FreeDOS Distributions

Preparar los Discos

El siguiente paso consiste en preparar los discos. Para ello, deberemos tener a mano tantos discos como sean necesarios en la distribución que hemos elegido. Los pasos a seguir para preparar estos discos son:

1. **Descargar los archivos necesarios**
   Visitar las páginas de descarga (*download*) de la distribución elegida, y descargar los archivos necesarios. Se trata de los siguientes archivos:

   Para la distribución MINI:
   mini.bin, base1.zip, optionally samcfg.zip

   Para la distribución FULL:
   Obligatorios: **full.bin, base1.zip, optionally samcfg.zip**
   Editores de texto: **edit1.zip**
   Interfaces de usuario: **gui1.zip**
   Herramientas de programación: **lang1.zip**
   Códigos fuente de los programas: **src_bas1.zip, src_bas2.zip, src_edt1,zip, src_edt2.zip, src_gui1.zip, src_ker1.zip**
   Utilidades varias: **util1.zip, util2.zip**

   NOTA: Algunos de los archivos de la distribución FULL pueden faltar en algunos sitios web, aunque los dos primeros archivos son obligatorios.

2. **Descargar las utilidades para preparar los discos**
   Todas las distribuciones tienen un primer archivo imagen de disco de arranque (con extensión **bin**), mientras que el resto son archivos **zip**. Las dos siguientes utilidades son necesarias para crear los discos.

   RAWRITE: Utilidad necesaria para crear el disco de arranque desde DOS o Windows. La mayoría de los sitios de réplica dispondrán también de este programa. Usuarios de **Linux**: pueden utilizar la orden **dd**, presente en la inmensa mayoría de las distribuciones (*'man dd'* para más detalles) [**http://www.fdos.org/ripcord/rawrite/rawrite.exe**]
   Tomar uno de los discos de instalación, y etiquetarlo como 'disco de arranque', e introducirlo en la unidad de discos. Ejecutar el programa RAWRITE, que nos pedirá la unidad de discos que deseamos utilizar (probablemente, A:) y la ruta hasta el archivo de imagen (mini.bin o full.bin) que queremos crear.

   UNZIP: Utilidad necesaria para crear el resto de los discos. Formatear el resto de los discos con el formato de archivos FAT de MS-DOS (se puede utilizar por ejemplo FORMAT de FreeDOS, MS-DOS/Windows95/98/Me, Linux o Microsoft WindowsNT/2000/XP. Después, descomprimir cada uno de los paquetes en cada uno de los discos, etiquetándolos convenientemente. [**http://www.fdos.org/ripcord/unzip.exe**]

3. **Preparar el ordenador**
   Se debe preparar el ordenador para instalar FreeDOS, siempre que el ordenador vaya a utilizarse para coexistir entre varios sistemas operativos. Si éste es el caso, hay que tener en cuenta que:

   Se necesitará un gestor de arranque para arrancar los diversos sistemas operativos. Cualquier gestor de arranque compatible con el DOS debería servir.

   Se deberá tener una partición con espacio suficiente para el sistema operativo, o crear una utilizando el programa FDISK de cualquier sistema operativo.

   La partición donde queremos instalar FreeDOS deberá ser PRIMARIA (no LÓGICA), deberá estar situada por debajo del cilindro 1024 (aproximadamente 8Gb), y tener un tamaño máximo de 2 Gb. Si no se desea perder los datos de esta partición, deberá estar formateada y ser del tipo FAT12 (antiguas) o FAT16, pero **nunca** FAT32. Los nombres largos de los archivos se mantendrán, pero las versiones citadas de FreeDOS no utilizarán DE FACTO el sistema de nombres largos de archivos, y por tanto, serán ignorados.

Instalar FreeDOS

El siguiente paso es instalar el sistema operativo. Hacer activa la partición en la que deseamos instalar FreeDOS, y arrancar el sistema desde el disquete de arranque. Si todo va bien, FreeDOS arrancará desde el disquete, y llegaremos a buen puerto al símbolo del DOS del FreeCOM (COMMAND.COM) tras el mensaje de bienvenida:
A:\>

Lo que se puede hacer entonces:

1. **Preparar el disco duro:**
   Se puede preparar la partición del disco duro para iniciar la transferencia de archivos con las utilidades del DOS para ello, FORMAT y FDISK (NOTA: aún existen problemas por resolver con FORMAT de FreeDOS).

2. **Iniciar la transferencia de archivos:**
   Es la instalación propiamente dicha. La orden INSTALL iniciará el programa de instalación, y nos irá pidiendo los discos.

3. **Transferir el sistema al disco duro:**
   Después de la instalación tal cual no podremos aún arrancar el sistema desde el disco duro. Para ello, usaremos la orden SYS C: como de costumbre (PRECAUCIÓN: en algunos equipos se han encontrado errores con SYS, y el sistema no arranca desde el disco duro; tener en cuenta que SYS destruye el sector de arranque de cualquier otro sistema operativo que hubiera en la misma partición).

4. **Detalles finales:**
   Finalmente, quedan varios detalles a arreglar en el sistema. Se trata de algunos ajustes en AUTOEXEC.BAT y CONFIG.SYS para ponerlo todo a punto. Si nuestro equipo es un AT, entonces con:
   DEVICE=*fdos*\bin\fdxms.sys
   DOS=HIGH
   ahorraremos algo de espacio en memoria principal. No nos olvidemos tampoco de
   SET LANG=ES
   XKEYB SP o bien **XKEYB LA**
   para que obtengamos al menos algo de soporte para el teclado y el lenguaje en español.

FreeDOS BETA 7 ("SPEARS") Distribution

Programs (and version #s) in this release:

Diskset:
  Program version
    <Maintainer email address>
    <Primary download site>

Boot Disk:

 Kernel 2024h (with CD-ROM patch)
   Bart.Oldeman@bristol.ac.uk &
 tom.ehlert@ginko.de
   http://www.ibiblio.org/pub/micro/pc-
 stuff/freedos/files/dos/kernel/
   http://freedos.sourceforge.net/
 FreeCom 0.83beta28
   freecom@freedos.org
   http://freedos.sourceforge.net/
 Fdisk 1.0 RC1
   reifsnyderb@mindspring.com
   http://www.23cc.com/free-fdisk/
 Format 0.8
   reifsnyderb@mindspring.com
   http://www.23cc.com/programs/
 Sys from kernel 2024h
   http://freedos.sourceforge.net/
 Install 3.75
   jhall@freedos.org
   http://www.freedos.org/jhall/install/
 Attrib 1.20
   reifsnyderb@mindspring.com
   http://www.23cc.com/programs/
 TE Version 1.0 (Build 0130) Revision: 1.3
   http://members.tripod.com/cuzintone/

Base: Programs for FreeDOS

 Assign 1.4
   Steffen.Kaiser@fh-rhein-sieg.de
   http://www2.inf.fh-rhein-
 sieg.de/~skaise2a/ska/sources.html
 Attrib 1.20
   reifsnyderb@mindspring.com
   http://www.23cc.com/programs/
 Backup Not Available
 break - internal to command.com
 cd, chdir - internal to command.com
 Chcp Not Available
 Chkdsk Not Available
 cls - internal to command.com

 Choice 3.3
   jhall@freedos.org
   http://www.ibiblio.org/pub/micro/pc-
 stuff/freedos/files/dos/choice/
 Command.com - see FreeCom
 Comp 0.1pv2
   vojta@math.berkeley.edu
   http://math.berkeley.edu/~vojta
 Copy 3.01 (and internal to command.com)
   jayc17@mediaone.net &
 mwillis@foxinternet.net
 http://www.geocities.com/siliconvalley/haven/
 3881/freedos/
 ctty - internal to command.com
 date - internal to command.com
 Debug 0.95a
   vojta@math.berkeley.edu
   http://math.berkeley.edu/~vojta
 Defrag alpha 0.2
   imre.leber@worldonline.be
   http://www.ibiblio.org/pub/micro/pc-
 stuff/freedos/files/dos/defrag/
 del, erase - internal to command.com
 Deltree 1.02c
   raster@highfiber.com
 http://www.highfiber.com/~raster/freeware.ht
 m
 dir - internal to command.com
 Diskcomp 0.72
   mellerm@wirtual.pl
   http://www.ibiblio.org/pub/micro/pc-
 stuff/freedos/files/dos/diskcomp/
 Diskcopy 0.6
   ilebr@vub.ac.be
   http://www.ibiblio.org/pub/micro/pc-
 stuff/freedos/files/dos/diskcopy/
 echo - internal to command.com
 Edit 0.5
   jayc17@mediaone.net
   http://www.geocities.com/xsaintx69/freedos/
 Exe2bin 1.0
   ramax@maks.bhg.ru
   http://www.ibiblio.org/pub/micro/pc-
 stuff/freedos/files/dos/exe2bin/

Fc 2.0
  Maurizio Spagni
  http://www.ibiblio.org/pub/micro/pc-stuff/freedos/files/dos/fc/
Fdcdex/Shsucdex 1.4b
  csc_jhm@shsu.edu
  http://www.shsu.edu/~csc_jhm/
Fdisk 1.0 RC1
  reifsnyderb@mindspring.com
  http://www.23cc.com/free-fdisk/
FDXMS (Himem) 0.8.Grains
  ams@ludd.luth.se
  http://www.ludd.luth.se/~ams/freedos/
Find 2.2
  jhall@freedos.org
  http://www.freedos.org/jhall/utils/files/
FreeCom 0.83beta28
  freecom@freedos.org
  http://freedos.sourceforge.net/
Fremm386 (Emm386) Not Available
Format 0.8
  reifsnyderb@mindspring.com
  http://www.23cc.com/programs/
Graphics Not Available
Help 3.2
  jhall@freedos.org
  http://www.freedos.org/jhall/utils/files/
Htmlhelp 4.1
  jayc17@mediaone.net
http://www.geocities.com/siliconvalley/haven/3881/freedos/
Join - see Swsubst, replaces subst and join
Keyb - see XKeyb
Label 1.3
  jayc17@mediaone.net
  http://www.geocities.com/xsaintx69/freedos/
loadhigh, lh - internal to command.com
loadhi 1.0
  sfrey@kuai.se
  http://www.ibiblio.org/pub/micro/pc-stuff/freedos/files/dos/loadhi/
Mem 1.3
  Bart.Oldeman@bristol.ac.uk
  http://www.dosemu.org/~bart/
Mirror 0.2
  reifsnyderb@mindspring.com
  http://www.23cc.com/programs/
mkdir, md - internal to command.com
Mode 1.04
  k@heidenstrom.gen.nz
  http://www.ibiblio.org/pub/micro/pc-stuff/freedos/files/dos/mode/

More 3.1
  jhall@freedso.org
  http://www.freedos.org/jhall/utils/files/
Move 1.1
  Jer@Juno.com
http://www.geocities.com/SiliconValley/Way/9868/
Nansi 3.4
  dank@alumni.caltech.edu
  http://www.kegel.com/
Nlsfunc Not Available
pause - internal to command.com
Print 1.0
  jimtabor@infohwy.com
  http://www.ibiblio.org/pub/micro/pc-stuff/freedos/files/dos/print/
PrintQ (FreeDOS Print queue manager) 05-Jul-1997
  Robert Mashlan
  http://www.ibiblio.org/pub/micro/pc-stuff/freedos/files/dos/print/
Replace 1.2
  rene.ableidinger@gmx.at
  http://www.ibiblio.org/pub/micro/pc-stuff/freedos/dos/replace/
rename, ren - internal to command.com
rmdir, rd - internal to command.com
Scandisk 0.5
  jayc17@mediaone.net
  http://www.geocities.com/xsaintx69/freedos/
Share - for FreeDOS kernel only
  Ron Cemer
  http://www.dosemu.org/~bart/share.zip
Sort 1.0
  k4gvo@qsl.net
ftp://ftp.mindspring.com/users/k4gvo/freedos/
Swsubst (Subst/Join) 3.1
  Steffen.Kaiser@fh-rhein-sieg.de
  http://www2.inf.fh-rhein-sieg.de/~skaise2a/ska/sources.html
Sys from kernel 2024h
  http://freedos.sourceforge.net/
Tdsk (RAM disk) 2.3
  ciri@gui.uva.es (2.42beta Matthias.Paul@post.rwth-aachen.de)
  http://www.ibiblio.org/pub/micro/pc-stuff/freedos/files/dos/ramdisk/
time -internal to command.com
Tree 3.7
  jeremyd@computer.org
http://www.darklogic.org/fdos/projects/tree/
type - internal to command.com
Undelete Not Available

Unformat 0.8
  reifsnyderb@mindspring.com
  http://www.23cc.com/programs/
 ver - internal to command.com
 Verify 1.0 (and internal to command.com)
  kd9fb@xnet.com
  http://www.ibiblio.org/pub/micro/pc-
stuff/freedos/files/dos/verify/
 Vol 1.0 (and internal to command.com)
  John Price
  http://www.GCFL.net/FreeDOS/
 Xcopy 2.0
  jayc17@mediaone.net
http://www.geocities.com/SiliconValley/Haven
/3881/freedos/
 Xkeyb 1.7
  aitor.sm@terra.es
  http://www.ibiblio.org/pub/micro/pc-
stuff/freedos/files/dos/xkeyb/

Edit: Text Editors for FreeDOS

 Emacs 1.6g
  jhall@freedos.or
  http://www.ibiblio.org/pub/micro/pc-
stuff/freedos/files/edit/emacs/
 Notepad 4.00
  steve@dosius.zzn.com
  http://www.geocities.com/dosiussoftware
 **OSPlus Text Editor Open Source 2.0
(BC++ version DOS)**
  osplus@orudge.freeuk.com
  http://www.osplus.co.uk
 Vim (VI iMproved!) 5.7 [000624]
  guckes@vim.org
  http://www.vim.org/

Util: Other Utilities for DOS

 Same as Beta6

**Gui: Currently just The SEAL desktop
environment**

 Same as Beta6

THE FREEDOS BETA 7 ("SPEARS") DISTRIBUTION

RELEASE NOTES

Jim Hall <jhall@freedos.org>
Jeremy Davis <jeremyd@computer.org>
07 September 2001

Welcome to the Beta7 distribution!

Problems/updates with the official Beta7 may be found on the FreeDOS web
site at http://www.freedos.org/. Please read the errata.
Updated versions of the the semi-official "Hot" releases may be found at
http://www.fdos.org/ripcord/. Changes from Beta7 are noted in changes.txt

In the meantime, some things you need to watch out for:

* Floppy access under the FreeDOS kernel is still a little slow. The installation will take longer than you may expect, and running programs from the Install Boot Floppy is slow.

* The install program really should ask you to insert the first disk of the first install set before it tries to do anything. But I didn't fix that bug before Beta7. If you have the Install Boot Floppy in the drive, the install program will correctly ask for the Base1 disk. However, if you don't have ANY floppy in the drive at the time, you get a very odd error message from the kernel. Please watch out for this.

* The version of format included requires FreeDOS kernel 2024f or higher (or MS/PC/DR DOS). Format no longer requires rebooting after formating. Remember it still does not do bad sector checking (so for now, /U /Q is implied even if not specified).

* The MINI distribution is only provided with a boot disk image for 3.5inch 1.44MB floppy and disksets that will fit on 1.44MB disks.

* The FULL distribution is provided with 3.5inch 1.44MB & 720KB floppy images and 5.25inch 1.2MB & 360KB floppy images. The 1.44MB image and disksets are the suggested ones to use, however to assist those without a 1.44MB floppy drive the other disk images are provided along with several of the disksets split up so they may fit on 360KB or larger disks. The 1.44MB disksets are available in full\disksets and the 360KB disksets are available in full\disksets.360

THE FREEDOS BETA 7 ("SPEARS") DISTRIBUTION

INSTALLATION INSTRUCTIONS

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18 March 2001
Updated by Jeremy Davis <jeremyd@computer.org>
07 September 2001

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1. WHAT TO GET:

  The Beta7 distribution is being made available in two "flavors":

 (1) The Mini distribution will contain all the software that you need to reproduce the functionality of MS-DOS. This will consist only of an install boot floppy and the Base1 install disk. Download the Mini distribution if you only want to install a very basic DOS system, and nothing else.

 (2) The Full distribution will contain everything from the Mini, but also will include GUIs, compilers, assemblers, utilities, etc. Download the Full distribution if you want to have it all!

 If you want to install the Mini distribution, you need to download these files:

    RAWRITE.EXE
    MINI.BIN
    BASE1.ZIP
       SAMCFG.ZIP   [Optional for sample CONFIG.SYS & AUTOEXEC.BAT]

 If you want to install the Full distribution, you will need to download RAWRITE.EXE, BASE1.ZIP, SAMCFG.ZIP (optional), FULL.BIN (instead of MINI.BIN), plus the extra disk sets you want.

 If you do not already have a copy of UNZIP, you will need to download that as well. Yes, you need UNZIP to extract the install disks.

2. BEFORE YOU INSTALL:

2.1 STEP 1 - THE INSTALL DISKS
(see the variation, at the end)

 Once you have downloaded all the files you need, you must do a little "prep" work before you can install FreeDOS. The install disks (BASE1.ZIP, etc.) are actually zipped up, so that you only need to download the one file, rather than a whole bunch. So before you can install from the BASE1.ZIP install disk, you first need to unzip it.

 Format a 1.44MB floppy, then unzip the BASE1.ZIP file to that floppy. Do this:

   UNZIP BASE1.ZIP -d A:

 Yes, the lowercase "-d" is important. Unzip is case sensitive.

 Now everything that you need on the Base1 install floppy is on that floppy disk. If you look on the Base1 install floppy, you'll notice many smaller .zip files, each with a corresponding .lsm file.   You'll also see a BASE.1 and BASE.END file.   This is normal. You didn't do anything wrong.

 If you are installing the Mini distribution, then you are done with the install disks. If you are installing the Full distribution, then you need to repeat the above steps for the other install disks that you downloaded.

2.2 STEP 2 - THE INSTALL BOOT FLOPPY IMAGE

The Beta6 distribution uses an install boot floppy that you use to (surprise!) boot your computer to install FreeDOS. The boot floppy needs to be written to a pre-formatted 1.44MB floppy disk. I'm sure other boot floppy images for 360k and 720k will soon be made available, but I have a 1.44MB disk drive, so that's what you get.

We need to use a program called RAWRITE to write these images to a floppy. You downloaded this program, above.

To create the boot floppy for the Mini distribution:

(1) Run RAWRITE
(2) Read the MINI.BIN image file
(3) Write to the A: drive

To create the boot floppy for the Full distribution:

(1) Run RAWRITE
(2) Read the FULL.BIN image file
(3) Write to the A: drive

Notice that the procedure to create the boot floppy is essentially the same for the MINI and FULL distributions. The only thing that changes is the name of the image file name.

If you are using UNIX, you may instead use the "dd" program to write the disk images. Load a formatted 1.44MB floppy in your drive, then type the following while logged in as "root":
dd if=MINI.BIN of=/dev/fd0

The inquisitive DOS user will notice that the contents of MINI.BIN and FULL.BIN are essentially the same. Yes, we planned it that way.

3. TO INSTALL FROM FLOPPY DISK:

Now you are ready to install the FreeDOS distribution on your computer. If you have made all your floppies correctly, then you reboot your computer using the install boot floppy that you made from either MINI.BIN or FULL.BIN.

When your computer boots up (may take a minute or two, depending on the speed of your PC) you will be at a DOS prompt. At this point, you have the opportunity to run FDISK to create a DOS partition IF YOU DON'T ALREADY HAVE ONE. To run FDISK, just type:
FDISK
Then follow the on-screen prompts to create a new partition and mark it as the active primary partition. After you run FDISK, you will need to reboot. Just boot off the install boot floppy again.

IF YOU CREATED A NEW PARTITION for FreeDOS, you'll also need to format the partition before you can use it. To do that, just type:
FORMAT C:
Don't forget to make the C: drive bootable with FreeDOS. Just type:
SYS C:
After that, run the install program:
INSTALL
When the install program asks where you will install from (where the install files are located) enter:
A:
The install program will then ask you where to install FreeDOS. Most people will use **C:\DOS** or **C:\FDOS.**

Install will also prompt you to determine which optional components to install. If you said yes to SAMCFG (sample config files) then once install has finished you should edit them to correct the paths (only necessary if you did not install to C:\FDOS) and copy them to the root directory. Replace FDOS in the steps below with the actual location you specified in the step above.

To edit the files, put the boot disk back into the drive and type:

TE

When the editor starts, go to File menu, select Open, and in the filename entry field type **C:\FDOS\CONFIG.SYS**, followed by pressing Enter. Then repeat, but use **C:\FDOS\AUTOEXEC.BAT** instead. Don't forget to save your changes when done (File --> Save).

To copy the files to the root directory type:

COPY C:\FDOS\CONFIG.SYS C:
COPY C:\FDOS\AUTOEXEC.BAT C:

One final note: floppy disk access is still a little slow in this release. So, your install may take a lot longer than you might expect. Please budget for some additional time when installing your copy of FreeDOS. Everything runs fine from the hard disk after that, though.

Congratulations - you have now installed FreeDOS!

OPTIONAL: TO INSTALL FROM THE HARD DISK

I won't spend too much time on this, as I expect most people will opt to install from floppy disk. However, it is possible to install from your hard disk. If you are installing everything, and you already have a copy of DOS on your computer, then this is probably the option you want. Hard disk access under FreeDOS is a lot faster than floppy, anyway.

The only difference between installing from floppy disk and installing from the hard disk is when you create the install floppies. When you installed from floppy disks, you needed to unzip each install floppy onto a separate 1.44MB floppy disk.

But to install from the hard disk, you just unzip each install floppy INTO A SINGLE DIRECTORY ON YOUR HARD DISK. For example, you might do this:

UNZIP BASE1.ZIP -d C:\FDBETA7

For the Mini distribution, that's all you need to do. If you want to install the Full distribution, you will also need to unzip all the other install disks like LANG1.ZIP, EDIT1.ZIP, and UTIL1.ZIP, etc. That's it. When the install program asks you where to install from, say C:\FDBETA7 (you can delete the C:\FDBETA7 directory after you are done installing FreeDOS.)