



LazyBoot  
#20181112

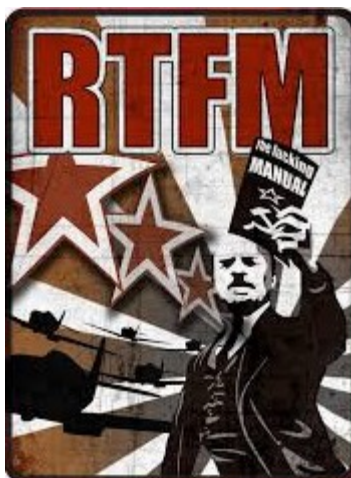
```
Lazyboot v3.0
+++++++ LAZYBOOT v3.0 ++++++
+++++++ WARNING: LOGO IS OFF ++++++

What type of selfboot image you need?

1 - CDI (DiscJuggler image, 2Gb max)
2 - MDS/MDF (with CDDA audio)
3 - GDI (Gigabyte Disc image, 1.1Gb max)
4 - CDI (with data/data conversion)
5 - SDISO (for Dreamshell)
6 - CDI with DUMMY (80min CD-R standard)
7 - VIDEO and EMULATORS (CDI, audio/data)
8 - OPTIONS
9 - Exit (to Windows)

If you do not know what to choose press enter
Please enter the number:
_
```

**RTFM**



**This manual is HUUUUGEE!  
No chance I can rewrite it in English.  
So, it google-translated, as a precaution.**

**Read on own risk**

LazyBoot is a set of software for rebuilding Dreamcast images, United by a common script. The script has nothing to do with Eazyboot, but is named after Him (with a little humor).

For most games, it's easy to figure out without a manual. Just throw your files in the "data" folder and press Enter on all questions. The problem is that there may be nuances. It will work for 85% of Dreamcast games, but not for everyone. And if you are lucky, and you are the lucky owner of the image, not like all — you here. Manual in order that no one asked and he could find answers.

**#20181105**

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## **System requirements**

It should work wherever there is Windows XP SP3, 7, 8, 10, etc.

To work, you need .NET Framework 4 or higher, but not required.

Without it, GDI Explorer and image assembly in GDI will not work.

If suddenly there is still no, then google "Microsoft .NET Framework 4.5.1 (Offline Installer)" and download from the Microsoft website.

All software was launched and tested on Win7 SP1 x64, but I see no reason why it would not work on WinXP SP3 and Win10. I used to collect images on them, but did not check the latest versions of the script.

I did not notice that the system updates somehow influenced, but there were all the latest updates on 2018-11-06, except for reducing performance (from Meltdown and Specter).

For WinXP, the latest version of the .NET Framework, officially, is only the fourth. It should be enough.

## Examples of using

**Example 1.** It is necessary to replace the voice acting in an abstract commercial game (made on Katana SDK or WinCE). Let it be Sky of Arcadia. The irony is that there is no voice acting in it, but we are not behind it.

We are looking on the Internet racially faithful image, not spoiled by pirates. The quality standard is TOSEC, of course. Let's google "dreamcast tosec complete collection", download the game we need.

The GDI image is unpacked through the GD-ROM Explorer into the data folder. (GD-ROM Explorer can be taken from this archive, it is in the Lazyboot \ extra\_tools \ gdrom-explorer-v1.6.2 \ GD-ROM folder Explorer.exe. For work, you need the .NET Framework installed).

Sky of Arcadia is a game created on the Katana SDK. This is clear from the fact that the image is in GDI format (in any Katana or WinCE, there is no Humbru in GDI). So you don't need to configure anything, but ..

we go into the options and make sure that everything is correct. We are interested in the inclusion of a binhack:

**BINHACK AND HACK4 IS ON.**

OPTIMIZED FOR KATANA is optional and varies only in Lazyboot \ tools \ cfg \ settings.ini. On line 13 there you can enter kos, katana or wince. This is only necessary for the mode "no questions / fast mode"

You can also enter kos, katana or wince when asked "What type of selfboot image you need?" At the very beginning. This will switch to the desired mode without tweaking the config.

Why include binhak? All commercial games need to be patched so that they can work from regular CDs or CDI images. The script patches under LBA 11702 if binhack is enabled in options.

Why disable binhack? If you rebuild a pirate, binaries can already be patched under LBA 11702 and no patch is needed.

After setting the options, we close and change what we need in the game resources. Run the script and grab the image by pressing Enter when it asks for something.

The name of the image, format, etc., you can choose to taste, of course.

As a result, we obtain the assembled CDI image, which will lie in the root of the script.

**Example 2.** It is necessary to record Humbru from the Internet. The archive has 1st\_read.bin (scrambled KOS binary)

For example, the path will be Flashback (Reminiscence-0.1.8dc).  
Open the archive, inside we see the files:

COPYING  
README-SDL  
1st\_read.bin  
README.dreamcast  
README.KOS

It would be logical to open the README.dreamcast notepad and read.  
Written by the data file in the root directory and the selfboot.

That is, we put 1st\_read.bin in the data folder. In it we create another Data folder, where we copy the game files from the DOS version of the game.

In Lazyboot we go about the option and disable the binhack, since it is obvious that the humb on KallistiOS (visible even by the name of the second readme, README.KOS. KOS is abbreviated from KallistiOS)

We collect further as usual.

**Example 3.** Another homebrew, “rare” elf format.

There is only one file in the archive, for example quake2.elf.  
Logically, this is a Quake2 game. Copy quake2.elf to the data folder, as usual. Add resource files (usually, this is baseq for quicks) from the comp version.

Launch Lazyboot and the game type will be determined automatically. Binhak disconnects itself, \* .elf files are always KallistiOS.  
We collect further as always, but there will be less questions.

**Example 4.** “strange” format sbi (selfboot inducer)

Copy sbi to data folder, as usual. Launch Lazyboot and the game type will be determined automatically. Binhak disconnects itself, because the sbi archives are always KallistiOS.

We collect further as always. At a certain stage, Lazyboot will unpack resources from .sbi and offer to add files if needed (ROMs, for example). Add, if necessary, and press Enter.

Multiplays are not supported, you can not put several sbi in the data folder.

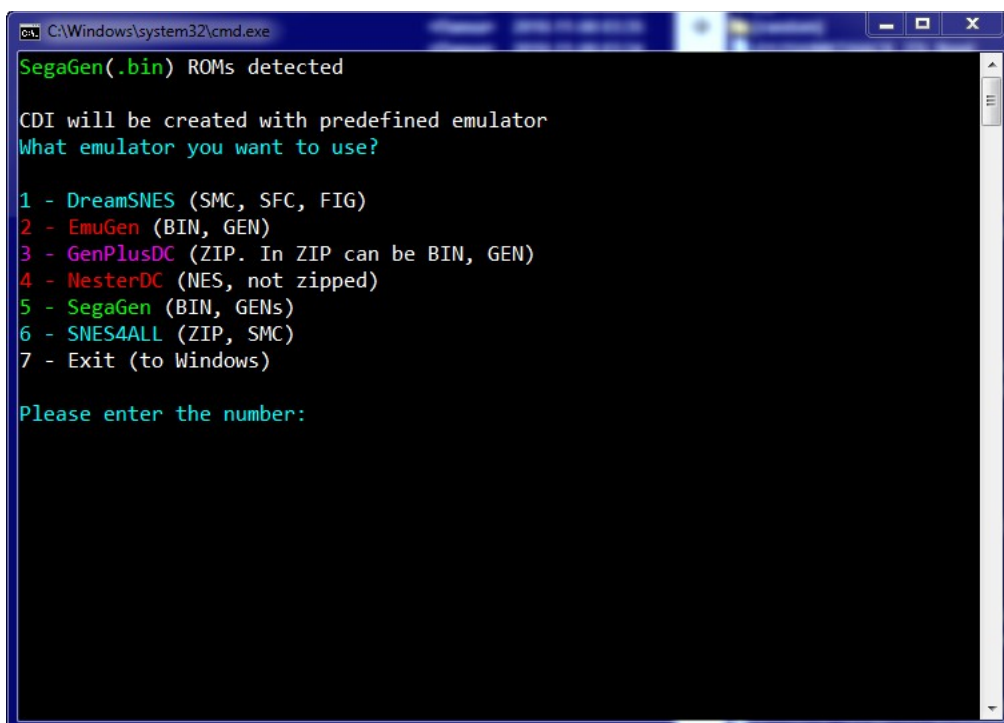
**Example 5.** You need to burn a disc with video. Make an image, more precisely. We put mp4, mkv or avi video files in the “roms” folder and launch Lazyboot. Files and quality will be determined automatically and encoding will begin, and then the image will be assembled. It depends on the performance of your processor, how fast the files will be prepared.

GypPlay and MPEG1 format are used as a video player. Keep in mind that a 1.2-hour movie takes more than 1GB. The maximum image size is allowed 2GB, if the images for the flash drive.

The quality is not great, do not expect much. But, you can quickly wind in both directions.

**Example 6.** You need to write an emulator with roms, but they require some kind of romlist with the correct names ..

We put the roms in the “roms” folder and launch Lazyboot. This menu will appear:

A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window has a black background with green and red text. The text displayed is as follows:

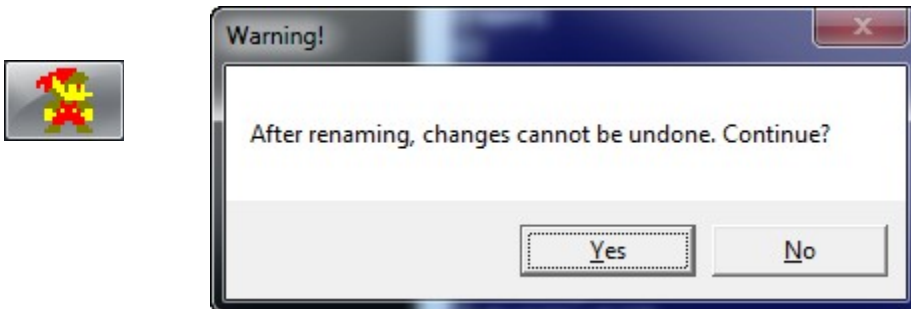
```
SeGaGen(.bin) ROMs detected

CDI will be created with predefined emulator
What emulator you want to use?

1 - DreamSNES (SMC, SFC, FIG)
2 - EmuGen (BIN, GEN)
3 - GenPlusDC (ZIP. In ZIP can be BIN, GEN)
4 - NesterDC (NES, not zipped)
5 - SeGaGen (BIN, GENs)
6 - SNES4ALL (ZIP, SMC)
7 - Exit (to Windows)

Please enter the number:
```

Select the emulator and this window can pop up:



You need to answer yes to rename the Roma, as needed for the emulator and create a list. Next, the image will be collected automatically.

As far as I remember, only for DreamSNES and SegaGen there will be such a request.

Such emulators are used and the following rom formats are supported:

[DreamSNES](#) \ = SMC, not zipped. SFC and FIG can work.

[EMUGEN](#) \ = BIN. You can put GENs (no problems noticed)

[GenPlusDC](#) \ = ZIP. The files in ZIP can be BIN, GEN.

[GypPlay](#) \ = mp4, mkv, avi. Will encode all files in a supported format. Can take some time.

[NesterDC](#) \ = NES, not zipped.

[SegaGen](#) \ = BIN. You can put GENs (no problems noticed)

[SNES4ALL](#) \ = ZIP, SMC

In general, I didn't really test whether the Lazyboot menu was screwed correctly.

Experimental feature can be said.

If anything, then these emulators are in Lazyboot \ tools \ dcemu-pack-20171109 \ and run from there.

Can be used separately. There, each in its own folder with the image collector, performance checked. Roma can be put there directly, there is a folder ROMS.

For example .. we put Virtua Racing (U) [!]. Bin in EmuGen / roms (\ Lazyboot \ tools \ dcemu-pack-20171109 \ EmuGen \ roms \) and run EmuGen.cmd (\ Lazyboot \ tools \ dcemu-pack- 20171109 \ EmuGen \). The image will appear in the same place

And what if your emulator is needed? Through this menu, only pre-installed emulators, write down your own, just like any game. We read the readme to the emulator, we put it in the data and all that. Do not forget that binhack disable for Humbru KallistiOS.



**Example 7.** unknown's homebrew .. In readme it is written that unscrambled binary (or not readme at all), the name is not at all 1st\_read.bin.

Such small programs can come across, the authors of which do not bother.

It is implied that you will stuff into a multi-play and will be launched through the boot disk or menu. Of course, this is KallistiOS.

If you open the SBI file as a normal ZIP, then there will also be an unscrambled binary.

So, rename it to unscrambled.bin and put it in data, and then as usual. Binhack will shut down automatically because it is definitely not Katana if unscrambled.

How to find out what type of hambrian game binaries are? Scrambled or unscrambled? Usually written in readme.

If you dragged them out of a pirate single-game, then it is accurate scrambled.

On multiplayer, all of these boot menus run unscrambled.

Katana and WinCE (i.e. commercial games) do not concern all this disgrace, this is only for Homebrew.

In the Lazyboot \ extra\_tools \ binary checker for homebrew \ checker.exe folder there is a program with which you can check which type of binary is. It works only with Humble, of course. It may not always be correct, but better than nothing.

I did not add an automatic definition to the script, because it does not work exactly. It will spoil some Humbru games, it is safer to manually determine the type. Moreover, in our time it is not very relevant. Most often there are only scrambled 1st\_read.bin ready or immediately CDI. Even less often you can meet elf.

**Example 8.** Playing with audio tracks "AudioCD", which can be listened to in the radio, for example. At least, if the disk is pirated.

Everything is as usual. We put the music in the Audio folder, in any supported formats. MP3, WAV, OGG, FLAC are precisely supported.

It is clear that mp3 96kbps put into the game, where the music occupied 80% of the volume of the disk, then this is somehow not ethical.

You need to put the music in the audio folder, and it's better to name the tracks as numbers (for example: 01.mp3, 02.mp3, 03.mp3, etc.). Not necessarily in numbers, but in the names there should not be Russian letters and spaces. Very undesirable, although it can work.

Supported are adx, mp3, xm, mod, it, flac, ogg, aac, wma, avi, flv, mpg, mp4, s3m, wma, spc, vgm, wav, vgz. (For example, 01.flv, 02.vgz, 03.avi, etc. in a bunch - this is normal, they will be converted to a compatible format).

Ideally, it is better to rip tracks from the discs in their original state - raw PCM signed 16bit little endian stereo 44100 Hz, without a header (extension .raw or .snd).

Goldwave users can not rename the .snd extension, but put it as it is - these files will be considered as .raw and will not be recoded too .. It may be necessary to use frog.aspi to read audio tracks from a virtual drive.

Images from CDDA audio can only be collected in Alkash format 120%.

If necessary, then you can mount it into a daemon and re-take DiscJuggler 4.6 into a canonical CDI.

Example of games with CDDA music:

4x4 Evolution,

MK: Gold,

Unreal Tournament,

Quake3

Shenmue has one CDAudio track.

**Example 9.** You need to build an image for Dreamshell.

There is an image assembly item for Dreamshell in the menu. Use as usual.

There is no way to check, but it is possible that it will work.

I took the parameters from the script that collected for Dreamshell.

No idea what kind of features there are images.

**Example 10.** You have an import from the USA Dreamcast from those rare revisions that do not start the usual pirate and the image is needed in the data / data format.

Lazyboot by default makes images only in audio / data format under LBA 11702. This is a time-tested method (like the old pirate).

Starting from version 3.0, an image assembly point with data / data has been added to the menu. The build process is fully automated. But, use only if very necessary.

This script was not written by me and I don't know the features of the work, test it.

Rebuilding Russian pirate is not the best idea, but with original images it should work

well.

Leaving in detail, this menu item launches “lightweight” DreamcastCdiTool. The original can be found in the archive with Lazyboot here: Lazyboot \ extra\_tools \ DreamcastCdiTool \ launcher.bat and use for its intended purpose, enveloping already assembled CDIs or making multi-plays of them.

I know that it would be more convenient to collect in data / data without conversion, but this is the only way now. DreamcastCdiTool is modified to work from Lazyboot, but the logic of image reassembly remained unchanged and I didn’t really understand it.

Dummy files are not exactly supported in data / data right now. They are hidden in the file system, after rebuilding will be lost. It may be that they are not needed there at all. I'm not sure that DreamcastCdiTool will shift the data to the desired LBA, but everything can be.

It is necessary to find out later, from what address the data begins. But, now I have no time for that. If anything, I'm not guilty =). I screwed it and finished it under Lazyboot, but the script is not mine.

At some point, the image build will stop and at this point you can add a dummy, if necessary.

Someday I will rewrite it completely, but then. Initially, priorities were on GDemu and emulators. There are no data / data and dummy files needed, as is known, it only hinders testing.

If possible, collect better in the default mode. audio / data under LBA 11702, though not the most perfect way, but the most universal (suitable for most games).

It is understood that when you make a translation, you collect the image as it turns out and test the font / text on the emulator.

After the translation is done, then you do it in Feng Shui, at the level of the most protracted release groups (in data / data format, with trendy LBA in the center of the disk, etc.) .. But this is no longer Lazyboot, but collect all by hand or wait for the software. You are warned that here the images at the level of the Russian pirate zero, even a little better.

Someone may still write to mini-disks 200Mb .. Well, while emulators do not care what format and the simpler the method, the better.

Russian pirate is usually audio / data under LBA 11702. Well, at least, the one that I had live. If your console does not launch audio / data, then there may be problems with the Russian versions.

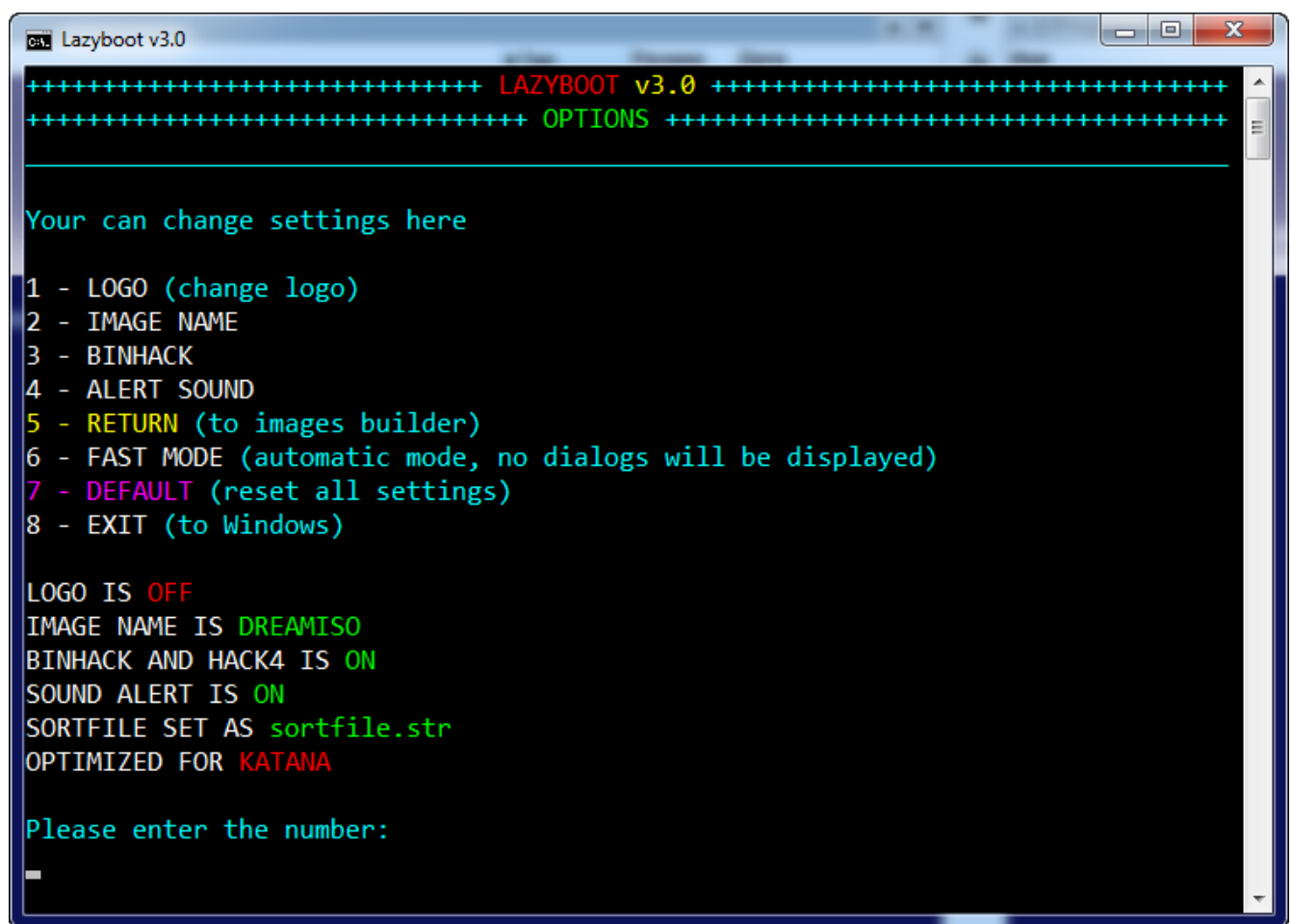
In all games with CDDA (CDAudio) there will be no music in data / data, this is the norm and format features.

**Example 11.** It is often necessary to collect the same image 30 times a day to check the mod or translation changes, to press enter for a long time.

To do this, there is a more ascetic, small script for the pro, which is configured through the config. It is configured once, after which the image is collected with these settings without asking anything.

Config description, see Config section.

Ascetic mode is launched via fast-mode-lazy.cmd or in the options enable FAST MODE (sixth item)

A screenshot of a terminal window titled "Lazyboot v3.0". The window has a black background with text in various colors (red, green, cyan, yellow, magenta). At the top, there are two lines of green text: "+++++ LAZYBOOT v3.0 +++++" and "+++++ OPTIONS +++++". Below this, a cyan line says "You can change settings here". A list of 8 options follows: "1 - LOGO (change logo)", "2 - IMAGE NAME", "3 - BINHACK", "4 - ALERT SOUND", "5 - RETURN (to images builder)", "6 - FAST MODE (automatic mode, no dialogs will be displayed)", "7 - DEFAULT (reset all settings)", and "8 - EXIT (to Windows)". Below the list, the current settings are displayed: "LOGO IS OFF", "IMAGE NAME IS DREAMISO", "BINHACK AND HACK4 IS ON", "SOUND ALERT IS ON", "SORTFILE SET AS sortfile.str", and "OPTIMIZED FOR KATANA". At the bottom, a cyan line asks "Please enter the number:" followed by a small white cursor.

After that, no questions will be asked. This is a completely separate and simplified script and you need to configure it manually for each specific game. But, then you can collect at least a hundred times, without typing the name and not pressing Enter.

Well suited for inclusion in other scripts and is used when building emulators.

It has its own features. For example, it collects in an ordinary ISO if it does not see 1ST\_READ.BIN in the DATA folder, etc., etc.

But, in general, there are much fewer checks there and the user is angry with Buratino himself if he doesn't know how to use and collects a data disc for PlayStation2.

It was done for (attempts) to port the Russian translation to the Dreamcast version of Cave Story.

By the way, the translation was ported (except for the main menu), but there was no national interest in this version and it was lost in the back of the story.

**Example 12.** You need an image of Alcohol 120%, but normal, without audio tracks.

This possibility is, but removed from the menu.

You need to write mds or mdf instead of a number, then everything is as for CDI.

In audio mode, you can collect without CDDA tracks, without adding your own music, but it will not be collected under LBA 11702.

**Example 13.** You need to compile a GDI image.

GDI are created based on the original (or not) GDI. It should be put in the folder "gdi\_image", and the new data should be put in the data folder

Question: And if there is no original gdi? Why create gdi if you have gdi

Answer: This is not done by collecting any garbage in GDI, but for transfers! Anyway, the trial pirate will not load. It is better to work with the original data and patch yourself what you need.

The reason to do GDI is that it is: more boast, less hacks and there is compatibility with where there is no CDI support.

If there is a severe need to make GDI from the "left" data, then you can put: disc.gdi, track01.bin, track02.raw from some Sonic Adventure 2. The script collects any data from the data folder into the third track and writes the new info into Tectic .gdi.

It is unlikely that such a GDI will turn out valid and will open in GDIexplorer, but it should work on emulators. At least it worked for me.

Example 14. It is necessary to collect a CDI image with a dummy file.

A bit of technical information. The closer to the center of the disk, the slower the reading speed of this data.

It is logical that it is better to place frequently used data closer to the edge.

But, disks are written from the center to the edge, and when your game weighs only a couple of megabytes, a lot of empty space remains. The laser head is wound in vain, and the data is read worse.

Shifting the data to the edge, the load will be faster and the laser wears out more slowly.

One of the easiest ways to move the data is to fill the disk with data out of the box by placing the dummy file the very first. He will push the data to the edge.

This is only important for the original iron. Emulators and when running games from a flash drive / HDD there is no difference, only the size of the image will be larger.

To use this, select the appropriate item in the menu. A dummy file will be created automatically, depending on the size of your data. Participation is not required. If the size already exceeds 700MB (for 80min discs), the file will not be created.

Please note that dummy will not be among the files in the image, it will be hidden in the file system. Shifts data to the desired LBA and "disappears." Therefore, after re-taking or converting such an image, then dummy can "get lost".

If you need to suddenly assemble an image of a non-standard size (not 700 MB) with a dummy file, then this is not in the options. Change the code yourself. In the tools \ Lazyboot.cmd file, open with a notepad and find the line set DISC\_SIZE = 712841213. This is the size of the disk in bytes. Divide this number by 1024,000 and get, in more understandable, megabytes. Enter the new size (in bytes) that you need and save.

### **Example 15.** The order of placement of files on the disk and sortlists

Sortlists (a list of file order) are needed to place frequently used files closer to the edge of the disk, where read speed is higher.

You can write them yourself if you know how it will be better or can be made from a GDI image.

It is worth saying that not all developers are bothered by the optimization and many files are written to disk in alphabetical order. Well, or specifically made their files in the alphabetical order they need. Of course, in this case, the sortlists are not needed; after all, it will be recorded alphabetically. For example, in Record of Lodoss War like that. Pirates have been bothering more than ever, rarely one can find a competent order of files on Russian pirates.

In general, sortlists are a sore subject for Lazyboot, because in mkisof or cygwin a bug has surfaced and on newer versions of Windows, sortlists have stopped working .. You create sortfile.str, you make an image .. and the files still go in alphabetical order, ignoring the sort list.

But before, everything worked fine, but it stopped on any version of Lazyboot. It is believed that because of the NTFS file system and the large size of logical partitions. HDDs have now become dimensionless and some kind of bug has surfaced because of this.

Mkisoft is a well-known software for building ISO images from Linux. Not surprisingly, it does not work properly under Windows.

Now the sortlists are working again, after updating all the libraries and progs to the latest versions.

But no one knows if they have added any new bugs =). At least now compatible with Win7 and higher, NTFS logical drives. Could not be compatible with WinXP.

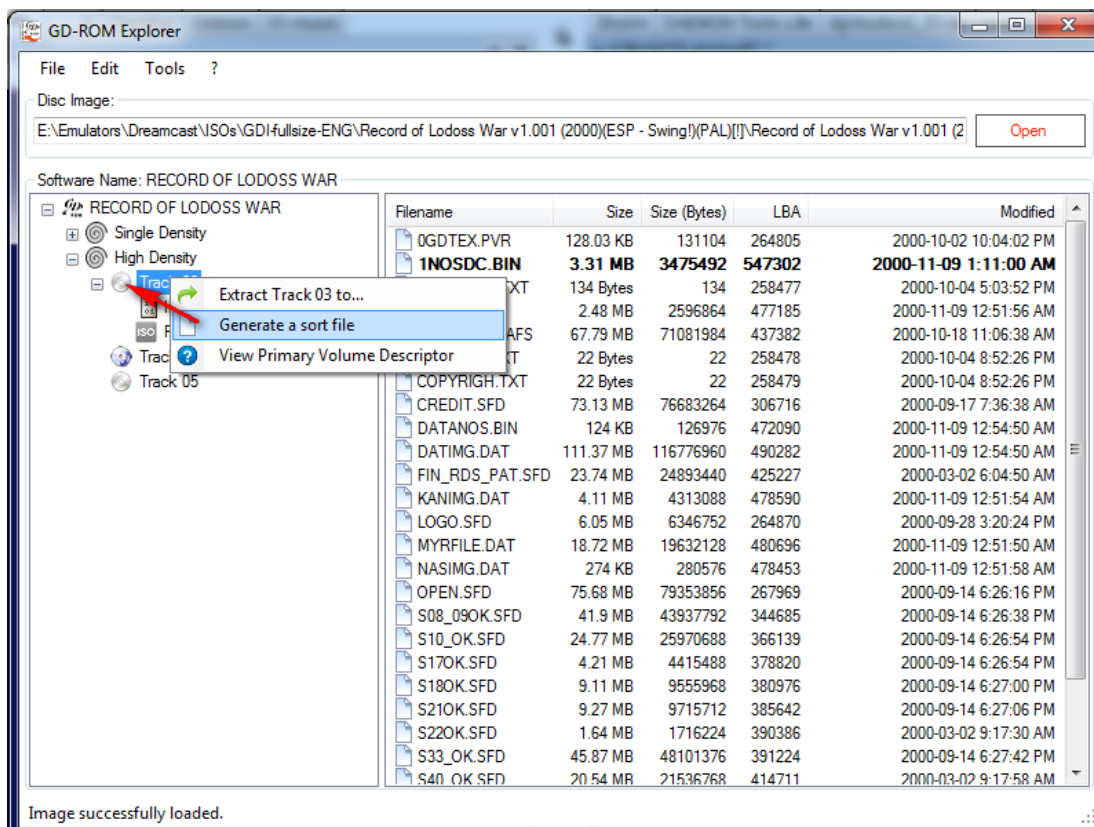
How to use the file sorting list?

The easiest way to make it from the GDI-image prog GD-ROM Explorer

You can get in this archive:

Lazyboot \ extra\_tools \ gdrom-explorer-v1.6.2 \ GD-ROM Explorer.exe, but not the latest version.

There right mouse click on the track with the data and click to generate a sortlist.

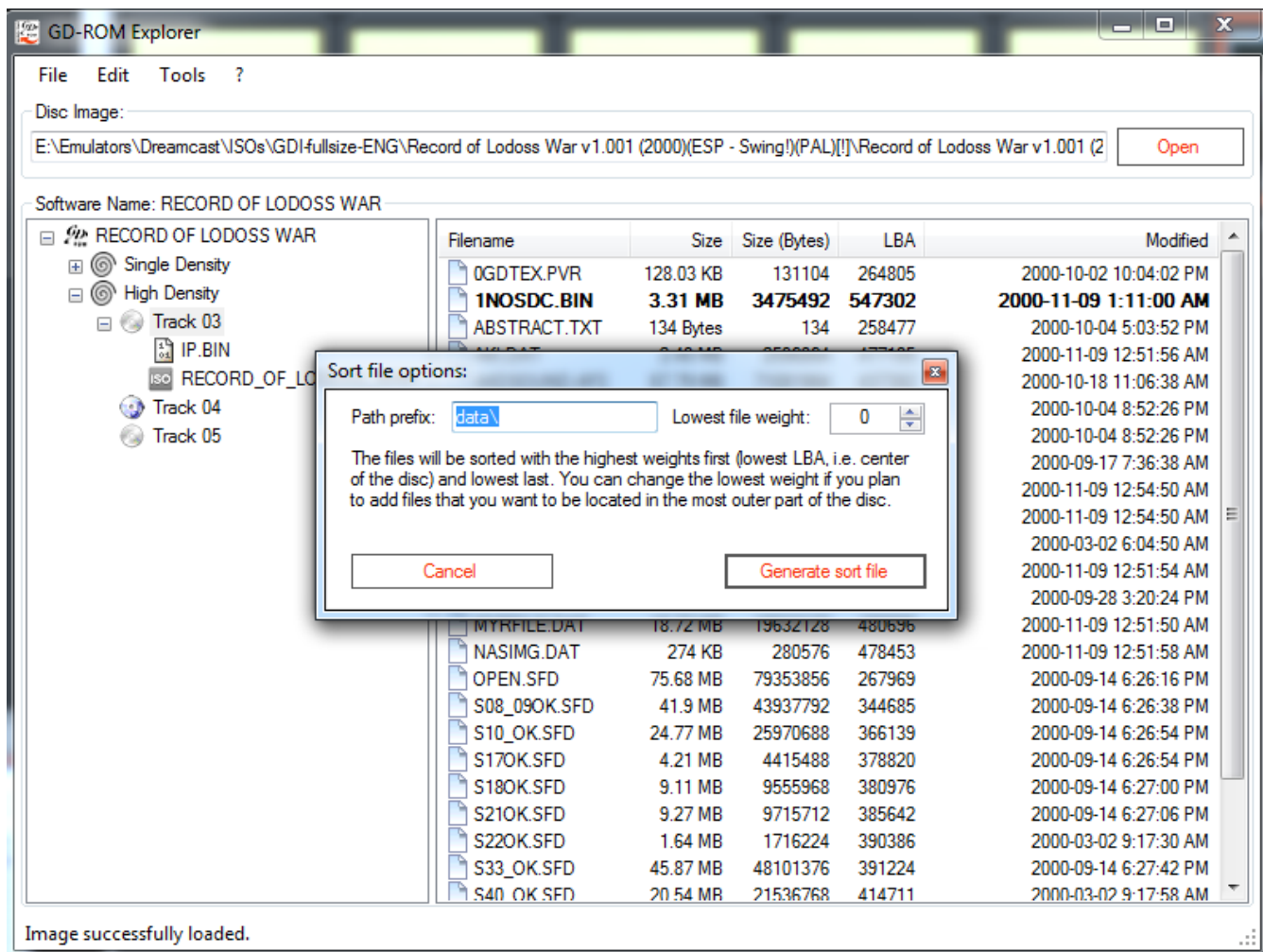


Save to the root of the folder, next to Lazyboot\_v3.0.cmd and this manual, here:





Leave the prefix unchanged, should remain so, data \



That's it, when building sortfile.str, it will pick up automatically.

You can write a sortlist in your notebook, for example, the format is:

```
data / TITLE.SFD 0  
data / 1NOSDC.BIN 1  
data / DATIMG.DAT 2  
data / MYRFILE.DAT 3
```

Everything works. For example, the game Lodoss War and I tried to push the video closer to the edge from the center of the disk.

Then we open the CDI image created by us through GD-ROM Explorer and make a sortlist from it, compare it with the original GDI.

```
1 data/TITLE.SFD 0
2 data/1NOSDC.BIN 1
3 data/DATIMG.DAT 2
4 data/MYRFILE.DAT 3
5 data/KANIMG.DAT 4
6 data/NASIMG.DAT 5
7 data/AKI.DAT 6
8 data/TAKIMG.DAT 7
9 data/SSS.DAT 8
```

So, it turned out that title.sfd sent me to the beginning, as I did.

You can view the GD-ROM Explorer directly on the LBA tab by clicking on the column so that it sorts the files by LBA.

Don't forget delete sortlist file when it not needed.

## **If the image does not work**

1. Make sure that Katana / WinCE (commercial games) is enabled, disabled for self-made ones (emulators, players, unofficial games). See more in the “Types of Dreamcast Games” section. Most likely, this is the reason. No one promised that the types of games are determined automatically.
2. For Russian pirate try to turn off the binhack. It is not known that the pirates on the side and patch the patch is undesirable. It is likely that there will already be patched under LBA 11702 as needed.  
If it does not work like this, then turn on the binhack and try to build it. If it still does not work, then try to remove the “pirated” IP.BIN.
3. If it is impossible to collect the clumsy pirates and all methods have been tried, take the original and clean boot binaries from the TOSEC images and replace them with the pirated ones. Of course, there are no guarantees that there is no Russian font in them. Usually, the font is in 1ST\_READ.BIN.  
Anyway, collect at least Echelon releases, if not TOSEC.
4. Name the main binary 1ST\_READ.BIN, if your name is different and remove IP.BIN from the resources (if any).  
The main binary may be called 0WINCEOS.BIN or whatever it depends on the degree of ukurennosti, but the developers are very different humbru. Rename or correct IP.BIN yourself.
5. For homebrews games, always disable binhack. They do not have copy protection and hacking binaries is not necessary.  
If you have a hacky program that you want to burn to disk in unscrambled format (for multiplayer), then call the main binary unscrambled.bin instead of 1ST\_READ.BIN - otherwise it will not load.
6. The game can be protected from copying in a particularly tricky way and it will not work to remove protection through binhack and hak4. Look for a hacker or broken binaries. For example, from the Echelon releases.  
You may have problems with games like Sonic Adventure 2 (a bunch of binaries reserved), Dead or Alive 2 (file size protection), Phantasy Star Online v2 and some others, but few of them. Especially wild protection in Bleemcast and Sturmwind. C Rash Rush Rally can also be a problem.

7. Make sure that it does not work exactly and check for Demul. At NullDC and others, it's normal that some games are not emulated. If you have that rare Dreamcast (recent revisions from the USA) that doesn't launch a pirate, then you are extremely unlucky. Rebuild the created audio / data image later via Lazyboot \ extra\_tools \ DreamcastCdiTool \ launcher.bat into the data / data image. There is no guarantee that the Russian pirate will be re-parted. There should be no problems with standard images.

## **Types of Dreamcast Games**

Dreamcast games come in several types. This script collects on the machine, but the type of the game is not automatically detected and must be switched in the settings.

But no one climbs the options .. and in vain.

Figuratively speaking, there are three “operating systems” for the Dreamcast, under which games run and protection in free hambryushka do not need to be removed. For the rest you need, if the pirates did not try. Disabled by one option in the settings. This is all the difference you need to know.

### **Let's get into the story ..**

Have you ever seen the WindowsCE logo on the Dreamcast? At the time, Sega entered into a partnership agreement with Microsoft and some games were made using their SDK / toolkit - WinCE.

These are games like Half-Life, 4x4 Evolution, some Resident Evil. Nothing else comes to mind, but they are. Sega Rally still, it seems. There are few such games and they are poorly emulated or not emulated at all, by the way. As far as I remember, this is connected with the memory manager and processor instructions that are not used in Katana SDK games.

Sega has developed its own toolkit, Katana SDK. It was made the overwhelming number of commercial games for the Dreamcast.

These are games like, suddenly, Quake3 and Unreal Tournament. Dead or Alive 2, Shenmue, The Ring, “7th Mansion”.

In order to unambiguously legally do emulators and home-based games, without paying anyone licensing fees for WinCE and Katana - the community has made itself KallistiOS.

## **Summing up .. games on the Dreamcast are divided into:**

- 1) Katana SDK games - 90% of all commercial games. It is necessary to include binhak and hak4, if not patched by pirates
- 2) Games on WinCE - a small number of commercial games. It is necessary to include binhak and hak4, if not patched by pirates. All the same as for Katana.
- 3) Games on KallistiOS - unofficial, self-made games. May be commercial but not licensed by Sega. No need to remove protection from binaries through binhack and hack4.

KallistiOS games are divided into three types:

- a) scrambled (for single games),
- b) unscrambled (for multiplays, through the menu),
- c) selfboot inducer archives (as unscrambled, but with menu themes)

## Config

The config is here: Lazyboot \ tools \ cfg \ settings.ini

It can be edited with a notepad. If something is spoiled, you can delete and default is generated. You can also reset in the settings, through the option:

7 - DEFAULT (reset all settings)

In the config \_off and \_on means that off or on

[fastmode\\_off](#) ("no questions" mode. A separate, simplified script (different from the main one). For those special cases when you need to collect the same image 100 times)  
[sortfile.str](#) (the name of the file sorting list. Without it, files are pushed into an image alphabetically, which is important for real disks and it does not matter for emulators / GDemu. It is believed that this option in Lazyboot does not work on the NTFS file system and is alphabetically compiled does not matter)

[logo\\_on](#) here you can turn off the logo

[alert\\_on](#) (disable sound warning of the end of the image assembly)

[katana\\_NAME](#) (the name of the CDI file itself. Without 8 letter restrictions)

[EMPTY](#) reserved space, no need to change

[1ST\\_READ.BIN](#) (the name of the main binary. Sometimes this parameter will be ignored if there is an elf, etc.)

[scramble\\_on](#) (not used yet. Call the unscramble.bin binary to do the scramble)

[binhack\\_on](#) (You can turn off binhack, for KallistiOS. If it is turned off and not in the settings of the Catan, it will ask "if it is not a homemade thing")

[DREAMISO](#) (the name of the date of the track. In the main script it is equal to the name and image. You can only 8 EIGHT letters, will not give more)

11702 (LBA)

[cdda\\_off](#) (not used. In the future, disables checking of audio files in the audio folder)

[kos](#) - (you can write kos, katana, wince. disables the question in fastmode about whether binhack is needed)

[namelist\\_on](#) adds text description to SBI and elf

[inducer\\_on](#) turns off SBI detection

[isonamechk\\_on](#) (disables the 8-letter limit in the image name. These will work, but commercial games never did it. For CDI, this is not a problem and the name can be very long. If you are not afraid that in some software for working with images Only 8 letters are counted, you can turn it off and call it as you like)

## Customization

Many are interested in how to create your own logo or disable it.

Disable can be in the settings. There is also a choice of presets. How to create your long to explain. Logos are in the Lazyboot \ tools \ logos \ folder (there are more of them there than can be selected via options)

Also, in the header of the script there is a line that shows the state of the logo. If Warning: Logo in ON is written, then the logo is enabled and will be added to IP.BIN when creating an image.

If you need your own logo, you can replace one of the existing ones in the LazyBoot \ tools \ logos \ folder. The program for creating mr-files lies in extra\_tools.

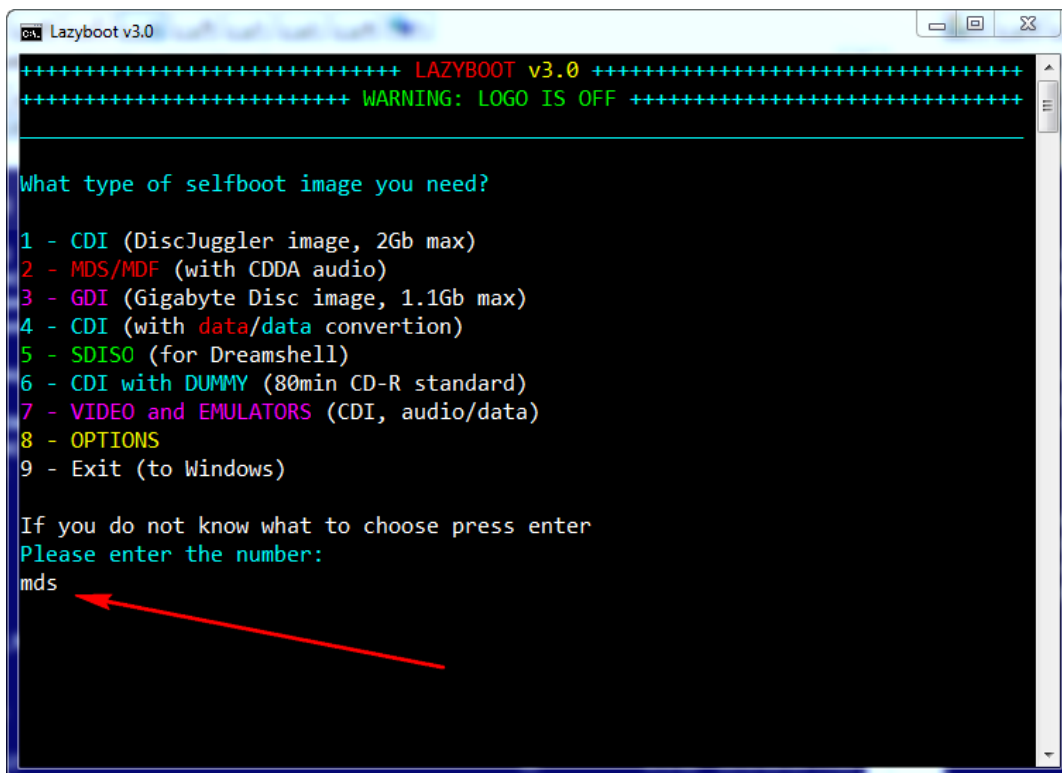
The sound signal is disabled in the options or replace alert\_on with alert\_off in the config if it is unnerving.

The console on Win7 will look more decent if you put the Consolas font larger. IChO. For WinXP, it also exists, but you need to find it on the Internet, install it and reboot.

### **You can customize without going into options.**

In the menu, you can enter commands

If the question "What type of selfboot image you need?" enter words:



```
Lazyboot v3.0
+++++++ LAZYBOOT v3.0 ++++++
+++++++ WARNING: LOGO IS OFF ++++++

What type of selfboot image you need?

1 - CDI (DiscJuggler image, 2Gb max)
2 - MDS/MDF (with CDDA audio)
3 - GDI (Gigabyte Disc image, 1.1Gb max)
4 - CDI (with data/data conversion)
5 - SDISO (for Dreamshell)
6 - CDI with DUMMY (80min CD-R standard)
7 - VIDEO and EMULATORS (CDI, audio/data)
8 - OPTIONS
9 - Exit (to Windows)

If you do not know what to choose press enter
Please enter the number:
mds
```



[mds](#), the mdf / mds assembly without CDDA tracks will start. LBA 11702  
[default](#), all settings will be reset to default  
[kos](#), there will be presets for Homebrew games (off binhack, another ip.bin, etc.)  
[katana](#) will not determine kos where it is used  
[nologo](#), the logo will turn off  
[logo](#), the logo will turn on  
[nobinhack](#), binaries won't be played  
[binhack](#), turn on binhack and hack4  
[options](#), go to options  
[dummy](#), will build CDI with a dummy file



## **For translators, about the abstract**

(if you translated to PSX, but not in the dreamcast theme)

If you translated / parsed games on the PlayStation1, then you probably got used to the CloneCD format (.ccd), in which you can find games for the first Sonya very often. So, nothing prevents you from working with the Dreamcast in the .ccd format. At least, if you do based on releases from Echelon.

The fact that the standard has become .cdi, by virtue of the circumstances, does not at all mean that it is impossible to .ccd or .mdf. The main thing is that the format supports multisession.

You can install Daemon Tools, mount cdi in a virtual box and reshot in .ccd. And then open through CDMAGE and work with the image without rebuilding, if it is more convenient for you.

But, nevertheless, it will be more convenient to disassemble the image and after already poking around at its resources.

## **Dreamcast games have the following features:**

### **Image size**

In general, the simplest thing is to take data from GDI and collect it in CDI, without paying much attention to size. Shrink under the standard 700MB will always be possible later.

In stock, you need to have a release from Echelon, if it turns out that the game has some kind of shabby protection and a game of those 5% of the elect.

If the Russian pirate, it can be useful through the same Dreambeam to compare, what is different from the release of Echelon. Do not forget that Russian pirates could cram in images of unnecessary garbage at 60% of the size, as in Quake1 from Kudos.

If you do not know, then the games on the Dreamcast came out on disks larger in volume than conventional CD-ROM (Compact Disc Read-Only Memory) and protected. Hence all the problems with rebuilding.

In 85% of the games, all the “defense” is removed easily through hack4 and binhack, inherited from Echelon. At the expense of hack4 not sure from whom, but not the point. These programs are used by this script, it is not necessary to delve into it.

Games with particularly tricky copy protection can cause problems. For example, the developers of Dead or Alive 2 scored GD-ROM to capacity with debris and put a check on the size of the files so that they would not fit on a 700-MB CD-ROM.

GDI images are a copy of the original GD-ROM (Gigabyte Disc read-only memory), but not always. In CDI, “protection” is usually dropped, so to speak. If not removed, the image will not boot without a boot disk (Utopia Boot CD).

Since they learned to reassemble GDI, there is no guarantee that every GDI downloaded from the network is a quality standard. Download TOSEC romset, not anything.

You can rebuild the GDI image, but it’s difficult and you won’t be able to launch it on the Dreamcast without additional lotions for ~ \$ 100.

The CDI image will run without problems up to 2GB. On emulators and Dreamcast with the same additional pribluda (Gdemu). Is it worth your while to compress the data in standard 700MB for “beggars” drimers that are still recording games on regular discs (in 2018)?

As in my opinion, the image under 700MB is absolutely not lamp-like, but most people still play on emulators and do not care how to burn to a regular CD-ROM.



















But shrinking 1GB of data in 700MB is an art and greatly slows down the translation process. It is better to do then on the basis of 700Mb releases from Echelon. Of course, newer releases from scenes may be better, but it may be more difficult to work with them. There may be different tricks.

### **Audio formats, graphics and textures**

I recommend going over the Shengue translation to ZOG and see these programs  
<https://yadi.sk/d/c4vS0PrYDPy8Ww>














Файлы > Dreamcast >

## ← **shenmue I and II (2018) tools** ⋮

	disk_5b7bc90e.tad_textures.7z	 36	 8
	pvr-pack-for-shenmuehd-20180913.7z	 55	 2
	shenmue-I-and-II-(2018)-audio_rus(Kudos).7z	 569	 186
	shenmuehd2018-audiotools-pack-20180911.7z	 325	 7
	shextrct-20180921.zip	 11	 2
	sub mods.zip	 33	 26

The rest of the programs can be found here <https://yadi.sk/d/DwQLOpQSjqs2S> (if the link is alive)

## ← tools :

	AFS		
	АНХ [для Shenmue и прочего. Файлы озвучки в нём, в основном]	 1	 2
	CDI tools	 0	 2
	SFD		
	Chankast EX 1.4.5.7z		
	Vmsbrowser.7z		
	pvrext-extended-20161112.7z	 10	 5




Since Sega provided devkit and Katana SDK or WinCE SDK to developers of games, most developers did not disdain to use them in full, without inventing their bike. However, "cyclists" are found everywhere. For example, developed Alone in the Dark 4 licensed tools from 4XM or whatever-they-right.

It is logical to arm yourself with the developer's kit, programs from the Katana SDK, if any problems with the compatibility of formats suddenly emerge. Progress in place is not worth it .. Dreamcast died, but the development of these formats of graphics and audio continued and did not always remain compatible with the Dreamcast.

So, the most common format of archives on the Dreamcast is AFS. Be careful, the format has several versions, there may be a problem with some games. A good program for unpacking is Puyo Puyo Tools. For packaging, you can use it, if the archives are small. If a lot, then you need a "typrogrammer" and console programs from the CRI SDK.

It is possible and to take from Katana SDK, so even more reliably.

## ← AFS :

	AFSexplorer_3.7 [распаковывает, но умеет не все версии AFS].7z	02.08.2015
	AfsLink_1.08 [для создания AFS ...овместимо со старыми играми.].7z	15.10.2016
	DkZStudio_09 [любой AFS открыва...ет, громоздкая и навязчивая].rar	02.08.2015

The main format for audio files is ADX. The best programs are in the CRI SDK. Ffmpeg can now play ADX and convert. There should be no problem converting ADX back to the desired format. Back better through the official program of CRI. Audacity with the FFMPEG plugin can open ADX for editing, like many other formats, like from Shenmue for a computer or Skyrim.

You can even play ADX in AIMP, if necessary. Not very stable before it was, but tolerable. Winamp plugin works there. It is believed that the sound will not work.

Voice acting is often in AHX 16kHz, this is all included in the prog set from the format developer, even left the option of compatibility with the Dreamcast. Sometimes the voice acting is shoved in yamaha adpcm. For him, too, there are encoders and decoders, with this there should be no problems.

In homebrew games, now sound is considered a sound in the ogg vorbis format of a low bitrate. On KallistiOS, any format can be used.

The main texture format is PVR. The format has changed, its latest versions are not compatible with the Dreamcast and are designed for mobile phones. Use old plugin for 32-bit photoshop.

It is possible without Photoshop, there are converters. If you are not a noob, then convert with a simple script or from the console. The main thing is not to forget that in some games a “sequence number” of texture (GBIX / Global Index) is used and it needs to be saved.

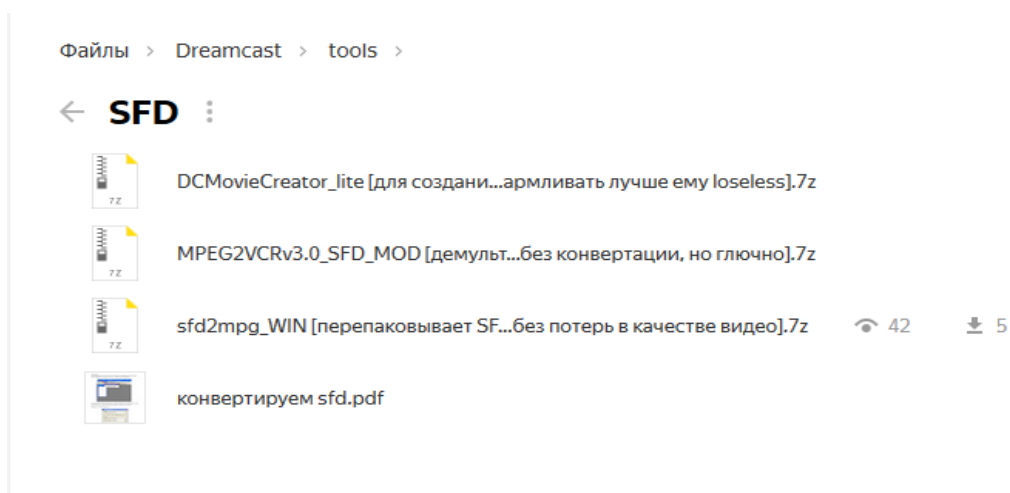
There are no normal PVR viewers so that it is directly as convenient as in some FastStone Image Viewer. To do this, all the textures can be converted to PNG. In my opinion, this is most convenient.

Often textures can be mirrored, then they can be rotated in the same FastStone Image Viewer.

Progs for the mass processing of PVR in PNG are on the links that I gave above. At Shenmue Dojo you can search, there was something unique.

The video format is usually SFD. This is almost the same as MPEG1, but with ADX audio and slightly simplified. SFD will even open in programs that can work with MPEG1.

I already wrote once many years ago instructions, since then nothing has changed. Everything is with the program for working with SFD. The main thing is not to reinvent the wheel and know that everything is in a fairly convenient form.



I will not focus on how to make a hardsub and convert to SFD. Work with video is not the topic of this manual.

In short, we convert SFD to MPEG1 (it would be reasonable to save audio to sfa so that the quality does not suffer). MPEG1 is editable in some Magix Vegas or VirtualDub and saved to non-preserved AVI. We are trying to convert it to SFD through DCMovieCreator (sometimes crashes), we connect the soundtrack separately with the one that was saved. Hardsab can be applied in Vegas or VirtualDub (with plugins) + AegiSub

What to do if the game does not use standard Dreamcast formats? The same as always. Who said it would be easy?

For example, for Half-Life on the Dreamcast, the formats are rather non-standard, but almost the same as the version on the PC. And for the rest of the software was adapted from the PC version.

Usually non-standard formats in the ports of games with a PlayStation1 or computer. If the game was developed for the Dreamcast, then it is all standard. You need to look for programs for a particular game and, if necessary, adapt them to the port on the Dreamcast. It can be compatible if lucky.



In the same Half-Life, both PVR and normal Half-Life textures are used, preserving transparency. Some programs for HL still open such archives, although many do not. Developers did not always bother with PVR textures, if they knew that there would be enough RAM for PNG. As I recall, in some of the Resident Evil is the usual PNG pictures.

Where to look for the font? You should always start with 1ST\_READ.BIN, where it is most often.

And look for textures with text on all files, setting one of their progs designed for this purpose on them. See in the archive with the prog for Shenmou 2018 on the PC, there are also PVR textures.

How to contact:

On **dc4you.ru** about selfboot ask somewhere here: <http://www.dc4you.ru/post7831.html>  
[RU]

Discord channel (Oketado):  
<https://discord.gg/urgzSP> [EN]