reactivated.

A small "boot partition" has to be created on the 1st hard drive. The size for this "boot partition" should be equal to the size of the named file or the "swap file."

#### Format (FAT 16) this partition with this program!

Then copy the files NTLDR, NTDETECT.COM, and BOOT.INI from the Windows NT/2000 partition to this "boot partition." The files have to have the attributes "S," "H," and "R".

The file BOOT.INI also has to list the 2nd harddisk in "rdisk()":

[boot loader]

default=multi(0)disk(0)rdisk(0)partition(1)\WINNT

[operating systems]

multi(0)disk(0)rdisk(0)partition(1)\WINNT="Windows NT"

If necessary, all entered specifications have to be corrected! The entered specification for the first harddisk is a "0" (zero).

#### See also:

<u>Partition Types</u> <u>Positions in Master Boot Record</u>

Problems (Overview)
Problems with DOS / Windows 95/98/ME
Problems with Linux
Problems with Hardware

### **Problems with Linux**

#### General:

Linux can only be booted if the partition starts on a cylinder before cylinder 1024.

#### **LILO Keyboard Control:**

In order to transfer keyboard entries from the bootmanager **BootStar** to LILO, it is necessary for some distributions to build LILO with a specific option. For more details about this subject, please read then LILO documentation.

#### **LILO Configuration - lilo.conf:**

The file lilo.co contains the information on which partition Linux is installed. This information refers to the position of the partition in the master boot record partition table. (Empty entries are only counted while the bootmanager **BootStar** is installed.) Thus, the master boot record partition table and the file lilo.conf from Linux have to be in agreement with one another.

The position of the respective partition can be set in the bootprofile.

The position of the file lilo.conf can be set as follows:

boot = /dev/hda1 ; IDE harddisk boot = /dev/sda1 ; SCSI harddisk

The specification "hda1" and/or "sda1" is decisive. If necessary, all entered specifications have to be corrected! The entered specification for the first partition is a "1".

While the bootmanager **BootStar** is installed, empty entries are always counted as well as along as the "BootStar Dummy" entries are activated. Otherwise, the empty entries are ignored.

#### See also:

<u>Partition Types</u> <u>Positions in Master Boot Record</u>

Problems (Overview)
Problems with DOS / Windows 95/98/ME
Problems with Windows NT/2000
Problems with Hardware

### **Problems with Hardware**

### Mainboard ASUS (mainly P2B / P5A):

#### Problem:

· Error while loading partition tables

#### Solution:

- · BIOS Update
- Removing the "BootStar Dummy" entries from the partition table by using "BSDOS.EXE /Dummies:Off"

#### Problem:

· After installing the bootmanager **BootStar** the computer does not boot anymore, also booting form floppy disk is not possible

#### Solution:

- 1. Enter the following onto the BIOS Setup: "LBA" -> "Normal", "Cylinder" -> 100
- 2. Boot from floppy disk
- 3. Removing the "BootStar Dummy" entries from the partition table by using "BSDOS.EXE /Dummies:Off"
- 4. Enter the original information into the BIOS Setup

#### SCSI Controller Adaptec 2940 Firmware Version 1.20-1.22:

#### **Problem:**

- · Error while loading partition tables (158)
- · The program cannot be started

#### Solution:

- · Deactivate "Interrupt 13 BIOS Extensions Support" (Harddisks smaller than 8 GigaBytes)
- · Firmware Update to version 1.23 or higher

#### **IOMEGA ZIP Drives and Windows NT**

#### Problem<sup>•</sup>

Single error message "Drive not Ready" when starting the prorgam.

#### Solution:

Select "Ignore." (This prompt is based on a Windows NT bug.)

#### **BIOS with Anti-Virus Options (Almost All BIOS):**

#### Problem:

Warning after which a program tries to modify the master boot record. This is most likely a virus.

#### Solution:

This might be a message from an anti-virus program: The boot manager BootStar modifies the master boot record. That is the reason why some anti-virus programs erroneously eport this as a virus. Please permit the modification because the boot manager program **BootStar** can otherwise not be installed.

### See also:

Problems (Overview)
Problems with DOS / Windows 95/98/ME
Problems with Windows NT/2000
Problems with Linux

### **Problems with Software**

### Other Partitioners such as FDISK and PartitionMagic:

#### Problem:

· While the bootmanager **BootStar** is installed, the partition table is considered "damaged"

#### 1. Solution (Recommended):

Use only the program of the bootmanager **BootStar** to partition your hard drive.

#### 2. Solution:

Deinstall the bootmanager **BootStar** temporarily while using the other partitioner:

- 1. Deinstall bootmanager BootStar
- 2. Use other partitioner
- 3. Reinstall bootmanager BootStar

#### Problem:

While the bootmanager **BootStar** is installed, partitions exist, which are not described in the master boot record partition table.

#### Solution:

See above

#### See also:

How it works (Overview)

#### **Drive Image Programs Such As Norton Ghost / Powerquest Driveimage:**

#### Problem:

While the bootmanager BootStar is installed, the partition table is considered "damaged"

#### 1. Solution (Recommended):

Use the drive image programs before installing the bootmanager **BootStar**. This eliminates these problems.

#### 2. Solution:

Use the bootmanager **BootStar**.

#### 3. Solution:

(Temporarily) deactivate "BootStar Dummies":

- Deactivate "BootStar dummies"
- 2. Use drive image program
- 3. Activate "BootStar Dummies" (if desired)

#### See also:

**BootStar Dummies** 

#### Other Bootmanager with Installation in Master Boot Record:

#### Problem:

The bootmanager BootStar also installs to the master boot record

#### Solution:

None available: You can only install one program in the master boot record at this time!

#### **Anti-virus Programs:**

#### Problem:

Virus program is reporting a virus in the master boot record for the bootmanager **BootStar**.

#### Solution:

Unnecessary: The bootmanager program **BootStar** changes the master boot record, thus some antivirus programs **erroneously** report this change as avirus.

#### **Norton Antivirus**

#### Problem:

Norton Anti-virus reports a "bloodhound.boot" warning for the bootmanager **BootStar** and the emergency disk.

#### Solution:

Unnecessary: This message is only a warning for a **possible** virus and does not indicate the actual identification of such a virus.

#### See also:

Problems (Overview)
Problems with DOS / Windows 95/98/ME
Problems with Windows NT
Problems with Linux
Problems with Hardware

## **Open Table**

### Program:

Partition table / File / Open... Bootprofile Table / File / Open... Extended partition table / File / Open...

You may load the content of a currently visible window (..., table, or opening message) from a previously created file.

If you load a partition table, the old partition table will be completely overwritten with the new one. In case you are loading an outdated or invalid partition table, you may use this feature to overwrite partitions.

An opening message text may be loaded from a normal ASCII file. The tables have to be loaded from a file previously created with this program.

#### See also:

Save Table

## **Save Table**

### Program:

Partition table / File / Save Table... Extended partition table / File / Save Table... Bootprofile Table / File / Save Table...

You may save the content of a currently visible window in a data file. These files should be stored on a floppy disk if possible so that continuous access is guaranteed even if you should encounter problems (with accessing the harddisk).

All files are saved in an ASCII file without any encoding. This means you might want to consider protecting them from any unauthorized access.

#### See also:

Open Table

# **Open Partition**

### Program:

Partition table / File / Open Partition... Extended partition table / File / Open Partition...

You may load the contents of an entire partition from a previously saved file. In this case, the entire contents of the partition will be deleted and overwritten with the contents of the partition from file.

The partition is selected by making the appropriate choice in the partition table.

#### See also:

Save Partition

### **Save Partition**

### Program:

Partition table / File / Save Partition...

Extended partition table / File / Save Partition...

The following settings have to / can be made for each saving:

#### Name:

Enter the file name.

#### File Size:

Files of saved partitions can be rather large. It is thus possible to split these files onto several smaller ones. The split can be carried out either automatically (data volume is full), or you can specify a fixed file size. The latter is best if, e.g., these files are to be saved on CD-ROMs later on.

#### Disk Change Prompt:

If the file size has been set manually, all files are usually created in the same directory first and subsequently distributed to different data volumes. To facilitate this process, the prompt for changing the data volume can be suppressed.

#### File Compression:

Since the generated files can easily become rather large, it is frequently recommended to compress them. A compression disadvantage is the longer program runtime.

If this program supports the logical save of partitions, this process will be activated automatically.

#### See also:

**Open Partition** 

## **Open Master Boot Record**

### Program:

File / Open Master Boot Record... / nth Harddisk

You may load the content of the master boot record (incl. bootmanager) in its entirety from a previously created binary file (\*.bms). (This file should have been created during installation.)

In this case, you should make sure that the master boot record contains the bootstrap as well as the partition table and is written in its entirety from the partition table to the file of the master boot record. Loading an outdated or invalid partition table can result in the loss of partitions.

It rarely serves any purpose to load a master boot record. Should the restoration of the bootstrap be absolutely necessary, the following process might be helpful:

- If needed, uninstall BootStar.
- · Save partition table to file (\*.bmt).
- · Open master boot record.
- · Open partition table from the file generated above (\*.bmt).

#### See also:

Save Master Boot Record
Uninstall BootStar
Partition Table
Open Partition table
Save Partition table
Build Emergency Disk

## **Save Master Boot Record**

**Program:**File / Save Master Boot Record... / nth Harddisk

You may save the entire master boot record (incl. any installed bootmanager) to a binary file (\*.bms). This file may later be used to restore the master boot record exactly as it has been saved (e.g., after the bootmanager has been uninstalled).

#### See also:

Master Boot Record Open Master Boot Record Build Emergency Disk

## **Build Emergency Disk**

### Program:

File / Build Emergency Disk

You can create an emergency recovery disk, which will contain the following:

- · FreeOS
- Program (DOS version)
- · Master Boot Record as binary file (\*.bms) for every hard disk
- · Partition table (\*.bmt)
- · Bootprofile table (\*.bmi), if needed

You may use this disk to restore your system if all or part of it has been destroyed (due to a technical error or by mistake).

#### Note:

It is not possible to create the emergency disk from the same drive used to start the program! (If necessary, please copy the program to another drive before building the emergency disk.)

The bootmanager **BootStar** has no connection with FreeDOS. The bootmanager BootStar does not use any function or functionality of FreeDOS. FreeDOS will be used only to make the emergency disk bootable.

FreeDOS is a completely independent and different program.

#### See also:

Open Master Boot Record Save Master Boot Record

Copyright Liability / Warranty

## **Properties of partition**

### Program:

Partition table / Edit / Properties...

Extended partition table / Edit / Properties... / Selection

The following settings have to / can be made for each partition:

Size:

Size of parition in MegaByte and in per cent

Start:

Beginning of partition

End:

End of partition

Type:

Pressing the button "Selection" offers a list from which to choose the partition type.

Name:

Here you may indicate a name

Changing the ending information is only possible for FAT and expanded partitions. And then only if the corresponding space is available within the partition.

Before changing the size of a partition, you should - if possible - defragment the partition first. (Sorry, this program cannot offer a defragmentation function.)

#### See also:

Partition table
Partition Types
Select Partition Type

# **Select Partition Type**

**Program:**Partition table / Edit / Properties... / Selection Extended partition table / Edit / Properties... / Selection

A list will offer different partition types. Select the one based on the file system to be used.

You may also select a partition type based on the operating system being used: Partition Types

#### See also:

Properties of partition Partition table

## **Properties of Bootprofile**

#### **Program:**

Bootprofile Table / Edit / Properties...

You may indicate the following settings for each bootprofile:

#### Name:

Enter the name of the bootprofile. This name will appear in the bootmanager **BootStar** during booting. (The bootprofile may then be selected by either pressing the first letter of the name or by using the cursor keys.)

#### Boot Disk:

Enter the drive from which to load using this bootprofile. If you select a harddisk, you have to indicate which partition should be active as well.

Some operating systems support only the 1st disk and the 1st harddisk. If you would like to boot from the 2nd harddisk (or higher), most operating systems require that the previous harddisks do not have any visible partitions.

#### Active:

Indicate the partition from which to boot. (You may only activate "visible" partitions, which are located on the "boot disk.")

Here you will activate the extended partition and the secondary partition within the extended partition table in order to boot from a secondary partition.

#### Visible:

Enter up to four partitions you would like to make visible in this bootprofile. During booting, these partitions are used by *BootStar* to enter them into the master boot record partition table. (The reason for the limitation to only four partitions rests with the master boot record.)

#### See also:

Bootmanager BootStar
Edit Security Settings
Edit Keyboard Buffer
Positions in Master Boot Record

## **Edit Security Settings**

### Program:

Bootprofile Table / Edit / Properties... / Security Settings

You may indicate the following security settings for each bootprofile:

#### Password:

Here you may enter a password required for the booting of this bootprofile.

This function may be used to protect partitions by indicating a password for all bootprofiles containing the partition to be protected.

#### Booting from Disk:

If you deactivate this option, it will be impossible to boot the selected bootprofile from disk during the booting process using <Ctrl+Enter> instead of <Enter> from **BootStar**.

#### Visible Bootprofile:

If you deactivate this option, this bootprofile will not be displayed by **BootStar** during the booting process. Only after pushing the "hot keys" will this bootprofile become visible and may then be selected. (The "hot keys" may be changed in the "**BootStar** Settings." Usually, <Alt+B>, <Alt+M> are the "hot keys.")

#### See also:

Overview over Security Features
Properties of Bootprofile
BootStar Settings
BootStar Password

## **Edit Keyboard Buffer**

### Program:

Bootprofile Table / Edit / Properties... / Keyboard Buffer

You may indicate up to 16 characters for each bootprofile, which otherwise would have to be "manually" selected while booting.

This allows for the integration of subsequent bootmanagers such as e.g., LILO or NTLoader.

Most of the keys may be specified in this field. The remaining keys (e.g., "Enter") may be specified if you press the "Scroll Lock" key. You may enter all keys until the "Scroll Lock" key has been pressed again. Bis

(Please note that the American keyboard driver will be used during booting.)

#### See also:

Properties of Bootprofile

### **Positions in Master Boot Record**

#### **Program:**

Bootprofile Table / Edit / Properties... / Positions in MBR

It is possible to vary the positions of the individual partitions within the master boot record partition table. (These settings are reset each time a partition is changed or modified. In that case, it is necessary to reenter the settings of the "Positions in MBR".)

This is necessary for some operating systems to ensure that they function properly (Windows NT/2000 and Linux). It might be possible therefore, that these operating systems expect the partition to be located in the exact same position in the master boot record as before the bootmanager **BootStar** had been installed.

For most operating systems, the order of the partition tables also determines the logical drive designation. This means that the order of the logical drive designation can be modified by changing the order of the entries in the partition table.

Microsoft DOS/Windows up to 98 always require the following drive letter specification sequence:

- 1. Primary, active partition on 1st harddisk
- 2. Primary partitions on 2nd harddisk according to the "positions in the MBR"
- 3. Secondary partitions on 1st harddisk according to order on hard drive (cylinder, head, sector)
- 4. Secondary partitions on 2nd harddisk according to order on hard drive (cylinder, head, sector)
- 5. Remaining partitions primary partitions on 1st harddisk according to "Positions in MBR"

All additional harddisks are treated accordingly.

#### See also:

Master Boot Record
Problems with Windows NT
Problems with Linux
Properties of Bootprofile

### **Remove**

### Program:

Partition table / Edit / Remove... Extended partition table / Edit / Remove...

You can remove an existing partition. This removes the reference pointing to this partition within the partition table. The used space on the hard disk is thus marked as "free".

However, the data contained within the partition are not cleared (overwritten), Use the Data Killer *WipeStar* to completely delete partitions, which then prevents the recovery of these data with a harddisk editor.

#### See also:

**Partition Table** 

## **Formating**

### Program:

Partition table / Edit / Format... Extended partition table / Edit / Format...

You can use this program to format a (n existing) partition. A selection of file systems is at your disposal for this purpose. This list contains only those file systems that can be formatted with this program.

If you would like to use a different file system, please utilize an external formatting program. Almost every operating system has such a program included.

Most of the setup programs of operating systems offer the opportunity to format a partition during the installation process as well.

#### See also:

<u>Properties of partition</u> <u>Partition table</u>

## **Install Bootmanager**

### Program:

Bootmanager / Install...

The installation process writes the actual bootmanager to the harddisk. During the process, entries of the master boot record partition table are copied and entered into the new **BootStar** partition table and the bootstrap is overwritten with the bootmanager.

During the installation, you should choose to backup the master boot record to a file, so that you will be able to return the system -- after the uninstall process -- to the exact same condition it was before the installation.

**BootStar** may be installed separately on every harddisk. If **BootStar** is not installed on the first harddisk, the bootprofiles can be selected only through the use of the command line options.

While **BootStar** is installed, no other harddisk partitioner may be used (e.g., FDisk or PartitionMagic)!!!

#### See also:

Partition table
Master Boot Record
Uninstalling Bootmanager

# **Uninstall Bootmanager**

### Program:

Bootmanager / Uninstall...

You can uninstall the bootmanager **BootStar** only if the **BootStar** partition table of the corresponding harddisk does not have more than four partitions. (The reason for this is the format of the master boot records)

#### See also:

**Uninstallation** 

Master Boot Record Installing Bootmanager Open Master Boot Record

# **Opening Message**

### Program:

Bootmanager / Opening Message...

Here you may specify an opening message (any text), which will be displayed during the booting process and **before** a bootprofile is selected.

You can use the text message to present general information or information about the bootprofiles to the user. You may use about 1 000 characters.

(This function is mainly of interest for computers with different users.)

#### See also:

Settings Colors Bootprofile

## **Settings**

#### **Program:**

Bootmanager / Settings...

Here you may specify some general settings. which influence the functions of the bootmanager **BootStar** while booting:

#### Headline:

Choose, which headline in the bootmenu (selection while booting) is been shown.

#### **Default Choice:**

Choose, whether the same bootprofile should always be active or the previously selected bootprofile:

- Always the same: The default bootprofile is the one activated in the bootprofile table.
- Previous: The default is always the one chosen previously during the last booting.

#### Bootprofile Selection:

Here you can activate or deactivate the display of the chosen bootprofile.

#### Hot Kevs:

Indicate one or two keys to be pushed to receive a list of the invisible bootprofiles (Security Settings of the Bootprofiles) and to make a selection.

#### Auto-boot / Time:

Specify a time after which the auto-boot will start -- if the user does not make a choice. Auto-boot will boot the active bootprofile.

#### German Keyboard Driver:

Usually only the American (U.S.) keyboard driver is active when booting the computer. Computers utilizing a German keyboard should also use the German keyboard driver so as not to confuse users with an incorrect keyboard layout.

If you do not use an American or German keyboard, please take the missing keyboard driver into account when assigning passwords and hot-keys in the bootmenu.

#### See also:

Bootmanager BootStar
Bootprofile Table
Edit Security Settings
Colors
Night Service
BootStar Password

## **Colors**

### Program:

Bootmanager / Colors...

Here you may select the colors of **BootStar** during booting.

Change the color by first selecting the element color, then the foreground color, followed by the background color.

#### Please Note (DOS Version):

You may switch from one field to the next by using the <Tab> key. To chose any color, please use the cursor keys.

#### See also:

Bootmanager BootStar Settings

## **Night Service**

### Program:

Bootmanager / Night Service...

Here you can specify a time period during which a separate bootprofile is selected as the default setting in the bootmanager program while your computer is booting. This is very practical if you would like to perform a specific **automated function during the night**, such as a data backup, for example.

#### Activate:

Indicate whether the night service switch is to be activated.

#### Time

Indicate a period of time during which the night service switch is to be active.

#### Bootprofile:

Enter the bootprofile to be selected during the night service.

Backing up data also requires a lot of time during which the computer is not available or only partially available for other tasks. Most people also lack the necessary discipline to actually perform a data backup on a regular basis.

#### See also:

Boot Profiles Settings

### **BootStar Password**

### Program:

Bootmanager / BootStar Password...

Here you may protect the entire bootmanager **BootStar** (incl. all settings) with a password.

If you specify a new password, a perhaps already existing password will be deleted.

Please make a note of this password! If you should forget this password, it will be impossible either to start the program or to uninstall *BootStar*! You are then also longer able to view or modify the partition information.

There is no master password or something similar to remove the created password. If you forget the password, the manufacturer/vendor cannot help you!!!

(If a master password would exist, the password protection would be compromised. An individual verification of the password deletion authorization is not possible because you cannot prove to the manufacturer that you are authorized to delete the password.)

#### See also:

Edit Security Settings Bootmanager BootStar

## **Partition Table**

### Program:

Windows / nth Harddisk

This table displays all partitions of the harddisk.

You will see the following:

- · Number (position) and name of the partition
- Active partition ("<A>") (only if the bootmanager **BootStar** has not been installed.)
- Start / end of the partition (only the cylinder specifications are indicated here. You will receive information that is more detailed if you edit the respective partition).
- · Type of partition

#### See also:

Properties of partition
Open File
Save File

# **Bootprofile Table**

### Program:

Windows / Bootprofile table

You will see the following:

- · The name of the bootprofile
- · Active Bootprofile ("A")
- · For each existing partitions:

An "X" means that this partition is visible.

An "A" means that this partition is visible and active (this is the boot partition).

More details are available when editing the bootprofile.

#### See also:

Bootprofile
Properties of Bootprofile
Open File
Save File

### **Extended Partition Table**

### Program:

Partition table / Window / Extended Partition

You may edit the extended partition table the same way as the partition table.

If you would like to boot from a secondary partition, you have to activate that secondary partition within the extended partition table; then switch this extended partition from inactive to "active" in the bootprofile.

Some operating systems do not support booting from secondary partitions at all or only if no primary partition is visible.

The functionality of the bootmanager, unfortunately, is not available to secondary partitions. The entire extended partition can be either only completely visible or completely invisible. The selection of the active partition cannot be set in the bootprofile either.

#### See also:

Properties of partition
Partition table
Bootprofile

## Registration

### Program:

Help / Registration...

#### This menu item is only in the shareware version available!

Here you can type in your registration key, which you will receive after ordering.

This registration key always consists of an "User-ID" and a "key."

You can register both of the programs (DOS and Windows) as well as the perhaps installed bootmanager by clicking on "OK." Only after the registration is complete is it possible to use the program without limitations and/or restrictions.

All future installations performed with this program (EXE file) will be executable afterwards without any restrictions as well.

#### See also:

Shareware (Restictions)
Updates
Order
Copyright / Support
Liability / Warranty

## **Command Line Options (Overview)**

All functions of this program may also be called from within "batch files" using so-called "command options." This is of special interest to companies that have to perform many installations.

#### Call:

```
BSDOS.EXE [/Hidden] [/File[:File]] [/MBR[,HDDn]] [/ClearMBR[,HDDn]]
BSWin.exe [/Partition[:n[,HDDn][=tt|:File]|:[NNN]-[s][,HDDn]],HDDn]]
[/Install[,HDDn]] [/Uninstall[,HDDn]] [/Status[,HDDn|:File]]
[/Dummies[:On|:Off]]
[/BootProfile[:n|:File]] [/Time[:n|:Off]]
[/Reboot[:n|:Off]] [/Password:PPP[-NNN]] [/?]
```

#### /Install

Installs the bootmanager on the harddisk.

Return:

"1," if successful.

#### /Uninstall

Uninstalls the bootmanager from the harddisk.

Return:

"1," if successful.

#### /Status

Indicates whether the bootmanager has been installed on the harddisk.

Return

If the bootmanger is installed selected bootprofiles; otherwise "0" (zero).

#### /Status:File

Write the BootStar Options into the file "File". Functions only if the bootmanager is installed.

Return:

"1," if successful.

#### /MBR

Reinitializes the bootstrap in the master boot record.

Return:

"1," if successful.

#### /MBR:File

Loads the master boot record.

Return:

"1," if successful.

#### /ClearMBR

Deletes die MBR partition table(s). While the bootmanager is installed, the MBR table of all harddisks on which the bootmanager is installed will be deleted. Otherwise, only on the indicated harddisk. Return:

"1," if successful.

#### /Dummies

Shows if the BootStar Dummies are enabled. Functions only if the bootmanager is installed.

Return:

"1," if enabled.

#### /Dummies:On

BootStar Dummies will turned off. Functions only if the bootmanager is installed.

Return:

"1," if successful.

#### /Dummies:Off

BootStar Dummies will be turned on. Functions only if the bootmanager is installed.

Return:

"1," if successful.

#### /Partition

Indicates the partition table.

Return:

Number of existing partitions.

#### /Partition:n

Activates the n.partition.

This parameter may only be used if the bootmanager is not installed.

Return:

"n," if partition exists.

#### /Partition:n=tt

Changes the type of the n. partitons.

tt is the type in hex

Return:

"n," if partition exists.

#### /Partition:n:File

Loads the "n"th partition from the file "file".

Return:

"n," if partition exists.

#### /Partition:NNN-s

Adds a new partition. For this partition will be added a new bootprofil with only this partition if the bootmanager is installed.

NNN: Name of the bootprofile

s: Size in megabytes

The "-" have to be given also the "s" is not present.

Return:

Count of partitions after adding the partition.

#### /BootProfile

Displays the bootprofile table. Functions only if the bootmanager is installed.

Return:

Number of bootprofiles.

#### /BootProfile:n

Activates the nth bootprofile. Functions only if the bootmanager is installed.

Return:

"n," if the bootprofile exists.

#### /BootProfile:File

Loads the bootprofile table from the file "file". All already existing bootprofiles will be deleted.

Return:

Number of bootprofiles.

#### /Time:n

Indicates in seconds the time that will elapse until booting. Functions only if the bootmanager is installed.

Return:

Time in seconds (255, if deactivated).

#### /Time:Off

No automatic booting.

Return:

Time in seconds (255, if deactivated).

#### /Reboot

Reboots the system (reset).

#### /Reboot:n

Reboots the system with the nth bootprofile (reset). Functions only if the bootmanager is installed.

#### /Reboot:Off

Turn off the system (requires "Advanced Power Management V1.2").

Return

"0", if not successful.

#### /Password:PPP-NNN

Permits calling the program and, if needed, creates a new password. This command might have to be issued first!

PPP: Password for this program

NNN: New password for this program

Return:

"1", if incorrect password was indicated.

#### /Hidden

Suppresses screen output.

Return:

None.

#### /File[:File]

Reads commands from file. Details in the following section.

Return:

Taken over by last command or "0," if the file "file" was not found.

#### /?

Displays this help.

Return:

"1", if the bootmanager is active.

The parameter ",[HDD]n" indicates the harddisk.

All entries start with "1" (e.g., 1st harddisk: ",HDD1"; 1st partition: "/partition:1").

The return value "0" (zero) always refers to an error (if not indicated otherwise).

#### See also:

Script File Config File

Return Values Using Exit Code

Night Service

# **Script File**

An alternative to indicating all commands in a batch file is the "script file." More details about the commands can be obtained in the section Command Options. Script files should have the extension "\*.scr." Within this file, all commands written in command option lines are indicated with "/."

Only one command may be written within one line. Commentaries start with ";"

If no file name is indicated, then the file BSDOS.SCR will be used.

The command "Hidden" should not be used in the script file, because output will not be suppressed until this command has been called.

# See also:

Command Line Options
Config File
Return Values Using Exit Code

# **Config File**

Wen using the automated installation via command line options, it is possible to indicate the "BootStar Settings" (incl. BootStar Colors) and the "BootStar Opening Message" with a configuration file.

Creating this configuration file is very easy. Just create the file "BS.INI" in the directory where the program is located. This file must have the following content:

[Global] Autosave=1

All subsequent changes of the "BootStar settings" (incl. colors) are written to this configuration file. The "BootStar Opening Message" is written to the file "BS.TXT".

Anytime you reinstall BootStar, the "BootStar Settings" (incl. BootStar Colors) and the "BootStar Opening Message" are read from these files.

### See also:

Command Line Options
Script File
Return Values Using Exit Code

BootStar Settings
BootStar Colors
BootStar Opening Message

# **Return Values Using Exitcode**

The return values within a batch file can be handled as follows:

INSTALL.BAT:

BSDOS.EXE /Install
If Errorlevel 1 Goto NUMBER

Echo INSTALL.BAT: Error during installation!

Goto END

:NUMBER

BSDOS.EXE /partition

If Errorlevel 3 Goto LABEL3 ; The sequence must always If Errorlevel 2 Goto LABEL2 ; view the highest Errorlevel

If Errorlevel 1 Goto LABEL1 ; first!

Echo INSTALL.BAT: No partitions exist!

:LABEL1

Echo INSTALL.BAT: One partition exists!

Goto END

:LABEL2

Echo INSTALL.BAT: Two partitions exists!

Goto END

:LABEL3

Echo INSTALL.BAT: Three or more partitions exist!

Goto END

:END

Additional information about batch programming is listed in the manual of the DOS operating system.

## See also:

**Command Line Options** 

Script File

# **Shareware (Restrictions)**

#### Notes for the shareware version:

You may test and evaluate this program free of charge and pass it along to other interested users as well (without any registration key). Proper and standard use, however, requires a registration of the program (buying the program). This is valid for the program as well as the actual bootmanager (bootstrap).

Without a registration key, you can use the shareware version without any restrictions for 30 days. **After** the trial period is over, each boot will result in a registration notice being shown on your screen. With each booting of an unregistered copy, the registration notice will remain on your screen for one second longer. Example: **After** the trial time has expired, the 10th booting will result in a ten-second delay before your system will actually start.

**One** license is required for **each** computer using the bootmanager **BootStar**! If several licenses are ordered, it is possible to obtain a key for all licenses.

#### See also:

Registration
Order
Copyright / Support
Liability / Warranty

# **Order**

## Notes for the shareware version:

You can order the shareware version of this program by using the following ways:

- 1. Using the online shop on the Internet.
- 2. Using the enclosed order form "ORDER.TXT".

All other ordering details and prices can be found on the ordering form.

Updates of the shareware version may be downloaded from the Internet whenever they become available. Currently, all updates are free!

## See also:

Shareware Registration Copyright Liability / Warranty

# **Updates**

Updates are very easy: Start the program of the new version. This program will recognize automatically whether an update of the bootmanager **BootStar** is required. After a query, it will update the bootmanager automatically.

It can happen that an update of the program does not require an update of the bootmanager. In this case, only the program has been improved.

#### Notes for the shareware version:

If you have already registered your copy of the bootmanager, this registration will remain valid even after the update. However, the program will indicate that it is unregistered. This refers only to the program and has no effect on the bootmanager.

### See also:

<u>Installation (Overview)</u> <u>How to Order</u>

# Copyright

Copyright (C) of the bootmanager **BootStar** rests with:

Postal Mail: Star-Tools GmbH Hopfenweg 207 22851Norderstedt Germany

Internet:

http://www.star-tools.com/

All listed trademarks are property of their respective owner(s)!

This program is delivered together with a limited version of FreeDOS. To be exact, it is possible to create a boot disk using this program together with FreeDOS. This program does not use any function or functionality of FreeDOS.

The copyright of this program has no connection with the copyright of FreeDOS. The rights of use of this program have no connection with the rights of use of FreeDOS.

FreeDOS is a completely independent and different program and is subject to the general rights of use and the General Public Licenses (GPL).

Source code to FreeDOS is available; either write to us for a copy of the kernel source code that we used, or visit http://www.freedos.org/ to download the latest version of FreeDOS!

#### See also:

<u>Frequently Asked Questions (FAQ)</u> <u>Liability / Warranty</u> <u>Order</u>

# **Liability / Warranty**

If this program is used improperly, it may result in the **irretrievable destruction of all data on your harddisk!** 

It is thus absolutely necessary to create a backup before using the bootmanager **BootStar**. According to the ruling by the district court Konstanz 1 S 292/95 from May 10 1997, daily data backup is **reasonable** and can be **expected!** 

# Thus, any responsibility or liability for any losses or damages is not accepted! UNDER NO CIRCUMSTANCES!

The purchase of this software is according to the BGB §494 (German Federal Legal Code) a "trial purchase". This means that the software can be evaluated **before** the actual purchase. The software is provided **as is** without warranty of any kind. Any rights for modifications or follow-up corrections **do not** exist.

Should you find any errors, please let our support staff know and we will try to correct the error within a few days.

Any bug notifications will be rewarded with a free registration key!

The bootmanager **BootStar** is delivered together with a limited version of FreeDOS.

**FreeDOS** is a completely independent and different program. FreeDOS is freeware and does not grant any warranty claims.

More about FreeDOS on the Internet at: http://www.freedos.org/

#### See also:

Copyright Updates

# Frequently Asked Questions (FAQ)

# Does the bootmanager BootStar support the following operating systems / file systems: XYZ?

Yes, the bootmanager *BootStar* functions independently from the operating or file systems! A few operating systems, however, have some limitations, which need to be observed when using the bootmanager *BootStar*.

Problems with DOS / Windows 95/98/ME

Problems with Windows NT

Problems with Linux

# Is it possible for the bootmanager **BootStar** to manage the operating system(s) XYZ together with the operating system(s) XYZ?

Yes, the bootmanager **BootStar** can manage individual operating systems completely separate. Therefore, every individual operating system works with every other operating system.

## Does the bootmanager **BootStar** support the XYZ hardware?

The bootmanager **BootStar** basically supports **every** Hardware. However, some hardware products have inherent errors, which become noticeable when installing and using the bootmanager **BootStar**. Problems with Hardware

### I have planned to do the following: XYZ How can I realize this using the bootmanager BootStar?

We regret to inform you that we cannot supply individual installation and setup instructions. Please read the manual of your operating system. Additional problem solutions may be found on the following pages:

Problems with DOS / Windows 95/98/ME

Problems with Windows NT

**Problems with Linux** 

# I have problems with the installation of the operating system(s) XYZ. Can you help me?

We regret to inform you that we cannot supply individual installation and setup instructions. Please read the manual of your operating system. Additional problem solutions may be found on the following pages:

Problems with DOS / Windows 95/98/ME

Problems with Windows NT

Problems with Linux

#### I would like to change the sequence of the drive designations (or drive letters). How do I do that?

The drive designation management is performed by the respective operating system. However, you have some influence on the drive order by changing drive positions in the master boot record:

How can I remove the bootmanager **BootStar** from my harddisk(s)?

Start the program and select the entry "Uninstallation" from the "BootStar" menu.

# I have problems after uninstalling *BootStar*. How can I get back to the exact same settings I used before the installation of the bootmanager *BootStar*?

Most of the time it is sufficient if you activate the correct partition. An alternative is to restore the safety backup copy, which you created during the installation (\*.BMS) of the bootmanager **BootStar**. (To restore: Use setup program, menu "File," entry "Restore Master Boot Record.")

# I have installed the shareware version of the bootmanager *BootStar*. Can I install the full version over the shareware version without any problems?

Yes! You already have the full version. Installing the full version means to eliminate the time delay by entering the registration key.

# I have tested the shareware version of the bootmanager *BootStar* and now would like to purchase it. How do I do that?

Please use the order form included with the program. All price and delivery information is outlined in this order form.

As an alternative, you may use an online order form. You will receive your registration key faster that way.

### How do I get updates of the bootmanager BootStar?

Current updates of the bootmanager **BootStar** are (only) obtainable via the Internet.

#### What is the cost of an update?

If you are using the shareware version, then the updates are currently free of charge. In all other cases, please consult your vendor/dealer.

## How do I use updates? Do I have to uninstall the old version first?

No, all you need to do is start the setup program of the new version. If an update of the bootmanager is required, this will be recognized automatically and an update is performed automatically as well. However, this might not always be necessary since some updates are only updates of the setup program.

# Why does the setup program indicate that the program is not registered after I installed an update, although the bootmanager *BootStar* does show a registration?

The setup program has not been registered yet. The bootmanager **BootStar**, however, is still registered from the time you registered the old setup program.

I have already entered the shareware registration key and still get the shareware notice. What can I do about that?

Please, enter the registration key once more.

# I have lost my registration key. Can you send me my key again?

Unfortunately, we cannot offer this service because the cost would just about equal the cost of a new order.

Since I have installed the bootmanager *BootStar*, my virus detection program shows that I have an unknown virus! Is my hard drive infected?

No! The bootmanager **BootStar** changes the master boot record. These changes are reported erroneously by the virus program as a virus.

# What happens if I act against all warnings and install another hard drive partitioner such as FDISK or PartitionMagic?

These partitioners cannot recognize the partitions hidden by the bootmanager **BootStar**. This means that those hidden partitions might be destroyed. Other partitioner changes are not recognized by the bootmanager **BootStar**, and are thus overwritten by the program using the original values and settings. This is done on purpose to safeguard the password protection.

I have discovered unknown entries in the master boot record partition table, which are 0 MB in size. What are these entries?

The bootmanager **BootStar** uses these entries to try to protect the hidden partitions from other hard drive partitioners such as FDISK and PartitionMagic.

# **History of Development**

The following overview shows the development history of the bootmanager **BootStar**:

All versions not listed here contain only very small error corrections or insignificant small changes. As long as you do not experience any system problems you do not need to update the program.

#### 7.0x

The "drive imaging" function (saving a complete partition in a file) was reintegrated.

### 6.0x

Night Service

#### 5.7x

The "drive imaging" function (saving a complete partition in a file) was moved to the standalone program "Drive-Imager **DriveStar**" and significantly improved.

#### 5.4x

Supports up to 8 hard drives.

#### 5.2x

Adapting the changes from 5.1x to the DOS program.

#### 5.1x

Significantly modified look of the Windows program's interface.

#### 5.0x

FAT partitions may be increased or decreased in size.

New FAT may be formated.

The saving of partitions is now much faster.

Saving of FAT partitions is only possible together with the actually used amount of disk space.

#### 4.6x

Createing an "emergency recovery disk" is possible.

## 4.5x

Changing the sequence of the bootprofiles are possible.

#### 4 4x

Changing the program name from "Bootmanager **BOOTMENU**" to "Bootmanager **BootStar**".

#### 4.2x

Command Line Options available in the Windows Version.

## 4.1x

A freely definable opening message can be displayed while booting.

#### 4.0x

Windows 95/98/ME/NT version of the setup program.

#### 3.7x

Command line options are supported.

Bootprofiles may be hidden.

The contents of entire partitions may be stored as a file.

## 3.6x

Changes of the partition type are automatically recognized and copied from the MBR to the **BootStar** partition table.

BootStar's colors may be changed.

#### 3.5x

Secondary partitions (logical drives) are supported.

#### 3.3x

Harddisks larger than 8 gigabytes are supported.

#### 3.2x

The positions of the partition entries within the master boot record partition table can be selected as desired.

### 3.1x

The bootprofiles can fill the keyboard buffer.

Selection of bootprofiles in **BootStar** by typing in first letter.

#### 3.0x

Extension to cover four harddisks.

#### 2.9x

Password protection for the setup program.

### 2.8x

Implementation of the password protection.

Implementation of the checksum function for master boot record.

#### 2.5x

Improved input of bootprofiles.

## 2.3x

Implementation of the uninstall function with default bootstrap.

#### 2.2x

Internet distribution with homepage.

Implementation of a demo version with limited trial run time.

## 2.0x

Implementation of additional partition table:

Extension to cover 15 primary partitions.

Implementation of bootprofiles to select an entire partition table.

New user interface for setup program.

# 1.7x

Implementation of being able to boot from 2nd disk (B:).

# 1.6x

Saving of old selection and implementation of the auto-boot function without keyboard.

#### 1.4x

Implementation of booting from 1st disk (A:).

## 1.2x

Selection of active partition using a selection menu (with cursor keys).

# 1.1x

Input function to edit partition table.

# 1.0x

First functional version, selection of active partition using a number.

# See also:

<u>Updates</u>

# **Error Message: Access Denied**

You will receive this error message when **another application** blocks any access. This other application can be **Windows** itself.

Please close all other applications and programs and retry the operation.

If this does not solve the problem, you can use the **DOS version of this program**. Please note that this does **not function from within the DOS box** offered by Windows because the same problem would occur.

The easiest way to use the DOS version is to create an **emergency disk** with the program and **boot with that disk**. The DOS version of this program is automatically started when using the emergency disk to boot into DOS. The DOS version offers the identical operation and use as the Windows version.

## See also:

**Build Emergency Disk** 

# Error Message: The partition has to end at least at ...

You will receive this error message if you tried to decrease a partition even though some space is used within this partition (sectors).

Defragmenting this partition might help. A defragmenter program is included with Windows (defrag).

You should close all other programs before using the defragmenter because open files will hinder the defrag process. In some case you might have to reboot your computer and use the defragmenter again to achieve the desired result.