

# **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	April 14, 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	7
1.9 How to Install BoulderDäsh	8
1.10 How To Play	8
1.11 The Game Elements	10
1.12 Elements: Ground	11
1.13 Elements: Space	11
1.14 Elements: Space - Fake	12
1.15 Elements: Diamonds	12
1.16 Elements: Stones	12
1.17 Elements: Eggs	12
1.18 Elements: Metal	13
1.19 Elements: Metal - Fake	13
1.20 Elements: Walls	13
1.21 Elements: Magic Wall	13
1.22 Elements: Growing Wall (left/right)	14
1.23 Elements: Growing Wall (up/down)	14
1.24 Elements: Water	15
1.25 Elements: Slime	15
1.26 Elements: Butterflies	16
1.27 Elements: Fireflies	16
1.28 Elements: Stonie	16
1.29 Elements: Rockford	17

---

---

1.30 Elements: Rockford - Twin . . . . .	18
1.31 Elements: In . . . . .	18
1.32 Elements: Out . . . . .	18
1.33 Elements: Out - Blinking . . . . .	19
1.34 Elements: Out - Fake . . . . .	19
1.35 Elements: Gravitation Arrows . . . . .	19
1.36 Elements: User Block . . . . .	19
1.37 Elements: Space Background . . . . .	20
1.38 Own Graphic Sets . . . . .	20
1.39 The Included Graphics . . . . .	23
1.40 Own Character Sets . . . . .	24
1.41 The Included Character Sets . . . . .	24
1.42 Own Sample Sets . . . . .	25
1.43 The Included Sample Sets . . . . .	26
1.44 Own Music . . . . .	26
1.45 The Included music . . . . .	27
1.46 FAQs . . . . .	27
1.47 FAQ - The game is on CD! Is it possible to save settings etc.? . . . .	29
1.48 FAQ - Is it possible to update a CD version? . . . . .	30
1.49 FAQ - What is a keyfile? . . . . .	30
1.50 FAQ - Where should I place the keyfile? . . . . .	31
1.51 FAQ - BoulderDäsh does not run! . . . . .	31
1.52 FAQ - After playing a while BoulderDäsh denies keyboard usage! . . . .	31
1.53 FAQ - The keyboard control is not very useful! . . . . .	32
1.54 FAQ - The Joypad is not working correct! . . . . .	32
1.55 FAQ - How can I reopen the screen mode requester? . . . . .	32
1.56 FAQ - How can I speed up the game? . . . . .	33
1.57 FAQ - Why can't I start BoulderDäsh and the Level editor? . . . . .	33
1.58 FAQ - Memory problems on game start, but the level editor works fine! . . . .	33
1.59 FAQ - While playing sometimes mysterious mistakes in the spaces appear. . . . .	34
1.60 FAQ - All included intermissions are to big! . . . . .	34
1.61 FAQ - LevelOut isn't blinking! . . . . .	34
1.62 FAQ - Can I use an keyboard on my CD32? . . . . .	35
1.63 FAQ - Is it possible to save scores and settings on my CD32? . . . . .	36
1.64 FAQ - Why it isn't possible to run the level editor? . . . . .	36
1.65 FAQ - All included games are using the same color! . . . . .	36
1.66 FAQ - The color set selector is sometimes working wrong! . . . . .	37
1.67 FAQ - How can I change the RTG game/title screen mode? . . . . .	37
1.68 FAQ - Changing start level and lives is not possible! . . . . .	37

---

---

1.69	FAQ - The player names are lost! . . . . .	38
1.70	FAQ - I don't understand the Hiscores! . . . . .	38
1.71	FAQ - Where are my scores, if I load a new game? . . . . .	38
1.72	The music player isn't working! . . . . .	38
1.73	Why is the play feature not always working? . . . . .	39
1.74	FAQ - Own levels . . . . .	39
1.75	FAQ - After starting a level, Rockford does not appear. Why? . . . . .	40
1.76	FAQ - The structure of the game . . . . .	40
1.77	FAQ - In my own graphics all animations are wrong! . . . . .	40
1.78	FAQ - My animations are too short! . . . . .	40
1.79	FAQ - What is a Chunk? . . . . .	41
1.80	FAQ - What is a BDMP-Chunk? . . . . .	41
1.81	FAQ: This manual is formatted with centered blocks, How? . . . . .	41
1.82	FAQ - CMAP-Chunk not found! . . . . .	42
1.83	FAQ - BODY-Chunk not found! . . . . .	42
1.84	FAQ - BMHD-Chunk not found! . . . . .	42
1.85	History . . . . .	43
1.86	Future . . . . .	53
1.87	Buglist . . . . .	54
1.88	Thanx . . . . .	54
1.89	The Author . . . . .	55
1.90	Tricks to Cheat Boulderdäsh . . . . .	56
1.91	All BoulderDäsh Windows . . . . .	56
1.92	The Main Window . . . . .	57
1.93	The Main Window - Game Editor . . . . .	58
1.94	The Main Window - Game Settings . . . . .	58
1.95	The Main Window - Hiscores . . . . .	58
1.96	The Main Window - Load Game . . . . .	58
1.97	The Main Window - Start Game . . . . .	59
1.98	The Main Window - Quit Game . . . . .	59
1.99	The Game Editor . . . . .	59
1.100	The Game Editor - Level List . . . . .	60
1.101	The Game Editor - New Level . . . . .	60
1.102	The Game Editor - Delete Level . . . . .	61
1.103	The Game Editor - Level Up . . . . .	61
1.104	The Game Editor - Level Down . . . . .	61
1.105	The Game Editor - Edit Level . . . . .	61
1.106	The Game Editor - Level Settings . . . . .	61
1.107	The Game Editor - Game Information . . . . .	62

---

---

1.108The Game Editor - Load Level . . . . .	62
1.109The Game Editor - Save Level . . . . .	62
1.110The Game Editor - Load Game . . . . .	62
1.111The Game Editor - Link Game . . . . .	62
1.112The Game Editor - Save Game . . . . .	63
1.113The Game Editor - Delete Game . . . . .	63
1.114Game Settings . . . . .	63
1.115Game Settings - Player Names . . . . .	64
1.116Game Settings - Data Sets . . . . .	64
1.117Game Settings - Music Player . . . . .	64
1.118Game Settings - Screen . . . . .	64
1.119Game Settings - Miscellaneous . . . . .	65
1.120Game Settings - Number of Players . . . . .	65
1.121Game Settings - Number of Lives . . . . .	65
1.122Game Settings - Start Level . . . . .	65
1.123Game Settings - Ok . . . . .	65
1.124Game Settings - Save . . . . .	66
1.125Game Settings - Cancel . . . . .	66
1.126Game Settings - Player Names . . . . .	66
1.127Player Names - Names . . . . .	67
1.128Player Names - Names on Level Startup . . . . .	67
1.129Player Names - Show Score Results . . . . .	67
1.130Player Names - Ok . . . . .	67
1.131Player Names - Save . . . . .	67
1.132Player Names - Cancel . . . . .	67
1.133Game Settings - Data Sets . . . . .	68
1.134Data Sets - Data Cache . . . . .	68
1.135Data Sets - Level Data . . . . .	69
1.136Data Sets - Level Colors . . . . .	69
1.137Data Sets - Default Graphic Set . . . . .	69
1.138Data Sets - Default Character Set . . . . .	70
1.139Data Sets - Default Sample Set . . . . .	70
1.140Data Sets - Default Music . . . . .	70
1.141Data Sets - Ok . . . . .	70
1.142Data Sets - Save . . . . .	71
1.143Data Sets - Cancel . . . . .	71
1.144Game Settings - Music Player . . . . .	71
1.145Music Player - Music List . . . . .	72
1.146Music Player - Audio Mode . . . . .	72

---

---

1.147	Music Player - Prefer . . . . .	72
1.148	Music Player - Music Player . . . . .	72
1.149	Music Player - Play Mode . . . . .	73
1.150	Music Player - Ok . . . . .	73
1.151	Music Player - Save . . . . .	73
1.152	Music Player - Cancel . . . . .	73
1.153	Game Settings - Screen . . . . .	73
1.154	Screen - RTG . . . . .	74
1.155	Screen - Full Screen . . . . .	74
1.156	Screen - Editor Full Screen . . . . .	74
1.157	Screen - Scroll Speed 2x . . . . .	75
1.158	Screen - Editor Scroll Speed 2x . . . . .	75
1.159	Screen - Screenmode . . . . .	75
1.160	Screen - Ok . . . . .	75
1.161	Screen - Save . . . . .	75
1.162	Screen - Cancel . . . . .	76
1.163	Game Settings - Miscellaneous . . . . .	76
1.164	Miscellaneous - Default Game . . . . .	76
1.165	Miscellaneous - Title Picture . . . . .	76
1.166	Miscellaneous - Levelchanging Tilulit . . . . .	77
1.167	Miscellaneous - Simple Tilulit . . . . .	77
1.168	Miscellaneous - Editor Tilulit . . . . .	77
1.169	Miscellaneous - Ok . . . . .	77
1.170	Miscellaneous - Save . . . . .	77
1.171	Miscellaneous - Cancel . . . . .	78
1.172	The Highscores . . . . .	78
1.173	The Highscores - Type . . . . .	78
1.174	The Highscores - Delete Scores . . . . .	79
1.175	Game results . . . . .	79
1.176	The Level Editor . . . . .	79
1.177	Level Settings . . . . .	81
1.178	Level Settings - Level Name . . . . .	82
1.179	Level Settings - Visual and Noisy . . . . .	82
1.180	Level Settings - Water and Slime . . . . .	82
1.181	Level Settings - Earthquakes . . . . .	82
1.182	Level Settings - Scores . . . . .	83
1.183	Level Settings - Miscellaneous . . . . .	83
1.184	Level Settings - Ok . . . . .	83
1.185	Level Settings - Cancel . . . . .	83

---

---

1.186	Levelsettings - Visual and Noisy	83
1.187	Visual and Noisy - Level Width	84
1.188	Visual and Noisy - Level Height	84
1.189	Visual and Noisy - Graphic Set	84
1.190	Visual and Noisy - Color Set	85
1.191	Visual and Noisy - Character Set	85
1.192	Visual and Noisy - SampleSet	85
1.193	Visual and Noisy - Music	85
1.194	Color Set Selection	86
1.195	Color Set Selection - Color Sets	86
1.196	Color Set Selection - Ok	86
1.197	Color Set Selection - Cancel	86
1.198	Level Settings - Water and Slime	86
1.199	Water and Slime - Water Growing time	87
1.200	Water and Slime - Magic Water Time	87
1.201	Water and Slime - Water Growing Rate	88
1.202	Water and Slime - Water Flood Rate	88
1.203	Water and Slime - Water Maximum	88
1.204	Water and Slime - Slime Rate	88
1.205	Level Settings - Earthquakes	89
1.206	Earthquakes - Mode	89
1.207	Earthquakes - Activate Time	89
1.208	Earthquakes - Delay	90
1.209	Earthquakes - Length	90
1.210	Earthquakes - Force Rate	90
1.211	Level Settings - Points	90
1.212	Points - Diamond	91
1.213	Points - Diamond Extra	91
1.214	Points - Diamonds>99	91
1.215	Points - For Bonus Life	91
1.216	Points - Time Bonus	91
1.217	Level Settings - Miscellaneous	92
1.218	Miscellaneous - Game Speed	92
1.219	Miscellaneous - Level time	92
1.220	Miscellaneous - Magic Wall Time	93
1.221	Miscellaneous - Diamonds Needed	93
1.222	Miscellaneous - Intermission	93
1.223	Miscellaneous - Gravitation	93
1.224	The Game Information	94

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1.225The Game Information - Author . . . . .	94
1.226The Game Information - Comment . . . . .	94
1.227The Game Information - Date . . . . .	94
1.228The Game Information - Version . . . . .	95
1.229The Game Information - Ok . . . . .	95
1.230The Game Information - Cancel . . . . .	95
1.231ColorSetHandler . . . . .	95
1.232The main window of the ColorSetHandler . . . . .	95
1.233The ColorSetHandler - The ColorSet List . . . . .	96
1.234The ColorSetHandler - Load CMAP . . . . .	96
1.235The ColorSetHandler - Clone . . . . .	96
1.236The ColorSetHandler - Delete . . . . .	97
1.237The ColorSetHandler Menu . . . . .	97
1.238The ColorSetHandler Menu - Quit . . . . .	97
1.239The ColorSetHandler Menu - Import/Load BDMAP . . . . .	98
1.240The ColorSetHandler Menu - Import/Link BDMAP . . . . .	98
1.241The ColorSetHandler Menu - Import/Load ToolTypes . . . . .	98
1.242The ColorSetHandler Menu - Import/Load CMAP . . . . .	99
1.243The ColorSetHandler Menu - Export/Save BDMAP . . . . .	99
1.244The ColorSetHandler Menu - Export/Save BDMAP into Graphic Set . . . . .	99
1.245The Menus of BoulderDäsh . . . . .	100
1.246The Main Window Menu . . . . .	100
1.247The Main Window Menu: Project . . . . .	101
1.248The Main Window Menu: Project . . . . .	101
1.249The Main Window Menu: Project . . . . .	101
1.250The Main Window Menu: Action . . . . .	101
1.251The Main Window Menu: Action . . . . .	101
1.252The Game Editor Menu . . . . .	102
1.253BarLabel . . . . .	103
1.254The Game Editor Menu: Project . . . . .	103
1.255The Game Editor Menu: Project . . . . .	103
1.256The Game Editor Menu: Project . . . . .	104
1.257The Game Editor Menu: Project . . . . .	104
1.258The Game Editor Menu: Project . . . . .	104
1.259The Game Editor Menu: Edit . . . . .	104
1.260The Game Editor Menu: Edit . . . . .	104
1.261The Game Editor Menu: Edit . . . . .	105
1.262The Game Editor Menu: Edit . . . . .	105
1.263The Game Editor Menu: Edit . . . . .	105

---

---

1.264The Game Editor Menu: Edit . . . . .	105
1.265The Game Editor Menu: Replace . . . . .	105
1.266The Game Editor Menu: Replace . . . . .	106
1.267The Game Editor Menu: Replace . . . . .	106
1.268The Game Editor Menu: Replace . . . . .	106
1.269The Game Editor Menu: Solve . . . . .	107
1.270The Game Editor Menu: Solve . . . . .	107
1.271The Game Editor Menu: Solve . . . . .	108
1.272Block Position Table . . . . .	108
1.273Tooltypes of the Graphic Set Files . . . . .	109
1.274Tooltypes of the Music Files . . . . .	110
1.275The Tooltypes of the Title Screen . . . . .	111
1.276Technical information about BoulderDäsh . . . . .	111
1.277Other programs! . . . . .	112
1.278The Index . . . . .	113

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# Chapter 1

## BoulderDäsh

### 1.1 Boulder Däsh

Boulder Däsh V4.27

-----  
(C) Guido Mersmann 1987 - 1999

BOULDERDÄSH IS A SHAREWARE PRODUCT

READ THE DISTRIBUTION SECTION FOR INFORMATION ON DISTRIBUTION

Contents

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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

My other amiga projects!

## 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 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.

If you want to use the additional buttons on your joypad then you'll require the lowlevel.library. (part of the Amiga-OS 3.1)

---

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{} Online help!

\textdegree{} Local support.

---

\textdegree{} Programmed in Commodore Styleguide.

\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 4123 caves in this edition!!

\textdegree{} 35 different  
graphic sets  
.

\textdegree{} 6 different  
character sets  
.

\textdegree{} 5 different  
sample sets  
.

\textdegree{} 6 ingame  
tunes  
.

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

\textdegree{} Enlarged by more  
game 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

-----

The Official BoulderDäsh-CDROM

The contents of the original BoulderDäsh-CDROM isn't Shareware! It's not allowed to copy the CD or part of it!

The shareware archive

This program may 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. (Aminet-CDs 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.

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

## 1.7 How to register ?

How to register ?

-----

BoulderDäsh registration is very easy. After registration you are able to use the

complete  
programm.

Send

me

---



following things:

- \textdegree{} Your personal data (for the keyfile) and the name of the program.
- \textdegree{} Shareware fee about 20DM
- \textdegree{} A floppy disk (for the main archive)
- \textdegree{} An envelope with stamps for about 3DM.

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

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

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

30 DM or transfer it to my account. I think this is quite fair. I want to program and I don't want to buy envelopes, stamps and disks. And from 20 DM won't be a lot left for me.

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

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

Important:

I need your full address with christian and surname, your street and your living place and very important the name of the programm you want to register.

## 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\_Level1.game) is selected. This game is a perfect beginner game  
and it should explain any questions.

#### Keyboard Functions

-----

These brackets "[ ]" are describing the CD32 joypad buttons

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 [BLUE]. 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 [PLAY/PAUSE] 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 [GREEN and YELLOW together] 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" : [GREEN]

Music player  
on/off

"2" : [FORWARD] Next music

"3" : [REVERSE] Previous music

"4" : [GELB]

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 execption. 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 thinks 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

----

rockford  
 enters the level with the help of this element. There may be  
 a few Ins in one level. If this happens, many  
 rockford  
 s enter this  
 level. All  
 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 Installation:

The game is on CD! Is it possible to save settings etc.?

Is it possible to update a CD version?  
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!

The Joypad is not working correct!

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

How can I reopen the screen mode requester?

How can I speed up the game?

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!

LevelOut isn't blinking!  
The CD32:

Can I use an keyboard on my CD32?

Is it possible to save scores and settings on my CD32?  
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!  
Hiscores:

---

I don't understand the Hiscores!

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

The music player 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!  
Other:

This manual is formatted with centered blocks. How?

## 1.47 FAQ - The game is on CD! Is it possible to save settings etc.?

The game is on CD! Is it possible to save settings etc.?  
-----

Create a drawer on your hard disk. e.g "games:BoulderDäsh". Now you must add the following line to your user-startup:

Assign BoulderDäsh: games:BoulderDäsh

---

After restarting your system you are able to play the game like you ever did, but all savings are done on hard disk.

## 1.48 FAQ - Is it possible to update a CD version?

Is it possible to update a CD version?

-----

You are playing BoulderDäsh direct on CD and you want to update this CD by an normal Boulderdäsh update archive? This would save much hard disk space?

No Problem! There is no specific CD required. Just the Archive should be stored decrunched on CD. (Crunched is also possible by using the ARC handler, but this is for experts only)

Install your update on hard disk. After installaiton add the following ToolType to the icon of the BoulderDäsh main program. (Of course on hard disk.)

```
AddPath=CDName:Path/BoulderDäsh
```

After the equal the position of the BoulderDäsh-drawer on your CD is reuired. Only specify the boulderDäsh-drawer and not the BoulderDäsh file. Your should also remove the

```
BoulderDäsh:  
-assign, if you had  
created one.
```

An other possible way is to assign "BoulderDäsh:" via user-startup:

```
Assign BoulderDäsh: CDName:Path/BoulderDäsh Path
```

I recomment the first version, because this user-startup assign uses memory even if you are not playing BoulderDäsh.

After these adjustments it is required to start BoulderDäsh always from hard disk to run the newest version. The CD is also always required.

## 1.49 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.

## 1.50 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
```

## 1.51 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.

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

After playing a while BoulderDäsh denies keyboard usage!

-----

This problem effects non RTG mode only, but if you are using an Joypad then you should also read the  
joypad chapter  
!!

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. When you using a joypad and the lowlevel.library, the only way to quit is to press the green and the yellow at once.

### 1.53 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.

### 1.54 FAQ - The Joypad is not working correct!

FAQ - The Joypad is not working correct!

-----

Well! Make sure that the lowlevel.library is installed! Without BoulderDäsh is using the Pad like a Joystick!

It may take a while, after first using the lowlevel.library. The autodetection may take a few seconds. Just move around until  
 rockford  
 is moving. If nothing happens something goes very wrong. This ←  
 is not a  
 BoulderDäsh bug.

Note: Just try to plug your JoyPad into the other port. BoulderDäsh is detecting it when using the lowlevel.library. Without lowlevel.library the normal joystick port will be used.

But there is an problem when using the lowlevel.library. On some systems the joypad isn't working correct.

It is very easy to describe the problem! The additional buttons (GREEN, YELLOW, PLAY, REVERSE, FORWARD) aren't working! Actually they are working when combined.

Currently it seems that only ECS Systems are effected. If there are additional problems on other machines let  
 me  
 know.

### 1.55 FAQ - How can I reopen the screen mode requester?

FAQ - How can I reopen the screen mode requester?

---

RTG mode only!!

Just press the Shift-key when pressing the  
start game  
button or  
starting the  
level editor  
.

## 1.56 FAQ - How can I speed up the game?

FAQ - How can I speed up the game?

---

Graphic board

If you are using a graphic board you should set the screen dimensions to 320\*200. Most boards should work fine if you only disable the

fullscreen  
option. This should be enough to get full speed when using an 68030/25Mhz. An faster computer should be able to allow bigger screens.

Without graphic board

Generaly you should  
disable RTG  
to get maximum speed. If you simply  
want to check out RTG, or just want to use more than 8 colors, then you should reduce the screen dimensions to 320\*200 and 8 colors. Some graphic sets (e.G.Classic#?) allow the usage of 4 colors.

## 1.57 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.

## 1.58 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.

## 1.59 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

.

## 1.60 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.

## 1.61 FAQ - LevelOut isn't blinking!

FAQ - LevelOut isn't blinking!

-----

\textdegree{} There is an level out that isn't blinking. Some level contain this special out

.

\textdegree{} The selected graphic set contains no out animation. The included graphics are supporting full animation.

But there is an additional reason why the blinking is missing:

---

This problem effects RTG mode only!!

It may happen that your computer is to slow to update the screen 50 times a second. The out animation in the most cases contains 2 animation phases only (open/close). If the screen update requires more than 1/50 second each second animation phase will be scripted, so it stays closed.

To avoid this problem read the chapter about speeding up BoulderDäsh

.

## 1.62 FAQ - Can I use an keyboard on my CD32?

Can I use an keyboard on my CD32?

Yes! It is possible to connect an Amiga Keyboard and the CD32!

Some Amiga keyboards are already PS/2 compatible. All other (e.G the A2000) require a little hack!

This can be done by using an standard PS/2 keyboard adapter. If you want save money then you are able to create your own.

I am not responsible for any hard or software damage! You do this on your own risk!

If you want details or just other solder plans then visit the aminet (hard/hack or hard/misc).

A2000 Connector (view onto the female connector)

\textdegree{}3	\textdegree{}1	Pins:	
\textdegree{}5	\textdegree{}4	1 Clock	4 GND
\textdegree{}2		2 Keyboard Data	5 +5v
	3-		

CD32 Connector (view onto the female connector)

\textdegree{}5	\textdegree{}6	1 _TxD	4 GND
\textdegree{}3	\textdegree{}4	2 Keyboard Data	5 _RxD
\textdegree{}1	\textdegree{}2	3 +5V	6 Clock

Your both connectors should be numbered as well, so there won't be any problem. Just connect these pins by using an 4 wire cable. Don't forget to connect the shielding on one the keyboard side.

A2000		CD32
1	Clock	6
2	Keyboard Data	2
4	GND	4
5	+5V	3

Shield      Shielding      not connected here

### 1.63 FAQ - Is it possible to save scores and settings on my CD32?

Is it possible to save scores and settings on my CD32?  
-----

Currently there is no way to store BoulderDäsh's scores and settings, because BoulderDäsh requires a lot of space and the CD32 internal flash memory is very small.

### 1.64 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.

### 1.65 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.

## 1.66 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.

## 1.67 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.

## 1.68 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.

## 1.69 FAQ - The player names are lost!

The player names are lost!

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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.

## 1.70 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.

## 1.71 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.

## 1.72 The music player isn't working!

The music player 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".

## 1.73 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.

## 1.74 FAQ - Own levels

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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.

### 1.75 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.

### 1.76 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.

### 1.77 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.

### 1.78 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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## 1.79 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.

## 1.80 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

.

## 1.81 FAQ: This manual is formatted with centered blocks, How?

This manual is formatted with centered blocks, How?

-----

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This question is very old. I write all AmigaGuide text file by using GoldED. GoldED makes it very easy. Just open the "miscellaneous" settings and setup the fold markings ("@NODE" and "@ENDNODE"). Now you are able to open and close every node as an own document.

But now the question. The problem is the link structure within the text. GoldEDs internal block format is not able to detect them, because it is all text. A word wrap within a link is deadly for this link. Another method is to edit the block by hand, but this is not very handy. (-8

This was the reason to write  
GuideFormat  
. GuideFormat is doing this  
job and it takes care about the links. I put it together with some  
GoldED commands with a GoldED hotkey. Now I can use it like the  
internal block center command.

I wrote all documentation of  
my programs  
by using GuideFormat. It  
saves years of my life.

And the text looks great now!

## 1.82 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.

## 1.83 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.

## 1.84 FAQ - BMHD-Chunk not found!

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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.

## 1.85 History

History

-----

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

- V1.0 1987 written at a weekend. It was my first programm at the A500!!! It was as fast as the original, but it wasn't able to fasten the speed of the game. This was optimised by more intelligent screen routines and an optimised move controller. The levels were firmly integrated and there were never more than 3, because otherwise I had to enter them in the source as "dc.b DT\_Metal,DT\_Wall..."
  - V2.0 1995 a complete new version (changing of the routines), addition of a move controller and an intelligent screen creation routine, that runs without Double Buffering.
  - V2.1 Addition of the LevelEditor, removal 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 asynctfunctions 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 the 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 thoughts them.
- V2.42 Modification in the protection protocol. Now also in the level frames In and Outs can be set.  
Small mistakes in the explosion routine corrected. Rockford could still explode in the Out.  
New PlayerName requester in the GameSettings included.  
Score texts are printed concentric automatically.  
Now the PlayerName can be distributed in stead of Player#
-

- optionally.  
Old name requester at the end of the game removed.  
New Hiscore routines included. Now there are 3 different hiscorelists for every game.  
Mistake in the linkage of the windows corrected.  
New LevelSetting requester included.  
Mistake in the New routine found.
- V2.43 Very stupid mistake in the installer script found and removed.  
Hiscore cycle gadget shows now only the three valid values.  
Old  
    cheat  
        removed and 3 new  
    cheats  
        added.
- V2.44 New async-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 and 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 Brrrrr! 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 and 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 brutaloboulderdash 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 depents 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.
- V4.22 New manual index. (Auto created)  
 Fixed some  
 cheat  
 problems.
- V4.23 Some manual fixes done. (Thanks to Markus Sauermann)  
 The "game/game"-bug returned in the save routines. (reported by  
 Markus Sauermann)  
 The "random demo" is now more random! (Thanks to Markus Sauermann)  
 Water and slime init routines are now fixed. The  
 solve player  
 is now  
 always working. Some  
 solves  
 may be recorded again.  
 The nasty F10 bug is now fixed. (I hope) Thanks to Thomas Richter2  
 who supports me with super debugging information so this fix was done  
 within 10 minutes. (-8
- V4.24 Many new levels and many games added.  
 Thanks to my new  
 GuideCheck  
 tool there are no longer  
 invalid @links, unreferenced nodes and of course stupid syntax  
 errors.  
 Additional manual adjustments and enhancements.  
 New french version of the manual. (Thanks to Frédéric Delacroix)  
 Replaced Classic800XLPro graphic set and caves (Thanks to Thomas  
 Richter 2)
- V4.25 Installer script is supporting français! (Thanks to Frédéric  
 Delacroix)  
 Additional manual adjustments
- V4.26 LowLevel.library implemented. (again). (not required)  
 CD32 Joypad should allow all required features. Now BoulderDäsh  
 uses direkt Hardware access only, when no RTG, no LowLevel.library  
 or no Joypad is available. If you are using a joystick then BD is  
 switching to internal routines even if the LowLevel.library is  
 available, because due some internal bug this is the only way to  
 make BD work on A2000/500/600 when the LowLevel.library is installed.  
 Internal changes on the control routines.
- V4.27 Arrrrrgg! Why nobody told me that there is no chance to switch off  
 the music player? I just waste a CDR. )-8 BTW: It's working now!

## 1.86 Future

Future

-----

\textdegree{} Your personal wishes !!

## 1.87 Buglist

Buglist

-----

Keyboard problems!  
(Non RTG Only)

The

Joypad  
isn't working correct on some machines.

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

## 1.88 Thanx

Thanx

-----

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

Thanks to Frédéric Delacroix for french translating of manual.

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

Many thanks to Steffen Haeuser for his great RTG system. If you are developing games then try this library first. It is very easy to use.

Special thanks to Eric Wick for RTG beta testing.

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

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

Thomas Sahling for so many wishes, that I can't release V3 in time.

Thanks to Joonas Palaste for the nice graphic sets:

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

Thanks to Thomas Sahling for the nice sample sets:

Classic800XL Future



Special thanks to Beastmaster for the original C64 graphic:

ClassicC64 FutureC64 ClassicC64Pumpkin

Thanks to Thomas Richter for his graphic set and game.

Lemmings.gfx Small.fnt TRI\_BD.game

Thanks to Thomas Richter2 for his 800XL graphics.

Classic800XLPro.gfx Classic800XLPro.spl

Special thanks to Marko Suominen for his great stuff:

Graveyard.gfx Graveyard.fnt Graveyard.sampleset

Thanks to Timo Hegemann for his graphics:

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

Thanks to Ruben Monteiro for the nice music sets:

InGame1 InGame2 InGame3  
InGame4 TitleAmiga

Thanks to the following boys and girls. I found your caves in internet and in the most cases there was only your name. Maybe you contact me via E-mail. Uwe Drichel, Lukas Shambis, Achim Hofmann, Alex Zop, Marc Pierau, Stefan Schneider, Tobias Pfaff, Wilhelm Oelinger, Rolf Lange

Thanks to Achim Haertel for Atari caves and cave format information.

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

## 1.89 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.

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## 1.90 Tricks to Cheat Boulderdäsh

Tricks to Cheat Boulderdäsh  
-----

HoHo, No! Its up to you to find the cheats!

A little tip: All cheats are requested to be in clear text, but the  
Where?, How?, and of course What? is 100% on You. (-8

Good luck!

## 1.91 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

## 1.92 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

.

Game Editor

Game Settings

Hiscores

Load Game

Start Game

Quit Game

### 1.93 The Main Window - Game Editor

Game Editor

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

### 1.94 The Main Window - Game Settings

Game Settings

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

### 1.95 The Main Window - Hiscores

Hiscores

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

### 1.96 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.

---

## 1.97 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.

When RTG is  
enabled  
press shift during selecting this button to open  
the screenmode requester.

## 1.98 The Main Window - Quit Game

Quit Game

-----

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

## 1.99 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

## 1.100 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.

## 1.101 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.

---

## 1.102 The Game Editor - Delete Level

Delete  
-----

Deletes the current level

## 1.103 The Game Editor - Level Up

Up  
-----

Moves the current level one entry up.

## 1.104 The Game Editor - Level Down

Down  
-----

Moves the current level one entry down.

## 1.105 The Game Editor - Edit Level

----- Edit Level

Starts the  
Level Editor  
.

If  
RTG is enabled  
, then you are able to reopen the screen mode  
requester by pressing and holding the shift-key.

## 1.106 The Game Editor - Level Settings

----- Level Settings

Opens the  
LevelSetting  
s-requester.

---

## 1.107 The Game Editor - Game Information

Game Information  
-----

Opens the

GameInformation  
-requester

## 1.108 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!

## 1.109 The Game Editor - Save Level

Save Level  
-----

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

## 1.110 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.

## 1.111 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.

---



## 1.112 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.

## 1.113 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.

## 1.114 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

### 1.115 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.

### 1.116 Game Settings - Data Sets

Data Sets

-----

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

### 1.117 Game Settings - Music Player

Music Player

-----

To configurate the internal music player use  
music player settings  
.

### 1.118 Game Settings - Screen

Screen

-----

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

---

## 1.119 Game Settings - Miscellaneous

Miscellaneous  
-----

The  
window  
that opens here is filled with useful options.

## 1.120 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)

## 1.121 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.

## 1.122 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.

## 1.123 Game Settings - Ok

---

Ok  
-----

This adjustments will be overtaken.

### 1.124 Game Settings - Save

Save  
-----

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

### 1.125 Game Settings - Cancel

Cancel  
-----

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

### 1.126 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

---

## 1.127 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.

## 1.128 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.

## 1.129 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.

## 1.130 Player Names - Ok

Ok  
-----

This adjustments will be overtaken.

## 1.131 Player Names - Save

Save  
-----

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

## 1.132 Player Names - Cancel

Cancel  
-----

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

---

### 1.133 Game Settings - Data Sets

Game Settings - Data Sets

-----

Data Cache

Level Data

Level Color

Default Grafik Set

Default Character Set

Default Sample Set

Default Music

Ok

Save

Cancel

### 1.134 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.

### 1.135 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.

### 1.136 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.

### 1.137 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 Data  
function  
selected in this window forces this graphic set, too. It is possible to  
load  
own graphics  
.

### 1.138 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 Data

function selected in this window forces this character set, too. It is possible to load own character sets  
.

### 1.139 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 Data

function

selected in this window forces this sample set, too. It is possible to load

own sample sets  
.

### 1.140 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  
.

### 1.141 Data Sets - Ok



Ok

-----

This adjustments will be overtaken.

### 1.142 Data Sets - Save

Save

-----

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

### 1.143 Data Sets - Cancel

Cancel

-----

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

### 1.144 Game Settings - Music Player

Game Settings - Music Player

-----

Music List

Audio Mode

Prefer

Music Player

Play Mode

Ok

Save

Cancel

## 1.145 Music Player - Music List

Music List  
-----

This gadget contains all musics.

## 1.146 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"!

## 1.147 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"!

## 1.148 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.

---

### 1.149 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"!

### 1.150 Music Player - Ok

Ok  
----

This adjustments will be overtaken.

### 1.151 Music Player - Save

Save  
-----

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

### 1.152 Music Player - Cancel

Cancel  
-----

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

### 1.153 Game Settings - Screen

Game Settings - Screen  
-----

RTG

Full Screen

Editor Full Screen

---

Scroll Speed 2x

Editor Scroll Speed 2x

Screenmode

Ok

Save

Cancel

## 1.154 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.

## 1.155 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.

## 1.156 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.

---

### 1.157 Screen - Scroll Speed 2x

Scroll Speed 2x  
-----

This gadget doubles the in game scrolling speed.

### 1.158 Screen - Editor Scroll Speed 2x

Editor Scr. speed 2x  
-----

This gadget doubles the level editor scrolling speed.

### 1.159 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.

### 1.160 Screen - Ok

Ok  
-----

This adjustments will be overtaken.

### 1.161 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.

---

## 1.162 Screen - Cancel

Cancel  
-----

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

## 1.163 Game Settings - Miscellaneous

Game Settings - Miscellaneous  
-----

Default Game

Title Picture

Levelchanging Tilulit

Simple Tilulit

Editor Tilulit

Ok

Save

Cancel

## 1.164 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".

## 1.165 Miscellaneous - Title Picture

---

Title Picture  
-----

Here you can select and disable the startup title picture.

### 1.166 Miscellaneous - Levelchanging Tilulit

Levelchanging Tilulit  
-----

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

### 1.167 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.

### 1.168 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.

### 1.169 Miscellaneous - Ok

Ok  
-----

This adjustments will be overtaken.

### 1.170 Miscellaneous - Save

Save  
-----

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

---

## 1.171 Miscellaneous - Cancel

Cancel

-----

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

## 1.172 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

## 1.173 The Highscores - Type

Type

-----



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

## 1.174 The Highscores - Delete Scores

Delete Scores  
-----

After confirming all scores of the current games are deleted.

## 1.175 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.

## 1.176 The Level Editor

The Level Editor  
-----

These brackets "[]" are describing the CD32 joystick buttons

The editor screen is divided into two sections. The level takes the biggest part. 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.

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/joypad you can move through the level and if you push the fire button [RED] you can set the element you have activated in the

element  
selector.

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

Esc [BLUE] : Ends the LevelEditor  
 F1 [PLAY] : Testing a level (if you press F10 [GREEN and YELLOW]  
 : you can leave the testing mode)  
 Del [GREEN] : and a following Y [RED] 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 [FORWARD]: moves the element selector one step right  
 ( "-" for A600 users)  
 NUMPAD 4 [REVERSE]: moves the element selector one step left  
 ( "." for A600 users)

C : Space type selector:  
 \textdegree{}  
 Space \textdegree{}  
 Space - Fake \textdegree{}  
 Space - Background \textdegree{}  
 D :  
 Diamond : Stone type selector:  
 S \textdegree{}  
 Stone \textdegree{}  
 Stonie \textdegree{}  
 Egg \textdegree{}  
 E :  
 Ground : Metal type selector:  
 M \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 [YELLOW] : Go to "Color Set Mode"
               Use CRSR left/right [FORWARD/REWIND] to view the
               color sets. Use "Y" or "J" [RED] to confirm, or
               use "N" or Escape [BLUE,YELLOW or GREEN] to undo
               all changes. NOTE: You are only able to activate
               the colors you have
created
.
```

## 1.177 Level Settings

### Level Adjustments

---

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

Name

Visual and Noisy

Water and Slime

Earthquakes

---

Points

Miscellaneous

Ok

Cancel

### 1.178 Level Settings - Level Name

Level Name

-----

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

### 1.179 Level Settings - Visual and Noisy

Visual and Noisy

-----

This

window

allows alle visual and noisy settings for this level.

### 1.180 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

.

### 1.181 Level Settings - Earthquakes

Earthquakes

-----

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

earthquakes

.

## 1.182 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.

## 1.183 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.

## 1.184 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.

## 1.185 Level Settings - Cancel

Cancel

-----

Cancels all adjustments and ends all level setting windows.

## 1.186 Levelsettings - Visual and Noisy

Levelsettings - Visual and Noisy

-----

Level Width

Level Height

Graphic Set

Color Set

Character Set

Sample Set

Music

### 1.187 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 !!!

### 1.188 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!!!

### 1.189 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

.

## 1.190 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

.

## 1.191 Visual and Noisy - Character Set

Character Set

-----

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

own characters

. Note: This Feature must be enabled via

game settings

.

## 1.192 Visual and Noisy - SampleSet

Sample set

-----

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

own sample sets

. Note: This Feature must be enabled via

game settings

.

## 1.193 Visual and Noisy - Music

Music

-----

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

own musics

. Note: This Feature must be enabled via

game settings

.

---

## 1.194 Color Set Selection

Color Set Selection

-----

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

Color Sets

Ok

Cancel

## 1.195 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.

## 1.196 Color Set Selection - Ok

Ok

----

The current level is using the selected color set.

## 1.197 Color Set Selection - Cancel

Cancel

-----

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

## 1.198 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

## 1.199 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  
.

## 1.200 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  
.

## 1.201 Water and Slime - Water Growing Rate

Water Growing Rate  
-----

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

## 1.202 Water and Slime - Water Flood Rate

Water Flood Rate  
-----

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

## 1.203 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  
.

## 1.204 Water and Slime - Slime Rate

Slime Rate  
-----

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

---

## 1.205 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

## 1.206 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

## 1.207 Earthquakes - Activate Time

Activate Time  
-----

---

After this time earthquakes can appear.

## 1.208 Earthquakes - Delay

Delay  
-----

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

## 1.209 Earthquakes - Length

Length  
-----

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

## 1.210 Earthquakes - Force Rate

Force Rate  
-----

Here you can adjust the force of an earthquake.

## 1.211 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

---

## 1.212 Points - Diamond

```
                Diamond
-----

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

## 1.213 Points - Diamond Extra

```
                Diamond Extra
-----

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

## 1.214 Points - Diamonds>99

```
                Diamonds>99
-----

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

## 1.215 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!

## 1.216 Points - Time Bonus

---

Time Bonus

-----

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

## 1.217 Level Settings - Miscellaneous

Level Settings - Miscellaneous

-----

Game Speed

Level Time

Magic Wall  
Time

Diamonds  
Needed

Intermission

Gravitation

## 1.218 Miscellaneous - Game Speed

Game Speed

-----

Here you can adjust the game speed.

## 1.219 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
    .
```

## 1.220 Miscellaneous - Magic Wall Time

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

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

## 1.221 Miscellaneous - Diamonds Needed

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

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

## 1.222 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.
```

## 1.223 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.
```

---

## 1.224 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

## 1.225 The Game Information - Author

Author  
-----

Here you can enter your name.

## 1.226 The Game Information - Comment

Comment  
-----

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

## 1.227 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.

---



## 1.228 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.

## 1.229 The Game Information - Ok

Ok  
-----

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

## 1.230 The Game Information - Cancel

Cancel  
-----

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

## 1.231 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  
.

## 1.232 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...

### 1.233 The ColorSetHandler - The ColorSet List

The ColorSet List

---

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

### 1.234 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.

### 1.235 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.

### 1.236 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.

### 1.237 The ColorSetHandler Menu

Project Import Export

Quit

Load BDMAP

Save BDMAP

Link BDMAP

-----

-----

Save BDMAP into Graphic Set

Load Tooltypes

-----

Load CMAP

### 1.238 The ColorSetHandler Menu - Quit

Quit  
-----

All modifications are lost and the programm quits.

### 1.239 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.

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

Link BDMAP  
-----

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

### 1.241 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.

---

## 1.242 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  
!

## 1.243 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.

## 1.244 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.

## 1.245 The Menus of BoulderDäsh

The Menus of BoulderDäsh

---

The  
Main Window  
Menu

The  
Game Editor  
Menu

## 1.246 The Main Window Menu

The Main Window Menu

---

Project	Action
---------	--------

Load game

Classic C64 Demo

-----

-----

About

Random Demo

-----

Quit game

---

## 1.247 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.

## 1.248 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.

## 1.249 The Main Window Menu: Project

Quit game  
-----

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

## 1.250 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.

## 1.251 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.

## 1.252 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

```

### 1.253 BarLabel

```

Barlabel
-----

```

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

### 1.254 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.

### 1.255 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.

```

## 1.256 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.

## 1.257 The Game Editor Menu: Project

Game information  
-----

Opens the  
GameInformation  
-requester.

## 1.258 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.

## 1.259 The Game Editor Menu: Edit

Edit level  
-----

Starts the  
Level Editor  
.

## 1.260 The Game Editor Menu: Edit

Level settings  
-----

Opens the  
Level settings  
-requester.

---

## 1.261 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!

## 1.262 The Game Editor Menu: Edit

Save level

-----

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

## 1.263 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.

## 1.264 The Game Editor Menu: Edit

Delete

-----

Deletes the current level.

## 1.265 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.

## 1.266 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.

## 1.267 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.

## 1.268 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.

---

## 1.269 The Game Editor Menu: Solve

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.

## 1.270 The Game Editor Menu: Solve

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.

## 1.271 The Game Editor Menu: Solve

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.

## 1.272 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	

## 1.273 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 is 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.

## 1.274 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 tooltype to disable this jump.

Example:

```
IgnoreJump=3
```

BoulderDäsh ignores a B03-jump command.

## 1.275 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 tooltype 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.

## 1.276 Technical information about BoulderDäsh

Technical information about BoulderDäsh

---

BoulderDäsh is 100% assembler coded.

---

The sourcecode takes 1455084 bytes in 123 files. BoulderDäsh is assembled with DevPac 3.04. DevPac needs 40 seconds and 1.77 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.
```

## 1.277 Other programs!

Other programs!

```
-----
BoulderDäsh  [game/jump/boulderdaesh.lha]
-----
```

Clone of the original Boulderdäsh for Amiga. It is the only version running faster on Amiga than the original. It looks and behaves like the original. I was asked, where the C64 is. (-8 And all this on a 68000 without Fastmem.

```
-----
SimpleCat    [dev/misc/simplecat.lha]
-----
```

This tool is for programmers and user. Using this program you can change catalogues of programs with your favourite text editor in the easiest way. These programs must include a CS file. Search for it in the archive of the catalogues drawer.

```
-----
Afind        [util/misc/afind.lha]
-----
```

With this program you can search for programs on your Aminet CDs in the easiest way. It is the same than the original tool on the CD, but here you can use AminetCDs and AminetSets mixed. So you are not forced to search for a program on the first 5 Aminet CDs, which is on AminetSet1 Disk b too.

```
-----
AView        [util/misc/aview.lha]
-----
```

AView is a great multiview enhancement/replacement! It is working like Multiview, but you are able to specify a special viewer/player for each

---

file type.

Guideformat [text/edit/guideformat.lha]  
-----

GuideFormat is a simple tool. It is easy to format text blocks, even if there are "links" or other guide commands in.

GuideCheck [text/edit/guidecheck.lha]  
-----

GuideCheck is a small tool that allows to check the hole structure of an AmigaGuide file.

SiedlerBoot [game/patch/siedlerboot.lha]  
-----

This allows to start the Settlers direct via CD and save the scores on HD. There is no hard disk install required. SiedlerBoot requires the "Amiga Plus Sonderheft 9" cover CDROM.

Execute64 [misc/emu/execute64.lha]  
-----

Execute64 allows to transfer file direct into the C64 and to start them. This allows to play games an use the Amiga a big file server.

## 1.278 The Index

A

active time

After playing a while BoulderDäsh denies keyboard usage!

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

alias

All included games are using the same color!

All included intermissions are to big!

all

B

BDMAP

BDMP

Block Position Table

BMHD-Chunk not found!

---

---

BODY-Chunk not found!

bonus life

BoulderDäsh does not run!

butterflies

Butterfly  
C

change the name

Change play mode

Changing start level and lives is not possible!

character sets

Chunk

Clone

CMAP Chunk

CMAP-Chunk not found!

Color Set Selection

ColorSet list

ColorSetHandler

complete

created  
D

Data Set

defined growing rate

defined quantity

Delete Game

delete the original game

Delete...

Diamond

diamonds

---

Diamond\_0

E

earth

earthquakes

editor full screen

Egg

eggs

Egg\_0

Egg\_1

Egg\_2

Egg\_3

element

elements

enclosed character sets

enclosed graphics

enclosed modules

end

F

Fake Out

Fake\_Metal

features

finish

fireflies

firefly

Firefly

Flies

flood rate

G

game settings

---

Game Editor  
game editor  
game editor  
Game result requester  
game Setting  
Game Settings - Data Sets  
Game Settings - Screen  
game settings screen  
Game Settings  
game settings  
Game Settings  
game settings  
game settings  
GameInformation  
graphic sets  
graphics  
graphicset tooltypes  
Gravitation Arrow Down  
Gravitation Arrow Left  
Gravitation Arrow Right  
Gravitation Arrow Up  
Gravitation Arrow  
Ground  
growing rate  
Growing Wall - (left/right)  
Growing Wall - (up/down)  
Growing Wall left/right  
Growing Wall up/down  
H

---

highscorelist

hiscore list

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

How To Register

I

I don't understand the Hiscores!

In my own graphics all animations are wrong!

In

installing

into the graphic set

K

Keyboard problems!

L

level character set

Level Colors

Level Data

Level Editor

level editor

level music

Level settings

level settings: Visual and Noisy

level

level

LevelColor

LevelColors

LevelData

Leveleditors

LevelSetting

---

lives

Load CMAP

load game

Load Level

load

load

loading a game

M

Magic Wall

main window

Main Window

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

menu

menu

menu

Metal - Fake

Metal Fake

Metal

milling wall second

milling walls

miscellaneous

music player settings

music player state

music player

Music player

music

My animations are too short!

N

---



Name Settings

number of lives  
0

Out & Magic Wall

Out - blinking

Out - Fake

Out blinking

Out fake

Out not blinking

Out

Out

own character sets

own graphic sets

Own Graphics

own graphics

own graphics

Own Graphics

Own Graphics

own ingame music

Own levels!

own music

own sample sets

own sounds  
P

play back

play back

Play Elements

Play

Playback

---

Player Name Settings

Playername

playernames

playing mode

prefer mode

problems

R

Record

recorded

register

registered

registration

replace menu

Replace sample set

result window

Rockford Twin

Rockford

rockfords

RTG

RTGMaster.library V23+

S

sample sets

samples

save a game

Save BDMAP to Graphic Set

save

save

SaveLevel

---

Saving the game

Score Adjustment Window

screen configuration

Self running demo

size

Slime

solve menu

Solve/Save

Space - Background

Space - Fake

Space Background

Space

spaces

special feature

start level

start the game

Stone

stones

Stonie

T

Table

The color set selector is sometimes working wrong!

The keyboard control is not very useful!

The music player isn't working!

The player names are lost!

The structure of the game!

this chapter

title picture

title pictures

---

tooltype

ToolType

Tooltypes

tunes

Twin

U

unregistered

User Block

Userblock

W

Wall

water growing time

Water or Slime

Water

What is a BDMP-Chunk?

What is a Chunk?

What is a keyfile?

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

Where should I place the keyfile?

While playing sometimes mysterious mistakes in the spaces appear!

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

Why is the play feature not always working?

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

window

window

---