

BoulderDäsh

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	<i>TITLE :</i> BoulderDäsh		
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REVISION HISTORY

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Chapter 1

BoulderDäsh

1.1 Boulder Däsh

Boulder Däsh V2.62

(C) Guido Mersmann 1995 - 1996

BOULDERDÄSH IS A SHAREWARE PRODUCT

READ THE DISTRIBUTION SECTION FOR INFORMATION ON DISTRIBUTION

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Bug Reports, Incitements...

## 1.2 Introduction

Introduction  
-----

BoulderDäsh is a convert of the original BoulderDash from the good old C64.

So you will say this is already there. You are right, there are a lot of clones, but they are all not as good as the original, if you look at the graphic or the feeling of playing it. Even converts at PC are not very good. Also on fast PCs the animation speed of the objects is lowered, if there is scrolling.

This version was tested by different independent persons and all said the same: this BoulderDäsh is the best. I will not praise myself here, but test it yourself, built your own opinion and please tell me about it.

My graphics are very similar to the original. I do not have the original graphics and will not include it, because this is against the copyright. Furthermore the name is protected, so I have also changed the name.

Perhaps there will be someone, who wants to convert and publish the original C64 graphic.

## 1.3 System Requirements

System Requirements  
-----

BoulderDäsh (should run) runs at all computers with OS 2.0 or higher.

Some functions are not available under 2.0, because they presume OS3.x+ (MemoryPools,...)

From OS2.1 on BoulderDäsh is able to work multilingual.

---

To run BoulderDäsh a minimum of 1MB is required.

Except the standard libraries the LowLevel.library is needed. It is a part of OS3.1 and most CD32 games from CD have it.

Furthermore this library can be found on the following CDs. If you have one of this CDs, click on the corresponding button and the library will be copied to libs:

~ AminetCD 10

~ AmigaPlusCD 2/96

~ AmigaPlusCD 3/96

BoulderDäsh was tested with the following configurations without any problems.

|          |       |                                 |
|----------|-------|---------------------------------|
| A2000-30 | OS3.1 | 1MB Chip and 8MB Fast           |
| A2000    | OS3.1 | 1MB Chip and 4MB Fast           |
| A2000    | OS3.1 | 1MB Chip                        |
| A500     | OS2.1 | 1MB Chip and 2MB Fast           |
| A500     | OS2.1 | 1MB Chip and 1,8 MB Ranger Fast |
| A1200-20 | OS3   | 2MB Chip                        |
| A1200-30 | OS3   | 2MB Chip                        |
| CD32     | OS3.1 | 2MB Chip                        |
| CD32-SX1 | OS3.1 | 2MB Chip and 4MB Fast           |

## 1.4 Features

Features:

-----

\textdegree{} 1:1 Clone of the Original

\textdegree{} Softscrolling and full speed also under a MC68000  
(no jerking with the animation's or the scrolling)

\textdegree{} more than 2520 levels in this edition!!

\textdegree{} 14 different graphics

\textdegree{} Local support

\textdegree{} Kickstart 2.04 or higher is required.

\textdegree{} Programmed in Commodore Styleguide

\textdegree{} High compatibility by using the LowLevel.library

\textdegree{} All adjustments are possible per Gadtools-GUI

```

\textdegree{} Enlarged by more
                Play~Elements
                (FALSE stones, FALSE Metal,..)
                So new interesting possibilities within the levels are possible.

\textdegree{} The size of the levels is free (depends on ChipMem)

\textdegree{} The
                highscorelist
                can be saved for any play.

\textdegree{} Comfortable
                Level~Editor
                \textdegree{} The gravitation can be fixed in every level for ←
                all four direction.

\textdegree{}
                Game~Editor
                for creating complete games.

\textdegree{} With the help of a paint program an
                own~graphics
                can be created.

\textdegree{} With the help of a sampler
                own~sounds
                can be created.

```

## 1.5 Distribution

Distribution

-----

This program should be published on every public medium, as long as all files in the archive are unchanged. If this medium is a CD I expect a free copy. (AminetCDs excluded)

BoulderDäsh is Shareware. I have decided to publish a full version of BoulderDäsh, because I hope, that everybody, who likes this game, will pay for it.

I expect from everybody, who uses BoulderDäsh regularly, 10 DM or the same amount in another currency. I think this does not hurt anybody, and I will have more fun to integrate new features or write a new game.

Updates may be requested from Aminet and my local support box "The kiteman" 2:2449/246

I am not liable for injures or data loss caused by BoulderDäsh. The use of BoulderDäsh is on your own responsibility !!!

## 1.6 How to register ?

How to register ?

-----

Send

me

following things:

\textdegree{} Shareware fee about 10DM  
\textdegree{} Floppy disk  
\textdegree{} Your personal data (for the keyfile).  
\textdegree{} An envelope with stamps for about 2DM.

And you'll get the latest BoulderDäsh version including a keyfile.

People, registered before keyfiles were introduced, need not send money. (-8

You needn't send me a disk and an envelope, if you send

me

20 DM or

transfer it to my account. I think this is quite fair. I want to program and I don't want to buy envelopes, stamps and disks. And from 10 DM won't be a lot left for me.

I don't make any exceptions concerning sending back disks. If you don't send an envelope or a disk, you are registered, but you don't have anything of this. you can come personally and get your disk or you must pay more.

If you'd like to get your key file via internet or fido, please send the money and your PGP key. Via Fido net I only send key files within Germany (Crash).

IMPORTANT:

I need your full address with christian and surname, your street and your living place.

## 1.7 How to Install BoulderDäsh

How to Install BoulderDäsh

-----

To install BoulderDäsh please use the original Commodore Installer. It creates a directory, in which BoulderDäsh is installed.

You can also copy the BoulderDäsh-drawer into any directory on your harddisk.

If you do not like BoulderDäsh, you can delete the whole drawer to destroy BoulderDäsh completely.



Assigns, path-adjustments or insertments into the User-Startup are not necessary. Only if you are so enthusiastic, that you want to start BoulderDäsh in the User-Startup. (-8

## 1.8 How To Play

How To Play

-----

After you have started a game, the screen scrolls to a gleaming block, the "In".

After some seconds it explodes. Rockford appears here, the hero of the game.

His task is the following one: He has to collect a determined number of diamond in a determined time and must then move to the "Out" to leave the level.

The level is full of different elements, which all have special properties:

If it is not mentioned in another way all elements have the following properties:

\textdegree{} disappear, if they explode  
\textdegree{} ghosts or Rockford cannot run through them  
\textdegree{} stones are unable to tilt down on one side

Ground

-----

Rockford can run through it and space is left on this place. Stones and diamonds lay on the ground and cannot tilt down at one side.

Space

-----

Allows diamonds, stones, ghosts and Rockford free movement.

Diamonds

-----

Can be collected by Rockford.

Stones

-----

Rockford can push them vertical to the gravitation, if there is a space behind the stone in that direction, it should be pushed.

Metal

-----

---

Metal can not explode.

Metal - Fake

-----  
Acts like metal, but it is able to explode.

Walls

-----  
Is only an obstacle and does not help in any way. Stones are able to tilt down on one side, if it is allowed by the environs.

Magic Walls

-----  
If a stone falls down on a magic wall and underwards the wall there is a space, so the wall becomes active and changes the stone into a diamond. In return a diamond passing the magic wall changes into a stone. If there is no space underwards the magic wall stones and diamonds passing it are absorbed. The length of active time of a magic wall can be given different in any level. If the magic wall has switched off itself, it cannot be activated again.

Growing Walls (left/right)

-----  
As soon as this element discovers a space left or right next to it, it grows in this direction.

Growing Walls (up/down)

-----  
As soon as this element discovers a space up or down next to it, it grows in this direction.

Water

-----  
Water grows after a defined growing rate and spread through ground and space.

As soon as a defined quantity of water is reached, all water elements turned to stone.

If there is no way for the water to grow more, then it will turn to diamonds.

Slime

-----  
Slime permits diamonds and stones to go through it, because it is viscous. This viscosity can be adjusted. This only takes place, if there is a space under the slime.

---

### Butterflies

-----

Moves through the spaces of the whole level. If they touch water or are crashed with a stone, they explode to nine diamonds.

### Fireflies

-----

Moves through the spaces of the whole level. If they touch water or are crashed with a stone, they explode to nine spaces.

### Stone - Ghosts

-----

Stone-ghosts are very social. If they are hit by a stone or touch water, they explode to nine stones.

Both things only happen if they are not asleep. Stone-Ghosts stay as long asleep as the stone is without movement, so the stone cannot fall down. A sleeping stone-ghost acts like a normal stone and can be pushed by Rockford as well.

Once awoken stone-ghosts move through the spaces of the whole level.

### Rockford

-----

Can be moved by yourself. Rockford can move through space and ground. If Rockford crosses ground, afterwards there will be space. If you press the fire button, Rockford frees the place next to him. He can remove one element ground in every direction without moving himself.

If there is a stone or a sleeping stone-ghost horizontal next to Rockford and behind the stone there is a space, Rockford can push this stone(-ghosts). With the fire button Rockford can push the stone without movement.

There is danger for Rockford because of killing by butterflies and fireflies. If this happens Rockford explodes.

### Rockford - Twin

-----

He looks like Rockford. If he touches a butterfly or a firefly, the Rockford-Twin explodes, and with him Rockford himself, too. The twin must be protected by Rockford.

### In

-----

Rockford enters the level with the help of this element. There may be a few Ins in one level. If this happens, many Rockfords enter this level. All Rockfords are directed by the player simultaneously.

---

Out

-----

This is the exit of the level. But it isn't gleaming!!

Out - gleaming

-----

Again an exit, but this time it started gleaming, if all diamonds are collected.

Out - Fake

-----

Starts gleaming, if all diamonds are collected. But it is not an exit.

Gravitation Arrow

-----

This element is present in each direction once. If Rockford runs again such a stone, the gravitation changes in the direction of the arrow on the stone.

User-Block

-----

This element behaves like a normal wall.

Keyboard Functions

-----

With the cursorkeys you can move Rockford via keyboard. The keys Shift, Alt und Amiga have the function of the firebutton.

If you get into a situation with no way out, you can blow up Rockford by pushing the ESC-key. After each loss of Rockford it is the turn of the next player. If you play alone, you are logically again.

Press the spacebar to activate and deactivate the pause.

By pressing F10 you can leave the game immediately and get back to the menu. There is no way to continue the game !!!

If you have paused the game, you are able to return to the Workbench by using the help key. If you click onto the workbench menupoint you can continue your BoulderDäsh game.

## 1.9 Own Graphics

Own Graphics

-----

Beside the

---

enclosed~graphics  
you can create own graphics, too. All you need is a paint program and some talent.

If you have created own graphics, you can send them to me and I will admit them into my archive, after some testing.

All graphics of BoulderDäsh are Lores-IFF-pictures. Each picture consists of a complete graphic. So load a picture and change the graphic then.

Some advice you should read first, because this advice can save you a lot of annoyance and work.

#### 1. picture size

The picture should have the loosening Lores with eight colours and should not consist of masks. BoulderDäsh should not have problems with other sizes, but these pictures will need a lot of needless space on your hard disk.

#### 2. Block Size

Every block consists of 16\*16 pixel.

#### 3. The position of the single elements

The arrangement of the single blocks is very simple. So please look at the added graphics. If you need a little help, please look at the Table.

#### 4. Scanner

The scanner is a feature, which is integrated into the routine of loading. So we take the animation of Rockford, for example. You paint an animation to move Rockford to the left and then, if you load BoulderDäsh, it recognises, that you have not painted the animation to move Rockford to the right. Now BoulderDäsh copies the animation for the left and turns it around. This work also the other way round.

The following blocks will be copied :

Metal <=> Fake\_Metal <=> Metal\_Moving\_Block  
Stone <=> Stone-ghost asleep  
Wall <=> Growing Wall left/right <=> Growing Wall up/down  
Rockford left <=> Rockford right (all Animation-steps)

From each of these types, there must exist one of the equivalents. If there is a type missing, than the requester sends the message: "Graphic incomplete"

Out <=> Fake Out <=> Fake In (not only open, but also closed)

If there does not exist any type of In/Out, then the closed type consists of metal.

---

IMPORTANT :

Each copy within a block cannot take place, if there is a pixel in it, which is not the colour of the background.

Each block, which only consists of the colour of the background, is empty.

All block, which are not mentioned here, must be available to start the game.

## 5. Animations

For all animations there is space for eight steps. If you need less than eight steps for your animation, please take a zero (colour of the background) for all steps you do not need and the animation will be ended earlier. Please pay attention the fact, that after an empty block all the other graphics of this animation will be ignored.

## 6. Speed of the Animations

The speed for every animation can be adjusted. This is possible by adjusting of the  
Tooltypes  
in the info-data of the particular  
graphic-data.

The game font  
-----

Besides the gamegraphics there is also the possibility to paint the font, which is used for the score line, yourself.

The font is formatted in Lores with 1 plan and should not be filed in another way. BoulderDäsh can load other formatted graphics, but this files are needlessly long and reading them takes much more time.

Each symbol is 16 Pixel wide and 8 Pixel high.

## 1.10 Own Sounds

Own Sounds  
-----

If you have an own sampler and adequate software, you can create own samples for your BoulderDäsh game.

Create a new drawer in the directory "SampleSets" and copy your samples to this drawer. In the  
Game~Settings  
you can now choose your sample  
sets and you can hear your own samples while playing.

But you must pay attention to some important things:

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1. The samples must be in IFF 8SVX format. This shouldn't be a problem, because nearly every software generates this format. For Amiga it is the most used format.
2. All Samples should sound right for c octave 2. You have to sample them like this. For the MED sampler this adjustment is default. C-2 corresponds to a hardware period of "428". BoulderDäsh plays all sounds in this octave. Diamonds and TimeOut sounds will be played according to the scale.
3. BoulderDäsh also realizes which samples do exist. These are the supported sounds and their qualities:

\textdegree{} LevelIn-Sound and LevelOut-Sound depend on each other. So if one ↔ of them doesn't exist, it will be replaced by the other one. This means, that after collecting the last needed diamond the LevelIn-Sound appears, if you don't have a LevelOut-Sound.

\textdegree{} StonePush-Sound is also replaced by the Stone-Sound, if it ↔ doesn't exist.

At the moment BoulderDäsh supports following sounds:

|                   |                                         |
|-------------------|-----------------------------------------|
| "Explosion.SND"   | (I don't know (-8 )                     |
| "Stone.SND"       | (Stone falls)                           |
| "Diamond.SND"     | (Diamond falls)                         |
| "TimeOut.SND"     | (TimeOut Sound)                         |
| "Dig_Space.SND"   | (Digging through space)                 |
| "Dig_Earth.SND"   | (Digging through earth)                 |
| "Water.SND"       | (is played cyclic)                      |
| "MillingWall.SND" | (is played cyclic)                      |
| "Collect.SND"     | (Rockford collects a Diamond)           |
| "LevelIn.SND"     | (Rockford appears into the level)       |
| "LevelOut.SND"    | (collection of the last needed diamond) |
| "StonePush.SND"   | (sound for pushing)                     |

The names of the sounds must be written right. Otherwise BoulderDäsh doesn't find them.

## 1.11 FAQs

### FAQS

-----

\textdegree{} Own levels:

If you create own levels, do not overload them. Taking less elements is mostly more than it seems. So please do not take all elements in one level, but create your own ideas and make the game more interesting because of this.

\textdegree{} The structure of the game:

Intermissions should appear in regular intervals, to give the player the chance of involving these lives into the game. This will raise the charm of the game, because a player with no more lives, who knows that an intermission follows the present level, where he can get a bonus life, can survive a lot of other levels afterwards.

\textdegree{} What is the reason for not editing levels in the  
Game~Editor  
?

To edit a level you must delete the original game or you must load a game you have created yourself. As soon as the original game is not any more in the editor, you have all possibilities of changing it.

\textdegree{} I want to adjust the starting level and the number of lives in ←  
the  
Game~Settings  
, but this is impossible. Why?

This is the same protection as for editing levels. I have activated this protection in the added games, so all players have the same chance for getting into the highscores. In your own games you can choose the starting level yourself.

In your own games you can activate this protection, by switching on the button "Save Game" together with the control-key in the  
Game~Editor  
.

\textdegree{} Why can't I start BoulderDäsh and the  
Level~Editor  
?

If there are no levels in the storage, this buttons are blocked. Please go into the  
Game~Editor  
and load a game, or create one level as  
minimum.

The same thing happens , if there is no game graphic available. Please go to Game Settings and load a game graphic. Afterwards the button will be given free.

If this isn't successful, a font is missing. Please adjust this in the  
Game~Settings  
.

\textdegree{} After starting a level, Rockford does not appear. Why?

Every level needs an In. You have forgotten to set one while you have edited a level. Add this in the

---



Level~Editor  
and Rockford will appear  
in the next game.

\textdegree{} BoulderDäsh does not run. It does not open a window.

BoulderDäsh needs some libraries, which are added at the original Workbench. Please guarantee, that ASL.library and IffParse.Library are in the Libs-Directory.

BoulderDäsh also needs a library, which is added from Kick 3.1 on. The LowLevel.library !! This library is also added on a lot of CD32 and A1200/4000 game mediums.

\textdegree{} In my  
Own~Graphics  
all animations are wrong!!

BoulderDäsh runs all eight steps one after another. This means that it starts again, when the last step is reached. Please test, if this step is fluent.

\textdegree{} My animations are too short!!!

Within animations there must not be empty blocks, because BoulderDäsh thinks this is the end of the animation.

\textdegree{} If I load my graphic, I receive the message, that he can't find the CMAP-Chunk!

The CMAP-Chunk contains information about the colours. Normally all pictures contain such a chunk. Look at the documentation of your painting program, in which way this information is saved into the picture.

\textdegree{} If I load my graphic, I receive the message, that he can't find the BODY-Chunk!!

The BODY-Chunk contains the real graphic. If this is missing, BoulderDäsh can't get information about the picture here. Look at the documentation of your painting program, in which way a picture is saved completely.

\textdegree{} If I load my graphics, I receive the message, that BoulderDäsh can't  
t  
find the BMHD-Chunk!

The BMHD-Chunk contains the format of the graphic. If this is missing, a graphic can't be read correctly, because it isn't clear how much bytes per line must be load and how much colours the picture contains. Look at the documentation of your painting programm, in which way a

---

picture is saved correctly.

\textdegree{} In the guide is given, that BoulderDäsh remembers the name of a ←  
player.

But if I restart BoulderDäsh all names are lost. What do I do wrong?

If you open in the

Game~Settings  
the request button  
Name~Settings  
you

can change the name. Afterward you have to save the changing, to  
restore them for the next games.

\textdegree{} I have a greater score than my friend. By in the highscorelist I ←  
stand

one a lower place. Why?

In this game the aim is to absolve all caves. Theoretically someone  
with 0 score, who was defeated in cave 20 can be on place 1 of the  
highscores.

\textdegree{} Where are my scores, if I load a new game?

They are on hard disk or floppy disk. Every game contains an own list  
of prefs, because otherwise the statements of the highscores are too  
complex. If you load the old game again, your highscores will appear  
again.

\textdegree{} If I edit a level in the  
LevelEditor

, I can test it. But if I try to  
start the game, there is not enough memory for the game size. This also  
happens, if I try to start a level, which I have edited before,  
directly. Why?

This is all right. BoulderDäsh needs in a game the game size of the  
biggest level and allocated this right at the beginning. If you edited  
in the Editor a size of 40\*22, so there can also appear a level with ,  
for example, 40\*40 in this game. And in your case for this size there  
isn't ChipMem free. Try to close windows and screens to save ChipMem.  
If this doesn't help, quit BoulderDäsh as well and restart it, because  
of this ChipMem will be defragmented. If this also doesn't help, remove  
the big level out of the game.

\textdegree{} While playing sometimes mytherious mistakes in the spaces appear.

This effect isn't a mistake, but it shows you, that you have just got a  
bonus life.

## 1.12 History

History

-----

This text shows like a diary, what has been changed in the different versions.

- V1.0 1987 written at a weekend. It was my first programm at the A500!!! It was as fast as the original, but it wasn't able to fasten the speed of the game. This was optimised by more intelligent screen routines and an optimised move controller. The levels were firmly integrated and there were never more than 3, because otherwise I had to enter them in the source as "dc.b DT\_Metal,DT\_Wall..."
  - V2.0 1995 a complete new version (changing of the routines), addition of a move controller and an intelligent screen creation routine, that runs without Double Buffering.
  - V2.1 Addition of the LevelEditor, removement of some little bugs and adaption of the Lowlevel library.
  - V2.2 New routine for the falling of the stones with correct gravitation (for each direction one)
  - V2.3 Little corrections in the Interrupt Blitter Routine
  - V2.4 Little corrections in the routine of the falling stones. Stones also tilt down at the right side. (-8
  - V2.5 New initialisation and less memory needed. With this step the weakest point, concerning the stability of the system after ending BoulderDäsh was removed. With the help of the asyncfunctions a GUI created, with is an interface between the game and OS.
  - V2.6 Local texts and new mistake requester
  - V2.7 Scrolling mistake in oversized levels corrected.
  - V2.8 Enlarged graphics in the LevelEditor and new random-functions. Mistake (software failure) in the explosion of the twins corrected
  - V2.9 Little mistakes by changing from big to small levels corrected  
Little corrections in the Game-Editor  
Protection-protocol included. Now you can't start my levels any more.
  - V2.10 Graphic-interface included. From now on BoulderDäsh loads all graphics as IFF-picture.
  - V2.11 Graphic and animation-scanner included. All game settings can be saved. Pattern in the ASL Requester. Paths and patterns will be saved in the game settings.
  - V2.12 The graphic is completely now. Water looks like water and the magic walls are walls, that will be animated.
  - V2.13 Little mistakes corrected : Joycontroller, time-out, LevelEditor
  - V2.14 New gravitation arrows included
  - V2.15 Bad bug under OS2.x corrected : Found by Andreas Vierkant
  - V2.16 Small discrepancies with the original levels corrected and opting the LevelCompressor.
  - V2.17 Small changes in the LevelEditor and the window for the LevelSettings
  - V2.18 Small bugs for the Icon Starting, the ASL-Requester and the LevelEditor corrected : found by Timo Hegemann
  - V2.19 Water adjustment and slime rate changed to percent
  - V2.20 Mistake in the number of players corrected. A player got a life to much indeed. (-8
  - V2.21 Addition of the highscorelist. Every game has its own highscores
-

now.

- V2.22 Small mistakes in the NameRequester and in the Hiscore-Save-Routine corrected. Play the game some times to fill the highscorelist. The player names will be saved with the prefs now.
  - V2.23 Again some mistakes in the highscore routines found. Furthermore a player with the same score in the same level will be added in the highscores after the player, who is already there.
  - V2.24 Modulo mistake in the LevelEditor corrected. From time to time the levels were distorted while depressing, if the running game contains a level , which was bigger then the one to edited. small discrepancies with the levelnumbers corrected. If you win in one game, for example, 20 levels and then also win the last one, the game starts again at the beginning and the levelnumber was set to 1. This isn't good for your place in the highscores. Now the levelnumbers will be counted on.
  - V2.25 Besides some small optings in the LevelEditor you can play the edited level in the testing mode endless, no difference, if you win the level or not. The level will return. The Tilulit-Effect can be switched off specially for the LevelEditor now.
  - V2.26 Mistake in the LevelSetting requester corrected.
  - V2.27 Mistake in the Scrollercontroller found, which appears in different level sizes in one game.
  - V2.28 Following the hint of Timo Hegemann a GameOver-Intercut after the last life was added. Furthermore the long existing mistake in the scroller function was corrected. Now you can always the entry of a cave, before Rockford appears.
  - V2.29 Game information requester added and making the game format safe for the future.
  - V2.30 New font routine added and creation of a font very similar to the original. IFF-Loader, prefs requester and prefs format adjusted. Mistakes in the magic wall corrected. New score line and game notices, which are very similar to the original. Mistakes in the game information corrected.
  - V2.31 Little corrections in the documentation and in the local data done. Small graphical corrections in the LevelSetting requester done. Mistake in the sounds giving out corrected : found by Andreas Vierkant
  - V2.32 Worked in the mistake of saving games. Now the game version number is also counting. Small opting in the IFFILBM routines. GameSettings enlarged. Now you can choose, which game will be loaded while starting BoulderDäsh. Now I have found a mistake, which is also in the first Aminet Version. Every time the first player is always announced. This gets a little bit difficult with two players in the end of a game.
  - V2.32 Small correction in the move controller. Now to original levels are more compatible and the feeling is better. Now you can't explode through a left-right movement under a stone by accident.
  - V2.34 Changed the stone-falling routine. Now the stone fall 100% original. Furthermore I have corrected the small disorientation of the LevelScoller at the beginning of a new level. Mistake in the time bonus corrected and adjustment of the bonus life function to the original. Addition of the DoubleScan switch into the GameSettings. Now the owners of screens, who can only show frequencies >30Khz, can play BoulderDäsh as well.
  - V2.35 Now the ChipSet will be resetted by LoadView(zero). Perhaps DoubleScan will run now, too.
-

- 300 (threehundred) new levels in 15 games added. Perhaps some levels are not playable, because the adjustment of the water/slime and the magic walls is missing.
- V2.36 Water and slime routine corrected. Now the water grows constantly and the slime is always pervious in the same way. Before this the rate falls by growing quantity of water (slime).  
Mistake by creating Rockford corrected. One line wasn't active because of a mistake in version 2.28 and hasn't been activated again.  
Mistake in the animationscroller of the magic wall corrected.  
Bonus life effect included.  
Changing water to diamonds by activating the magic wall included.  
Timing-problem within the start of the level corrected.  
The ghost-moving routine adjusted to the original. Now there are nearly no more incompatibilities. "Nearly no more", because all BoulderDäshs are different in the movement partly.  
A more efficient LevelCompressor included, which replaces the old one.
- V2.37 UserBlock finally included into the LevelEditor. Otherwise it would be senseless. The SpaceBlock can also be animated.  
Mistakes in the scroller by starting the level corrected. The ghosts already started moving while scrolling. So it could happen, that Rockford already exploded while he is created, because Rockford waited for the scoller, but not the ghosts.
- V2.38 Future-GFX included.  
The animation speed can be adjusted via ToolType for every graphic font.  
Mistake in the animation controller corrected.  
New icons created.
- V2.39 ExplosionRoutine improved.  
From now on all INs in a level will be supported. So all Rockfords coming out of an IN can be moved.  
Little improvements in the TwinRoutines.
- V2.40 Mistakes in the LevelScroller corrected, which only appears, if many Rockfords appear.  
Correction of a mistake by the creation of Rockford at the beginning of a level, which only appears with many Rockfords.
- V2.41 Now all twins explode, if a ghost toughs them.
- V2.42 Modification in the protection protocol. Now also in the level frames In and Outs can be set.  
Small mistakes in the explosion routine corrected. Rockford could still explode in the Out.  
New PlayerName requester in the GameSettings included.  
Score texts are printed concentric automatically.  
Now the PlayerName can be distributed in stead of Player# optionally.  
Old name requester at the end of the game removed.  
New Hiscore routines included. Now there are 3 different hiscorelists for every game.  
Mistake in the linkage of the windows corrected.  
New LevelSetting requester included.  
Mistake in the New routine found.
- V2.43 Very stupid mistake in the installer script found and removed.  
Hiscore cycle gadget shows now only the three valid values.  
Old cheat removed and 3 new cheats added.
- V2.44 New async-funktions added.  
Old sound routine replaced.
-

- New water and milling wall samples.
- V2.45 Added sample set prefs (requested by Hendrik Gels)  
Better asl.library handling
  - V2.46 Out-Error removed (reported by Silke Bormann)  
WaterMilling bug removed
  - V2.47 BoulderDäsh is playable by keyboard (requested by Sabine Lempert)  
New cheat added
  - V2.48 Some adjustments to stone movement routines  
Delete records implemented. (requested by Andreas Vierkant)
  - V2.49 Online help is now available via "HELP"-key
  - V2.50 Title picture and original title theme implemented
  - V2.51 Async-Requester modul included and old requester routines removed
  - V2.52 Now it is possible to flip back to the Workbench while the game is  
paused. (requested by Hans Bergengren)
  - V2.53 Online help fixed ! (reported by Timo Hegemann)
  - V2.54 Titlepicture improved  
Keyfile support implemented!
  - V2.55 NTSC-title picture repaired ! (reported by Rickard Sandgren)  
New classic title picture implemented. (requested by  
Rickard Sandgren)
  - V2.56 Second "Load Game"-Button added! (requested by everyone (-8 )
  - V2.57 NTSC-game speed adjustment (reported by Rickard Sandgren)
  - V2.58 Many optimizations.  
Reassembled with Async-Functions 4.0
  - V2.59 Reassembled with Async-Functions 4.1
  - V2.60 Some minor changes.  
"BoulderDash II"-Game added.
  - V2.61 Little "Default settings" bug removed.  
OS2.0 Version caused a system crash if locale.library was not  
present. (Reported by Large)  
"Rockford'sRevenge"-Game added.  
LoadGame error request fixed.  
Some problems with old C64-levels solved.  
All Rockford's are now able to push stones.
  - V2.62 Leveleditor-ClearLevel is working again.  
Score line modified.

## 1.13 Future

Future  
-----

\textdegree{} Your personnel wishes !!

## 1.14 Thanx

Thanx  
-----

First I want to thank Silke Bormann for writing the English  
translation.

---

Furthermore I want to thank Timo Hegemann, who made an AGA test on BoulderDäsh and gave me proposals for improvements and suggestions.

For beta testing, which shows some more mistakes, I want to thank Andreas Vierkant.

Also I want to thank Silke Bormann for her confused playing, that shows some more bugs.

Thanks to Joonä Palaste for the nice graphic sets.

|             |          |          |             |
|-------------|----------|----------|-------------|
| Black&White | Computer | Egyptian | JokeAmiga   |
| LCD         | Medical  | Moria    | Psychedelic |
| Space       | Spooky   | Techno   | Western     |

## 1.15 Buglist

Buglist  
-----

None

## 1.16 The Author

The Author  
-----

If you find some bugs in BoulderDäsh, please send me a message, so that I can correct these bugs in the next version.

I will also thank you for suggestions to enlarge BoulderDäsh.

I will also welcome your own games, levels and graphics. I will add them in the new version after testing their quality. The author will also be mentioned. Please also complete the game information.

IMPORTANT: I don't send back floppy disks !!!

The best you can do is sending me the files via fidonet as Crash-Fileattached. I will answer you and tell you what had happened to your hand in.

Guido Mersmann  
Glatzer Straße 12  
48477 Hörstel  
Deutschland

FIDONET : 2:2449/246.15  
INTERNET: geit@studST.FH-Muenster.DE

Someone, who don't want to send me 10DM via post, but remit it, can do this as well:

---

Sparkasse Ibbenbüren

Bankleitzahl: 403 510 60

Kontonummer : 71107791

New versions of BoulderDäsh are available at:

Aminet: "game/misc/boulderdaesh.lha"

SupportBox: The Kiteman 2:2449/246 TEL: (+49) 05971-15835  
"boulder.lha"

Use the Magic "Amiga" to receive a full list of available  
Software for your Amiga.

## 1.17 The Main Window

### The Main Window

-----

All windows have some things in common. If you use the help key, this manual appears. There you will find the side with the explanations of the choosen window.

ESC closes a window.

Control ESC minimizes a window.

Game Editor

-----

This window is the centre of BoulderDäsh. The Close-Gadget ends the game.

Opens the

game~editor

window, where you can create

your own games.

Game~Settings

-----

This button opens the game setting window, where you can configurate BoulderDäsh in the way you want.

Hiscres

-----

With this button you get into the

hiscorelist

of the loaded game.

Load game

-----



After the choice in the File requester a game with its levels will be loaded. All levels, that were in the memory, will be deleted.

Start game

-----

Starts the loaded BoulderDäsh game. Before starting you should enter the names of the players in the  
playernames  
requester.

Exit game

-----

Ends BoulderDäsh and closes all open windows, which belong to BoulderDäsh.

## 1.18 The Game Editor

The Game Editor

-----

With the GameEditor you can put together to a game as much levels as you want and save them as a game.

The GameEditor doesn't run with the original games! So there isn't a possibility to edit the original levels.

LevelList

-----

Here are all available levels listed. Also the current level is listed here.

The first level in the list is level 1, the second level is level 2. The names of the levels do not correlate with the order in the game.

New

-----

Here a level with the size 2\*2 screens is created and is added to the list. The size is equivalent to the original C64-Caves.

Delete

-----

Deletes the current level

Up

-----

Moves the current level one entry up.

---

Down

-----

Moves the current level one entry down.

Edit level

-----

Starts the

Level~Editor

.

Level settings

-----

Opens the

LevelSetting

s-requester.

Game information

-----

Opens the

GameInformation

-requester

Load level

-----

Opens an ASL-requester, in which you can choose the level, that you want to load. The level will be added in the level list at the end after loading.

Save level

-----

Saves the currently chosen level. The LevelName is given as FileName in the ASL-requester.

Load game

-----

After the choice in the File requester a game with its levels will be loaded. All levels, that were in the memory, will be deleted.

Link game

-----

Like LoadGame all levels of the new game will be added to the levels of the game, which is already in the memory.

Save game

-----

---

Saves all levels in one data. So the levels needn't be saved particular.

If you press the Control-key simultaneously, you save the level with protection identification. This can't be undo. So please save the game only protected, if you want to give it on to another person, or if you are sure, that no more changes are needed.

Delete game  
-----

With this option you can delete all levels, that are in the memory. Before this happens a security requester appears.

## 1.19 Game Settings

Game Settings  
-----

Here you can make global modifications, that count for the whole game.

Number of Players  
-----

Here you can adjust the number of players, who join the game. After each life there is a change. (The exceptions are intermissions)

Name settings  
-----

This button opens the  
name~settings  
-requester, in which you can enter  
all player names and where you can make further adjustments.

Number of Lives  
-----

Here you can adjust the number of lives, the players will have in the following games. The games delivered by me don't make this adjustments.

Starting a Level  
-----

With this slider you can adjust the level, in which the game should start. This function doesn't run with the delivered games.

Levelchanging Tilulit  
-----

With this button you can switch of the level changing effect.

Simple Tilulit  
-----

---

Here the moving blocks in the level changing will be replaced by static ones. You can only click on this button, if the level changing effect is active.

#### Editor Tilulit

---

With this button you can switch on the Tilulit for changing between GameEditor, LevelEditor and LevelEditor and TestingMode. Like the simple Tilulit this button can only be switched one, if the level changing effect is active.

#### Game Graphics

---

With this gadget you can load the game graphics, which you want to play with. You can also load

Own~Graphics

.

#### Game Font

---

Here you can adjust which font for the score line you want to play with. You can also load your

Own~Font

.

#### Sample set

---

Here you can select your

own~sample~set

.

#### Default Game

---

The default game will be loaded automatically while starting BoulderDäsh. After installation this game is called "BolderDäsh.game".

#### title picture

---

Here you can select and disable the startup title picture.

#### Ok

---

This adjustments will be overtaken.

#### Saving

---

This adjustments will be saved and the requester will be existed.

---

Besides the adjustments in this requester also the path and pattern fields of the different ASL requester will be saved. BoulderDäsh will remember the names of the players. These names will also be saved and will be loaded again by the next starting of BoulderDäsh. So don't be surprised, if you will be announced personally.

The prefs data is in the program directory under the name "BoulderDäsh.prefs".

Chancel  
-----

The adjustments will be rejected. The close gadget does the same.

## 1.20 Player Name

Player Names  
-----

In this requester you can enter the player names and make other adjustments. You can enter it by pressing player names button in the

Game~Setting  
requester.

Player 1 - (6)  
-----

Here you can enter the names of the single players. These names will be added in the highscorelist later on and will be shown, if you change the level.

Names on level start-up  
-----

In this checkbox you can adjust, if the player name or only player X should appear while changing the levels.

## 1.21 Highscores

The Highscorelist  
-----

Here the highscores of the current level are shown. The list will be saved automatically after every new entry.

The given scores are real. I hate imitated scores with the first place at a score 100000. So I have decided to add the scores played at my computer. So if you beat this scores you also beat myself and my testers.

---

There are three different highscorelists for every game.

#### 1. Game Records

The game records show the best 15 players.

The reached level is more important than the amount of score. If you reach level 4 and have a score of 5678, you will be added in the highscores before an entry with a score of 7890 in level 3.

#### 2. Level Records

In the level records there is shown the best player for every level. The score is shown, that the player has reached with that life, that he leaves the level.

#### 3. Time Records

Here is one entry for every level as well. So you must reach a shorter time.

Type

-----

With this gadget you can adjust the list, you want to see.

## 1.22 The Level Editor

The Level Editor

-----

The chosen level will be shown in the level editor. The screen will be divided into two parts.

At the top there are all elements, which you can choose in the level. Please pay attention to the fact, that you can see only some of the elements, because you can scroll this choosing beam.

At the bottom you can see the edited level itself.

Some elements are marked to be better recognised. Letters in the corner right up of the elements show you the type. "I" = in "S" = Slime etc.

An "F" in the left bottom of the element symbolises Fake, an imitation of the original block.

With the joystick you can move through the level and if you push the fire button you can set the element you have activated in the element chooser.

Into the level frame you can only set the "In", "Out" and "Metal" elements.

Here are all keys, you can use in the level editor :

```

Esc      : Ends the LevelEditor
F1       : Testing a level (if you press F1 you can leave the testing mode)
Del      : and a following Y deletes the level
Help     : Counts all diamonds and registers them as needed.
F6       : The current element and distributes them 15 times in the level
          accidentally.
NUMPAD 6: moves the element chooser one step right
NUMPAD 4: moves the element chooser one step left

C        : Space (Clear)
D        : Diamond
S        : Stone
E        : ground
M        : Metal
W        : Wall
P        : Magic Wall
L        : growing wall left/right
U        : growing wall up/down
R        : water
G        : Butterfly
N        : Firefly
I        : In
O        : Out blinking
Y        : Out not blinking
Z        : Out fake
T        : Twin
F        : Metal Fake
Q        : Slime
A        : Stone Ghost
1        : Gravitation Arrow Up
2        : Gravitation Arrow Down
3        : Gravitation Arrow Left
4        : Gravitation Arrow Right
5        : Userblock (Has got the same function than a wall)

```

## 1.23 Level Settings

### Level Adjustments

---

This windows allows the adjustments of all variables, BoulderDäsh allows for a level.

Level Name

---

The name of the level. This level is only needed for the level list at the moment.

Miscellaneous

---

This gadget opens the requester for miscellaneous things. Here you can adjust the width and height, level time, game speed and many more.

Water and Slime  
-----

Also this button opens a window. In this window you can make all adjustments, concerning Water~or~Slime.

Earthquakes  
-----

Using the earthquake key opens a window that allows all adjustments concerning earthquakes.

Scores  
-----

The Score~Adjustment~Window, that will be opened, if you click at it, allows the editing of all scores, the player can get in this levels.

Ok  
-----

With Ok the adjustment of all windows will be taken over and the level setting window will be closed. Windows, that where opened from here will be closed as well.

Cancel  
-----

Cancels all adjustments and ends all level setting windows.

## 1.24 Level Settings - Various Things

Level Settings - Miscellaneous  
-----

Level Width  
-----

---



Here the width of a level can be adjusted in elements.

WARNING : A CHANGING CAUSES THE LOSS OF THE JUST EDITED LEVEL SIZE !!!

Level Height  
-----

Here you can adjust the height of a level in elements.

WARNING : A CHANGING CAUSES THE LOSS OF THE ALREADY EDITED LEVEL SIZE !!!

Game Speed  
-----

Here you can adjust the game speed.

Level time  
-----

Here you can adjust the amount of seconds a player should have to collect all diamonds and reach the Out.

Magic wall time  
-----

Here you can adjust the amount of seconds the magic wall stays active after activation.

Diamonds needed  
-----

The number of the here adjusted diamonds are needed to end the level.

Intermission  
-----

Intermissions are levels, in which you can't lose a life. If you end the Intermission successfully, you will get a new life.

Gravitation  
-----

BoulderDäsh allows the adjustment of the gravitation in all directions. The stones can also fall up, left, right and as in the Classic BoulderDäsh down.

## 1.25 Level Settings - Water and Slime

---

### Level Setting - Water and Slime

---

In this window you can make all adjustments concerning water or slime.

#### Water growing time

---

This time starts directly at the beginning of a level. In this time the water grows in the growing rate. After the adjusted seconds over, it will be changed into the flood rate.

#### Magic water time

---

This time starts directly at the beginning of a level, too. In this time it is possible to change all water to diamonds by activating the magic wall.

#### Water growing rate

---

Directly after the beginning of a level the water grows with this rate.

#### Water flood rate

---

This rate will be activated, if the growing rate time is over.

#### Water maximum

---

With a special size the water turns to stone. Here you can adjust the percent of the level size, which must be flooded, to turn the water into stones.

#### Slime rate

---

Here you can adjust the speed, in which the stones or diamonds slime through the slime.

## 1.26 Level Settings - Scores

### Level Settings - Scores

---

Here you can add the scores for the different events while the level.

---

Diamond  
-----

Every diamond gives you the score, which is adjusted here.

Diamond extra  
-----

If someone has collected all diamonds, he gets this score for every extra diamond.

Diamonds>99  
-----

For each diamond more than 99 you get this score.

For bonus life  
-----

Every time someone reaches this score, he gets a bonus life. If you add 1000 here, you get a new life every time, you add to your score 1000. The counter is limited to the current level, that means, if you loose your life at a score of 500, you only need a score of 500 to reach a life bonus.

Time bonus  
-----

Here you can state how much score each second should give at the end of the level.

## 1.27 Leveleinstellungen - Erdbeben

Leveladjustments - Earthquakes  
-----

Here you can make all adjustments concerning earthquakes. Earthquakes shake a level so that stones fall down, which normally won't fall down. For example, stones fall down from earth or metal.

Mode  
-----

Here you can adjust the mode, that causes the earthquakes.  
The following modes are available:

Off - no earthquakes  
Random - earthquakes appear randomly with random force and randomly long

---

Once - only one earthquake  
Cyclic - earthquakes appear regularly

Activate Time  
-----

After this time earthquakes can appear.

Delay  
-----

In the mode regular you can adjust the time between earthquakes.

Force Rate  
-----

Here you can adjust the force of an earthquake.

Length  
-----

This is the length of time the level is shaken by an earthquake.

## 1.28 The Game Information

Game Information  
-----

The game information content some adjustments, that will be used for the whole game.

Author  
-----

Here you can enter your name.

Commentary  
-----

This field you can use for any text, that hasn't got any special purpose.

Date  
-----

This date is the time, when the game was saved. It will be changed automatically, if you save the game again.

Game Version  
-----

This entry will be changed as well, if you save the game again. It should make the recognition of different versions from one game easier.

---

Ok

-----

By pushing this button the window will be closed and the data will overtaken.

Cancel

-----

With cancel all adjustments, that you have done in this window, will be rejected. The window will be closed.

## 1.29 The Added Graphics

The Added Graphics

-----

Here is a list of the single graphics and their authors :

Guido Mersmann :

ClassicAmiga.gfx  
ClassicAmiga.fnt

FutureAmiga.gfx  
FutureAmiga.fnt

Joona Palaste :

Western.gfx  
Techno.gfx  
Spooky.gfx  
Space.gfx ;Space  
Psychedelic.gfx  
Moria.gfx  
Medical.gfx  
LCD.gfx ;my favourite  
JokeAmiga.gfx ;like ClassicAmiga but everything twisted  
Egyptian.gfx  
Computer.gfx  
Black&White.gfx

Beastmaster :

ClassicC64.gfx  
ClassicC64.fnt

FutureC64.gfx  
FutureC64.fnt

I want to thank all authors again.

Sometimes I have changed the arrangements of the graphics or added new

ones to support new features.

### 1.30 Block Position Table

Block position table  
-----

The blocks are given from left to right and after the end of the line it will turn to the beginning of the next line.

```

1 reserved (was Space)
2 ground
3 Metal
4 Metal moving (while Leveltilulit)
5 Metal Fake
6 Stone
7 Stone Ghost sleeping
8 Growing Wall left/right
9 Growing Wall up/down
10 Explosion 0 (The single blocks for the diamond creation explosion)
11 Explosion 1
12 Explosion 2
13 Explosion 3
14 Explosion 4
15 Plop 0 (The single blocks for the creation of Rockford and the
16 Plop 1 stone creation explosion.)
17 Plop 2
18 Twin
19 Reserved
20- 27 Diamond Ghost Animation (8 Blocks)
28- 35 Diamond Animation (8 Blocks)
36- 43 Ghost Animation (8 Blocks)
44- 51 Water Animation (8 Blocks)
52- 59 Slime Animation (8 Blocks)
60- 67 Rockford left Animation (8 Blocks)
68- 75 Rockford right Animation (8 Blocks)
76- 83 Stone Ghost Runs Animation (8 Blocks)
84- 91 Level In Animation (8 Blocks)
92- 99 Level Out Animation (8 Blocks)
100-107 Level Out Fake Animation (8 Blocks)
108-115 Magic Wall Animation (8 Blocks)
116-123 User Block Animation (8 Blocks)
124-126 Rockford stands (in each case 3 half blocks for head and legs)
127 Rockford stands (Main State)
128 Gravitation Arrow Up
129 Gravitation Arrow Down
130 Gravitation Arrow Left
131 Gravitation Arrow Right
132-139 Bonus Life Animaiton (8 Blocks)
133-147 Space Animation (8 Blocks)

```

### 1.31 Tooltypes of the Graphic Data

## The Tooltypes of the Graphic Data

---

At the moment the following tooltypes will be supported. In brackets there are the default values, that can be used, if no tooltypes are found.

|                      |      |
|----------------------|------|
| "Speed_ManRight"     | (1)  |
| "Speed_ManLeft"      | (1)  |
| "Speed_BonusLive"    | (1)  |
| "Speed_MagicWall"    | (2)  |
| "Speed_Diamond"      | (2)  |
| "Speed_In"           | (10) |
| "Speed_Out"          | (10) |
| "Speed_FakeOut"      | (10) |
| "Speed_DiamondGhost" | (2)  |
| "Speed_Ghost"        | (3)  |
| "Speed_Stonie"       | (7)  |
| "Speed_Water"        | (7)  |
| "Speed_Slime"        | (7)  |
| "Speed_MovingBlock"  | (1)  |
| "Speed_UserBlock"    | (3)  |
| "Speed_Space"        | (1)  |

These tooltypes need a value from 0 to 255. These values are the delay time. The higher this value is the slower will be the animation.

Examples :

Speed\_Slime=4

Speed\_MovingBlock=2