

# **BoulderDäsh**

Silke Bormann Mersmann

**COLLABORATORS**

	<i>TITLE :</i> BoulderDäsh		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY	Silke Bormann Mersmann	August 7, 2022	

**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME

# Contents

<b>1 BoulderDäsh</b>	<b>1</b>
1.1 Boulder Däsh	1
1.2 Epileptic seizure or altered consciousness	2
1.3 Introduction	3
1.4 System Requirements	3
1.5 Features	4
1.6 Distribution	6
1.7 How to register?	6
1.8 Restrictions of this unregistered version	6
1.9 How to Install BoulderDäsh	7
1.10 How To Play	7
1.11 The Game Elements	9
1.12 Elements: Ground	10
1.13 Elements: Space	11
1.14 Elements: Space - Fake	11
1.15 Elements: Diamonds	11
1.16 Elements: Stones	11
1.17 Elements: Eggs	12
1.18 Elements: Metal	12
1.19 Elements: Metal - Fake	12
1.20 Elements: Walls	12
1.21 Elements: Magic Wall	13
1.22 Elements: Growing Wall (left/right)	13
1.23 Elements: Growing Wall (up/down)	14
1.24 Elements: Water	14
1.25 Elements: Slime	14
1.26 Elements: Butterflies	15
1.27 Elements: Fireflies	15
1.28 Elements: Stonie	16
1.29 Elements: Rockford	16

---

---

1.30 Elements: Rockford - Twin . . . . .	17
1.31 Elements: In . . . . .	17
1.32 Elements: Out . . . . .	18
1.33 Elements: Out - Blinking . . . . .	18
1.34 Elements: Out - Fake . . . . .	18
1.35 Elements: Gravitation Arrows . . . . .	18
1.36 Elements: User Block . . . . .	19
1.37 Elements: Space Background . . . . .	19
1.38 Own Graphic Sets . . . . .	20
1.39 The Included Graphics . . . . .	22
1.40 Own Character Sets . . . . .	23
1.41 The Included Character Sets . . . . .	24
1.42 Own Sample Sets . . . . .	24
1.43 The Included Sample Sets . . . . .	25
1.44 Own Music . . . . .	26
1.45 The Included music . . . . .	26
1.46 FAQs . . . . .	27
1.47 FAQ - What is a keyfile? . . . . .	28
1.48 FAQ - Where should I place the keyfile? . . . . .	29
1.49 FAQ - BoulderDäsh does not run! . . . . .	29
1.50 FAQ - After playing a while BoulderDäsh denies keyboard usage! . . . . .	29
1.51 FAQ - The keyboard control is not very useful! . . . . .	29
1.52 FAQ - Why can't I start BoulderDäsh and the Level editor? . . . . .	30
1.53 FAQ - Memory problems on game start, but the level editor works fine! . . . . .	30
1.54 FAQ - While playing sometimes mysterious mistakes in the spaces appear. . . . .	30
1.55 FAQ - All included intermissions are to big! . . . . .	30
1.56 FAQ - Why it isn't possible to run the level editor? . . . . .	31
1.57 FAQ - All included games are using the same color! . . . . .	31
1.58 FAQ - The color set selector is sometimes working wrong! . . . . .	32
1.59 FAQ - How can I change the RTG game/title screen mode? . . . . .	32
1.60 FAQ - Changing start level and lives is not possible! . . . . .	32
1.61 FAQ - The player names are lost! . . . . .	33
1.62 FAQ - I don't understand the Hiscores! . . . . .	33
1.63 FAQ - Where are my scores, if I load a new game? . . . . .	33
1.64 The Musikspieler isn't working! . . . . .	33
1.65 Why is the play feature not always working? . . . . .	34
1.66 FAQ - Own levels . . . . .	34
1.67 FAQ - After starting a level, Rockford does not appear. Why? . . . . .	35
1.68 FAQ - The structure of the game . . . . .	35

---

---

1.69	FAQ - In my own graphics all animations are wrong!	35
1.70	FAQ - My animations are too short!	35
1.71	FAQ - What is a Chunk?	36
1.72	FAQ - What is a BDMP-Chunk?	36
1.73	FAQ - CMAP-Chunk not found!	36
1.74	FAQ - BODY-Chunk not found!	37
1.75	FAQ - BMHD-Chunk not found!	37
1.76	History	37
1.77	Future	47
1.78	Buglist	47
1.79	Thanx	47
1.80	The Author	49
1.81	All BoulderDäsh Windows	49
1.82	The Main Window	50
1.83	The Main Window - Game Editor	51
1.84	The Main Window - Game Settings	51
1.85	The Main Window - Hiscores	51
1.86	The Main Window - Load Game	51
1.87	The Main Window - Start Game	51
1.88	The Main Window - Quit Game	52
1.89	The Game Editor	52
1.90	The Game Editor - Level List	53
1.91	The Game Editor - New Level	53
1.92	The Game Editor - Delete Level	53
1.93	The Game Editor - Level Up	54
1.94	The Game Editor - Level Down	54
1.95	The Game Editor - Edit Level	54
1.96	The Game Editor - Level Settings	54
1.97	The Game Editor - Game Information	54
1.98	The Game Editor - Load Level	55
1.99	The Game Editor - Save Level	55
1.100	The Game Editor - Load Game	55
1.101	The Game Editor - Link Game	55
1.102	The Game Editor - Save Game	55
1.103	The Game Editor - Delete Game	56
1.104	Game Settings	56
1.105	Game Settings - Player Names	57
1.106	Game Settings - Data Sets	57
1.107	Game Settings - Music Player	57

---

---

1.108	Game Settings - Screen	57
1.109	Game Settings - Miscellaneous	57
1.110	Game Settings - Number of Players	58
1.111	Game Settings - Number of Lives	58
1.112	Game Settings - Start Level	58
1.113	Game Settings - Ok	58
1.114	Game Settings - Save	59
1.115	Game Settings - Cancel	59
1.116	Game Settings - Player Names	59
1.117	Player Names - Names	59
1.118	Player Names - Names on Level Startup	60
1.119	Player Names - Show Score Results	60
1.120	Player Names - Ok	60
1.121	Player Names - Save	60
1.122	Player Names - Cancel	60
1.123	Game Settings - Data Sets	60
1.124	Data Sets - Data Cache	61
1.125	Data Sets - Level Data	62
1.126	Data Sets - Level Colors	62
1.127	Data Sets - Default Graphic Set	62
1.128	Data Sets - Default Character Set	63
1.129	Data Sets - Default Sample Set	63
1.130	Data Sets - Default Music	63
1.131	Data Sets - Ok	63
1.132	Data Sets - Save	64
1.133	Data Sets - Cancel	64
1.134	Game Settings - Music Player	64
1.135	Music Player - Music List	64
1.136	Music Player - Audio Mode	65
1.137	Music Player - Prefer	65
1.138	Music Player - Music Player	65
1.139	Music Player - Play Mode	65
1.140	Music Player - Ok	66
1.141	Music Player - Save	66
1.142	Music Player - Cancel	66
1.143	Game Settings - Screen	66
1.144	Screen - RTG	67
1.145	Screen - Full Screen	67
1.146	Screen - Editor Full Screen	67

---

---

1.147	Screen - Scroll Speed 2x . . . . .	67
1.148	Screen - Editor Scroll Speed 2x . . . . .	68
1.149	Screen - Screenmode . . . . .	68
1.150	Screen - Ok . . . . .	68
1.151	Screen - Save . . . . .	68
1.152	Screen - Cancel . . . . .	69
1.153	Game Settings - Miscellaneous . . . . .	69
1.154	Miscellaneous - Default Game . . . . .	69
1.155	Miscellaneous - Title Picture . . . . .	69
1.156	Miscellaneous - Levelchanging Tilulit . . . . .	70
1.157	Miscellaneous - Simple Tilulit . . . . .	70
1.158	Miscellaneous - Editor Tilulit . . . . .	70
1.159	Miscellaneous - Ok . . . . .	70
1.160	Miscellaneous - Save . . . . .	70
1.161	Miscellaneous - Cancel . . . . .	71
1.162	The Highscores . . . . .	71
1.163	The Highscores - Type . . . . .	71
1.164	The Highscores - Delete Scores . . . . .	72
1.165	Game results . . . . .	72
1.166	The Level Editor . . . . .	72
1.167	Level Settings . . . . .	74
1.168	Level Settings - Level Name . . . . .	75
1.169	Level Settings - Visual and Noisy . . . . .	75
1.170	Level Settings - Water and Slime . . . . .	75
1.171	Level Settings - Earthquakes . . . . .	75
1.172	Level Settings - Scores . . . . .	76
1.173	Level Settings - Miscellaneous . . . . .	76
1.174	Level Settings - Ok . . . . .	76
1.175	Level Settings - Cancel . . . . .	76
1.176	Levelsettings - Visual and Noisy . . . . .	76
1.177	Visual and Noisy - Level Width . . . . .	77
1.178	Visual and Noisy - Level Height . . . . .	77
1.179	Visual and Noisy - Graphic Set . . . . .	77
1.180	Visual and Noisy - Color Set . . . . .	78
1.181	Visual and Noisy - Character Set . . . . .	78
1.182	Visual and Noisy - SampleSet . . . . .	78
1.183	Visual and Noisy - Music . . . . .	78
1.184	Color Set Selection . . . . .	79
1.185	Color Set Selection - Color Sets . . . . .	79

---

---

1.186Color Set Selection - Ok . . . . .	79
1.187Color Set Selection - Cancel . . . . .	79
1.188Level Settings - Water and Slime . . . . .	79
1.189Water and Slime - Water Growing time . . . . .	80
1.190Water and Slime - Magic Water Time . . . . .	80
1.191Water and Slime - Water Growing Rate . . . . .	81
1.192Water and Slime - Water Flood Rate . . . . .	81
1.193Water and Slime - Water Maximum . . . . .	81
1.194Water and Slime - Slime Rate . . . . .	81
1.195Level Settings - Earthquakes . . . . .	82
1.196Earthquakes - Mode . . . . .	82
1.197Earthquakes - Activate Time . . . . .	82
1.198Earthquakes - Delay . . . . .	83
1.199Earthquakes - Length . . . . .	83
1.200Earthquakes - Force Rate . . . . .	83
1.201Level Settings - Points . . . . .	83
1.202Points - Diamond . . . . .	84
1.203Points - Diamond Extra . . . . .	84
1.204Points - Diamonds>99 . . . . .	84
1.205Points - For Bonus Life . . . . .	84
1.206Points - Time Bonus . . . . .	84
1.207Level Settings - Miscellaneous . . . . .	85
1.208Miscellaneous - Game Speed . . . . .	85
1.209Miscellaneous - Level time . . . . .	85
1.210Miscellaneous - Magic Wall Time . . . . .	86
1.211Miscellaneous - Diamonds Needed . . . . .	86
1.212Miscellaneous - Intermission . . . . .	86
1.213Miscellaneous - Gravitation . . . . .	86
1.214The Game Information . . . . .	87
1.215The Game Information - Author . . . . .	87
1.216The Game Information - Comment . . . . .	87
1.217The Game Information - Date . . . . .	87
1.218The Game Information - Version . . . . .	88
1.219The Game Information - Ok . . . . .	88
1.220The Game Information - Cancel . . . . .	88
1.221ColorSetHandler . . . . .	88
1.222The main window of the ColorSetHandler . . . . .	88
1.223The ColorSetHandler - The ColorSet List . . . . .	89
1.224The ColorSetHandler - Load CMAP . . . . .	89

---



---

1.225The ColorSetHandler - Clone . . . . .	89
1.226The ColorSetHandler - Delete . . . . .	90
1.227The ColorSetHandler Menu . . . . .	90
1.228The ColorSetHandler Menu - Quit . . . . .	90
1.229The ColorSetHandler Menu - Import/Load BDMAP . . . . .	91
1.230The ColorSetHandler Menu - Import/Link BDMAP . . . . .	91
1.231The ColorSetHandler Menu - Import/Load ToolTypes . . . . .	91
1.232The ColorSetHandler Menu - Import/Load CMAP . . . . .	91
1.233The ColorSetHandler Menu - Export/Save BDMAP . . . . .	92
1.234The ColorSetHandler Menu - Export/Save BDMAP into Graphic Set . . . . .	92
1.235The Menus of BoulderDäsh . . . . .	93
1.236The Main Window Menu . . . . .	93
1.237The Main Window Menu: Project . . . . .	93
1.238The Main Window Menu: Project . . . . .	94
1.239The Main Window Menu: Project . . . . .	94
1.240The Main Window Menu: Action . . . . .	94
1.241The Main Window Menu: Action . . . . .	94
1.242The Game Editor Menu . . . . .	95
1.243BarLabel . . . . .	96
1.244The Game Editor Menu: Project . . . . .	96
1.245The Game Editor Menu: Project . . . . .	96
1.246The Game Editor Menu: Project . . . . .	97
1.247The Game Editor Menu: Project . . . . .	97
1.248The Game Editor Menu: Project . . . . .	97
1.249The Game Editor Menu: Edit . . . . .	97
1.250The Game Editor Menu: Edit . . . . .	97
1.251The Game Editor Menu: Edit . . . . .	98
1.252The Game Editor Menu: Edit . . . . .	98
1.253The Game Editor Menu: Edit . . . . .	98
1.254The Game Editor Menu: Edit . . . . .	98
1.255The Game Editor Menu: Replace . . . . .	98
1.256The Game Editor Menu: Replace . . . . .	99
1.257The Game Editor Menu: Replace . . . . .	99
1.258The Game Editor Menu: Replace . . . . .	99
1.259The Game Editor Menu: Replace . . . . .	100
1.260The Game Editor Menu: Replace . . . . .	100
1.261The Game Editor Menu: Replace . . . . .	101
1.262Block Position Table . . . . .	101
1.263Tooltypes of the Graphic Set Files . . . . .	102
1.264Tooltypes of the Music Files . . . . .	103
1.265The Tooltypes of the Title Screen . . . . .	104
1.266Technical information about BoulderDäsh . . . . .	104

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# Chapter 1

## BoulderDäsh

### 1.1 Boulder Däsh

Boulder Däsh V4.21

-----  
(C) Guido Mersmann 1987 - 1998

BOULDERDÄSH IS A SHAREWARE PRODUCT

READ THE DISTRIBUTION SECTION FOR INFORMATION ON DISTRIBUTION

Contents

-----

~~~~~Introduction~~~~~

~~~ Epilepsy Warning~~~~~

~~~~~System~Requirements~~~~~

~~~~~Feature~List~~~~~

~~~~~Distribution~~~~~

How To Register

~~~~~How~To~Install~~~~~  
BoulderDäsh

~~~~~ The Windows~~~~~  
of BoulderDäsh

~~~~~ The Menus~~~~~  
of BoulderDäsh

~~~~~How~To~Play~~~~~  
BoulderDäsh

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```

~~~~~ The Game Elements~~~~~
      of BoulderDäsh

~~~~~Own~Graphic Sets~~ ~~~~

~~~~~Own~Character Sets~~~~~

~~~~~Own~ Sample Sets~~~~~

~~~~~ Own Music~~~~~

~~~~~FAQS~~~~~

~~~~~History~~~~~

~~~~~Future~~~~~

~~~~~Bug~List~~~~~

~~~~~Thanx~~~~~

~~~~~The~Author~~~~~
      Bug Reports,Incitements...

~~~~~Technical~ information ~~~~~
      about BoulderDäsh

```

## 1.2 Epileptic seizure or altered consciousness

Epileptic seizure or altered consciousness

---

A very small percentage of people have a condition that causes them to epileptic seizure or altered consciousness when exposed to certain light patterns or flashing lights, including those that appear on a television screen and while playing games. Such people may have no medical history of seizures or epilepsy. Please take the following precautions to minimise any risk:

Prior to use:

\textdegree{} If you, or anyone in your family, has ever had an epileptic condition ←  
 or has experienced altered consciousness when exposed to flickering light, consult your doctor prior to playing.

\textdegree{} Sit at least 2.5m (8 ft) away from the screen.

\textdegree{} If you are tired or have not had much sleep, rest and commence ←  
 playing  
 only after you are fully rested.

\textdegree{} Make sure that the room in which you are playing is well ←  
 lit.

---

\textdegree{} Use the game on as small a television screen as possible ( ← preferably 14" or smaller).

During use:

\textdegree{} Rest for at least 10 minutes per hour while playing a game.

\textdegree{} Parents should supervise their children. If you or your ← child experiences any of the following symptoms while playing: dizziness, altered vision, eye or muscle twitches, loss of awareness, disorientation, any involuntary movement or convulsions, discontinue use IMMEDIATELY and consult your doctor.

## 1.3 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.

My 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.

## 1.4 System Requirements

System Requirements  
-----

BoulderDäsh (should work) works on all Amigas 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. To use all features (Ingame music and my internal music box) more memory is required.

If you want to use BoulderDäsh on graphic boards then the RTGMaster system by Steffen Haeuser and an 68020 as minimum is required. I suggest an 68030-25Mhz as minimum. You will find the rtgmaster.library

---

and there sublibraries on Aminet and AminetCDs. NOTE: BoulderDäsh supports only version 23 and above.

In addition to that and the standard libraries nothing else is needed.

BoulderDäsh was tested with the following configurations without any problems.

|          |                                       |
|----------|---------------------------------------|
| A2000-30 | OS3.1 1MB Chip and 8 MB Fast          |
| A2000    | OS3.1 1MB Chip and 4 MB Fast          |
| A2000    | OS3.1 1MB Chip                        |
| A2000    | OS3.0 1MB Chip and 4 MB Fast          |
| A2000    | OS3.0 1MB Chip                        |
| A2000    | OS2.1 1MB Chip and 2 MB Fast          |
| A2000    | OS2.1 1MB Chip and 4 MB Fast          |
|          |                                       |
| A500     | OS2.0 1MB Chip                        |
| A500     | OS2.1 1MB Chip                        |
| A500     | OS2.1 1MB Chip and 1,8 MB Ranger Fast |
| A500     | OS2.1 1MB Chip and 2 MB Fast          |
|          |                                       |
| A1200-20 | OS3.0 2MB Chip                        |
| A1200-30 | OS3.0 2MB Chip                        |
| A1200-30 | OS3.0 2MB Chip and 4 MB Fast          |
| A1200-30 | OS3.0 2MB Chip and 8 MB Fast          |
| A1200-30 | OS3.1 2MB Chip and 4 MB Fast          |
| A1200-30 | OS3.1 2MB Chip and 8 MB Fast          |
|          |                                       |
| CD32     | OS3.1 2MB Chip                        |
| CD32-SX1 | OS3.1 2MB Chip and 4 MB Fast          |
|          |                                       |
| A4000-30 | OS3.0 2MB Chip and 16 Fast            |
| A4000-30 | OS3.1 2MB Chip and 16 Fast            |
| A4000-40 | OS3.1 2MB Chip and 16 Fast            |

## 1.5 Features

### Features

\textdegree{} 1:1 Clone of the Original!

\textdegree{} multitasking available!

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

\textdegree{} Graphic board compatible via  
RTGMaster.library V23+

Allows up to 256 colors.

\textdegree{} more than 3612 caves in this edition!!

\textdegree{} 35 different

---

```
        graphic sets
        .

\textdegree{} 6 different
               character sets
        .

\textdegree{} 5 different
               sample sets
        .

\textdegree{} 6 ingame
               tunes
        .

\textdegree{} Local support.

\textdegree{} Kickstart 2.04 or higher is required.

\textdegree{} Programmed in Commodore Styleguide.

\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 (Under OCS/ECS/AGA it depends on ChipMem).

\textdegree{} The
               highscorelist
               is automaticaly handled for each game.

\textdegree{} Comfortable
               Level~Editor
        .

\textdegree{} Different gravitation directions.

\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.

\textdegree{} Create your
               own ingame music
```

---

by using Protracker.

## 1.6 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. Some features are not available without a keyfile.

I expect from everybody, who uses BoulderDäsh regularly, to register immediatly. 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 via AD SG Homepage <http://www.amigaworld.com/adsg>.

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

## 1.7 How to register?

How to register?

-----  
BoulderDäsh registration is very easy. The Shareware fee is 20\$ or 30DM. I think the requested fee is not to much for this program. After registration you are able to use the complete programm.

The registration of Boulderdäsh is done by the Amiga Developer Support Group (ADSG) More information about paying and shipping is available within the ADSG-RegTool. The keyfile will be shipped within 1 or 2 weeks.

If you want to register, then do it now.

Please use the included register-tool. This makes our work easier and your registration will be done much faster.

## 1.8 Restrictions of this unregistered version

---

### Restrictions of this unregistered version

---

The unregistered version of BoulderDäsh has some limitations:

\textdegree{} Only the first levels of each game are playable.

\textdegree{} C64 and Atari level loader are not available.

\textdegree{} You are not allowed to modify  
start level  
and the  
number of lives  
.

\textdegree{} The  
replace menu  
of the  
game editor  
is not available.

\textdegree{} The  
solve menu  
of the  
game editor  
is not available.

After  
registration  
all this features are full available.

## 1.9 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.

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

## 1.10 How To Play

### How To Play

---



After you have started a game, the screen scrolls to a blinking block, the

In

.

After some seconds it explodes.

Rockford

appears here, the hero of the

game. It is possible to decrease this delay by moving the stick in one direction.

His task is the following one: He has to collect a determined number of

diamonds

in a determined time and must then move to the

Out

to leave

the level.

It is very simple. After

installing

BoulderDäsh the default game

(BDash\_I\_Levell.game) is selected. This game is a perfect beginner game and it should explain any questions.

#### Keyboard Functions

With the cursorkeys you can move Rockford via keyboard. The keys Shift, Alt and 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, it is logically your turn.

Press the spacebar to activate and deactivate the pause.

You are able to return to the Workbench by using the help key. If you click onto the workbench menu point you can continue your BoulderDäsh game. NOTE: This is only available if RTG is disabled! During RTG mode switch the Screen by using Amiga-M

Pressing left Amiga and "M" is like pressing help!

By pressing F1/F10 you can leave the game immediately and get back to the menu or leveleditor. There is no way to continue the game !!!

The following keys are for the music player. For further information consult the

music player

chapter.

Press the "M" key to cycle the music

playing mode

. These playing modes

are used: "Effects only", "Music only" , "Music and Effects". Note:

---

Depending on the module not all modes are available.

```
"1" :
    Music player
    on/off

"2" : Next music

"3" : Previous music

"4" :
    Change play mode
    .

"5" : Change music
    prefer mode
    .
```

## 1.11 The Game Elements

### The Game Elements

-----

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

```
\textdegree{} disappear, if they explode
\textdegree{} Flies, ghosts or
    rockford
    cannot run through them.
\textdegree{}
    stones
    ,
    diamonds
    and
    eggs
    are unable to tilt down on one side

Ground

Space

Space - Fake

Diamond

Stone

Egg

Metal

Metal - Fake
```

---

Wall  
Magic Wall  
Growing Wall - (left/right)  
Growing Wall - (up/down)  
Water  
Slime  
Butterfly  
Firefly  
Stonie  
Rockford  
Rockford Twin  
In  
Out  
Out - blinking  
Out - Fake  
User Block  
Gravitation Arrow  
Space Background

## 1.12 Elements: Ground

Ground

-----

Rockford  
can run through it and a  
space  
is left on this place.

Stones  
,  
Diamonds  
and  
eggs  
lay on the  
ground

and cannot tilt down at  
one side.

### 1.13 Elements: Space

-----  
Space

Allows

- diamonds
- ,
- stones
- ,
- eggs
- ,
- Flies
- and
- rockford
- free movement.

### 1.14 Elements: Space - Fake

-----  
Space - Fake

This space works exact like a  
wall  
but it is invisible.

### 1.15 Elements: Diamonds

-----  
Diamonds

Can be collected by  
rockford  
.

### 1.16 Elements: Stones

-----  
Stones

Rockford  
can push them vertical to the gravitation, if there is a

---

space  
behind the stone in that direction, it should be pushed.

## 1.17 Elements: Eggs

-----  
Eggs

An egg is working like an  
stone  
. But there is one exception. If you  
drop a  
stone  
,  
diamond  
or an other egg on it, the  
egg  
breaks and a  
  
diamond  
appears.

## 1.18 Elements: Metal

Metal  
-----  
  
Metal can not explode.

## 1.19 Elements: Metal - Fake

-----  
Metal - Fake

Acts like  
metal  
, but it is able to explode.

## 1.20 Elements: Walls

-----  
Walls

Is only an obstacle and does not help in any way.  
stones  
,

---

```

        diamonds
        and
        eggs
        are able to
    tilt down on one side, if it is allowed by the environs.

```

## 1.21 Elements: Magic Wall

```

        Magic Wall
    -----

    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
        . An
        egg
        will be tranformed into an
        firefly
        . If there is no
    space underwards the magic wall
        stones
        ,
        diamonds
        and
        eggs
        passing it
    will be 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.

```

## 1.22 Elements: Growing Wall (left/right)

```

        Growing Wall (left/right)
    -----

    As soon as this element discovers a

```

---

space  
left or right next to it, it  
grows in this direction.

### 1.23 Elements: Growing Wall (up/down)

-----  
Growing Wall (up/down)

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

### 1.24 Elements: Water

-----  
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  
. But there is one exception: If the water was never able to  
grow nothing happens until one grow.

Some levels are using a  
special feature  
. If a  
magic wall  
is activated  
all water will turn into  
diamonds  
.

### 1.25 Elements: Slime

---

### Slime

-----

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

## 1.26 Elements: Butterflies

### Butterflies

-----

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

See also:

firefly  
 ,  
 stonie

## 1.27 Elements: Fireflies

### Fireflies

-----

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

See also:



butterfly  
,  
stonie

## 1.28 Elements: Stonie

Stonie

-----

Stonies are very social. If they are hit by a  
stone  
or tough  
water  
,  
they explode to nine  
stones  
.

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

Once awoken stonies move through the  
spaces  
of the whole level.

See also:

butterfly  
,  
firefly

## 1.29 Elements: Rockford

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  
 ,  
 egg  
 or a sleeping  
 stonie  
 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.

### 1.30 Elements: Rockford - Twin

Rockford - Twin

-----

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

### 1.31 Elements: In

```

-----
                In
a few Ins
level. All
                rockford
                enters the level with the help of this element. There may be
                rockford
                s enter this
                rockfords
                are directed by the player simultaneously.

```

### 1.32 Elements: Out

```

-----
                Out
                This is the exit of the level. But it isn't blinking!

```

### 1.33 Elements: Out - Blinking

```

-----
                Out - Blinking
                This
                out
                works exactly like a out, but this time it started blinking,
                if all
                diamonds
                are collected.

```

### 1.34 Elements: Out - Fake

```

-----
                Out - Fake
                Starts blinking, if all
                diamonds
                are collected. But it is not an exit.

```

### 1.35 Elements: Gravitation Arrows

```

-----
                Gravitation Arrows
                This element is present in each direction once. If

```

---

```

        rockford
        runs again
such a block, the gravitation changes in the direction of the arrow on
the element.

```

## 1.36 Elements: User Block

```

        User Block
-----

```

```

This element behaves like a normal
wall
.

```

## 1.37 Elements: Space Background

```

        Space - Background
-----

```

This Element is only important, if you want to create own caves. If you are a Player then skip this part.

```

Space - Background is always empty but
        rockford
        is not able to move
through this element. Do not use this Block to create a labyrinth or
something like this, because the user (player) is able to select an
other graphic set via
        game settings
        and override your specified
graphic set. For example "FutureAmiga" this Block is empty, but the
real
        space
        is full of stars.

```

What are this Blocks good for?

Since BoulderDäsh 3.0 and on an request by Thomas Sahling it is possible to remove the Level border. If you define a level that looks like a Circle, than you need something around.

```

        spaces
        need cpu time,
because there is always an animation, even if you can not see this. In
addition to that space animations are not wished every time. Short: If
you want to fill an area with space and
        rockford
        is not able to enter
this area, then use this block.

```

If this is not 100% clear then keep a look on the included level "BoulderDäsh/Little.int".

---

## 1.38 Own Graphic Sets

### Own Graphic Sets

-----

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 8 or 256 colors 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. 256 Color graphics are available in RTG Mode only. The first color is always black. Do not modify colors 0 and 248-255. These colors are reserved for later use and may change. If you want to create a graphic set that is OCS/ECS/AGA compatible 8 colors are the limit.

#### 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
  <=>
Stonie
  asleep

Wall
  <=>
Growing Wall left/right
  <=>
Growing Wall up/down

Rockford
  left <=> Rockford right (all Animation-steps)

Diamond_0
  <=>
Egg_0
  <=>
Egg_1
  <=>
Egg_2
  <=>
Egg_3

```

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
  <=>
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.

#### 7. The Colors

It is possible to create a colorful graphic set by using the Tooltypes and the ColorSetHandler .

## 1.39 The Included Graphics

The Included Graphics  
-----

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

Guido Mersmann :

ClassicAmiga.gfx  
FutureAmiga.gfx

Joona Palaste :

Arctic.gfx  
Black&White.gfx  
Christmas.gfx  
Computer.gfx  
Egyptian.gfx  
Fantasy.gfx  
Funky.gfx  
Icons.gfx  
Jewel.gfx  
JokeAmiga.gfx ;like ClassicAmiga but everything twisted  
LCD.gfx ;my favourite  
Medical.gfx  
Moria.gfx  
Neon1.gfx  
Neon2.gfx  
PacMan.gfx  
Pastel.gfx  
Psychedelic.gfx  
Small.gfx

Space.gfx  
Spooky.gfx  
Techno.gfx  
UnderWater.gfx  
Western.gfx

Beastmaster :

ClassicC64.gfx  
ClassicC64Pumpkin.gfx  
FutureC64.gfx

Thomas Richter :

Lemmings.gfx

Thomas Richter2 :

Classic800XLPro.gfx

Marko Suominen :

Graveyard.gfx ;This is brilliant!!

Timo Hegemann :

Habich256.gfx ;This is brilliant (256 Colors)

Habich64.gfx

Grablinge256.gfx ;This is brilliant (256 Colors)

Grablinge64.gfx

I want to thank all authors again.

Sometimes I have changed the arrangements of the graphics or added new ones to support new features.

## 1.40 Own Character Sets

Own Character Sets

-----  
Beside the

enclosed~character sets

you can create own Characters, too.

All you need is a paint program and some talent.

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.

---



## 1.41 The Included Character Sets

The Included Character Sets  
-----

Here is a list of the single character sets and their authors :

Guido Mersmann :

ClassicAmiga.fnt  
FutureAmiga.fnt

Beastmaster :

ClassicC64.fnt  
FutureC64.fnt

Marko Suominen :

Graveyard.fnt ;fantastic! Try this with Graveyard.gfx !!

I want to thank all authors again.

Sometimes I have changed the arrangements of the characters or added new ones to support new features.

## 1.42 Own Sample Sets

Own Sample Sets  
-----

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:

- 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."Diamond" and "TimeOut" should sound right for c octave 2. For the MED sampler this adjustment is default. C-2 corresponds to a hardware period of "428".
-

3. BoulderDäsh also realizes which samples do exist. This 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.

\textdegree{} "GravitationArrow"-Sound is also replaced by the "Collect"-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)                         |
| "StonePushFailed.SND"  | (sound for failed push)                     |
| "GravitationArrow.SND" | (ONLY if gravitation changed by Grav.arrow) |
| "Background.SND"       | (is played cyclic)                          |

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

## 1.43 The Included Sample Sets

The Included Sample Sets

---

Here is a list of the sample sets and their authors :

Guido Mersmann :

Classic (Original C64 Sounds)

Thomas Sahling :

Classic800XL (Original Atari 800XL Sounds)

Future (Selfmade)

---

Marko Suominen :

GraveYard

Thomas Richter2 :

Classic800XLPro (Original Atari 800XLPro Sounds)

I want to thank all authors again.

Sometimes I have changed the arrangements of the samples or added new ones to support new features.

## 1.44 Own Music

Own Music

-----

Beside the

enclosed~modules

you can create your own game music, too.

All you need is a ProTracker compatible music editor and some talent.

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

After creating a music you must specify unused or not so important voices via

ToolType

. This allows BoulderDäsh to use as much voices as available for in game effects.

## 1.45 The Included music

The Included music

-----

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

Guido Mersmann :

BoulderDäshClassic.mus

Ruben Monteiro :

InGame1.mus

InGame2.mus

InGame3.mus

InGame4.mus

---

TitleAmiga.mus

I want to thank all authors again.

## 1.46 FAQs

FAQS

-----

The Keyfile:

What is a keyfile?

Where should I place the keyfile?

The game:

BoulderDäsh does not run!

After playing a while BoulderDäsh denies keyboard usage!

The keyboard control is not very useful!

Why can't I start BoulderDäsh and the Level editor?

Memory problems on game start, but the level editor works fine!

While playing sometimes mysterious mistakes in the spaces appear!

All included intermissions are to big!

Level editor:

Why can't I start BoulderDäsh and the Level editor?

Why it isn't possible to run the level editor?

All included games are using the same color!

The color set selector is sometimes working wrong!

Game settings:

How can I change the RTG game/title screen mode?

Changing start level and lives is not possible!

The player names are lost!

Hiscres:

I don't understand the Hiscres!

Where are my scores, if I load a new game?  
Music player:

The Musikspieler isn't working!

Record  
and  
Playback  
of caves:

Why is the play feature not always working?  
Own games and levels:

Own levels!

After starting a level, Rockford does not appear. Why?

The structure of the game!  
Own graphic and color sets:

In my own~graphics all animations are wrong!

My animations are too short!

What is a Chunk?

What is a BDMP-Chunk?

CMAP-Chunk not found!

BODY-Chunk not found!

BMHD-Chunk not found!

## 1.47 FAQ - What is a keyfile?

What is a keyfile?  
-----

A keyfile is a very small file. In the most cases it is not longer than 512 byte.

These files contain specific information about the owner and a lot of security data.

Placed correctly this little file works like a key. It is enabling features or disabling nerv requester.

Do not copy your keyfiles to other people, because you are the owner and only you got a licence to use the programm using this key. It is very easy to find the original owner of an keyfile, even if it is

---

patched, so be as careful as it is your home key.

## 1.48 FAQ - Where should I place the keyfile?

Where should I place the keyfile?  
-----

There are several possible positions:

```
"S:BoulderDäsh.key"           ;the script drawer
"BoulderDäsh/BoulderDäsh.key" ;the program drawer
"BoulderDäsh/Keyfile/BoulderDäsh.key" ;the programm/keyfile drawer
```

## 1.49 FAQ - BoulderDäsh does not run!

BoulderDäsh does not run!  
-----

BoulderDäsh needs some libraries, which are added at the original Workbench. Please guarantee, that "asl.library" and "iffparse.library" are in the Libs-Directory.

## 1.50 FAQ - After playing a while BoulderDäsh denies keyboard usage!

After playing a while BoulderDäsh denies keyboard usage!  
-----

This problem effects non RTG mode only!!

BoulderDäsh is running in multitasking since version 3.56! This may cause problems, because BoulderDäsh is using the blitter hardware very intensive (up to 11000 blitter copies each second (NTSC 13200)), so there is no time for system blitter action.

If the operating system is trying to use the blitter it is going to sleep until the blitter is free. BoulderDäsh is using the input.device for keyboard input and if the OS is sleeping there is no device activity. The point is, that you MUST stop all programmes that open/close windows or use the graphics.library (blitter) in any way.

In the most cases these programmes are Workbench Eyes, Clock tools and of course awakener tools.

In such situation press the left mouse button to quit the game.

## 1.51 FAQ - The keyboard control is not very useful!

---

FAQ - The keyboard control is not very useful!

---

On slow systems it may happen, that the AmigaOS has not enough time to process the keyboard handling. In this cases the keyboard input is delayed and a good gameplay is impossible. There is no way to avoid this, because this is a step back.

The joystick control is always working perfect.

## 1.52 FAQ - Why can't I start BoulderDäsh and the Level editor?

Why can't I start BoulderDäsh and the Level editor?

---

If there are no levels in memory, this buttons are blocked. Please load a game, or create one level as minimum.

## 1.53 FAQ - Memory problems on game start, but the level editor works fine!

Memory problems on game start, but the level editor works fine!

---

This problem effects non RTG mode only!!

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.

## 1.54 FAQ - While playing sometimes mysterious mistakes in the spaces appear.

While playing sometimes mysterious mistakes in the spaces ←  
appear.

---

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

bonus life

.

## 1.55 FAQ - All included intermissions are to big!

---

FAQ - All included intermissions are to big!

---

This problem effects non RTG mode only!!

The intermissions are 100% ok. It is the game. One additional screen line and the game is unplayable slow, so I decided to remove this line.

## 1.56 FAQ - Why it isn't possible to run the level editor?

Why it isn't possible to run the level 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.

## 1.57 FAQ - All included games are using the same color!

All included games are using the same color!

---

There are three cases in with this may happen:

\textdegree{} The

LevelColor

switch in the

Game Settings - Data Sets

-window is

disabled.

\textdegree{} An icon file is missing. It is not wise to delete any BoulderDäsh icon, ↔

because they contain important information about music

,

title pictures

and

graphics

. Without these information BoulderDäsh is not working

perfect.

\textdegree{} You killed the colors by using a paint programm. BoulderDäsh is ↔ storing

the different level colors in the picture file itself. For more information visit the chapter

ColorSetHandler

---



and the  
Chunk  
-FAQ.

## 1.58 FAQ - The color set selector is sometimes working wrong!

The color set selector is sometimes working wrong!

---

It is required to switch on the  
Level Data  
and  
Level Colors  
gadgets

If not, the graphic set selected via level settings isn't used.

## 1.59 FAQ - How can I change the RTG game/title screen mode?

How can I change the RTG game/title screen mode?

---

After saving the screen mode the screen mode requester only appears when  
pressing shift. So just press the key and  
start the game

.

The title picture only appears on game startup, so switch  
title picture  
and  
RTG

on. Don't forget to save the settings and quit BoulderDäsh.  
The next time you run BoulderDäsh via CLI or WB press the "Shift" key  
until the screen mode requester appears.

## 1.60 FAQ - Changing start level and lives is not possible!

Changing  
start level  
and  
lives  
is not possible!

---

This feature is available for  
registered  
users only.

---

## 1.61 FAQ - The player names are lost!

The player names are lost!

-----

If you open in the  
     Game~Settings  
     the request button  
     Name~Settings  
     you  
 can  
     change the name  
     . Afterwards you have to  
     save  
     the changing, to  
 restore them for the next games.

## 1.62 FAQ - I don't understand the Hiscores!

I don't understand the Hiscores!

-----

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

## 1.63 FAQ - Where are my scores, if I load a new game?

Where are my scores, if I load a new game?

-----

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

## 1.64 The Musikspieler isn't working!

The Musikspieler isn't working!

-----

Several thing may go wrong:

\textdegree{} There is not enough memory to store the audio tracks. Disable the ↔  
 data  
 cache via  
     Game Settings  
     to save memory. Do not run other programs!

---

```
\textdegree{} The
    music player
    isn't enabled. Change the
    music player state
    to "on"
or "standby".
```

## 1.65 Why is the play feature not always working?

Why is the play feature not always working?

-----

Some timing problems may cause the  
play back  
not to be successful.

These timing problem ranges within micro seconds, but this little delay  
may cause a desaster. Under normal conditions this problem should only  
appear in caves containing  
milling walls  
,  
water  
and  
earthquakes  
.

You are able to avoid this problem! For example don't depend on a  
succeed milling during the last  
milling wall second  
. This may work on  
your machine, but on other faster/slower machines your record may  
cause that the milling wall isn't milling this stone.

But there is no way to avoid this bug in an water cave, when the  
water growing time  
expires. This rate change may come some misco  
seconds to early or to late, so there is no way workaroud. In the most  
cases the  
water growing time  
indicates a game lost, so this bug  
doesn't matter.

I'll try to fix this problem, but it is not very easy. The ingame  
timing is very difficult.

## 1.66 FAQ - Own levels

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.

### 1.67 FAQ - After starting a level, Rockford does not appear. Why?

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.

### 1.68 FAQ - The structure of the game

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.

### 1.69 FAQ - In my own graphics all animations are wrong!

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.

### 1.70 FAQ - My animations are too short!

My animations are too short!

-----

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

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## 1.71 FAQ - What is a Chunk?

What is a Chunk?  
-----

Amigas IF-Format (IFF) is very special. For example a picture is separated in different sections called: Chunk!

Each section is defined by an 4 byte name, like "BODY". The "BODY" chunk contains only the pixel map of an picture. In a sound file this "BODY" contains the RAW sample. The "CMAP" contains only colors. And so on. For each Type of data there is a CHUNK.

The cheat is that there are no restrictions what chunk and how many chunks are included in one file. So it is possible to include sounds within a picture.

But what is a paint programm doing when loading a picture containing audio information? Well it is searching for picture information, so it is only reading the "ILBM" section, with means 'Picture'. The other unknown data (e.g. "8SVX" = Sample) will be ignored.

BoulderDäsh is using this feature to store additional color information within the graphic sets.

## 1.72 FAQ - What is a BDMP-Chunk?

What is a BDMP-Chunk?  
-----

BoulderDäsh is storing the colors of the different levels in the graphic set itself. This is done by using a new

Chunk

(BDMP). This

chunk contains all colors and there names. It is not possible to use a paint program to handle the color sets, so I wrote the

ColorSetHandler

.

The BDMP-

Chunk

may be stored within a graphic set or may be stored in an other file specified by using the graphic set

tooltypes

.

## 1.73 FAQ - CMAP-Chunk not found!

CMAP-Chunk not found!  
-----

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

## 1.74 FAQ - BODY-Chunk not found!

BODY-Chunk not found!

-----

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.

## 1.75 FAQ - BMHD-Chunk not found!

BMHD-Chunk not found!

-----

The BMHD-  
Chunk  
contains the format of the graphic. If this is missing, BoulderDäsh can't find the resolution of the picture. Look at the documentation of your painting program, in which way a picture is saved completely.

## 1.76 History

History

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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 scroller, 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 touches 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 instead 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-functions 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 module 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 optimisations.  
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.
- V2.63 "Clear game"-function modified. => No Hiscore damages any longer.  
| Original C64 colors for each level. (requested by every one)  
| Unregistred version denies playing all levels.  
| Unregistred version denied modifying start level and lives.  
| 8 new games implemented. (Thanks to Peter Broadribb)  
| 2 new sample sets (Thanks to Thomas Sahling)  
| 1 new graphic set  
| Sample handling bug fixed. (reported by Thomas Sahling)  
| Virtual data handling. (Graphic, character and sample sets)  
| Error requester fixed.  
| Some new options.  
| Choose graphic, character and sample set for each level.  
| LoadLevel is able to load Original C64 Construction Kit Caves  
| (registred version only)  
| 389 original C64-Caves included. (C64-Construction Kit Format)  
| Thanks to Peter Broadribb and Uwe Drichel  
| New sounds (StonePushFailed, GravitationArrow und Background)  
| Sample set loader is now able to extract periode from sample.  
| (requested by Thomas Sahling)  
| LevelEditor: You are allowed to edit the border. (requested by  
| Thomas Sahling)  
| Little manual rework.  
| New scroller option, to speedup scrolling. (requested by  
| Rudolph Riedel)  
| No longer blanker activation, if Boulderdäsh is returning to  
| workbench. (Requested by Silke Bormann [What's this?])  
| No longer soft freezer in pause mode. (-8  
| New Hiscore routines and format.  
| Some problems with C64-caves fixed.  
| New selector Keys. (level editor)  
| 2 new blocks (Space-Fake and Space-Background)  
| Fixed level editor animation problems. (Only with some GFX-Sets)  
| MillingWall symbol added. (little stone)
- V3.00
- V3.01 Little Bugfix. (unregistred only)
- V3.02 Some source code optimisations.  
|
- V3.04
- V3.05 Input.device handling fixed. Instead of one open and one close,  
this device was opened twice. If the game was played 9 time  
this causes an "ASL-requester auto close"-bug.  
[Reported by Michael]
- V3.06 Color sets implemented. Now you are able to select colors for your
-

- own levels .(During testing V3.0 there was not enough time to implement color sets.)
- V3.07 Small ToolType Bug removed.
- V3.08 Small game editor bug removed. An opened Level settings window causes am system crash after using the level editor.
- V3.09 Some game editor optimisations.
- V3.10 Color sets are now selectable via Level editor, too.  
Some internal optimisations.
- V3.11 Wrong Gadget replaced (File\_kind). Now it is possible to open the color set selection via PopUp\_kind.  
Forgot to sort after changing color sets name.  
Full FAQ-Guide rework.
- V3.12 Brrrr! Forgot to reactivate some level editor routines. Since V3.10 it was impossible to create own levels. (reported by Michael)  
New random routines. (Water/Slime/Earthquake)
- V3.13 music routines implemented and  
| level support  
V3.20 adjusted.
- V3.21 Complete new preferences windows.  
| Now all settings are divided to  
| many windows and there is also a prefs files for each window.  
| This makes it easier to edit the preference and allows  
V3.50 me to do simple modifications.
- V3.51 Title picture is playing ProTracker modules.  
Additional to that, there is a music for each title mode.  
(Classic and Amiga)
- V3.52 Little window link bugs removed.
- V3.53 VBL-Frequenz is now calculated. Modified the ProTracker source to calculate SetSpeed commands correct.
- V3.54 BoulderDäsh default configuration depends on system configuration
- V3.55 ChipMem only music bug removed. (Reported by my good all A500-1MB)  
Some catalogs script optimisations
- V3.56 BoulderDäsh is now able to load Atari-BoulderDäsh Construction Kit cave files. (Special thanks to Achim Haertel for the information)  
(registered version only)  
Level load error requests fixed!  
Some water optimisations and an old random generator removed.  
New Water feature added. (Special thanks to Achim Haertel for the information)  
Now it is possible to decrease the level in delay my moving the stick. This feature based on C64 features. (Again! Special thanks to Achim Haertel for the information)  
Installer rework. Now it should find BoulderDäsh in the most cases.  
Some music routine changes. Now it should work perfect.  
New "in line copy"-routine. This feature is needed for the internal music player. (Copy music during game)  
New path routines to clean up my old BoulderDäsh directory structure.  
Installer script fixed.  
ColorSet-Requester fixed. I hope it is now working perfect.  
Some ColorSet-Requester enhancements.  
Multitasking is now available.
- V3.57 Now you are able to select between Music or Effects, if mixed mode is not available.  
Amiga-M is switching to Workbench
- V3.58 Sound disabling fixed.
-

- Music player: continues and random play included.  
Audiochannel allocation included
- V3.59 Interrupts and keyboard handling depends no longer on the  
lowlevel.library! This library is no longer needed.
- V3.60 Music name viewer fixed.  
Load/save level path is now correct.  
Emergency exit implemented. It is working like F1/F10, but it is  
also working if the system is sleeping during blitter wait.  
(Left mouse button)  
Little keyboard bug fixed.
- V3.61 Another keyboard bug removed.
- V3.62 New 16/32 Bit Scroller and new rockford targeting.
- V3.63 Some changes for upcoming RTG implementation.
- V3.64 Graphic set loader is now able to convert planar -> chunky
- V3.65 RTG Full screen scroller is working
- V3.66 New text drawing functions. (RTG und ECS)
- V3.67 Character set loader is now able to convert planar -> chunky
- V3.68 Some changes for upcoming RTG implementation.
- V3.69 RTG included.  
| Some small bugfixes.
- V3.75
- V3.76 Some RTG level editor changes.  
| Cursor control and block selection reworked.  
| Some ECS functions enhanced.
- V3.80 Screen preferences implemented.
- V3.81 Other optimisations. (ECS and RTG functions)  
|
- V3.83
- V3.84 First version for beta testing.
- V3.85 RTG: Now screens >320\*200 Points are working perfect.
- V3.86 RTG: Constructions kit cursor blinking fixed.
- V3.87 RTG: No longer mouse pointer trouble.
- V3.88 Color sets are full available.  
Catalogs and documentation reworked.  
New Levelformat is handling the new color set format and  
converting the old.  
Levels and color set updated.  
Bug in game saver fixed.  
Bug in graphics loader fixed.  
Level editor error handling fixed.  
UnBusyAllWindows does no longer delay.
- V3.89 Full RTG multitasking implemented.  
Construction kit block select cursor is now working perfect.  
Construction kit block select isn't trashing any longer.
- V3.90 FutureC64 graphic set reworked.  
Color sets for the new FutureC64 created.  
RTG: Score line colors fixed.
- V3.91 RTG: Loader moved before open screen.  
Small level loader bug fixed.  
RTG: Title picture is now working on graphic boards.
- V3.92 Double scroll speed is selectable for the level editor separately.  
Full screen option is now working.  
Some catalog changes.
- V3.93 ECS: Standby mode is working again.  
RTG: Mouse pointer blank should work now.
- V3.94 ECS: Music player is working again.  
C64 caves are colored again.
-

- V3.95 RTG: Title pictures and the level window are centered now.  
RTG: Score clear routine fixed.
- V3.96 RTG: The screen mode requester title line is viewing more information about the requested screen.  
Fake outs are invisible again.  
Added 100 cave brutalo boulderdash game (20 caves \* 5 levels)  
The combination stone-ghosts and water is working again. No longer system crashes. (reported by Thomas Richter)  
A bonus-live-score of zero is now working (= bonuslive off). (reported by Thomas Richter)  
The new input handler was making trouble, if more than one Rockford was in the cave. (reported by Thomas Richter)  
Added game, graphics and character set by Thomas Richter.  
No longer endless loops during switching from RTG to ECS Mode.
- V3.97 New RTGMaster.library V23 is now required.  
Some work arounds removed.  
RTG: VBlank settings implemented.
- V3.98 ColorSets wasn't working with V4 Levels, because the level file internal version count wasn't "4". All games are recompiled and working again. (Reported by Peter Schulz)  
And there was a strange bug in the gfx-stuff. ColorSets wasn't changed until a new GraphicSet was used. (Reported by Peter Schulz)  
I fixed the strange music bug. Now there aren't any longer noises if the music isn't ready during level startup.
- V3.99 Small changes.
- V4.00 Missing drawer added. No longer write protect errors when using CD editions.
- V4.01 Two graphic sets and one character set included. (Thanks to Marko Suominen and Thomas Richter2)
- V4.02 Color sets are working perfect, even if other graphic sets are forced to be default.
- V4.03 The availability of the level color switch no longer depends on the level color switch. (game settings - Data sets)
- V4.04 Catalog fixes! Some keyboard shortcuts were defined twice.
- V4.05 ECS: Settings allow to force PAL or NTSC screen mode.
- V4.10 = V4.05
- V4.11 Stone ghost animation fixed. (reported by Timo Hegemann)  
Atari level color support implemented. (again)
- V4.12 "Game has been changed"-requester implemented.  
Menu added.
- V4.13 Hard Hiscore-Bug removed. (reported by Hans-Dieter Becker and Thomas Richter2. So Hans-Dieter: Now your daughter should be able to create games without further problems. With Thomas' help I was able to reproduce this very old bug.)
- V4.14 Hard deinstallation bug removed. (reported by Tony Belding)
- Game result requester implemented. (requested by Tony Belding)
- V4.15 New graphic set included.  
New C64 caves added.
- V4.16 Epilepsy warning included.  
The music player should work perfekt know. (no longer endless loops if there is no tune when the music player is switched on)  
Using the next/prev track function of the music player may caused crashes. (Thanks to all the writers for the bug reports)
-

The  
    Block Position Table  
    was incorrect (reported  
    by Markus Sauermann)  
The magic wall sound is working perfekt now. (reported by Markus  
Sauermann)  
The  
    level editor  
    is now longer returning to the upper left edge  
    after testing a game. (requested by Markus Sauermann)  
Many documentation changes.

V4.17 Another Sound bug removed. (reported by Markus Sauermann)  
RTG: BoulderDäsh should work again on GFX boards, if the title  
picture is enabled. I spend 4 hours on debugging to find the  
problem.

    SaveLevel  
    is working again. (reported by Markus Sauermann)

V4.18 "Replace"-Menu implemented. Now it is possible to replace all  
data sets by one command. (requested by Thomas Richter2)  
Complete  
    game editor  
    rework.  
The game editor  
    menu  
    enhanced.  
Many documentation changes.  
BoulderDäsh is saving all window positions when saving

    Game Settings - Screen  
    ECS: The information characters of the  
    level editor  
    where  
misplaced. This bug appeared first when using the GraveYard-gfx.  
The Atari level colors weren't correct. (Reported by Thomas Richter2  
(Sorry for the delay, but there were other more important problems  
to fix first.)))  
The uncontrolled animation of the  
    Out & Magic Wall  
    block  
is now part of history. (Thanks to Markus Sauermann for confirming  
this stupid bug)

New game element! An  
    egg  
    . Drop a  
    stone  
    ,  
    diamond  
    , or another  
  
    egg  
    on it and you'll receive a diamond.

The audio channel allocation cause system crashes if other  
programs already had locked audio channels. (Reported by Juha  
Makinen)  
Graphic set Diggers.gfx replaced by Grablinge.gfx and Habich.gfx.  
(Thanks to Timo Hegemann)

---

V4.19 The

Replace sample set  
function fixed. (Reported by Thomas  
Richter2)  
New color set system (again). The will be the final one. The  
colors are saved in the IFF file of the picture and you can edit  
them by using the  
ColorSetHandler

.  
The availability of the switch  
LevelColors  
no longer depends on  
the switch  
LevelData

.  
Fixed some error requester bugs.  
Another

SaveLevel  
rework. (bug reported by Markus Sauermann)  
Fixed a little bug that created damaged Atari background colors.  
Complete path handling rework. Now BoulderDäsh is starting several  
times faster.

V4.20 Hiscore-bug fixed. Some hiscore optimizations.

New "AddPath"-Tooltype. This allows to play CD versions and save  
scores to HD. In addition to that it is possible to update a  
CD installation without installing all files.

New SampleSet (Classic800XLPro) included. (Thanks to Thomas  
Richter2)

Self running demo  
implemented.

Online help is now supporting gadgets. So just press help above  
a gadget to get the gadget related help.

Manual strongly enhanced and bugfixed.

"B O N U S L I F E" text after each solved intermission. In  
addition to that the bonus life animation is activated.

Now it is possible to  
record  
and  
playback  
level solves.

This allows you to give the gamer a little help on your caves.  
These Feature is only available for  
registered  
users.

The game timing depends no longer on VBlank speed. This means that  
the music, the game and all other visual output is always running  
at nearly the same speed on all systems. (VBlank Gadget removed)

The menu routines caused a bug that crashed MC68000 machines.

RTG: Screen center is now always working.

Reworked the  
game settings screen

.  
RTG: New switch:  
editor full screen

.  
RTG: Found the old bug that caused BoulderDäsh sometimes to crash.

FutureC64 Character Set fixed.  
 Reworked the old timing system to minimize  
 play back

V4.21 "Gods" and "Swedish" C64 caves added.

A small change on the ASL  
 Load Level  
 pattern.

MoveController optimized.

RTG: Removed a bug within the "holy routines". This bug allocated  
 (screen width \* screen height) bytes of memory for nothing, if  
 used on graphic board.

"game/game/"-load/link game error fixed. (reported by Thomas  
 Richter2 and Marko Suominen)

The graphic set "GraveYard.gfx" is now supporting  
 eggs

!

(Thanks to Marko Suominen [Sorry for the problems! (ColorSets)])  
 Another manual rework. (And again: Sorry for the problems marko!)

Leveleditors

color set selection is always available now.

## 1.77 Future

Future

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\textdegree{} Your personal wishes !!

## 1.78 Buglist

Buglist

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Keyboard problems!  
 (Non RTG Only)

Earthquakes aren't working perfect. (no shaking effect)

## 1.79 Thanx

Thanx

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First I want to thank Silke Bormann for writing a big part of the  
 English translation.

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|          |             |            |          |
|----------|-------------|------------|----------|
| Arctic   | Black&White | Christmas  | Computer |
| Egyptian | Fantasy     | Funky      | Icons    |
| Jewel    | JokeAmiga   | LCD        | Medical  |
| Moria    | Neon1       | Neon2      | PacMan   |
| Pastel   | Psychedelic | Small      | Space    |
| Spooky   | Techno      | UnderWater | Western  |

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ClassicC64 FutureC64 ClassicC64Pumpkin

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Lemmings.gfx Small.fnt TRI\_BD.game

Thanks to Thomas Richter2 for his 800XL graphics.

Classic800XLPro.gfx Classic800XLPro.spl

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Graveyard.gfx Graveyard.fnt Graveyard.sampleset

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Habich256.gfx Habich64.gfx  
Grablinge256.gfx Grablinge64.gfx

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InGame1 InGame2 InGame3  
InGame4 TitleAmiga

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---

Thanks to Peter Broadribb for the Web-pages and his support. He keeps Boulderdash alive.

## 1.80 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, graphic-, sample-, character sets and musics. 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 Internet or via fidonet as Crash-Fileattached.

The

                  registration  
                  will be done by AD SG. So don't send me any  
registration stuff.

Guido Mersmann  
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## 1.81 All BoulderDäsh Windows

All BoulderDäsh Windows

-----

The Main Window

The Game Editor

The Level Editor

---

Level Settings

Levelsettings - Visual and Noisy

Color Set Selection

Level Settings - Water and Slime

Level Settings - Earthquakes

Level Settings - Points

Level Settings - Miscellaneous

The Game Information

The Game Settings

Game Settings - Player Names

Game Settings - Data Sets

Game Settings - Music Player

Game Settings - Screen

Game Settings - Miscellaneous

Highscores

Game Results

## 1.82 The Main Window

The Main Window

-----

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

---

There is also a special  
menu  
.

### 1.83 The Main Window - Game Editor

```
Game Editor
-----

Opens the
game~editor
window, where you can create
your own games.
```

### 1.84 The Main Window - Game Settings

```
Game~Settings
-----

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

### 1.85 The Main Window - Hiscores

```
Hiscores
-----

With this button you get into the
hiscore list
of the loaded game.
```

### 1.86 The Main Window - Load 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.
```

### 1.87 The Main Window - Start Game

---

Start Game

-----

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

## 1.88 The Main Window - Quit Game

Quit Game

-----

This gadget quits BoulderDäsh and closes all open windows, which belong to BoulderDäsh.

## 1.89 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 game editor isn't working with the original games! So it is impossible to edit the original levels. Use Delete Game to remove the protection of the editor.

You should take a look on the game editors menu

.

Level List

New

Delete

Level Up

Level Down

Edit Level

Level Settings

Game Information

Load Level

Save Level

Load Game

Link Game

Save Game

Delete Game

## 1.90 The Game Editor - Level List

Level List

-----

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.

## 1.91 The Game Editor - New Level

New

-----

Here a level with the size 40\*22 blocks is created and is added to the list. The size is equivalent to the original C64-Caves.

## 1.92 The Game Editor - Delete Level

Delete

-----

---

Deletes the current level

### 1.93 The Game Editor - Level Up

Up

-----

Moves the current level one entry up.

### 1.94 The Game Editor - Level Down

Down

-----

Moves the current level one entry down.

### 1.95 The Game Editor - Edit Level

Edit Level

-----

Starts the

Level~Editor

.

### 1.96 The Game Editor - Level Settings

Level Settings

-----

Opens the

LevelSetting

s-requester.

### 1.97 The Game Editor - Game Information

Game Information

-----

Opens the

GameInformation

-requester

## 1.98 The Game Editor - Load Level

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.

It is also possible to load C64 (498 Bytes) and Atari (504 Bytes) "BoulderDash Construction Kit Caves".

The foreign cave formats are only available for  
registered  
users!

## 1.99 The Game Editor - Save Level

Save Level

-----

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

## 1.100 The Game Editor - Load 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.

## 1.101 The Game Editor - Link Game

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.

## 1.102 The Game Editor - Save Game

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 protection can't be removed. So please save the game only protected, if you want to give it to another person, or if you are sure, that no more changes are needed.

### 1.103 The Game Editor - Delete Game

Delete Game  
-----

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

### 1.104 Game Settings

Game Settings  
-----

This Window is divided into two parts. On the top there are buttons to enter other preferences and in the bottom of this window there are some often used settings.

Player Names

Data Sets

Music Player

Screen

Miscellaneous

Number of Player

Number of Lives

Start Level

Ok

Save

---

Cancel

## 1.105 Game Settings - Player Names

Player Names  
-----

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

## 1.106 Game Settings - Data Sets

Data Sets  
-----

By using this button the  
Data Set  
-requester is opening.

## 1.107 Game Settings - Music Player

Music Player  
-----

To configurate the internal music player use  
music player settings  
.

## 1.108 Game Settings - Screen

Screen  
-----

By using this button the  
screen configuration  
-requester is opening.

## 1.109 Game Settings - Miscellaneous

---

## Miscellaneous

---

The window that opens here is filled with useful options.

### 1.110 Game Settings - Number of Players

#### 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)

### 1.111 Game Settings - Number of Lives

#### Number of Lives

---

Here you can adjust the number of lives, the players will have in the following games. Only if BoulderDäsh is played with "3" lives, it is possible to reach the game scores.

This gadget is available for registered user only.

### 1.112 Game Settings - Start Level

#### Start Level

---

With this slider you can adjust the level, in which the game should start. Only if this gadget views "1", it is possible to reach the game scores.

This gadget is available for registered user only.

### 1.113 Game Settings - Ok

Ok

---

This adjustments will be overtaken.

---

### 1.114 Game Settings - Save

Save  
-----

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

### 1.115 Game Settings - Cancel

Cancel  
-----

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

### 1.116 Game Settings - Player Names

Game Settings - Player Names  
-----

In this requester you can enter the player names and make other adjustments.

Names

Names on Level Startup

Show Score Results

Ok

Save

Cancel

### 1.117 Player Names - Names

Player 1 - (6)  
-----

Here you can enter the names of the single players. These names will appear in the highscorelist and will be shown, if you enter an level.

---

## 1.118 Player Names - Names on Level Startup

Names on Level Startup  
-----

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

## 1.119 Player Names - Show Score Results

Show Score Results  
-----

This switch is enabling a result window . This window is viewing all player scores after playing BoulderDäsh.

## 1.120 Player Names - Ok

Ok  
-----

This adjustments will be overtaken.

## 1.121 Player Names - Save

Save  
-----

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

## 1.122 Player Names - Cancel

Cancel  
-----

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

## 1.123 Game Settings - Data Sets

---

---

Game Settings - Data Sets

---

Data Cache

Level Data

Level Color

Default Grafik Set

Default Character Set

Default Sample Set

Default Musik

Ok

Save

Cancel

## 1.124 Data Sets - Data Cache

---

Data Cache

---

This Gadget is very important. It specifies how BoulderDäsh is keeping graphic, character and sample sets, while you are not playing:

["In game" and "game start" mean the started game/starting the game and not starting the program "BoulderDäsh" via Workbench/CLI.]

"off":

The data sets are always lost and must be loaded at every game start. You should activate this option only, if you haven't very much memory, or you create own graphic sets  
,  
own sample sets  
or

---

own character sets  
 . This is necessary, because BoulderDäsh is loading  
 the actual data sets every time from disk or harddisk.

"only needed":

If this option is activated, BoulderDäsh is holding all data sets,  
 needed to play the actual game.

"all":

BoulderDäsh is holding all data sets in memory. With enough memory,  
 this option rejects most disk access, because all datas are already in  
 memory.

## 1.125 Data Sets - Level Data

Level Data  
 -----

Each level is requesting its own graphic, character and sample set. A  
 deactivated gadget denies any request and the defaults are used.

## 1.126 Data Sets - Level Colors

Level Colors  
 -----

If enabled the in-game colors are used. Otherwise the graphic set  
 default colors are used for each level.

## 1.127 Data Sets - Default Graphic Set

Default Graphic Set  
 -----

If BoulderDäsh is unable to locate a graphic set specified by a game

level  
 , this graphic set is used. A deactivated "Level graphics"  
 function selected in this window forces this graphic set, too. It is  
 possible to load  
 own graphics  
 .

## 1.128 Data Sets - Default Character Set

### Default Character Set

---

This Gadget specifies the character set, that is used in the score line, if the

level character set is not found. A deactivated "Level graphics" function selected in this window forces this character set, too. It is possible to load own graphics

.

## 1.129 Data Sets - Default Sample Set

### Default Sample Set

---

If BoulderDäsh is unable to locale a sample set specified by a game

level, this sample set is used. A deactivated "Level graphics" function selected in this window forces this graphic set, too. It is possible to load own sample sets

.

## 1.130 Data Sets - Default Music

### Default Music

---

This Gadget specifies the music, that is used, if the level music

is not found. A deactivated "Level data" function selected in this window forces this music, too. It is possible to load an own music

.

## 1.131 Data Sets - Ok

Ok

---

This adjustments will be overtaken.

---



### 1.132 Data Sets - Save

Save  
-----

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

### 1.133 Data Sets - Cancel

Cancel  
-----

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

### 1.134 Game Settings - Music Player

Game Settings - Music Player  
-----

Music List

Audio Mode

Prefer

Music Player

Play Mode

Ok

Save

Cancel

### 1.135 Music Player - Music List

Music List  
-----

---

This gadget contains all musics.

### 1.136 Music Player - Audio Mode

Audio Mode  
-----

This is the default audiomode for in game music. If the "music and effect" mode is not available for a specified music, BoulderDäsh is using your preferred. (next gadget)

During the game you are able to modify this by pressing "M"!

### 1.137 Music Player - Prefer

Prefer  
-----

If a music does not support the mixed mode, BoulderDäsh is switching down to this mode.

During the game you are able to modify this by pressing "5"!

### 1.138 Music Player - Music Player

Music Player  
-----

This gadget is very simple.

"Off" : The music list tunes won't be loaded.  
"Standby" : Tunes will be loaded, but the player stays off.  
"On" : All musics will be loaded and Player is enabled.

During the game you are able to modify this by pressing "1"!

Note: If the music player is deactivated by this gadget, then it may not play if activated during the game, because there is no tune. The only exceptions is that one or more levels are using music player tunes. In this case you are able to play this tunes.

### 1.139 Music Player - Play Mode

Play Mode  
-----

---

This gadget specifies the handling, if a music is played complete.  
"Repeat one" : One music is played forever.  
"Continues" : All musics one after another.  
"Shuffle" : All musics are played in a random way.

During the game you are able to modify this by pressing "4"!

### 1.140 Music Player - Ok

Ok  
-----

This adjustments will be overtaken.

### 1.141 Music Player - Save

Save  
-----

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

### 1.142 Music Player - Cancel

Cancel  
-----

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

### 1.143 Game Settings - Screen

Game Settings - Screen  
-----

RTG

Full Screen

Editor Full Screen

Scroll Speed 2x

---

Editor Scroll Speed 2x

Screenmode

Ok

Save

Cancel

## 1.144 Screen - RTG

RTG

-----

This switch is only available, if the RTGMaster.library V23 and an 68020 as minimum is installed. It allows BoulderDäsh to use graphic boards with 256 colors.

## 1.145 Screen - Full Screen

Full Screen

-----

This check box is only available, if RTG is enabled.

Under normal conditions BoulderDäsh is using an 320\*200 screen. If you enable this switch BoulderDäsh allows screen sizes up to 1024\*1024.

## 1.146 Screen - Editor Full Screen

Editor Full Screen

-----

This check box is only available, if RTG is enabled.

Under normal conditions BoulderDäsh is using an 320\*200 screen. If you enable this switch BoulderDäsh allows screen sizes up to 1024\*1024.

## 1.147 Screen - Scroll Speed 2x

Scroll Speed 2x  
-----

This gadget doubles the in game scrolling speed.

### 1.148 Screen - Editor Scroll Speed 2x

Editor Scr. speed 2x  
-----

This gadget doubles the level editor scrolling speed.

### 1.149 Screen - Screenmode

Screenmode  
-----

This gadgets allows to force a PAL or NTSC screen. In normal caves this gadget should stay on default.

This options is e.g needed, if you are using an flicker fixer and an multiscan monitor. Some monitors aren't able to synchronize 50hz (PAL) screens, so this feature allows to force BoulderDäsh to create an 60Hz (NTSC) output.

This gadget is not available in RTG mode.

### 1.150 Screen - Ok

Ok  
-----

This adjustments will be overtaken.

### 1.151 Screen - Save

Save  
-----

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

This Gadget also saves the all BoulderDäsh window positions. It makes no difference if the windows are opened or closed. The last position will be saved. BoulderDäsh is loading these data on the next start an all windows are exactly where you left them.

---

## 1.152 Screen - Cancel

Cancel  
-----

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

## 1.153 Game Settings - Miscellaneous

Game Settings - Miscellaneous  
-----

Default Game

Title Picture

Levelchanging Tilulit

Simple Tilulit

Editor Tilulit

Ok

Save

Cancel

## 1.154 Miscellaneous - Default Game

Default Game  
-----

The default game will be loaded automatically while starting BoulderDäsh. After installation this game is called "BDash\_I\_Level1.game".

## 1.155 Miscellaneous - Title Picture

---

Title Picture  
-----

Here you can select and disable the startup title picture.

### 1.156 Miscellaneous - Levelchanging Tilulit

Levelchanging Tilulit  
-----

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

### 1.157 Miscellaneous - Simple Tilulit

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.

### 1.158 Miscellaneous - Editor Tilulit

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.

### 1.159 Miscellaneous - Ok

Ok  
-----

This adjustments will be overtaken.

### 1.160 Miscellaneous - Save

Save  
-----

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

---

## 1.161 Miscellaneous - Cancel

Cancel  
-----

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

## 1.162 The 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 highscore lists for every game.

\textdegree{} 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.

\textdegree{} 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.

\textdegree{} Time Records

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

Type

Delete Scores

## 1.163 The Highscores - Type

Type  
-----



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

## 1.164 The Highscores - Delete Scores

Delete Scores  
-----

After confirming all scores of the current games are deleted.

## 1.165 Game results

Game Results  
-----

After playing BoulderDäsh this requester is viewing all player information. (scores and level)

This window may be deactivated by the  
Playername  
-settings.

## 1.166 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 selector.

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 selector.

Into the level frame you can only set the "In", "Out" and "Metall" 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 ( "-" for A600 users)  
 NUMPAD 4: moves the element chooser one step left ( "." for A600 users)

C : Space type selector:  
 \textdegree{}  
 Space \textdegree{}  
 Space - Fake \textdegree{}  
 Space - Background \textdegree{}  
 D :  
 Diamond  
 S : Stone type selector:  
 \textdegree{}  
 Stone \textdegree{}  
 Stonie \textdegree{}  
 E :  
 Ground  
 M : Metal type selector:  
 \textdegree{}  
 Metal \textdegree{}  
 Metal Fake \textdegree{}  
 W :  
 Wall  
 P :  
 Magic Wall  
 L :  
 Growing wall left/right  
 U :  
 Growing wall up/down  
 R :  
 Water  
 G :  
 Butterfly

```

    N      :
Firefly
    I      :
In
    0      : Out type selector:
\textdegree{}
Out blinking          \textdegree{}
Out not blinking     \textdegree{}
Out fake
    T      :
Twin
    Q      :
Slime
    1      :
Gravitation Arrow Up
    2      :
Gravitation Arrow Down
    3      :
Gravitation Arrow Left
    4      :
Gravitation Arrow Right
    5      :
Userblock
    F9     : Go to "Color Set Mode"
Use CRSR left/right to view the color sets. Use "Y" or "J"
to confirm, or use "N" or Escape to undo all changes.
NOTE: You are only able to activate the colors you have

created
.
```

## 1.167 Level Settings

### Level Adjustments

---

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

Name

Visual and Noisy

Water and Slime

Earthquakes

---

Points

Miscellaneous

Ok

Cancel

### 1.168 Level Settings - Level Name

Level Name  
-----

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

### 1.169 Level Settings - Visual and Noisy

Visual and Noisy  
-----

This window allows alle visual and noisy settings for this level.

### 1.170 Level Settings - Water and Slime

Water and Slime  
-----

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

.

### 1.171 Level Settings - Earthquakes

Earthquakes  
-----

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

earthquakes

.

## 1.172 Level Settings - Scores

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.

## 1.173 Level Settings - Miscellaneous

Miscellaneous

-----

This gadget opens the requester for  
miscellaneous

things. Here you can  
adjust the width and height, level time, game speed and many more.

## 1.174 Level Settings - Ok

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.

## 1.175 Level Settings - Cancel

Cancel

-----

Cancels all adjustments and ends all level setting windows.

## 1.176 Levelsettings - Visual and Noisy

Levelsettings - Visual and Noisy

-----

Level Width

Level Height

Graphic Set

Color Set

Character Set

Sample Set

Music

### 1.177 Visual and Noisy - Level Width

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 !!!

### 1.178 Visual and Noisy - Level Height

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!!!

### 1.179 Visual and Noisy - Graphic Set

Graphic Set

-----

This gadget specifies the level internal graphic set. You can also use your

Own~Graphics

. Note: This Feature must be enabled via

game settings

.

## 1.180 Visual and Noisy - Color Set

Color Set

---

This gadget allows to specify the color set for this level. The selection is made by the

Color Set Selection

-window. Note: This

Feature must be enabled via

game settings

.

## 1.181 Visual and Noisy - Character Set

Character Set

---

This gadget specifies the level internal character set. You can also use your

Own~Graphics

. Note: This Feature must be enabled via

game settings

.

## 1.182 Visual and Noisy - SampleSet

Sample set

---

This gadget specifies the level internal sample set. You can also use your

Own~Graphics

. Note: This Feature must be enabled via

game settings

.

## 1.183 Visual and Noisy - Music

Music

---

This gadget specifies the level internal music. You can also use your

Own~Graphics

. Note: This Feature must be enabled via

game settings

.

---

## 1.184 Color Set Selection

Color Set Selection

-----

This window allows to select new a new level color set.

Color Sets

Ok

Cancel

## 1.185 Color Set Selection - Color Sets

Color Sets

-----

This listview is showing all color sets. There are separate lists for each graphic set, so all shown color sets are valid for the current graphic set.

## 1.186 Color Set Selection - Ok

Ok

-----

The current level is using the selected color set.

## 1.187 Color Set Selection - Cancel

Cancel

-----

The window is closed, without any modifications to the level colors.

## 1.188 Level Settings - Water and Slime

Level Settings - Water and Slime

-----

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



Water  
Growing Time

Magic Water Time

Water Growing Rate

Water Flood Rate

Water Maximum

Slime  
Rate

## 1.189 Water and Slime - Water Growing time

Water Growing Time

-----

This time starts directly at the beginning of a level. In this time the

water  
grows in the  
growing rate  
. Are the adjusted seconds over, it  
will be changed into the  
flood rate  
.

## 1.190 Water and Slime - Magic Water Time

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  
.

### 1.191 Water and Slime - Water Growing Rate

Water Growing Rate  
-----

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

### 1.192 Water and Slime - Water Flood Rate

Water Flood Rate  
-----

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

### 1.193 Water and Slime - Water Maximum

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  
.

### 1.194 Water and Slime - Slime Rate

Slime Rate  
-----

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

---

## 1.195 Level Settings - Earthquakes

### Level Settings - Earthquakes

-----

Here you can make all adjustments concerning earthquakes. Earthquakes shake a level so that

stones  
falling down, which normally won't fall  
down. For example,  
stones  
are fall down from  
earth  
or  
metal  
.

Mode

Activate Time

Delay

Length

Force Rate

## 1.196 Earthquakes - Mode

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

## 1.197 Earthquakes - Activate Time

Activate Time  
-----

---

After this time earthquakes can appear.

## 1.198 Earthquakes - Delay

Delay  
-----

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

## 1.199 Earthquakes - Length

Length  
-----

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

## 1.200 Earthquakes - Force Rate

Force Rate  
-----

Here you can adjust the force of an earthquake.

## 1.201 Level Settings - Points

Level Settings - Points  
-----

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

Diamond

Diamond extra

Diamonds >99

For Bonus Live

Time Bonus

---

## 1.202 Points - Diamond

```

                Diamond
-----

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

## 1.203 Points - Diamond Extra

```

                Diamond Extra
-----

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

## 1.204 Points - Diamonds>99

```

                Diamonds>99
-----

For each
    diamond
    more than 99 you get this score.
```

## 1.205 Points - For Bonus Life

```

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.
```

Zero means no bonus live!

## 1.206 Points - Time Bonus

---

Time Bonus

-----

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

## 1.207 Level Settings - Miscellaneous

Level Settings - Miscellaneous

-----

Game Speed

Level Time

Magic Wall  
Time

Diamonds  
Needed

Intermission

Gravitation

## 1.208 Miscellaneous - Game Speed

Game Speed

-----

Here you can adjust the game speed.

## 1.209 Miscellaneous - Level time

Level time

-----

Here you can adjust the amount of seconds a player should have to

---

```
collect
    all
        diamonds
        and reach the
        Out
        .
```

## 1.210 Miscellaneous - Magic Wall Time

```
-----
                Magic Wall Time
```

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

## 1.211 Miscellaneous - Diamonds Needed

```
-----
                Diamonds Needed
```

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

## 1.212 Miscellaneous - Intermission

```
-----
                Intermission
```

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

## 1.213 Miscellaneous - Gravitation

```
-----
                Gravitation
```

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

---

## 1.214 The Game Information

Game Information  
-----

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

Author

Comment

Date

Version

Ok

Cancel

## 1.215 The Game Information - Author

Author  
-----

Here you can enter your name.

## 1.216 The Game Information - Comment

Comment  
-----

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

## 1.217 The Game Information - Date

Date  
-----

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

---



## 1.218 The Game Information - Version

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.

## 1.219 The Game Information - Ok

Ok  
-----

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

## 1.220 The Game Information - Cancel

Cancel  
-----

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

## 1.221 ColorSetHandler

ColorSetHandler  
-----

The program "ColorSetHandler" can be found in the tools drawer of the BoulderDäsh installation. This tool is only important if you want to create own graphic sets.

After starting the  
main window  
is opening. This window contains all  
colors currently loaded.

You are able to drop CMAP-files on the window. It is also possible to load them manually, by using the  
menu  
.

## 1.222 The main window of the ColorSetHandler

---

The main window of the ColorSetHandler

---

The menu contains all additional functions to make your graphic set colored.

ColorSet list

Load CMAP

Clone

Delete...

### 1.223 The ColorSetHandler - The ColorSet List

The ColorSet List

---

This list is viewing the current list of color sets in memory.

### 1.224 The ColorSetHandler - Load CMAP

Load CMAP

---

This gadget allows to enlarge the ColorSet List by loading a new color set. An ASL Requester is opening and asks for an IFF file containing an

CMAP Chunk

.

Important: The ColorSetHandler isn't checking the number of colors. You should not use more colors than needed. This is wasting memory and disk space. If you are less colors than the graphic set contains, the game will use only these colors and the graphic set looks wrong. Under normal circumstances you are using a paint program to create color files, so this problem should not appear.

### 1.225 The ColorSetHandler - Clone

Clone

---

This gadget allows to copy a specified entry. This allows to create a second name for the same color set.

The colors itself are not copied. Some kind of alias is used to find the real entry containing the color. This saves a lot of memory when creating a 256 color color set.

## 1.226 The ColorSetHandler - Delete

Delete

-----

This gadgets deletes an selected entry.

Note: If the selected color set is a mother of clones. These clones are killed, too.

## 1.227 The ColorSetHandler Menu

```
Project           Import           Export

Quit

Load BDMAP

Save BDMAP

Link BDMAP       -----

-----

Save BDMAP into Graphic Set

Load Tooltypes
-----

Load CMAP
```

## 1.228 The ColorSetHandler Menu - Quit

Quit

-----

---

All modifications are lost and the programm quits.

### 1.229 The ColorSetHandler Menu - Import/Load BDMAP

Load BDMAP

-----

This item allows to load an  
BDMAP  
. What file is containing  
the data is irrelevant.

All color sets in memory will be lost.

### 1.230 The ColorSetHandler Menu - Import/Link BDMAP

Link BDMAP

-----

This gadget is linking a  
BDMAP  
of an file to the current list in  
memory. Dupe entries cause an  
alias  
creation.

### 1.231 The ColorSetHandler Menu - Import/Load ToolTypes

Load ToolTypes

-----

This feature allows to convert the old tooltype version of the color  
set format into the new  
BDMAP  
one.

If you want to convert an old graphic set, then load the color set by  
using this item. After this procedure you save the color set by using  
the

Save BDMAP to Graphic Set  
menu item.

Important: The file requester expects the name of the graphic set not  
the icon name (#?.info). Just select the graphic set. Thats all.

### 1.232 The ColorSetHandler Menu - Import/Load CMAP

---

### Load CMAP

-----

This Item allows to enlarge the  
ColorSet List  
by loading a new color  
set. An ASL Requester is opening and asks for an IFF file containing an

CMAP Chunk

.

For more information read  
this chapter  
!

## 1.233 The ColorSetHandler Menu - Export/Save BDMAP

### Save BDMAP

-----

This allows to save the BDMAP alone. This may be useful when using a  
paint program to make modifications.

By using the

graphicset tooltypes

you are able to connect this single

BDMAP file to BoulderDäsh, without saving the color into the picture.

If you want to share your graphic set to other people, then save the  
colors

into the graphic set

. In this case don't forget to remove the

tooltype

"ColorSet" within the icon (.info) file.

## 1.234 The ColorSetHandler Menu - Export/Save BDMAP into Graphic Set

### Save BDMAP into GraphicSet

-----

This menu item allows to save the

BDMAP

into the graphic file.

Note: Paint programmes are killing this color information during the  
save operation.

If you want to make changes to the graphic set you should

load

the

colors sets by using this program and  
save  
them alone.

## 1.235 The Menus of BoulderDäsh

The Menus of BoulderDäsh

-----  
  
The  
Main Window  
Menu

The  
Game Editor  
Menu

## 1.236 The Main Window Menu

The Main Window Menu

-----  
  
Project                    Action

Load game

Classic C64 Demo

-----

-----

About

Random Demo

-----

Quit game

## 1.237 The Main Window Menu: Project

---

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.

### 1.238 The Main Window Menu: Project

About  
-----

This menu point opens an information requester. It shows the version and the author name and address. This window is identically with the nerv requester which appears if an unregistered user is starting BoulderDäsh.

### 1.239 The Main Window Menu: Project

Quit game  
-----

This point ends BoulderDäsh and closes all open windows, which belong to BoulderDäsh.

### 1.240 The Main Window Menu: Action

Classic C64 Demo  
-----

This menu activates an automatic demonstration of BoulderDäsh.

This demonstration is equal to the C64 self running demo in the first BoulderDash game.

It is running on all levels, but it makes only sense to use it on the first level of the "BDash\_I\_Level1.game" game.

You are able to quit the demo by pressing F1 or F10. Pressing ESC causes a "game over" and takes a few seconds.

### 1.241 The Main Window Menu: Action

---

### Random Demo

---

This feature is available for registered users only.

This menu activates an automatic demonstration of an random BoulderDäsh level.

This requires at least one level containing a solution. Some games are shipped with solve files, but you are able to create your own solutions by using the

game editor

.

You are able to quit the demo by pressing F1 or F10. Pressing ESC causes a "game over" and takes a few seconds.

## 1.242 The Game Editor Menu

### The Game Editor Menu

---

Project

Edit

Replace

Solve

Load game

Edit level

Graphic sets

Record

Link game

Level settings

Character sets

Play

Save game

---

Sample sets

Save

---



```

Load level

Music

Game information

Save level

-----

-----

Delete game

New level

Delete level

```

### 1.243 BarLabel

```

Barlabel
-----

```

This is not really a menu item. It is only a separator bar between different menu items.

### 1.244 The Game Editor Menu: Project

```

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.

### 1.245 The Game Editor Menu: Project

```

Link game
-----

```

```

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

```

## 1.246 The Game Editor Menu: Project

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 protection can't be removed. So please save the game only protected, if you want to give it to another person, or if you are sure, that no more changes are needed.

## 1.247 The Game Editor Menu: Project

Game information  
-----

Opens the  
GameInformation  
-requester.

## 1.248 The Game Editor Menu: Project

Delete game  
-----

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

## 1.249 The Game Editor Menu: Edit

Edit level  
-----

Starts the  
Level~Editor  
.

## 1.250 The Game Editor Menu: Edit

Level settings  
-----

Opens the  
Level settings  
-requester.

---

## 1.251 The Game Editor Menu: Edit

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.

It is also possible to load C64 (498 Bytes) and Atari (504 Bytes) "BoulderDash Construction Kit Caves".

The foreign cave formats are only available for  
registered  
users!

## 1.252 The Game Editor Menu: Edit

Save level

-----

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

## 1.253 The Game Editor Menu: Edit

New

-----

Here a level with the size 40\*22 blocks is created and is added to the list. The size is equivalent to the original C64-Caves.

## 1.254 The Game Editor Menu: Edit

Delete

-----

Deletes the current level.

## 1.255 The Game Editor Menu: Replace

Graphic Sets

-----

After an savety requester an ASL-requester opens. You choose a graphic set. This graphic set will be copied within all levels of the current game.

---

This function is identical to the graphic set selection of the  
level settings: Visual and Noisy  
. The only difference is, that this  
menu item effects all levels of the game.

## 1.256 The Game Editor Menu: Replace

Character Sets  
-----

After an savety requester an ASL-requester opens. You choose a  
character set. This character set will be copied within all levels of  
the current game.

This function is identical to the character set selection of the  
level settings: Visual and Noisy  
. The only difference is, that this  
menu item effects all levels of the game.

## 1.257 The Game Editor Menu: Replace

Sample Sets  
-----

After an savety requester an ASL-requester opens. You choose a  
sample set. This sample set will be copied within all levels of the  
current game.

This function is identical to the sample set selection of the  
level settings: Visual and Noisy  
. The only difference is, that this  
menu item effects all levels of the game.

## 1.258 The Game Editor Menu: Replace

Music  
-----

After an savety requester an ASL-requester opens. You choose a  
music. This music will be copied within all levels of the current  
game.

This function is identical to the music selection of the  
level settings: Visual and Noisy  
. The only difference is, that this  
menu item effects all levels of the game.

---

## 1.259 The Game Editor Menu: Replace

Record

-----

This feature is available for registered users only.

Some timing  
problems  
may cause the  
play back  
not to be successful.

Here you are able to record a solve for the current level.

After selecting this menu item BoulderDäsh is starting. It is up to You to play the level. If you finish or just loose a life, the record operation is done.

Note: You should define your name by using the  
game settings  
, before  
recording. Your name will be recorded, too.

By using the item  
Play  
you are able to play this recording a long a  
you wish.

Saving the game  
or using the menu item Solve/Save causes a save of all  
records, if created or loaded. When You are  
loading a game  
the  
solvings will be load in, too.

## 1.260 The Game Editor Menu: Replace

Play

-----

This feature is available for registered users only.

Some timing  
problems  
may cause the  
play back  
not to be successful.

The Menu item allows to play a  
recorded  
solution of the current level.

---

## 1.261 The Game Editor Menu: Replace

Save

-----

This feature is available for registered users only.

This item allows to save all solve of the current game. If you

save a game

the solves are saved, too. It is impossible to save the included games, so this item allows to save the solutions alone.

## 1.262 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.

|         |                                                                    |            |
|---------|--------------------------------------------------------------------|------------|
| 0       | Space - Background (Should be blank)                               |            |
| 1       | Ground                                                             |            |
| 2       | Metal                                                              |            |
| 3       | Metal moving (while Leveltilulit)                                  |            |
| 4       | Metal Fake                                                         |            |
| 5       | Stone                                                              |            |
| 6       | Stone Ghost sleeping                                               |            |
| 7       | Wall                                                               |            |
| 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         |            |
| 16      | Plop 1 the 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 Animation                                           | (8 Blocks) |
| 140-147 | Space Animation                                                | (8 Blocks) |
| 148     | Egg                                                            |            |
| 149     | Egg broken 0                                                   |            |
| 150     | Egg broken 1                                                   |            |
| 151     | Egg broken 2                                                   |            |

## 1.263 Tooltypes of the Graphic Set Files

The Tooltypes of the Graphic Set Files

-----

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

### Speed Tooltypes

|                      |      |
|----------------------|------|
| "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
```

### ColorSet Tooltype

|            |        |
|------------|--------|
| "ColorSet" | (none) |
|------------|--------|

This tooltype defines the source of the  
BDMP

---

-Chunk. This chunk contains the level colors. Under normal conditions the colors are saved within the graphic set. By using this tooltype you are able to define an other file as source.

Why is this needed? Well, let's have a look on the "ClassicC64Pumpkin.gfx" graphic set. This file isn't containing any color set. If you take a look at the tooltypes you will find this: "ColorSet=ClassicC64.gfx".

This makes color set editing much easier, because you edit one color set and all graphic sets are using the colors automatically.

An other useful thing is that the ColorSet-tooltype is looking for the

BDMP

-Chunk only. This is very handy when making graphic set changes and saving the picture by using a paint programm. Under normal conditions the colors will be lost during the save procedure, but if you use the

ColorsetHandler

you are able to create a stand alone color set file. The only thing you must do ist to specify this color set file by using the "colorSet"-tooltype. Note: It is required that the colorset file is saved within one of the "GraphicSets" subdirectories.

Please read the chapter

ColorSetHandler

to understand the color set handling. This may save time and avoids frustration.

## 1.264 Tooltypes of the Music Files

The Tooltypes of the Music Files

---

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

"MixedMode" (0)  
 "IgnoreJump" (If not specified this mode is disabled)

The Voices are specified as follows:

Voice 1 = 1  
 Voice 2 = 2  
 Voice 3 = 4  
 Voice 4 = 8

If your music is not using Voice 1 and 3 you should specify "MixedMode=5" to allow BoulderDäsh to use this voices for sound effects.

"IgnoreJump" is used for musics that contain an intro. At the end of such music there is a jump command (bxx) that specifies an position

---



right after the intro. If one music is played endless (Continue/Random mode), then use this tootype to disable this jump.

Example:

```
IgnoreJump=3
```

BoulderDäsh ignores a B03-jump command.

## 1.265 The Tooltypes of the Title Screen

The Tooltypes of the Title Screen

---

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

```
Eye_X           (10)
Eye_Y           (10)
Eye_Width       (64)
Eye_Height      (17)
Foot_X          (10)
Foot_Y          (10)
Foot_Width      (64)
Foot_Height     (17)
Music           (TitleClassic.mus)
RTGTitlePrefs  (RTGTitlexxx.Prefs)
```

The X and Y values are the destination position for the elements. (pixel) Note: The ECS mode allows only X coordinates and width that are factors of 8. (e.G 12 => 8) Within the RTG mode all coordinatinates are available.

The height is limited. Valid are values 1 to 17.

The music tootype specifies the music for this picture. This entry must not have a path.

"RTGTitlePrefs" is specifying the RTG preferences name for title picture screen mode. This entry must not have a path, too.

## 1.266 Technical information about BoulderDäsh

Technical information about BoulderDäsh

---

BoulderDäsh is 100% assembler coded.

The sourcecode takes 1386745 bytes in 115 files. BoulderDäsh is assembled with DevPac 3.04. DevPac needs 40 seconds and 1.76 MB each time.

---

The game source files are taking 3734144 bytes in 5952 files and 34 directories. My personal game converter needs 9 Minutes to convert all games.

The first versions of BoulderDäsh were created on an A500-000/7Mhz (2.8 MEG) then (Version 2) on an A2000-000/7Mhz (5 Meg). Since Version 3.0 I'am working with an A2000-030/25Mhz (9 MEG)

The paint program PPaint (4.0/6.4) was used to create graphic sets and title graphics. I wrote this guide using GoldEd (3.x/4.x) and his fantastic fold features together with "GuideFormat" to format lines containing links.

---