Create a bootable USB drive from the files of the Restored HBCD

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Introduction

We describe how the files of the restored/extended Hiren's BootCD (HBCD) can be transferred to a USB memory stick (flash drive) and how the later can be made bootable using exclusively tools provided by the HBCD. The quickest and most accurate method is to use Linux command line tools, however Windows can be also used with equally good results. The restored edition of Hiren's Boot CD employs a combination of the bootloaders syslinux and grub4dos; so the method described in Hiren's web page[1] does not work for the restored edition. If your computer does not have an optical drive read the relevant section below.

Linux Method

- Insert Hiren's Restored BootCD, boot the computer from it and select Parted Magic Linux (the 5th option of the main menu).

- Insert a 4GB (or larger) USB stick.[2] **Warning: All data on the USB stick will be erased.**

- Open a console window (e.g. LXTerminal) and type the following commands exactly as they appear in the list bellow after you replace the **xx**'s with what is appropriate for your USB flash drive e.g. `sdb1` or `sdc1`.[3] **Warning: If you get xx wrong you may erase your hard disk.**

Command	Explanation
umount /dev/sdxx	In case the stick has been already automounted, unmount it first.
mkfs.vfat -F32 -n HBCD /dev/sdxx	Format the stick.
mkdir /mnt/cdrom	Create a CD mountpoint.
mount /dev/sdxx /mnt/usb	Mount the stick.
mount /dev/sr0 /mnt/cdrom	Mount the CD.
cp -Rfv /mnt/cdrom/* /mnt/usb/	Copy files to the stick, and wait for some time...
syslinux -i -d isolinux /dev/sdxx	Install the bootloader.
dd if=/usr/share/syslinux/mbr.bin of=/dev/sdx	Install the bootloader's MBR.
parted /dev/sdx set 1 boot on	Make the stick active, i.e. bootable.
sync	Flush any pending buffered data.

- Note: In the last two commands before `sync`, **sdx** must be a device e.g., **sdb** or **sdc**, and **not** a partition **sdb1** or **sdc1**.

- Reboot the computer and test the stick for booting.

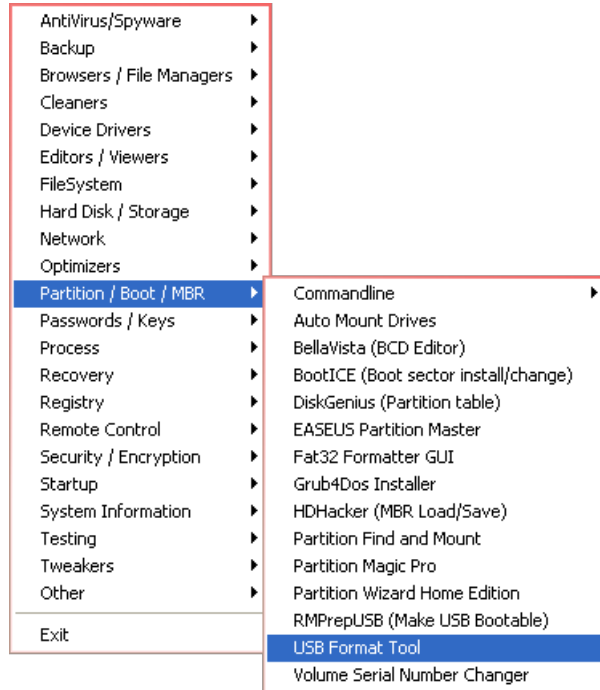[1] http://www.hiren.info/pages/bootcd-on-usb-disk

[2] The actual capacity needed for HBCD is 2.8 GB. The spare capacity is available to store other files.
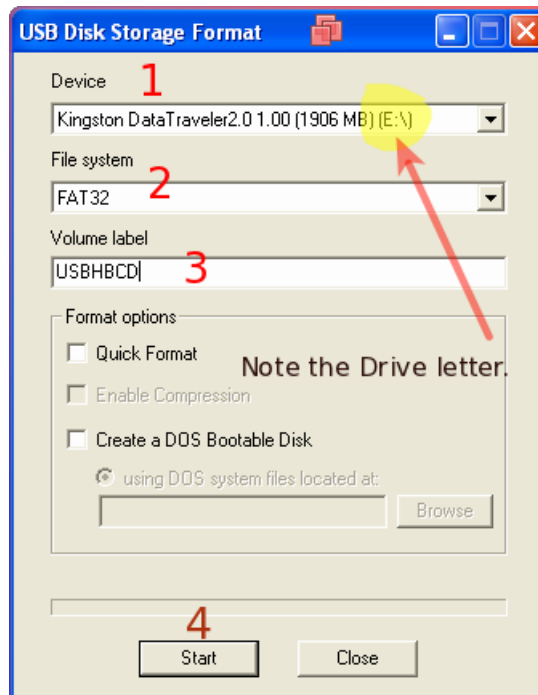
[3] You can determine the correct device letters with the command: "`fsarchiver probe`" or "`fdisk -l`".

Windows Method

- Insert Hiren's Restored BootCD, boot the computer from it and select Mini Windows XP.

- Insert a 4GB (or larger) USB stick.[1] **Warning: All data on the USB stick will be erased.**

- Run the USB Format Tool, found in the HBCD Program Launcher, under the item Programs - Partition/Boot/MBR,
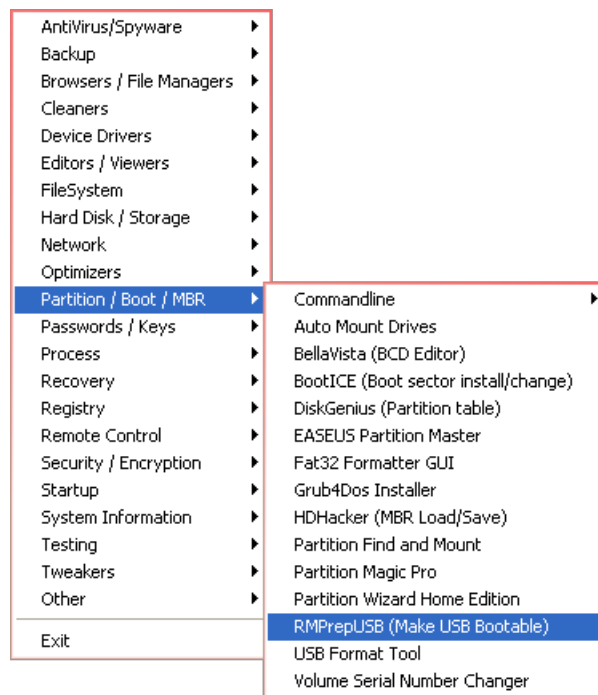

- Format the stick as shown.

- Determine the letters of the CD and USB drives (Look in My Computer).

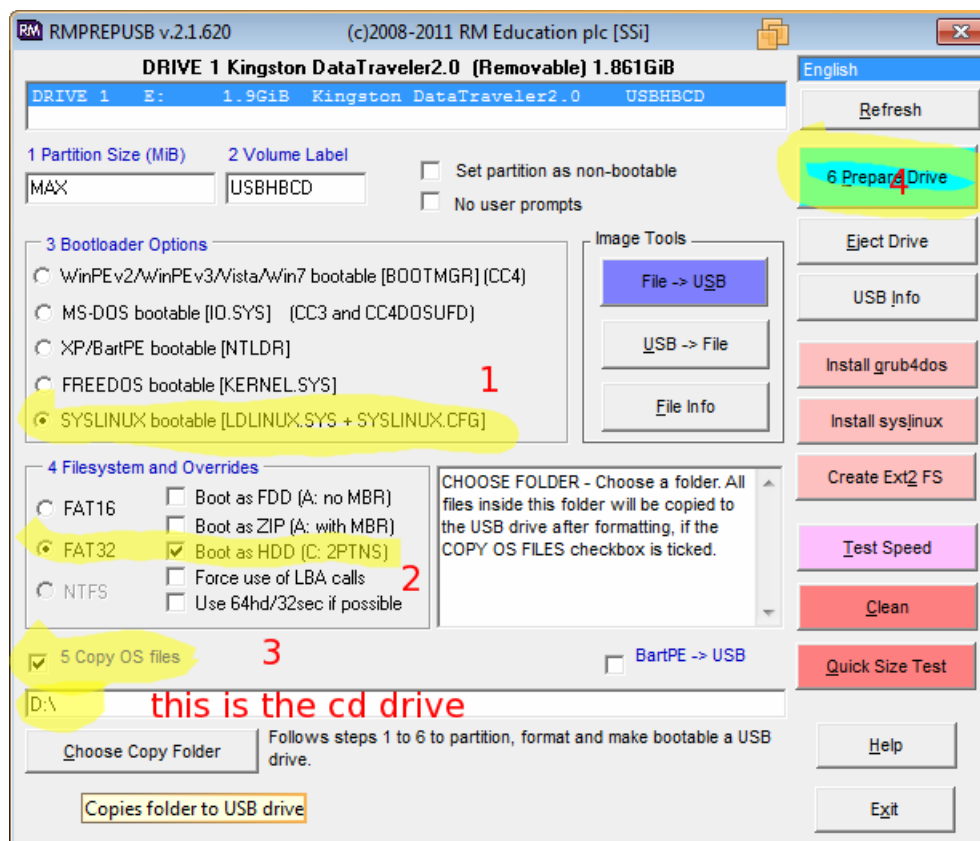[1]The actual capacity needed by HBCD is 2.8 GB. The spare capacity is available to store other files.

- Copy all the files from CD to USB. For this you may "Drag-and-Drop"(slow) or use one of the utilities found in the HBCD menu, like FastCopy or TeraCopy (look for them under Backup) or Total Commander, or even use the dos command: `xcopy X:\*.* Y:\ /E`, where X and Y are CD and USB letters respectively.

- Go to `My Computer`, find the CD, right click on the `bootprog` subfolder and then 'Command Promt Here'.

- In the console window type the command:

  `syslinux.exe -maf -d isolinux Y:`

  where `Y:` is the USB drive. This command installs the bootloader, the MBR and activates the USB for booting.

- Safely remove the stick and test for booting.
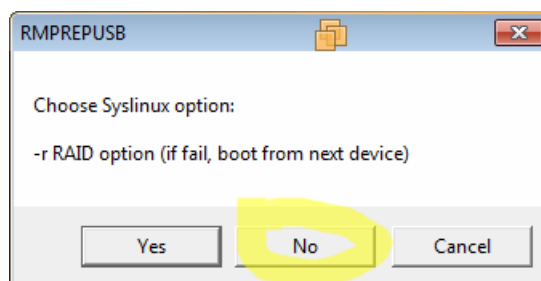
Alternative Windows Method

The utility RMPepUSB (found in Partition/Boot/MBR of the HBCD program launcher menu) can format, copy the files, and install the bootloader in one go. However it takes a very long time to copy the files.
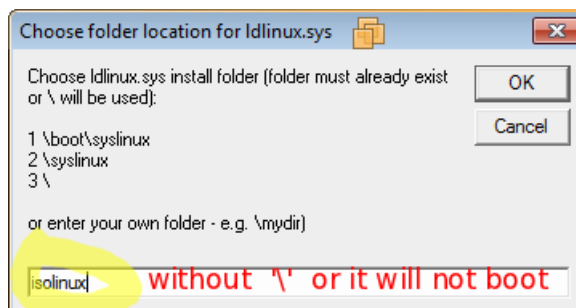

- Set the utility's options as shown below and click Prepare Drive. Unless you are familiar with this utility do not meddle with any of the other settings.

- Wait (copying the files takes a long time with this utility; so be patient) and, when prompted, answer the two questions as indicated in the screenshots shown below:

- When asked type the bootloader folder name: `isolinux` (**without backslash).**

Computers without optical drive

If your computer has no optical drive and has Windows XP or Windows 7 installed you have the following options:

- Use a CD emulator such as Alcohol 120% or Daemon Tools to mount the .iso, start the HBCD Program Launcher and run the the utilities from the emulated optical drive, as described above. The utilities are portable and work with all Windows versions.

- Use Virtual PC software such as VMware Workstation, VirtualBox or Qemu to create a virtual PC in your computer and boot the .iso directly. In this case any of the 3 above methods are possible.

If the computer has only Linux, then you need to have the partition editor parted and the bootloader syslinux installed. Test their availability with:
`parted --version`
and
`syslinux --version` (need >4.0).
If not available install them from your distro's repositories.
Then follow the instuctions as above, but instead of the cdrom, mount the .iso with a command like:
`mount -o loop,user <path-to-iso-file.iso> /mnt/cdrom`