

初めてのDOSBox-XインストールとPC-98エミュレーション 2019¹ Beginner for install DOSBox-x and PC-98 emulation.

- 1、自己紹介 Self introduction
- 2、x86 emulation DOSBox,DOSBox-X
- 3、x86 emulation on ARM devices
- 4、Install DOSBox-X
- 5、Boot DOSBox-X on PC/AT an PC-98
- 6、Boot old Touhou(PC-98)
- 7、Boot Mugen(PC/AT)
- 8、Boot JW-CAD(PC/AT)
- 9、Boot FDD and HDD imagefiles
- 10、Install Windows 9x
- 11、Android, iOS(DOSBox)

詳しい話はSlideshareで公開中
[@kapper1224](#)

OSC浜名湖2019 2/10 13:15～
Place:浜松
浜松市市民協働センター 2F ギャラリー

NetBSD+DOSBox-X
+旧作東方体験版 PC-98



This Presentation:
Slideshare & PDF files
publication of my HP
<http://kapper1224.sakura.ne.jp>

ガジェットハッキング
ユーザーグループ(改名)
Speaker : Kapper

自己紹介 Self Introduction

- My name: Kapper
- Twitter account: [@kapper1224](https://twitter.com/kapper1224)
- HP: <http://kapper1224.sakura.ne.jp>
- Slideshare: <http://www.slideshare.net/kapper1224>
- ニコナレ: <http://niconare.nicovideo.jp/users/59379263>
- Facebook: <https://www.facebook.com/kapper1224/>
- My Hobby: Linux, *BSD, and Mobile Devices
- My favorite words: The record than the experiment important
- Test Model: Netwalker(PC-Z1,T1)、Nokia N900、DynabookAZ、RaspberryPi
Nexus7(2012、2013)、Jetson TK-1、OpenPandora、Chromebook、
Fx0 (FirefoxOS)、台湾Android電子辞書 無敵CD-920、CD-928
TW708、GPD-WIN、GPD-Pocket、Windows Tablet
- Recent my Activity:
 - Hacking Linux on Windows10 Tablet (Intel Atom base).
 - Hacking NetBSD on UEFI and Windows Tablet.
 - I have been exhibiting in NT Nagoya and NT Kanazawa.(like MakerFaire)
 - I have over 120 Windows Tablet and 40 ARM Android, and test it now.



x86 Emulation on DOSBox, DOSBox-X³

- DOSBoxとはi386~i586エミュでWindows9xや色々なアプリが動作
DOSBox can operate ~Windows9x in the i386~i586 emulator
- DOSBox-Xは様々な改良を加えPC-98エミュもできる改良版。
DOSBox-X is a fork of the DOSBox, advanced emulations and add PC-98.
- BIOS、ROM、Fonts、DOSをフリーで搭載。追加なしで遊べる。
DOSBox-x have already the BIOS, ROM, Fonts, DOS as the free versions.
- 各種DOSゲームはGOG.comで格安で買えます。(ただし英語版のみ)

DOSBox on Android Wear

https://youtu.be/GZx-LJH5J_I



DOSBox on iOS

https://www.youtube.com/watch?v=ZgX2BkM_6q4



DOSBox on 3DS



x86 Emulations on ARM Devices

VMWare and Virtualbox are not working on ARM devices.(Only x86)

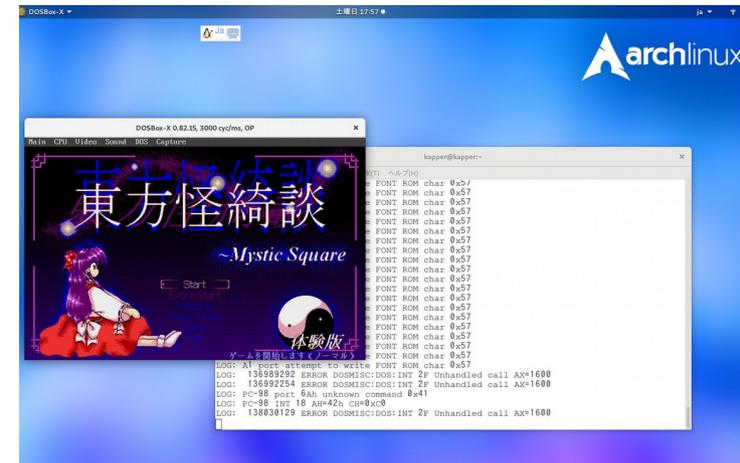
Emulation	OS	Root	Emulated OS	Spec	Comment
Qemu	Linux Android RaspberryPi	No	Windows MacOSX? Linux,*BSD	Slow	Tegra K-1 ⇒Pen II 266MHz Ver1.5~(ARM GUI)
Qemu +Wine	Linux Android RaspberryPi	Required	+Windows APP	Slow	Difficult kernel 3G/1G only chroot environment
Exagear	Linux RaspberryPi	Required	Ubuntu,Debian	Fast	Tegra K-1 ⇒Pen4 1.8GHz
NecoProject 2	Linux RaspberryPi	No	PC-98 Windows	Slow	PC-98 Supports Windows9x Supports
DOSBox	Linux Android RaspberryPi iOS,DS,PSP	No	DOS, WIndows9x (i386~i586)	Slow	Tegra K-1 ⇒Pen II 200MHz NEON Supports Voodoo1+Glide
DOSBox-X	Linux,*BSD Windows Mac	No	DOS,PC-98 WIndows9x (i386~i586)	Slow	DOSBox + PC-98 Supports and the others
Bochs	Linux Android iOS,PSP	No	Windows~XP (i386~x86- 64)Linux,*BSD	Slow	Tegra K-1 ⇒Pen II 266MHz

Install DOSBox-X

- Linux (RPM), Windows, MacOS packages あり
- AUR, NetBSD (pkgsrc-WIP) など
- Ubuntu, Debian aine or build Sourcecode

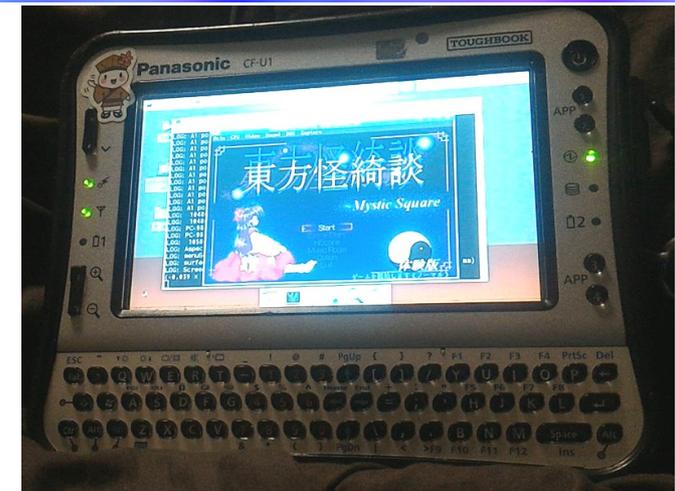
● ArchLinux (AUR)

`aurman -S dosbox-x-git`



● NetBSD (pkgsrc-WIP)

`cd /usr/pkg/wip/dosbox-x`
`make && make install`



Install DOSBox-X

Ubuntu、Debianはalienかソースコードからビルド
DOSBox-X Build from the sourcecode or alien on Ubuntu and Debian.

```
sudo apt build-dep dosbox
```

```
sudo apt install autogen automake
```

```
libavformat-* libswscale-* libavcodec-*
```

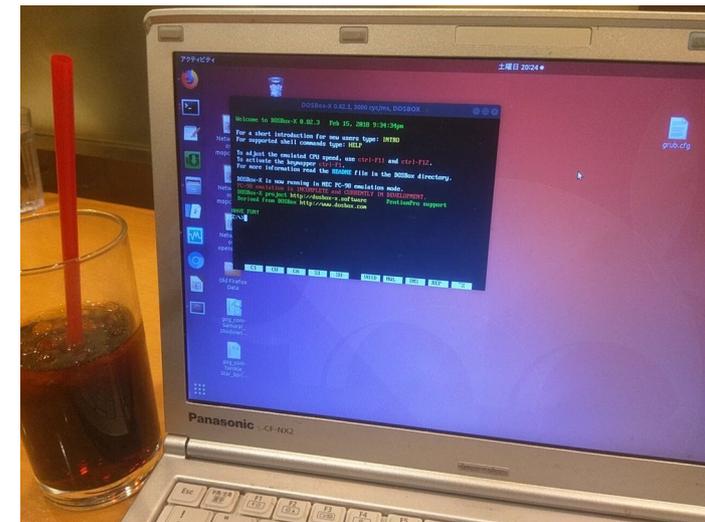
```
./autogen.sh
```

```
./configure -enable-sdl2
```

```
make
```

```
sudo make install
```

←Github開発版は
./build-debug



起動するとこんな画面。

Boot DOSBox-X

The Screen after Dosbox-x booted

←CPU命令数 cycles、Flameskip

DOSBox-X 0.82.15, 3000 cyc/ms, DOSBOX

Main CPU Video Sound DOS Capture

Welcome to DOSBox-X 0.82.15 (SDL1) Jan 1, 2019 11:57:19am

For a short introduction for new users type: **INTRO**

For supported shell commands type: **HELP**

To adjust the emulated CPU speed, use **host -** and **host +**.

To activate the keymapper **host+m**. Host key is F11.

For more information read the **README** file in the DOSBox directory.

DOSBox-X project <http://dosbox-x.software> PentiumPro support

Derived from DOSBox <http://www.dosbox.com>

HAVE FUN!

Z:\>SET BLASTER=A220 I7 D1 H5 T6

Z:\>_

←解説

←explanation

←コマンド説明

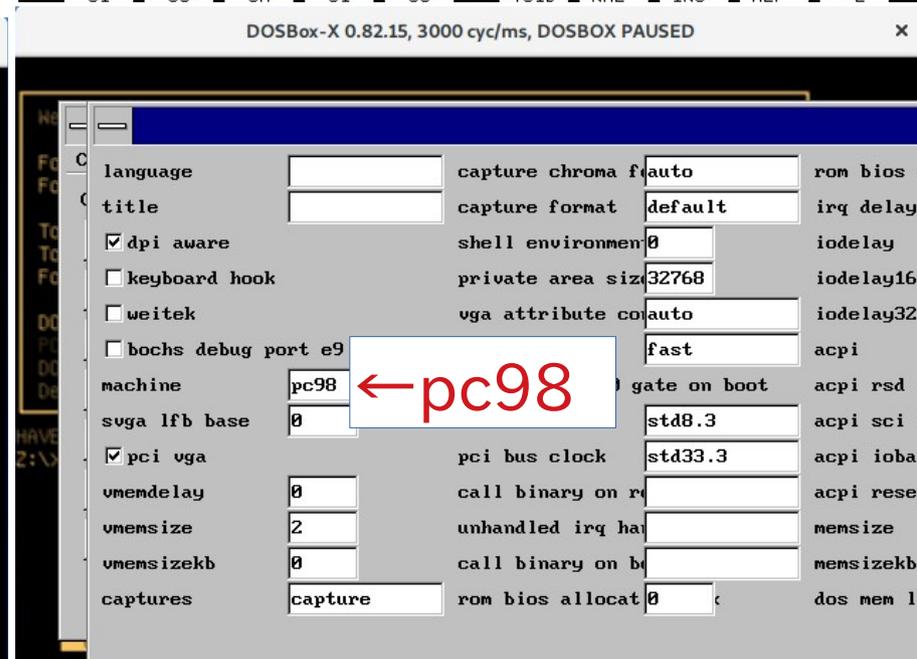
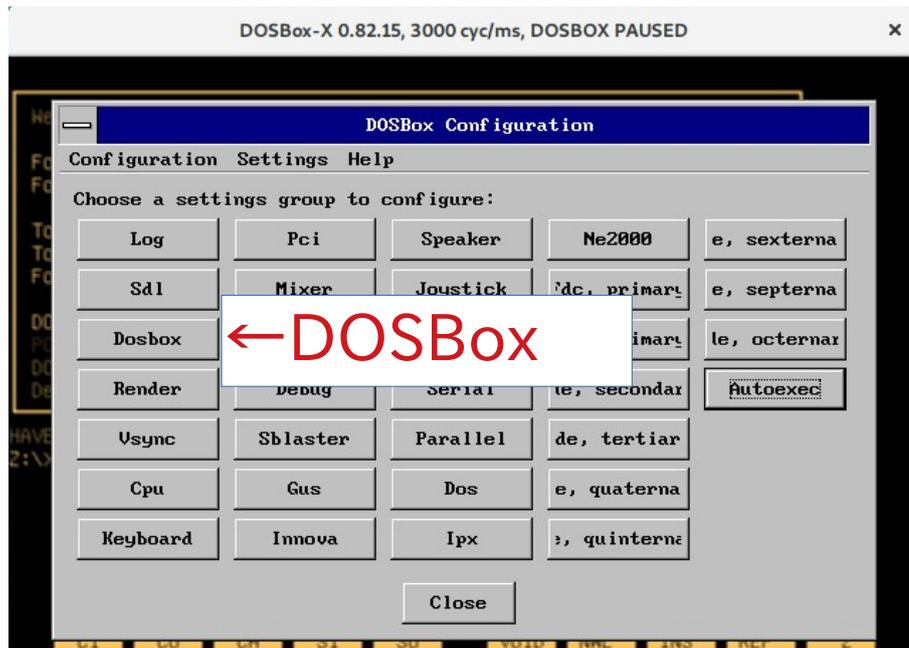
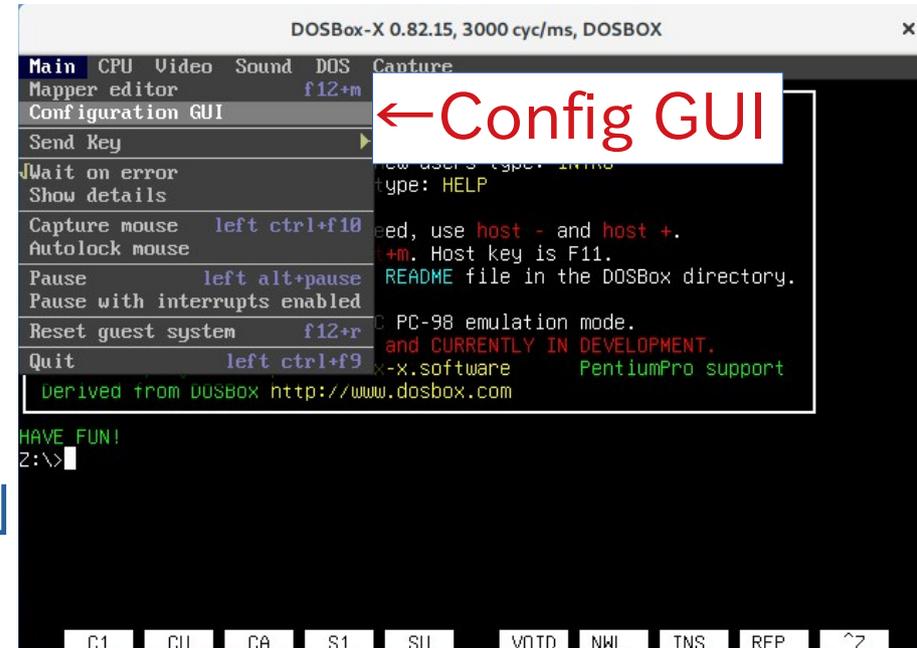
Command

←起動ドライブZ(作業用)

Boot drive Z

Boot DOSBox-X on PC-98 mode

- GUI設定画面を出して、Machineをpc98 (小文字)へ変更
Change「machine=pc98」
- もしくはdosbox.confを作成し「machine=pc98」を追加し保存
Add dosbox.conf「machine=pc98」



Boot Old Touhou(PC-98 emulations)

- 東方体験版をダウンロード

Download Old Touhou

<http://www.kt.rim.or.jp/~aotaka/am/get.htm>

- DOSBox-Xを起動しHDDをCドライブでマウントし起動

Boot DOSBox-X and mount HDD

ダウンロード

東方封魔録 CanBe用パッチ	1998-08-21	18,489Bytes	※自己解凍(自動)
東方怪綺談1.00→1.01差分 得点アイテムを1ステージ内で256以上取ると0に戻る不具合等を修正	1999-02-11	63,793Bytes	※要LHA
東方封魔録 (体験版2)	1997-08-22	408,006Bytes	※要LHA
東方夢時空 (体験版2)	1998-08-21	580,132Bytes	※自己解凍(自動)
東方幻想郷 (体験版)	1998-07-02	597,930Bytes	※自己解凍(自動)
東方怪綺談 (体験版)	1998-11-21	622,695Bytes	※自己解凍(自動)

→ VECTOR トップページ
→ 同サイト内の LHa のページ

```
DOSBox-X 0.82.15, 3000 cyc/ms, COMMAND
Main CPU Video Sound DOS Capture
Welcome to DOSBox-X 0.82.15 SDL1
For a short introduction for new users type: INTRO
For supported shell commands type: HELP
To adjust the emulated CPU speed, use host - and host +.
To activate the keymapper host+m. Host key is F11.
For more information read the README file in the DOSBox directory.
DOSBox-X is now running in NEC PC-98 emulation mode.
PC-98 emulation is INCOMPLETE and CURRENTLY IN DEVELOPMENT.
DOSBox-X project http://dosbox-x.software PentiumPro support
Derived from DOSBox http://www.dosbox.com
HAVE FUN!
Z:\>mount c /home/kapper
Drive C is mounted as local directory /home/kapper/
Z:\>c:
C:\>cd DOWNLOAD\TOUHOU
C:\DOWNLOAD\TOUHOU>GAME.BAT
```

- DOSBox-Xでダウンロードしたファイルを自己解凍、実行

- mount c /home/(username)

c:

cd Touhou(←folder name)

gen_ts1.exe

- game.bat

```
DOSBox-X 0.82.15, 3000 cyc/ms, GEN_TS1
Main CPU Video Sound DOS Capture
東方幻想郷 .....
C:\DOWNLOAD\TOUHOUS>GEN_TS1.EXE
LHA's SFX 2.54 S (c) Yoshi, 1992
【 東方幻想郷 体験版 1998-7-02ver 】
▼ NEC PC-9800シリーズ (いわゆる98)
  エアソンPCシリーズ (いわゆる国民機) 専用です。
▼ 詳細はアミューズメントメーカーズのウェブページまで。
  ホームページ: http://www.kt.rim.or.jp/~aotaka/AM/
  質問・通販等: aotaka@kt.rim.or.jp
▼ 平成10(1998)年8月14日 コミケット54 第一日目
  東与地区「マ-10a」東京電機大学AmusementMakers
  で新発売予定ですのでよろしくお願ひします！
東方幻想郷 体験版 を本ディレクトリーに解凍します [Y/N]
```



MUGEN(PC/AT) on DOSBox

- HDDをマウント(好きなディレクトリを指定) `mount on storages.`
`mount c /home/~`
`cd c:`
 もしくは端末から、`on terminals`
`dosbox /home/(user)/(folder)/`
- CWDPMI.EXEを同じフォルダに置いて実行 `CWDPMI.EXE on MUGEN`
`MUGEN.EXE` (～.EXEか～.bat、～.comファイル)

The image shows a DOSBox terminal window on the left and the MUGEN menu on the right. The terminal window displays the following commands and their outputs:

```

DOSBox SVN, CPU speed: 70000 cycles, Frameskip 0, Program: DOSBO
For more information read the README file in the DOSBox directory.
HAVE FUN!
The DOSBox Team http://www.dosbox.com

Z:\>SET BLASTER=A220 I7 D1 H5 T6
Z:\>mount c /home/kapper1224
Drive C is mounted as local directory /home/kapper1224/

Z:\>c:
C:\>cd DOSBOX2\MUGEN\
C:\DOSBOX2\MUGEN>dir /w
Directory of C:\DOSBOX2\MUGEN\
[.]          [..]          [CHARS]       [DATA]        [DOCS]
[FONT]       [SOUND]      [STAGES]     CWDPMI.EXE   MUGEN.EXE
MUGENFAQ.TXT README.TXT    UPDATES.TXT
  5 File(s)   608,961 Bytes.
  8 Dir(s)    262,144,000 Bytes free.

C:\DOSBOX2\MUGEN>cycles=70000
C:\DOSBOX2\MUGEN>MUGEN.EXE_
  
```

Annotations on the terminal window:

- ←HDD mount (points to `mount c /home/kapper1224`)
- ←Change C drive (points to `c:`)
- ←Change folder (points to `cd DOSBOX2\MUGEN\`)
- ↑ CWDPMI.EXEを同じフォルダに (points to `CWDPMI.EXE` in the directory listing)
- ←Change Cycles数変更 (points to `cycles=70000`)
- ←MUGEN.EXE (points to `MUGEN.EXE_`)

The MUGEN menu on the right shows the title "M.U.G.E.N." and the following options:

- TEAM ARCADE
- TEAM VS
- TEAM CO-OP
- TRAINING
- WATCH
- OPTIONS

At the bottom of the MUGEN menu, it says "BETA 2001.04.14" and "PRESS F1 FOR INFO".

DOS/V版JW-CADを使う

- PC/ATモードで日本語化すればJW-CAD (DOS/V) 版は動きます
- 設定が長いので箇条書きで。詳しくはブログなどでご紹介。
- DOSBox-Xの日本語化
DISPVをダウンロード
フォントドライバFONTNをダウンロード
日本語フォントの平木敬太郎フォントをダウンロード
日本語と英語を切り替えるのに使うCHEJをダウンロード
FONT.INIを作成し平木敬太郎フォントを設定
dosbox.confの[autoexec]に書き込んで保存
- [autoexec]
mount c /home/(ユーザー名)
c:
¥fontn¥fontnx /P=c:¥font¥
¥dispv¥dispvb
¥chej¥chej jp
¥dispv¥vmx 70
- DOSBox-Xを起動してJW-CADを起動。
フォントと日本語設定が間違っていると何も表示されないので修正しましょう。



Mount FDD image and boot

- HDDからFDIイメージをマウント(好きなディレクトリを指定)
Mount FDI image on HDD and boot a drive.
0 = A drive(FDD), 1 = B drive(FDD), 2 = C drive(HDD)

```
imgmount 0 /home/~/(Filename).FDI -fs none
boot -l a
```

```
To adjust the emulated CPU speed, use host+ and host-.
To activate the keymapper host+m. Host key is F11.
For more information read the README file in the DOSBox directory.
```

```
DOSBox-X is now running in NEC PC-98 emulation mode.
PC-98 emulation is INCOMPLETE and CURRENTLY IN DEVELOPMENT.
DOSBox-X project http://dosbox-x.software      PentiumPro support
Derived from DOSBox http://www.dosbox.com
```

HAVE FUN!

```
Z:\>imgmount 0 /home/kapper/PC-98ta/PC98a.FDI -fs none
Drive number 0 mounted as /home/kapper/PC-98ta/PC98a.FDI
```

←FDIイメージを
0=Aドライブにマウント
Mount A drive=0

```
Z:\>boot -l a ■ ←Aドライブから再起動
Reboot A drive
```

C1

CU

CA

S1

SU

VOID

NWL

INS

REP

^Z

Mount HDD image and boot

- HDDからHDIイメージをマウント(好きなディレクトリを指定)
Mount HDI image on HDD and boot a drive.
0 = A drive(FDD), 1 = B drive(FDD), 2 = C drive(HDD)

```
imgmount 2 /home/~/(Filename).HDI -fs none
boot -l c
```

```
To adjust the emulated CPU speed, use host+s and host+r.
To activate the keymapper host+m. Host key is F11.
For more information read the README file in the DOSBox directory.
```

```
DOSBox-X is now running in NEC PC-98 emulation mode.
PC-98 emulation is INCOMPLETE and CURRENTLY IN DEVELOPMENT.
DOSBox-X project http://dosbox-x.software PentiumPro support
Derived from DOSBox http://www.dosbox.com
```

HAVE FUN!

```
Z:\>imgmount 2 /home/kapper/HDD/HDD.hdi -fs none
Drive number 2 mounted as /home/kapper/HDD/HDD.hdi
```

```
Z:\>boot -l c
Reboot C drive
```

←HDIイメージを
2=Cドライブにマウント
Mount C drive=2

C1

CU

CA

S1

SU

VOID

NWL

INS

REP

^Z

MSDOSのFreewareをダウンロード

Download MSDOS Freeware

- MSDOSのGame Freeware、Shareware、Demoを集めた合法サイト
MSDOS Game freeware
<http://www.dosgamesarchive.com/>

- MSDOSの究極のアプリを集めたリンク集2015年
Links DOS applications
<http://dosprograms.info.tt/>

DOS GAMES ARCHIVE
WWW.DOSGAMESARCHIVE.COM

HOME PAGE | GAMES | SCREENSHOT GALLERY | CHEATS | HELP | NEWSLETTER | FORUM
CONTACT | LINKS | Developers and publishers | Online games | Statistics | Suggest a game

SEARCH

GAMES

- By alphabet
- By downloads
- By rating
- Buy DOS games
- Online games

CATEGORIES

- 3D Shooting
- Action
- Adventure
- Ball and paddle
- Classic
- Fighting
- Managerial
- Miscellaneous
- Platform
- Puzzle
- Racing
- Real-Time Strategy
- RPG
- Shoot 'em up
- Simulation
- Sport
- Traditional
- Turn-Based Strategy

FILE TYPES

Download free classic games on DOS Games Archive

It's amazing how far computer games have progressed. But have you ever felt the urge to take a trip back in time and relive the games of the eighties and nineties? Well now you can!

We have **500 DOS games** in our archive that can be downloaded for free. These games are shareware, freeware, playable demos and full versions which are released as freeware or into the public domain. Our downloads don't contain any adware, malware, viruses or other unwanted software.

Also follow DOS Games Archive on [Facebook](#) and [Twitter](#).

Ads by Google

Download Full Game
Free to Download PC Ga
Free Strategy Games

WARCRAFT: ORCS & HUMANS

Category: Real-Time Strategy
Year: 1994
Developer: Blizzard Entertainment
Publishers: Blizzard Entertainment
File types: Playable demo, Shareware

Recently added DOS games

MegaRace
Category: Racing
File type: Full version
Year: 1993

M.A.X.: Mechanized Assault & Exploration
Category: Turn-Based

Interesting DOS programs

Now at <http://dosprograms.info.tt/>! Please update your bookmarks!

Here are several links to various DOS software and other DOS related websites. Most are freeware but a few are shareware and commercial programs. I welcome any comments and/or suggestions you may have about this webpage or other DOS programs for me to know about. Also, do email a thank you to the authors of any of the programs you use.

If you like to see Interesting Windows and Mac programs similar to this page, visit my computer user group, the [Trinidad and Tobago Computer Society](#)

View all of the DOS programs on one webpage: [Interesting DOS programs - Full index](#) (note: size of page is about 50K)

Comments? My E-mail address: Dev Anand Teelucksingh, devtee at gmail.com

After nearly 20 years, Interesting DOS programs is moving from <http://www.opus.co.tt/dave/> to <http://dosprograms.info.tt/>! Please update your bookmarks!

Last updated: August 2 2018

New/Updated | [Sound](#) | [Graphics](#) | [Utilities](#) | [Applications](#) | [Internet](#) | [Programming](#) | [Other DOSes](#) | [Links](#)

New/Updated Links (updated August 2 2018)

- [Simtel.net archive](#) An archive of the Simtel.net LARGE well known collection of DOS freeware, public domain and shareware programs
- [DOS Games](#) Listing of many FREE Games (with descriptions) for DOS! Recently redesigned and with the ability to play many DOS games in your (modern) browser
- [Mpxplay v1.62](#) MP3,OGG,WAV,AAC,FLAC, WMA, MPC,AC3 player with integrated file browser, spectrum analyser and other features.
- [DOSMid 0.9.3](#) DOSMid is a text mode MIDI and MUS player for DOS that can run on a 8086 CPU
- [Savepart v4.50](#) save entire or occupied portion of a hard drive partition (FAT16/32,ext2,ext3,NTFS) into a file for easy backup and restoration
- [Image v3.21](#) Disk image backup and restore program. Supports FAT, FAT32, NTFS partitions and most writable USB, IEEE1394 drives, ATAPI CD/DVD drives without special drivers. Shareware
- [WCD 6.0.2](#) Wherever Change Directory allows you to change to any directory by typing part of a directory name

New/Updated Links (updated January 3 2018)

- [DOSMid 0.9.2](#) DOSMid is a text mode MIDI and MUS player for DOS that can run on a 8086 CPU
- [Savepart v4.40](#) save entire or occupied portion of a hard drive partition (FAT16/32,ext2,ext3,NTFS) into a file for easy backup and restoration
- [Image v3.15](#) Disk image backup and restore program. Supports FAT, FAT32, NTFS partitions and most writable USB, IEEE1394 drives, ATAPI CD/DVD drives without special drivers. Shareware
- [WCD 6.0.1](#) Wherever Change Directory allows you to change to any directory by typing part of a directory name
- [uHex 1.04](#) Simple and fast hex editor for DOS
- [PWIZARD 17.308](#) Free, multi-platform HTML Preprocessor. Requires free [Regina](#) REXX interpreter. I use this to generate this site
- [Free Pascal v3.0.4](#) 32 bit compiler for DOS, Linux, Win32 and other platforms. Semantically equivalent to TP 7.0
- [V8Power Tools for DOS v17.07.31](#) variety of tools to use in your batch files

Autoexec.batにコマンドを追記

Add autoexec.bat and boot command

- mountコマンドとか毎回入力するのが面倒なので autoexec.batに書き込んで起動時に実行させる
Boot DOS command on autoexec.bat
- dosbox.confのautoexecに実行させるコマンドを追加
Add commands autoexec on dosbox.conf

```
xms=true
ems=true
umb=true
keyboardlayout=auto

[ipx]
# ipx: Enable ipx over UDP/IP emulation.

ipx=false

[autoexec]
# Lines in this section will be run at startup.
# You can put your MOUNT lines here.
```

```
mount c /home/kapper1224
```

←コマンドを追加

add autoexec.bat command

Windows9xのインストール

Install Windows9x on DOSBox

- Windows9xをインストールするにはHDDイメージをBochsで作成
Make HDD images on bochs
- DOSBoxではATAPIドライバが対応していないのでCD-ROMブートが出来ない。DiskExprolerでWindows9xファイルを直接コピーしてから実行する必要がある
CD-ROM images can't boot OS on DOSBox. Copy Windows9x file from DiskExproler and boot OS, import the files to FDD or HDD images.

• 必要なもの Necessary

1. **Bochs:** HDDイメージを作るため make HDD images

2. **DOSBox:**

3. **Windows9x CDROM**

4. **Windows98SE FDD images**

FreeDOSのFDDイメージはFDISKとFormatが無いので注意。

No FDISK and Format command on FreeDOS FDD images.

5. **DiskExplorer of loopback images:**

HDDイメージにWindows9xインストールファイルをコピーします。

Copy Windows9x install files from CD images to HDD images.

Windows9xのインストール

Install Windows9x

- HDDイメージファイル作成にはbochsのbximageコマンドを使用
Make HDD imagefiles from bximage command on bochs.

```
(wily)kapper1224@localhost: ~  
ファイル(F) 編集(E) タブ(T) ヘルプ(H)  
=====bximage=====  
Disk Image Creation Tool for Bochs  
$Id: bximage.c 11315 2012-08-05 18:13:38Z vruppert $  
=====  
Do you want to create a floppy disk image or a hard disk image?  
Please type hd or fd. [hd] hd  
←hd:HDD  
What kind of image should I create?  
Please type flat, sparse or growing. [flat] flat  
←flat  
Enter the hard disk size in megabytes, between 1 and 8257535  
[10] 503  
←503: 503MB  
I will create a 'flat' hard disk image with  
cyl=1021  
heads=16  
sectors per track=63  
total sectors=1029168  
total size=502.52 megabytes  
What should I name the image?  
[c.img] hd0.img  
←HDD images names  
Writing: [] Done.  
I wrote 526934016 bytes to hd0.img.  
The following line should appear in your bochsrc:  
ata0-master: type=disk, path="hd0.img", mode=flat, cylinders=1021, heads=16, spt=6  
3
```

Windows9xのインストール

Install Windows9x

- DOSBoxを起動してFDD、HDDイメージをマウント
Mount FDD and HDD Images
- FDDイメージを起動。MS-DOSよりHDDをFDISK、Format
Boot FDD images. FDISK and Format HDD images on MSDOS.
- DiskExploerかLoopMountでWindowsのCD内ファイルをコピー
Copy files from DiskExploer or mount Windows CD-ROM images.

DiskExploer (Wine)

```
Z:\>SET BLASTER=A220 I7 D1 H5 T6
```

```
Z:\>mount x: c:\test\win95 ←mount drives
Drive X is mounted as local directory c:\test\win95\
```

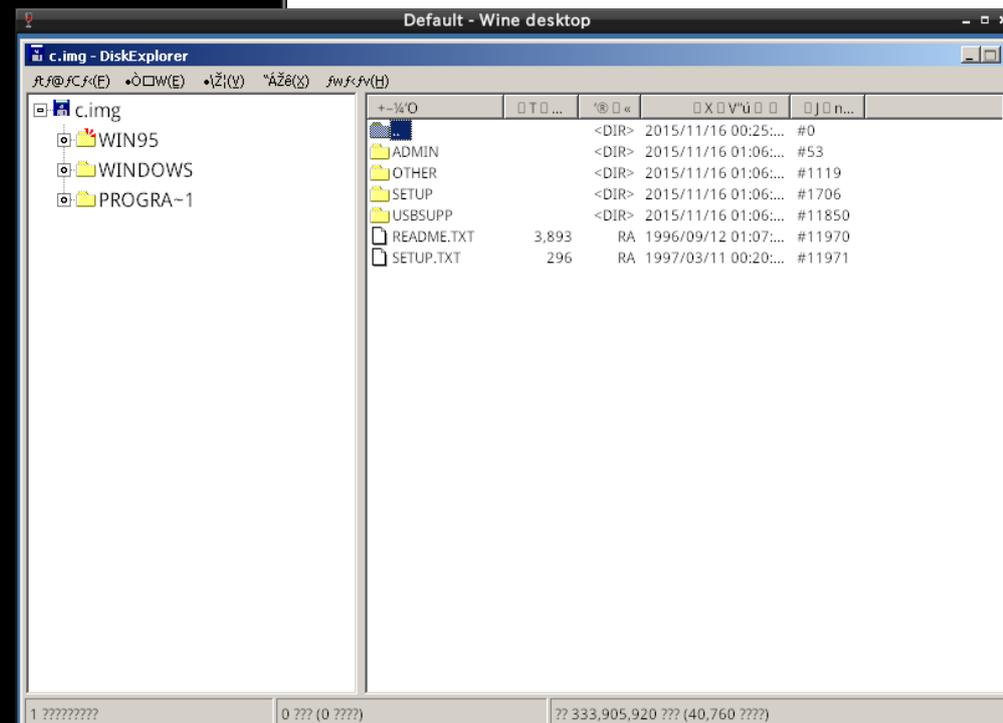
```
Z:\>x: ←C: Change C drives
```

```
X:\>imgmount 2 x:\hd0.img -size 512,63,16,1021 -fs none
Drive number 2 mounted as c:\test\win95\hd0.img
←Mount HDD images
```

```
X:\>imgmount 3 x:\hd1.img -size 512,63,16,1021 -fs none
Drive number 3 mounted as c:\test\win95\hd1.img
```

```
X:\>boot x:\w95boot.img ←Boot FDD images
Opening image file: x:\w95boot.img
Booting from drive A...
Starting Windows 95...
```

```
A:\>fdisk_ ←FDISK HDD images
```



Windows9xのインストール

Install Windows9x

- dosbox.confを編集 Change dosbox.conf

「machine=svga_s3」⇒「machine=vgaonly」

「memsize=16」⇒「memsize=31」

「cputype=auto」⇒「cputype=pentium_slow」

「cycles=auto」⇒「cycles=36000」

保存して再びDOSBox起動。

Save it and reboot DOSBox

Emulations Speed (Cycles)

Emulate CPU	Cycles
8088 4.77 MHz	315
286 12.5MHz	2750
Default	3000
386 33MHz	7800
486 66MHz	26800
Pentium 100MHz	77000
Penitum II 300MHz	200000

dosbox.conf

```
#
```

There is generally no speed

```
language=
#machine=svga_s3
machine=vgaonly
captures=capture
memsize=31
```

←Change VGA only
(多分svga_s3でも問題なし)

←Change Memory
(多分問題なし)

Windows9xのインストール

Install Windows9x



- cycles=36000でCPU処理速度を変更
Change 「cycles=36000」
- MountしてFDDイメージから起動
Mount FDD images and boot it
- Windows9xのSetupプログラムを起動
Boot Setup.exe (Windows9x)

```
For a short introduction for new users type: INTRO
For supported shell commands type: HELP

To adjust the emulated CPU speed, use ctrl-F11 and ctrl-F12.
To activate the keymapper ctrl-F1.
For more information read the README file in the DOSBox

HAVE FUN!
The DOSBox Team http://www.dosbox.com
```

```
Preparing to start...
This may take a few minutes. Please wait...

The diagnostic tools were successfully loaded to drive
To get help, type HELP and press ENTER.
```

A:\>c: ←Change C Drives

C:\>cd win95

C:\WIN95>cd setup

C:\WIN95\SETUP>setup.exe

←Boot Setup.exe

```
Z:\>SET BLASTER=A220 I7 D1 H5 T6
```

Z:\>cycles=36000 ←Change Cycles

Z:\>mount c /home/kapper1224 ←Mount

```
Drive C is mounted as local directory /home/kapper1224/
```

Z:\>c: ←Change C drives

C:\>imgmount 2 c.img -size 512,63,16 -fs none ←Mount HDD images

C:\>boot WINDOW~1.IMG_ ← Boot FDD images



Windows9xのインストール

Install Windows9x

21

- インストールが終了したら、DOSBoxを再起動 Reboot DOSBox
- imgmountでHDDイメージをマウント mount HDD on imgmount
- **boot -l c** でマウントしたHDDイメージを起動 boot 「boot -l c」

DOSBox SVN, CPU speed: 3000 cycles, Frameskip 0, Program: BOOT

Welcome to DOSBox SVN

For a short introduction for new users type: **INTRO**
For supported shell commands type: **HELP**

To adjust the emulated CPU speed, use **ctrl-F11** and **ctrl-F12**
To activate the keymapper **ctrl-F1**.
For more information read the **README** file in the DOSBox directory.

HAVE FUN!
The DOSBox Team <http://www.dosbox.com>

Z:\>SET BLASTER=A220 I7 D1 H5 T6

Z:\>imgmount c /home/kapper1224/c.img
Drive C is mounted as /home/kapper1224/c.img

Z:\>boot -l c

↑ mount HDD images

↑ Boot HDD images

DOSBox SVN, CPU speed: 60000 cycles, Frameskip 0, Program: BOOT

Welcome

Welcome to Windows 95

Did you know...

You can find many interesting programs by clicking the Start button, pointing to Programs, and then pointing to Accessories.

Show this Welcome Screen next time you start Windows

Windows Tour
What's New
Online Registration
Product Catalog
Next Tip
Close

Start Welcome 9:02 PM

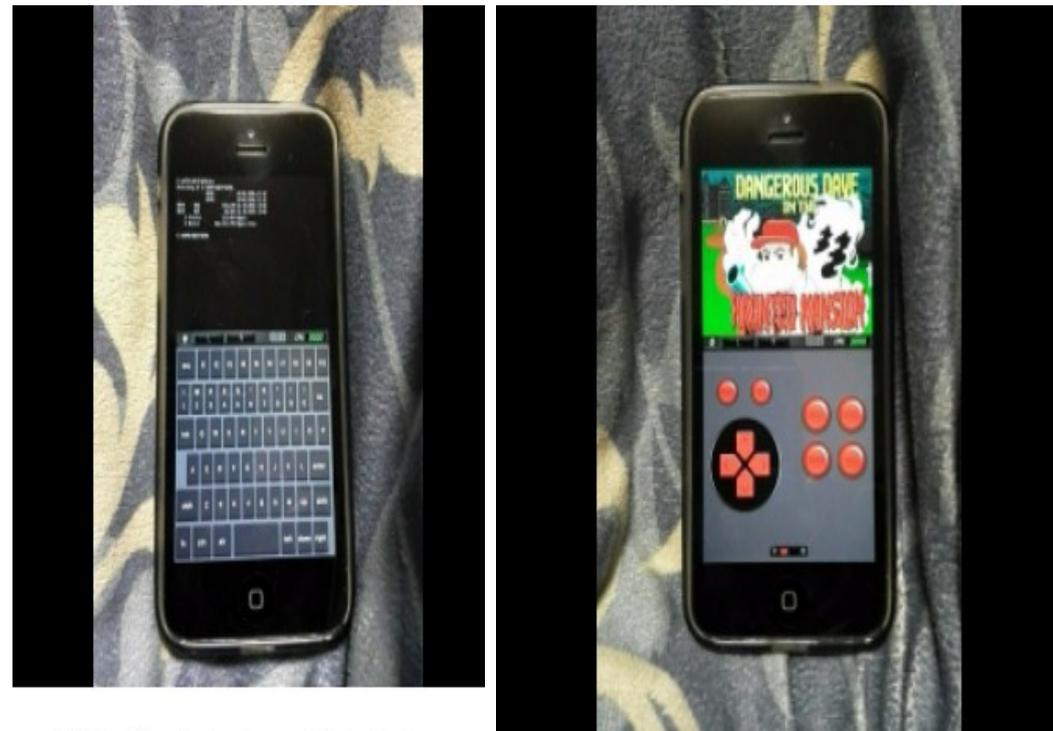
android版とiOS版DOSBox

- AndroidやiOSでも同じ様にDOSBoxが使えます。機種を選びません。これが一番の長所です。
DOSBox can play Android and iOS.(But DOSBox-X is no forked now...)
- 色々な機種やOSでDOSBoxを動かして、DOSやWindows9xを是非動かしてみましよう
Let's Play DOS and Windows9x on DOSBox on any platformes.

Android DOSBox Turbo



iOS iDOS



Known issues

- DOSBox can't boot ISO images?
→Please boot FDD or HDD images.
- DOSBox can boot FAT12,16,32 formatted images only?
Not boot it on NTFS and the others (like Linux and NetBSD...)
→Windows2000 can boot FAT32 images and force install it?
- DOSBox-X is not ported on Android and iOS (Desktop only)
- FMTowns and the other platforms are not merges.
→Please someone merges it...
- DOSBox has noizy sounds on NetBSD...
→I don't know it. Maybe the reason is the OSS driver? I think.
- Mount FDD,HDD images are commandline only.
- DOSBox is too slow VMware, Virtualbox, Qemu KVM.(x86)