

BOULDER DASH

CONSTRUCTION KIT

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INSTRUCTIONS

*FOR THE COMMODORE 64/128 AND
ATARI HOME COMPUTERS*

DATABYTE

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OVERVIEW

Boulder Dash™ Construction Kit consists of two programs. With the Construction Kit you can create your own Boulder Dash screens. With Boulder Dash IV the game you can enjoy a new set of challenging screens which we have made for you or use it to play the screens you create with the Construction Kit.

LOADING

ATARI: Disk-remove all cartridges. Computer should be off. Turn on the disk drive. When the busy light goes out insert the disk with the label side up. Close the drive door. Turn on the computer. The program will load and run automatically. Wait until the title screen is displayed then follow the screen instructions.

NOTE: XL/XE Owners should hold down the Option key while turning on the computer.

COMMODORE 64/128: Disk-turn on your computer and disk drive. Insert the disk with the label side up. Close the drive door. Type LOAD "*" ,8,1 then press the Return key. The program will load and run automatically. Wait until the title screen is displayed then follow the screen instructions.

SCREEN INSTRUCTIONS

Press 1 to run the Construction Kit

Press 2 to run the Game.

ATARI: Cassette-One side of the cassette contains the Construction Kit. The other side contains the Game. Select the side you want to run. Remove all cartridges. Computer should be off. Place tape into the cassette recorder. Press Rewind to make sure the tape is completely rewound. Press Play on the recorder. While holding down the Start key turn on the computer. After a

signal (beep) press Return on the computer. The tape will start to turn and load the program. After several minutes the program will run automatically.

NOTE: XL/XE Owners should hold down both the Option and Start keys while turning on the computer.

COMMODORE 64/128: Cassette-One side of the tape contains the Construction Kit. The other side contains the Game. Select the side you want to run. Remove all cartridges. Computer should be off. Place the tape in the cassette recorder. Hold down the Shift and Run Stop keys while turning on the computer. The program will load and run automatically.

SPECIAL REQUIREMENTS

One or two joysticks.

CONSTRUCTION KIT

A—OVERVIEW

Design and create your own Boulder Dash caves and intermissions. You have total control to place any item, boulders, diamonds, walls, etc. You can also set your timers, number of diamonds to win, bonuses, everything. You can test your screen while you are creating it and correct it, if necessary, right on the spot.

You can also make complete games using up to 64 screens. You can mix your caves and intermissions in any order you want, and then play them with Boulder Dash IV The Game.

You can have as many games on one single diskette or tape as the disk or tape space allows. (One diskette can hold up to 10 different games with 20 screens each. A total of 200 caves and intermissions).

And best of all, it is easy to use. For most operations you only have to choose an item from the palette by placing the cursor over your selection and pressing the trigger. The program even provides disk commands for file maintenance that allows you to

copy and delete files, see your directory, format diskettes, etc.

To make a complete game follow these simple steps:

- (a) Decide whether you want to design a Cave or an Intermission.
- (b) Place your boulders, diamonds, exit doors, etc.
- (c) Set the timers and counters.
- (d) Save and Test your Caves.
- (e) Make a Game sequence with your caves.

WARNING

DO NOT SAVE YOUR SCREENS ONTO THE BOULDER DASH CONSTRUCTION KIT TAPE OR DISKETTE OTHERWISE YOU WILL DESTROY THE PROGRAM.

B-THE PALETTE

The Palette is functionally divided into two groups: The brushes and the commands. Most of the commands can also be called with a single keystroke as indicated below.

KEY	Functions	X=	ICON	FUNCTION	KEY
BRUSHES					
	Boulder	X	X	Diamond	
	Enchanted wall	X	X	Wall	
	Titanium wall	X	X	Growing wall	
	Extra Rockford	X	X	Dirt	
	Firefly	X	X	Butterfly	
	Amoeba	X	X	Slime	
	Hidden Exit door	X	X	Regular Exit door	
	Entry door	X	X	Line mode	L
FUNCTIONS					
	Random	X	X	Eraser	E
C	Change Colors	X	X	Test Screen	T
M	Main Menu	X	X	New Screen	N
P	Remove Palette	X	X	Timers & Counters	V
F	Full Screen				
S	Turn sound on/off				
↑	Exit Function				

SPECIAL KEYS

ATARI ONLY: ESC — Exit any function.

C—THE BRUSHES

Select any brush by placing the cursor over the icon and pressing the trigger. Now you can move your cursor to anywhere on the screen and “paint” with it by pressing the trigger again. You will always paint on the working screen which is one quarter of the total area for a cave. To view the full screen (cave) press the F key. (see Full Screen below).

BOULDER The rocks will fall if unsupported, topple off wall edges, and can be pushed one at a time if there are no objects of any kind in front of it.

DIAMONDS In every cave a certain number of collected diamonds are always needed to win, and in the case of hidden exits reveal the exit door. However, you can have screens which start without diamonds if you provide the means to create them. (See Butterflies and enchanted walls, below).

ENCHANTED WALL Looks like any other wall, however, when hit by a falling object, it mills for a certain amount of time (see timers). During this period of time it will turn boulders into diamonds and diamonds into boulders. They must hit the wall when falling and the area below the wall must be empty.

WALL A regular wall is used to build spaces and paths. It can't be crossed, but it can be destroyed by explosions.

TITANIUM WALL This wall is indestructible and boulders don't fall off their edges.

GROWING WALL If there are no obstacles to the right or left of this wall, it will grow closing spaces. Please note that you have to place dirt or some moveable object initially to prevent the wall from growing immediately.

EXTRA ROCKFORD When you place an extra Rockford(s) in the screen, he (they) won't move, but you must protect him (them) from being destroyed by boulders, fireflies or butterflies.

DIRT Used as a filler. Also as a support of rocks and diamonds. Fireflies and butterflies can't go through it. Rockford can dig dirt by walking through, or by first pressing the trigger and, while holding it down, pushing the stick in the desired direction.

FIREFLIES They explode on contact, killing Rockford. You can destroy them by dropping boulders on them. If they make contact with the Amoeba they will explode as well. They always fly in a predictable direction.

BUTTERFLIES They behave very much like the Fireflies except that they fly in the opposite direction and produce diamonds when they explode. Try dropping a boulder on them.

AMOEBEA A green blob (as indicated on the palette) that grows through dirt. If surrounded by boulders or walls, it will suffocate and turn into diamonds. However, if it grows too much (200 units) it will turn into boulders. The speed of growth can be controlled with the timers.

SLIME Looks like the Amoeba, but it acts more like a permeable wall, that lets the boulders and diamonds fall through the Slime at various rates which you can control with the timer. On the palette it is represented as a blue blob.

HIDDEN EXIT DOOR This door looks just like a titanium wall and obviously is difficult to find when you try to exit.

EXIT DOOR This exit will be revealed as soon as the required number of diamonds is completed, by flashing on and off.

ENTRANCE This is the place where Rockford will appear at the beginning of every cave.

D—THE COMMANDS

LINE You can make rows of objects with the current brush by selecting the Line icon or pressing the L key on the keyboard. To make a line you press the trigger on one point of the screen, move the cursor to the end point and press the trigger again.

RANDOM Selecting the dice icon will place on the screen 20 objects with the current "brush."

COLOR Select the Color icon or press the C key. A color menu

will be displayed. Move the joy stick until you get the desired color. Then press the trigger to select another color register.

TEST Press the T key or select the test icon on the palette. You can now play the current screen just like a real game. Make sure you have at least one entrance and one exit. You can return to the edit mode at any time by pressing the Run/stop key if you have the Commodore version. Atari owners should press the escape key.

MENU Pressing the M key or selecting this icon will display the file menu. Move the joy stick in any direction to select the desired function and then press the trigger. You can LOAD and SAVE your screens. You can make GAME sequences and perform file maintenance (see Making a Game for more detailed information).

NEW SCREEN Press the N key or select this icon to completely clear the screen and start creating a new one. The program will ask you to reconfirm your selection. Then a menu will ask you if you want to create a cave, an intermission or to load one screen from tape or disk for editing or testing.

PALETTE With the P key or icon you can temporarily remove the palette in order to work under it. You can restore the palette by pressing the UP ARROW. CAREFUL! (Don't confuse this arrow with the cursor keys).

TIMERS The Y key or the clock icon will display a menu to control the values of the timers and counters for the cave. You can control items like: the speed of the game, the time limit of the cave (in seconds), the time for enchanted walls and amoebas, etc. To change the values move the stick right/left. If you want to go fast, move the stick up/down. When your value is displayed, press the trigger to go to the next item.

FULL SCREEN Press the F key to view all four screens of a cave. On this screen, you can reposition the working screen window (large cursor). Press F again or the joystick trigger to come back to the single working screen.

E-MAKING A GAME

A game consists of sequences of caves and/or intermissions. A

standard game has 16 caves and 4 intermissions. A cave is about 4 TV screens in size. An intermission is only one TV screen in size. The purpose of the intermission is to reward the player who successfully completes 4 caves in a row with a fast (about 20 seconds) puzzle. A player can reap the bonus but will not lose a Rockford in case he/she is not successful. However with the CONSTRUCTION KIT you are free to have the number of caves and/or intermissions you desire.

F—SAVING A CAVE

The first step in making a game sequence is to save all your screens (caves and intermissions) after you've tested them. Follow the steps below:

- Call the MENU icon or press the M key.
- Use the joystick to select Save.
- Decide if you want to save onto DISK or TAPE.
- Type in a unique file name for your cave, or intermission, and press RETURN. You don't have to give any extension. The program will do it automatically for you.

NOTE:When you are saving a cave or an intermission you must provide a **NEW** name that doesn't already exist on the disk. If you want to use an existing name, then you must delete the old file first then save your current file. (Use the Disk Options explained below).

G—CREATING A SEQUENCE (DISK)

After you have saved all your screens to disk. Select the word GAMES from the MENU. You are then presented with 5 game options:

NEW GAME It will erase the current game sequence memory.

GAME FILES It will read the catalog of caves and intermissions from the current disk.

LOAD GAME It will load a previously created game sequence. You have to provide the name of the desired game sequence. (Don't confuse load game with load screen).

SAVE GAME It will save the current game sequence onto disk. You have to provide a unique name for your game sequence.

EDIT GAME When you select edit, you are presented with a screen divided in two columns: The one on the right contains the names of all the caves and intermissions on the current diskette. The one on the left, the sequence of your caves for the current game.

The high-lighted cursor indicates which column you are in. You can change columns by moving the stick left to right. You can move the pointers (indicated by a <> up/down by moving the stick up/down. The "Y" or "N" next to the file name indicates whether this file can be selected by the player in the final game you're creating. You can change this option by moving the stick up/down when you are on this column.

Every time that you press the trigger, the file marked with a pointer in the right column will be copied to the space marked with the pointer in the left column.

If you have more caves on a separate disk, you can load them into a game by inserting the disk in the drive and selecting the option GAME FILES explained above. However, be aware that when actually playing the game with BOULDER DASH THE GAME all the caves and intermissions should be in the same disk as the game file.

You can exit this option at any time by pressing the UP ARROW key. You may return at any time to "edit" and your sequence will still be in memory.

H-CREATING A SEQUENCE (TAPE)

When you are working with a tape you can't create a GAME SEQUENCE file. Instead you must save your caves and intermissions to the tape in the sequence that you want to play them in.

If you want to make a game with a particular sequence of caves and intermissions, you can do it in the following way:

1. Call the MENU (M) command.
2. Select LOAD screen.
3. Load your first selected cave from your working tape, if you want, you can save time by rewinding or advancing the tape to the place where the particular screen is.
4. Insert a new tape in the recorder.

5. Select **SAVE** screen on the **MENU**.
6. Repeat steps 2 to 5 until you have selected all the caves for your game.

NOTE 1: When loading a cave from tape if you don't provide a file name, the program will load the next screen it finds in the tape regardless if it is a cave or an intermission.

NOTE 2: If you provide a name but the tape counter is already past the file, this will not be a problem. You may rewind the tape at **any time** and when the program finds the file, it will be loaded.

NOTE 3: If the file name is wrong, the program will continue searching indefinitely. You can escape by pressing the **RUN/STOP** key if you have the Commodore version. Atari owners should press the **ESC** key. If this doesn't work, press the **Restore** key. This will place you at the beginning of the Construction Kit.

LOADING SAVING CAVES TO TAPE

When loading a cave the computer will always generate a **SINGLE BEEP** as a prompt to indicate that you should place the tape and press Play in the recorder. Then press any key to initiate the loading. When saving a cave the computer will always generate **Two Beeps** as a prompt to indicate that you should place the tape in the recorder and press Play and Rec buttons in the recorder. Then press any key to initiate the saving.

WARNING: Since you can have many caves in one single tape, make sure you don't overwrite previous saved caves on the tape.

When loading you can rewind the tape anywhere before the cave that you want to load. Just make sure it is not too far otherwise it will take a long time to find it.

When saving be sure the tape is positioned After the last cave saved in your tape. You can keep a counter record of all your caves but it isn't always reliable.

DISK OPTIONS

These Disk Options are not essential for you to make Boulder Dash games and screens, but are provided for your convenience.

Catalog: Selecting this option will list All the files in the current disk, one at a time.

Format: Allows you to format a disk without having to exit the Construction Kit.

Delete: You can erase Any file from the current disk, permanently. You have to provide the file name exactly, with extensions, if any.

Rename: This option allows you to change the name of the file. You have to be careful to add the proper extension: .INT for intermissions: .CAV for caves: and .GAM for game sequence files.

Copy: With this option you can copy Any file to another disk.

K-TIPS & HINTS

1. Using the wrap-around feature of the cursor you can save time when having to move the cursor from end to end. If the cursor goes off the screen on one end it will appear on the opposite one.
2. To make interesting screens it is more important to base the idea of a cave around solving a problem than just collecting lots of diamonds.
3. The time limit for the cave is an important element. For example, the player may find he never has enough time to finish the cave. Suddenly, if he solves a certain puzzle, he finds he now has plenty of time.
4. Design puzzles where he has plenty of time but he is always one diamond short. If the player tries different approaches he will find the missing diamond.
5. Caves that have many ways to solve are enjoyable because they are addictive, the player will want to play it over and over again because every time he tries something new he gets a

better time or more diamonds.

6. Avoid frustration. Don't overwhelm the player. Make him believe he was so close, that next time he will do it.

BOULDER DASH IV THE GAME

GAME OBJECTIVE

Those of you who are already fans of Boulder Dash don't need an introduction. You may skip to the description of the caves. The objective of Boulder Dash is to search through the caves and collect the indicated amount of diamonds. Once this has been accomplished an exit will be revealed (or will become active) and he must escape through it to the next cave. Strategy and planning are of utmost importance in order to accomplish this task. The way to solve the caves is usually very simple but it is not apparent at the beginning. Please read the descriptions of the brushes given in the Construction Kit section in order to understand how every element in the caves will react.

FUNCTION KEYS

Commodore 64/128

F3 — Number of Players and Joysticks

STICK — Cave number

TRIGGER — Start the game

SPACE BAR — Pause

RUN/STOP — Restart the game

ATARI

OPTION KEY — Number of Players and Joysticks

ESC KEY — Exit a screen

STICK — Cave number

TRIGGER — Start the game

SPACE BAR — Pause

START — Restart the game

CHANCES:

Each player starts with 3 chances. Bonus men are awarded every 500 points. This is indicated by shimmering in the tunnels. You can also earn an additional bonus Rockford by winning the intermissions.

SCORING:

During the game play the scoring bar is located on the top of the screen. From left to right this is the meaning of those numbers:

Number of diamonds required

Point value of every diamond collected

Number of diamonds collected so far

Time left to complete the cave

Total points accumulated

You score points for: every diamond you collect, every second left in the clock when you exit the caves, and every diamond collected above the minimum required will score bonus points.

LOADING A GAME

Loading a game sequence. (Disk)

When the game finishes loading, it will ask for the file name of the game. The program has a built-in game called GAME1. Type GAME1 press RETURN and wait for the caves to load. When the last cave has loaded the letters in the game's name will turn from white to blue. This indicates that you can now select caves. By moving the joystick you can flip through the caves available. Press the joystick trigger to start the game. When the game is over, you will return to the title page. The current game's Name is now shown in white letters. If you want to play this game again just press return. (Warning. Do not move the joystick before pressing Return). The letters will turn blue again and you can select caves and/or start the game as explained above. If you do move the joystick before pressing Return simply delete the

letters accidentally written and type the desired name of the game again.

If you want to play your own games type the name of your game sequence. Remember, the game sequence file and all the caves that belong to that sequence must be in the same disk.

Loading a game sequence. (Tape)

When the program has loaded, it will ask how many screens you want to load. The program has 15 screens built in. Type 15 press Return and wait for the caves to load. If you want to play your games, insert your own tape and type the numbers of caves that you want to load. If you type less than the total numbers of caves you have in your tape, the program will load the amount indicated. If you type a number larger than the number of caves in the tape, the program will attempt to load the extra caves, indefinitely.

GAME OVER

Once game is over (no more lives, etc.) type Y in answer to the screen instructions if you want to replay the same game. Type N if you intend loading a new game.

CAVES DESCRIPTION FOR GAME 1

1. Jail. Rescue 4 diamonds from their cells. Be careful you may have a big surprise when you attempt to do it.
2. **Safe.** Count them all. You are missing one.
3. Rain. Watch out. It's raining cats and boulders.
4. Escapade — Solve three puzzles and run for your life. The butterfly is on your heels. Don't kill it too soon.
5. Chase. (Intermission) If you ever do this you will be missing some diamonds. If you ever get all the diamonds you will be missing some seconds.
6. Rescue. You have to rescue only one diamond. Let me tell

you, you are going to do it the hard way, in 3 minutes. I know a way to do it easily in 30 seconds.

7. **Gyro.** Only one diamond to get. Watch how they spin. That is all there is to it.

8. Push. Don't lose any. If you are smart you don't have to push that far.

9. Rambo. Kill them all. At the right time. On the right place. You don't have time to breath between shots.

10. Drop. (Intermission) Just aim to the head. You have twenty seconds.

11. Tut. If you enter the Tomb of Tutankamen you may never come back. Warning, don't enter alone.

12. Maze. It's not a maze. It's a mess. Don't open the wrong door.

13. Blast. The only way to do it is blasting your way through.

14. Clash. Pit butterflies against amoebas. You will be the winner . . . unless they turn against you.

15. Autoban. (Intermission) When you cross the road, watch the trucks.

BOULDER DASH CONSTRUCTION KIT AMSTRAD CPC AND SPECTRUM ADDITIONAL NOTES

Spectrum Loading

On 128K machines, select 48K BASIC.

Use LOAD"" to load program.

Please ignore references to disc in the following instructions.

You may use Kempston, Cursor or Interface 2 joysticks, or the keyboard keys Z,X,L,P and V to fire. This choice is made right at the start of the program.

Use the upward arrow on the H key, and instead of ESC, use Q.

Amstrad Loading

To load the game, first switch off and on your computer, and if using a disc type RUN"DISC". If using a tape, press CONTROL and small enter. With a disc drive connected, you will need to type TAPE.IN first.

Use a joystick or the keyboard arrows and space bar.

Boulder Dash Construction Kit will load in one go, complete with the 15 part Boulder Dash IV game.

Please note that ESC is used to abort a game when Rockford gets stuck. The small upward arrow returns you back to the main menu. From here, option N, NEW, returns you right back to the initial menu — however your game sequence remains intact.

Using Tape

When using tape you may use blank names in order to load whatever file is next on tape. The ENTER key needs to be pressed to begin saving or loading and the main colours will return to their original values during this process.

Use ESC to return to the menu if you wish to abort the load or save.

Using Disc

Please have a formatted disc handy for your own caves. You must use CPM as normal to format, copy and rename files, although you could copy by loading and subsequently saving.

The files function does not work for tape based systems, but you may load or save without a filename if desired.

Disc errors may prompt you to retry or cancel, typically when a disc is write-protected or absent. You are advised to cancel and retry the whole command. Other common errors are a full disc when saving, and a non-existent file when loading.

After a disc or tape operation, you may experience a slight delay to allow the motor to halt.

Creating your own games

1. From the start up menu you may load in your own game which is then automatically played. You may press the up-arrow to return to the Kit.
2. You may also play the current game held in memory from either the starting menu, or the last option in the GAMES menu.
3. Games are built up from 1 to a maximum of 20, by the GAMES option in the menu accessed from option M. There is also a memory limitation, but as a guideline, the Boulder Dash IV game has 15 screens.
4. The first option in GAMES enters the current screen being edited by the Kit into the game. It will be either a CAVE or an INTERMISSION, depending on which option was selected from the starting menu when that cave was generated. You must have an entrance and exit defined before you can do this.
5. You continue loading or creating screens and choosing option 1, until you have as many caves that you want in the game. You may only add to the end of the sequence. Use the CLEAR option to restart from screen 1. The CLEAR option should be used before you start your own sequence, unless you already have a sequence saved, which you would LOAD in from the GAMES menu.
6. You may play the game sequence straight away by choosing the last option in GAMES, but don't forget to use SAVE, in the GAMES menu, to save the whole game sequence.

Other minor changes

1. The lines option can also draw boxes using the current brush — this is ideal for clearing large sections.
2. Amoeba and slime can be used together — which makes for some interesting possibilities.
3. IN and OUT work with the dice.