Star-Tools DriveStar

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Introduction

Short Overview

The drive imager *DriveStar* offers you the following functions:

- Scope of functions like **FDISK** with many extra features

- **Unlimited support** of **all** operating and all file systems (incl. Windows 2000)

- Two programs: One **program for DOS** and one for **Windows 95/98/ME/NT/2000/XP**

- Complete functionality with user interface as well as with **own script language**

- **Integrated partitioner** with comfortable interface and many additional features

- much more...

See also:

System Requirements

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

All operating systems and **all** file systems are supported, since the Drive-Imagers *DriveStar* "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:

Problems / Solutions

Problems (Overview)

General:
- For most operating systems, it might be necessary to set the harddisk in the BIOS to the "LBA" mode.

- While running DOS Hard drives, which need a software driver (either because of their size and/or age) usually cannot be used with the drive imager *DriveStar*.

- While running Windows the partition Windows has been started can't be saved, copied or 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

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 (boot image) 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 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:

Problems with Windows NT/2000/XP

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/XP partition may be visible at any one time.

NTLoader - BOOT.INI:

The file BOOT.INI contains the information on which partition Windows NT/2000/XP is installed. In this case the information concerns the position of the partition in the partitioning table of the master boot record. That means that the master boot record partition table and the file BOOT.INI from Windows NT/2000/XP have to be in agreement with one another.

The position in the master boot record partition table can be set in the boot image ("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.

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/q197/6/67.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/XP 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/XP 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).

Problems with Linux

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

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. 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 boot image.

  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".

Problems with Hardware

ABIT Controller:

Problem:
  • Error while loading partition tables

Solution:
  • perhaps BIOS Update

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:
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 bootmanager 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 drive imager *DriveStar* can otherwise not be modify the partition table.

See also:
  Problems (Overview), # 5
  Problems with DOS / Windows 95/98/ME, # 5
  Problems with Windows NT/2000/XP, # 5
  Problems with Linux, # 7
  Problems with Software, # 8

Problems with Software

Bootmanager with Installation in the master boot record:

Problem:
The drive imager *DriveStar* does not recognize the bootmanager. It thus cannot handle the "hidden" partitions correctly.

Solution:
Does not exist: You should utilize the drive imager *DriveStar* if you have installed a bootmanager in the master boot record! (Exception: The bootmanager *BootStar*.)

Antivirus Programs:

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

Solution:

This might be a message from an antivirus program: The drive imager *DriveStar* modifies the master boot record. That is the reason why some antivirus programs erroneously report this as a virus.

Norton AntiVirus:

Problem:
Norton AntiVirus reports a "Bloodhound.Boot" warning for the emergency disk.

Solution:
Not required: This message is just a warning about a potential virus and does not mean an actual virus has been detected.

See also:

Program

Menu "File"

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, # 10
  Copy Partition, # 10

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, # 10
  Copy Partition, # 10

Copy Partition

Program:
   Partition table / File / Copy Partition...
   Extended partition table / File / Copy Partition...

You can copy the entire content of a currently selected partition to another partition. The content of the partition does not matter for the copying process. (For example, this will preserve the Windows 95/98/ME long file names.)

However, this function only works if the number of heads and sectors of the harddisk and the position of the partition are identical on the harddisk. (Exception: FAT 12, FAT 16, or FAT 32 partitions. These can be copied as desired.)

If the selected target partition is larger than the source partition, the target partition is adjusted accordingly.

See also:
   Open Partition, # 10
   Save Partition, # 10
   Copy Harddisk, # 11

Copy Harddisk

Program:
   Partition table / File / Copy Harddisk...

You can copy the entire content of a currently selected harddisk to another harddisk. The content of all partitions does not matter for the copying process. (For example, this will preserve the Windows 95/98/ME long file names.)

However, this function only works if the number of heads and sectors of the harddisk are identical on the hard disk.

See also:
   Copy Harddisk, # 11

Open Master Boot Record

Program:
   File / Open Master Boot Record... / n^{th} Harddisk

You may load the content of the master boot record 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:
- 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

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

You may save the entire master boot record to a binary file (*.bms). This file may later be used to restore the master boot record exactly as it has been saved.

See also:

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)
- Bootimage 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 drive imager *DriveStar* has no connection with FreeDOS. The drive imager *DriveStar* 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:

Menu "Edit"

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

See also:
  Partition Table, # 14
  Select Partition Type, # 13

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, # 13
  Partition Table, # 14

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 deleted (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, # 14

Menu "Windows"

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>")
  - 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, # 13

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 partition table

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

See also:
  Properties of partition, # 13
  Partition Table, # 14

Menu "Help"

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."

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

See also:

Command Line Options

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:
```
DSDOS.EXE [/Hidden] [/File[:File]] [/MBR[,HDDn]] [/ClearMBR[,HDDn]]
DSWin.exe [/Partition[:n[,HDDn][=tt|:File]|:[NNN]-[s][,HDDn]|,HDDn]]
          [/Harddisk:n:s]
          [/Reboot[:Off]] [/Password:PPP] [/?]
```

/MBR
 Reinitializes the bootstrap in the master boot record, a default bootstrap will be generated.
 Return:
 "1," if successful.

/MBR:File
 Loads the master boot record.
 Return:
 "1," if successful.

/ClearMBR
 Deletes die MBR partition table(s).
 Return:
 "1," if successful.

/Partition
 Indicates the partition table.
 Return:
 Number of existing partitions.

/Partition:n
 Activates the n.partition.
 Return:
 "n," if partition exists.

/Partition:n:File
 Loads the "n"th partition from the file "file".
 Return:
 "n," if partition exists.

/Partition:n:s
 Loads the "n"th partition from "s"th partition. (Copy)
 Return:
 "n," if successful.

/Partition:n=tt
 Changes the type of the "n"th partitons.
 tt is the type in hex
 Return:
 "n," if partition exists.

/Partition:NNN-s

Adds a new partition.
NNN: Name of the partition
s: Size in megabytes
The "-" have to be given also the "s" is not present.
Return:
Count of partitions after adding the partition.

/Harddisk:n:s
Loads the "n"th harddisk from "s"th harddisk. (Copy)
Return:
"n", if successful.

/Reboot
Reboots the system (reset).

/Reboot:Off
Turn off the system (requires "Advanced Power Management V1.2").
Return:
"0", if not successful.

/Password:PPP
Permits calling the program and, if needed, creates a new password. This command might have to
be issued first!
PPP: Password for the bootmanager *BootStar*
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.

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, # 17
Return Values Using Exitcode, # 18

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 `PSDOS.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 (Overview), # 16
  Return Values Using Exitcode, # 18

Return Values Using Exitcode

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

```
COUNT.BAT:
DSDOS.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 (Overview), # 16
  Script File, # 17

Others

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).

Without a registration key, you can use the shareware version without any restrictions for 30 days.

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

See also:
  Registration, # 14
  Order, # 19
  Copyright, # 19
  Liability / Warranty, # 20

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 (Restrictions), # 19
  Registration, # 14
  Copyright, # 19
  Liability / Warranty, # 20

Updates

Updates are very easy: Start the program of the new version.

See also:
  Order, # 19

Copyright

Copyright (C) of the drive imager *DriveStar* 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:
  Frequently Asked Questions (FAQ), # 21
  Liability / Warranty, # 20
  Order, # 19

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 drive imager ***DriveStar.*** 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 drive imager *DriveStar* 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:

Frequently Asked Questions (FAQ)

Does the drive imager *DriveStar* support the operating systems / file systems XYZ?

Yes, the drive imager *DriveStar* functions independently from the operating or file systems!
A few operating systems, however, have some limitations, which need to be observed when using the drive imager *DriveStar*:

Is it possible for the drive imager *DriveStar* to manage the operating system(s) XYZ together with the operating system(s) XYZ?

Yes, the drive imager *DriveStar* can manage individual operating systems completely separate.
Therefore, every individual operating system works with every other operating system.

Does the drive imager *DriveStar* support the XYZ hardware?

The drive imager *DriveStar* basically supports **every** Hardware. However, some hardware products have inherent errors, which become noticeable when installing and using the drive imager *DriveStar*:

I have planned to do the following: XYZ How can I realize this using the drive imager *DriveStar*?

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:

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 Linux, # 7

I have tested the shareware version of the drive imager *DriveStar* 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 shop. You will receive your registration key faster that way.

How do I get updates of the drive imager *DriveStar*?

Current updates of the drive imager *DriveStar* 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.

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.

History of Development

The following overview shows the development history of the drive imager *DriveStar* :

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.

2.1x
Speed increase when saving and opening files.

2.0x
Image files can be compressed.
Image files can be split into several files.
Significant speed increase when opening, saving, and copying files.
New file format of the image files.

1.2x
Complete harddisk may be copied to other harddisks

1.1x
Complete Partition may be copied to other partitions
Save, open and copy of partitions now works by using logical drives.

1.0x
First functional version. All function are transfered from the bootmanager *BootStar*

See also:
  Updates, # 19