

How to create a bootable DOS USB drive

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Booting DOS from a USB drive can be useful for applying BIOS updates, firmware-updating utilities, and other low-level system tools, in our case HDAT2.

It was usually run from a floppy disk, but most computers do not have floppy disk drives anymore.

To create a bootable USB DOS disk, you need a third party utility to perform that task. For example

Rufus

Ventoy

HP USB Disk Storage Format Tool

PowerISO

In this tutorial, you will learn how to create a DOS bootable USB disk by using the Rufus and the Ventoy tools in Windows.

Note that this process will erase the contents of your USB drive, so make sure you have backed up any important files on the USB drive first.

Booting to the USB DOS drive, it is necessary in BIOS to enable CSM / legacy boot mode instead of UEFI.

Rufus utility

Do not use HDAT2 CD ISO/IMG files for Rufus, it cannot work with them.

The easiest method is to create a DOS boot disk with a single EXE file.

The requirements to download:

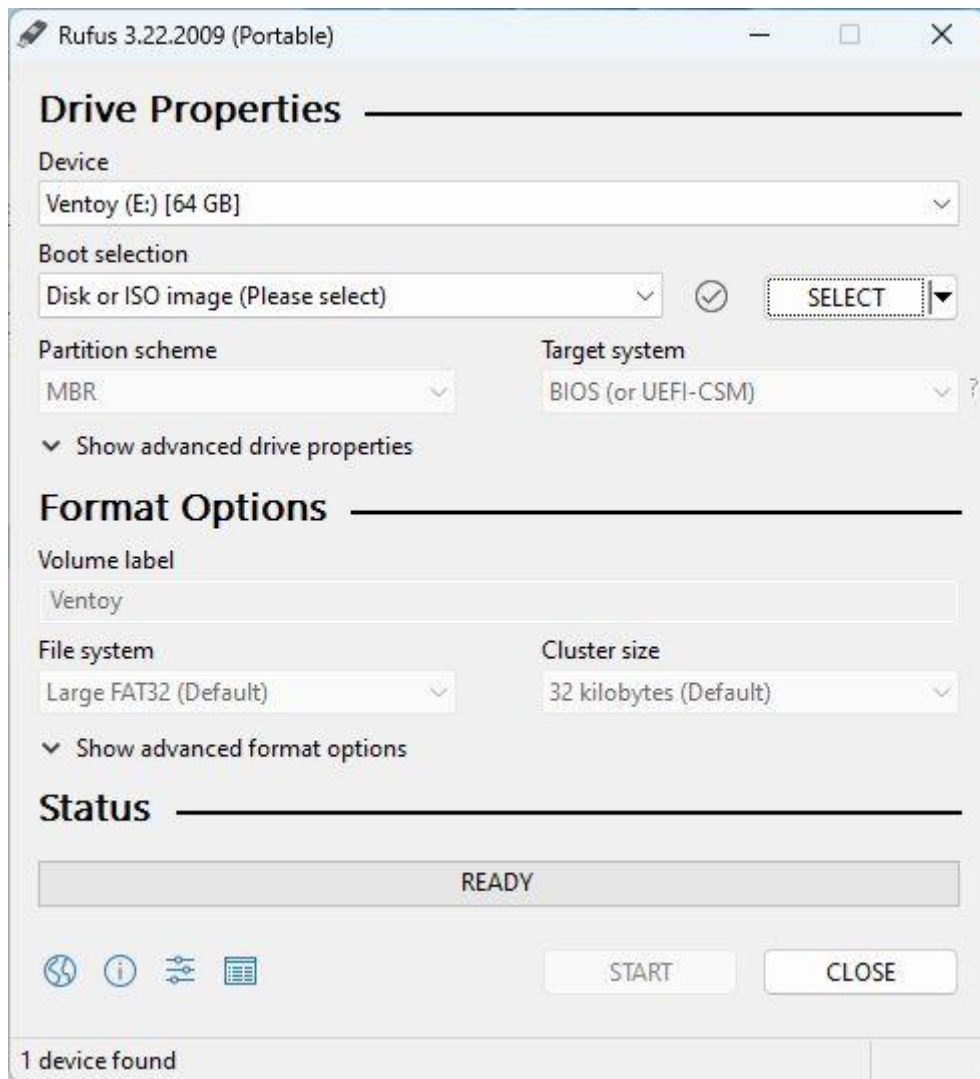
Rufus (<https://rufus.ie/en/>)

HDAT2_75.EXE (<https://hdat2.com/download.html>)

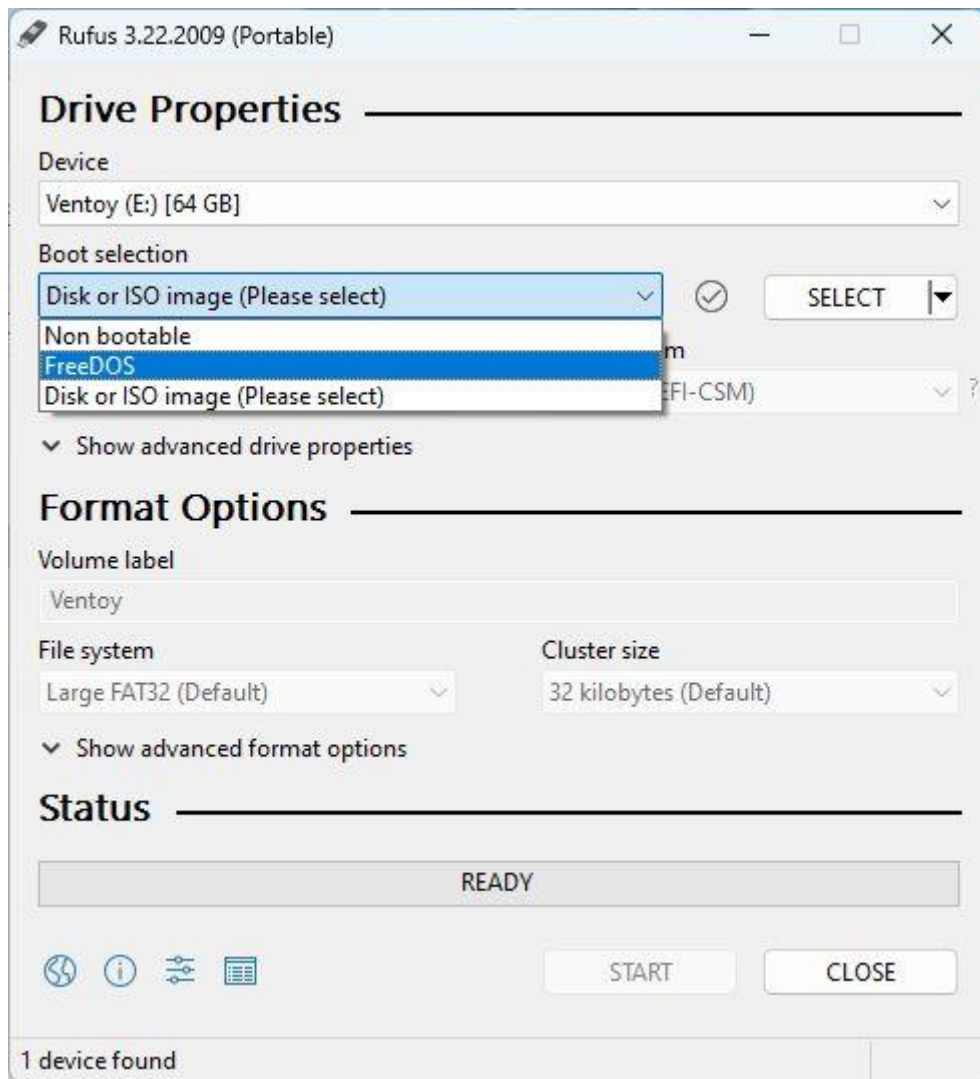
First, download Rufus and launch it. Rufus is a portable application that does not require any installation.

The USB drive will be formatted and all the data will be lost after install!

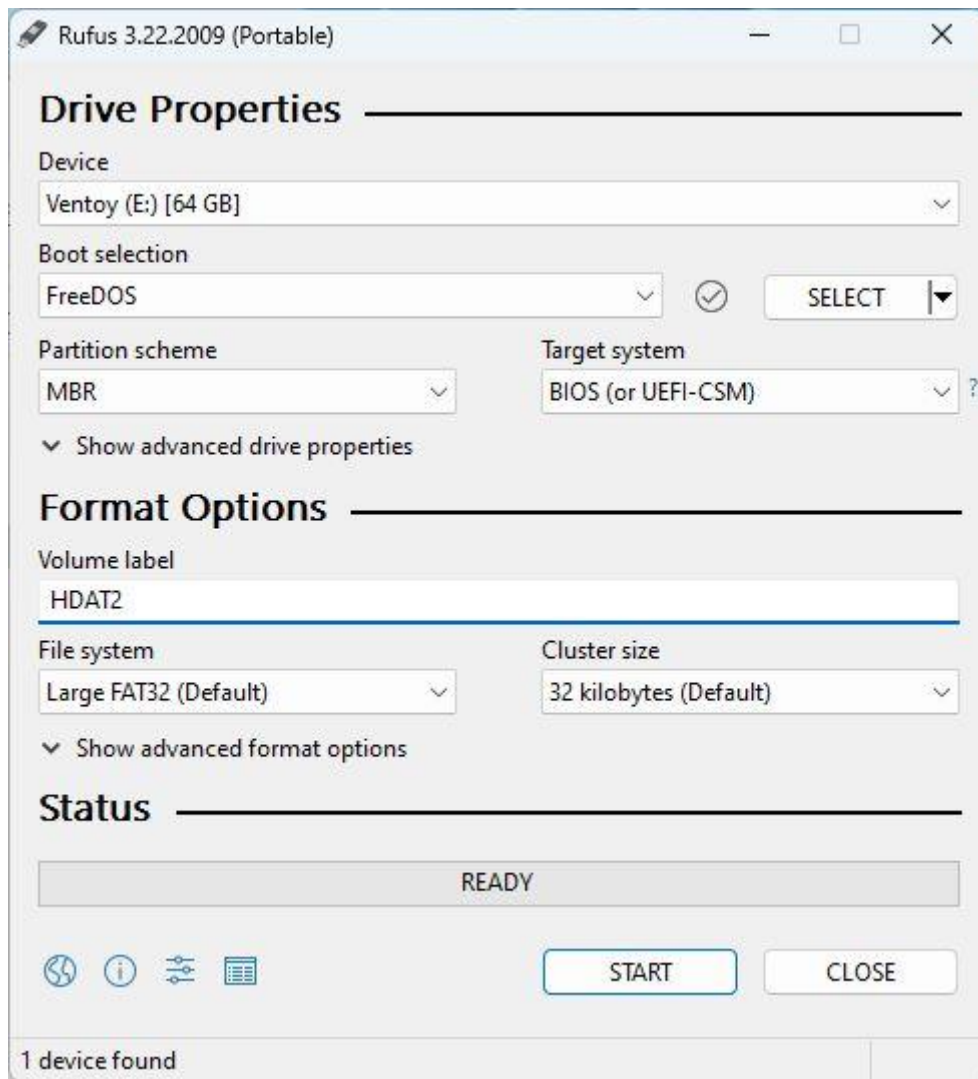
Connect your USB drive to the computer and select it in the 'Device' dropdown menu.



Under 'Boot selection', select FreeDOS.



At 'Volume label', you can optionally set the USB disk name.

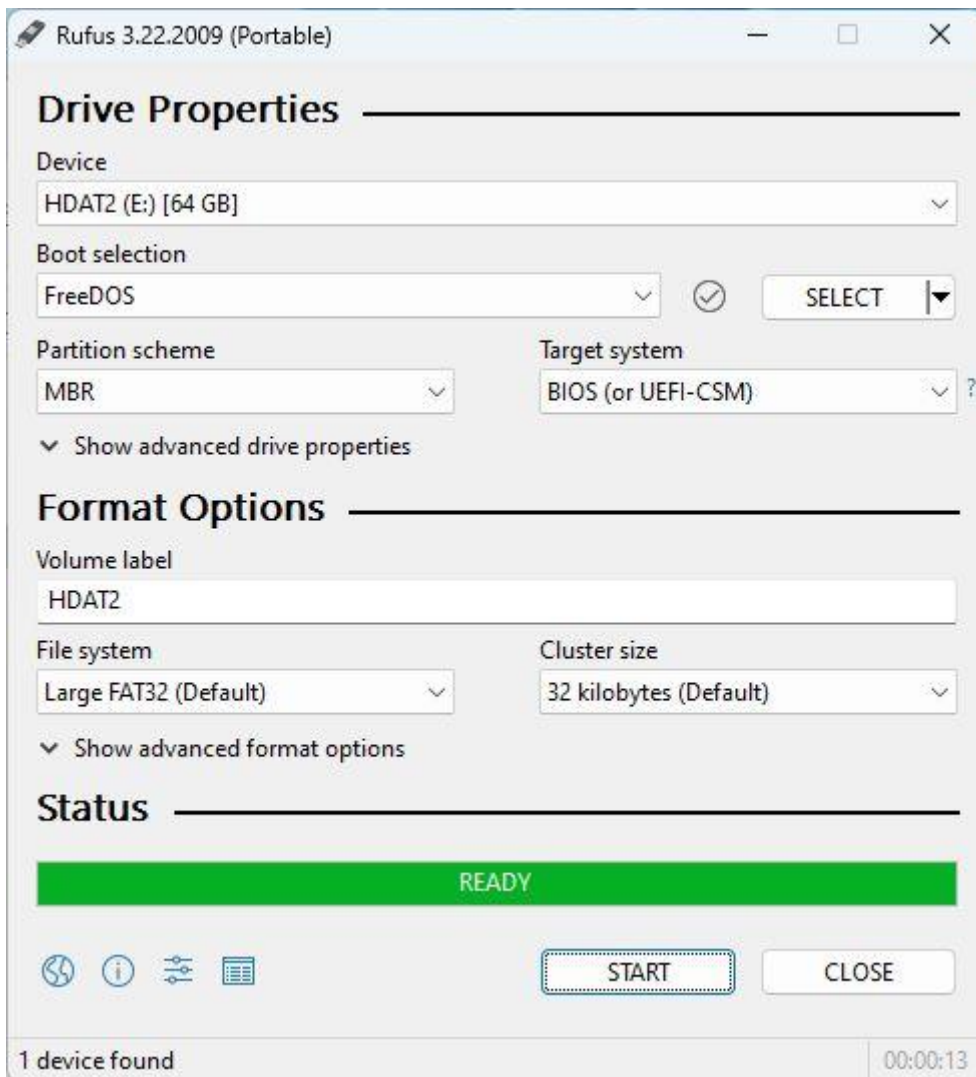


Leave all other options untouched and click the START button.



Ensure that you have selected the correct drive and click OK at the warning message to proceed.

If the USB drive was previously partitioned into two separate partitions, an additional warning will appear.



When the operation is completed click CLOSE.

Copy any files you will need in DOS to the flash drive, in our case HDAT2_75.EXE. You can rename the file to HDAT2.EXE.

You can now boot into DOS by restarting your computer with the USB drive connected. If your computer does not automatically boot from the USB drive, you may need to change your boot order or use a boot menu to select the device from which you want to boot.

FreeDOS Language Selection Menu

- 1) Use Czech keyboard with Central-European codepage [852]
- 2) Use US-English keyboard with US-English codepage [437]

Select from Menu [12], or press [ENTER] (Selection=2)

Singlestepping (F8) is: OFF

```
FreeCom version 0.85a - WATCOMC - XMS_Swap [Jul 10 2021 19:28:06]
FreeDOS DISPLAY ver. 0.13b
Buffers allocated: 001 in TPA, 000 in XMS
```

```
C:\>dir
```

```
Volume in drive C is HDAT2
Volume Serial Number is 1512-2B30
Directory of C:\
```

LOCALE		<DIR>	03-27-23	1:43p
CONFIG	SYS	265	03-27-23	1:43p
AUTOEXEC	BAT	202	03-27-23	1:43p
AUTORUN	INF	218	03-27-23	1:43p
AUTORUN	ICO	34,494	03-27-23	1:43p
HDAT2_75	EXE	1,972,760	03-27-23	1:38p
	5 file(s)			2,007,939 bytes
	1 dir(s)			59,181 Mega bytes free

```
C:\>_
```

```
C:\>ren hdat2_75.exe hdat2.exe
```

```
C:\>dir
```

```
Volume in drive C is HDAT2
Volume Serial Number is 1512-2B30
```

```
Directory of C:\
```

LOCALE		<DIR>	03-27-23	1:43p
CONFIG	SYS	265	03-27-23	1:43p
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HDAT2	EXE	1,972,760	03-27-23	1:38p
	5 file(s)			2,007,939 bytes
	1 dir(s)			59,181 Mega bytes free

```
C:\>_
```

Type HDAT2 and press ENTER.

Ventoy utility

The requirements to download:

Ventoy

<https://ventoy.net/en/index.html>

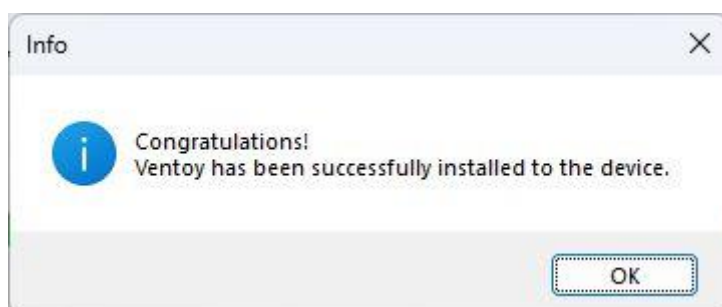
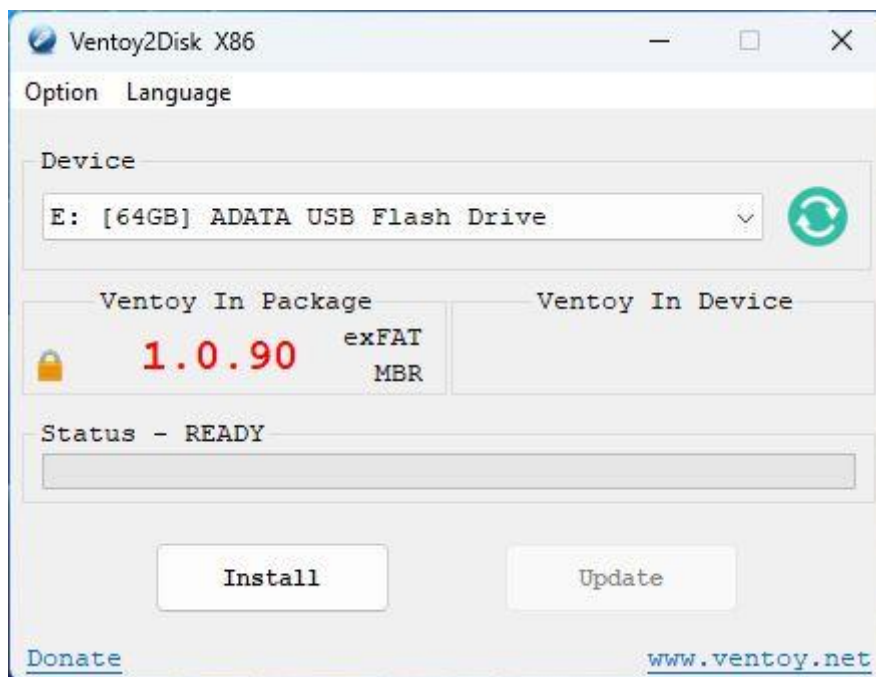
<https://github.com/ventoy/Ventoy/releases>

HDAT2 Lite ISO or HDAT2 IMG (<https://hdat2.com/download.html>)

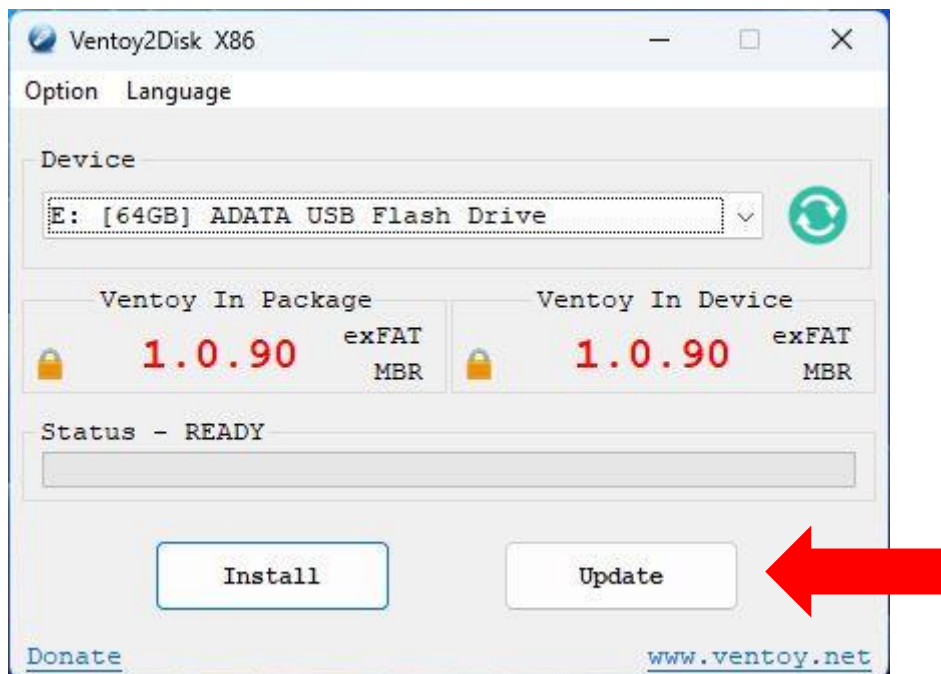
Download the Ventoy installation package, like ventoy-1.0.90-windows.zip and decompress it.

The USB drive will be formatted and all the data will be lost after install!

Run Ventoy2Disk.exe, select the USB device and click Install or Update button.



If a new version of Ventoy is released, you can update it to the USB drive.
The upgrade operation is safe, all the files in the first partition will be unchanged.

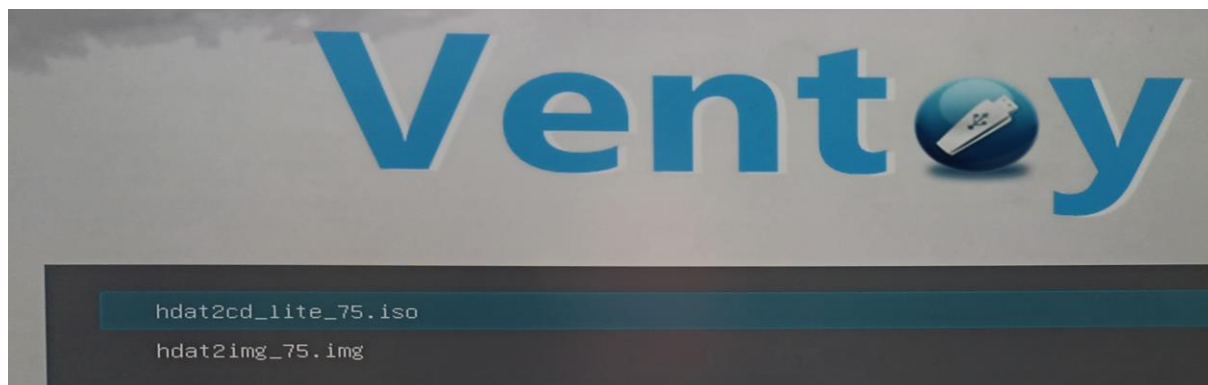


Copy files HDAT2 Lite ISO and HDAT2 IMG to the flash drive E:

You can also copy other ISO files (e.g. Windows, Linux installation).

You can now boot into DOS by restarting your computer with the USB drive connected.

After boot into Ventoy menu, you can select ISO or IMG file.




```
hdat2cd_lite_75.iso
```

```
hdat2img_75.img
```

In the secondary boot menu select 'Boot in memdisk mode'.

```
Boot in normal mode
```

```
Boot in grub2 mode
```

```
Boot in memdisk mode
```

```
File checksum
```

```
Return to previous menu
```

Microsoft Windows 98 Startup Menu

```
1. No drivers (default).
```

```
2. Load USB ASPI driver.
```

```
Enter a choice: 1
```

```
Time remaining: 28
```

```
HDAT2 Boot DOS Disk v7.5
Device Tests/File System
Web   : https://www.hdat2.com/
E-mail: hdat2@hdat2.com

Commands:
HDAT2  - main program, DOS only
HDAT2x - if you get 'Page Fault' error

Just type HDAT2 or HDAT2x and press ENTER.
To show this menu type MENU.

For command line help type 'HDAT2 /?'.
[HDAT2] X:\>_
```

Type HDAT2 and press ENTER.