


## Space Details

<b>Key:</b>	EBCD
<b>Name:</b>	EasyBCD
<b>Description:</b>	
<b>Creator (Creation Date):</b>	computer guru (Nov 30, 2006)
<b>Last Modifier (Mod. Date):</b>	computer guru (Nov 30, 2006)

### Available Pages

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## EasyBCD Documentation Home

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This page last changed on Mar 21, 2007 by [computer guru](#).

### What is EasyBCD Anyway?

It all depends on who you ask or what you want to get done, but

- [EasyBCD](#) is NeoSmart Technologies 100% **free** Vista bootloader modification tool.
- A way to get your Vista working with Linux, BSD, Mac OS X, and **dozens more** operating systems without a headache!
- An IT Guy's **number 1** Vista-troubleshooting tool.
- A multiple award-winning application, **used and recommended** by people at PC World, Microsoft, and more!
- The best way to do **just about anything** with Windows Vista before it even turns on!

That's just the tip of the iceberg though. You should read the [FAQ](#) for more info 😊

### How Can I Help?

NeoSmart Technologies is a 100% non-profit organization, and does everything free of charge. Some people call EasyBCD "Donationware," but it really isn't. It's freeware, plain and simple. But we *are* accepting (much-needed) donations to keep up with our needs, if you have a penny to spare, [please do so!](#) If you're a programmer and are interested in giving us a hand, drop us [an email](#), and we'll let you know. And most especially, if you're an old hand at writing documentation pages, do [give us a ping!](#)

### Why Should I Use EasyBCD?

Well, no one says you *have* to use EasyBCD, but Microsoft's made it very clear that they're not releasing anything other than the command-line (and poorly supported/documented) bcdedit.exe for editing the bootloader. Plus, the guys at Microsoft, Google, PC World, PC Magazine, and many others use EasyBCD as their Vista BCD tool of choice. Why shouldn't you join in the fun? After all, not like it costs anything!

### What Operating Systems Does EasyBCD Support?

A better question would be, "What operating systems *doesn't* EasyBCD support?" After all, EasyBCD is the **single most capable** bootloader on the planet. EasyBCD can make the Windows Vista bootloader do things you never dreamed of - and Microsoft certainly never intended - and if there's something it can't handle, NeoSmart Technologies' fully-integrated NeoGrub bootloader will take care of the rest! In short, EasyBCD supports **more operating systems than any other bootloader on the planet!**

- [Windows Vista](#) & [Longhorn Server](#)
- [Windows XP](#) & [Windows Server 2003](#)
- [Older Versions of Windows](#)
- [Linux](#) and [BSD](#)

- [Mac OS X](#)

These are just some of the more common operating systems that EasyBCD supports. For a full list of all operating systems, check out our [Supported Operating Systems](#) page.

## Support

If you need support for EasyBCD, your first bet is to read the rest of the online documentation. If that doesn't help, ask away in [the NeoSmart Forums](#) where NeoSmart Technologies' employees and members alike will do their best to make sure you get whatever help you need. If you're a brother developer or a member of the press, and have some other questions you'd like addressed, shoot us [an email](#), and we'll see what we can do.

## Licensing

EasyBCD is a freeware application, licensed under the terms of the NeoSmart Plain Old Freeware 1.0 Draft license. The NPOF 1.0 license is a very flexible and user-friendly license for freeware closed-source applications.

## Documentation as PDF

Just because we love you, we've made available the [EasyBCD Documentation in PDF format](#) that contains everything available here.

## Add and Remove Entries

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This page last changed on Jan 19, 2007 by [computer guru](#).

### Adding and Removing Entries

EasyBCD's greatest feature is how it hooks into the BCD and allows end-users to boot into other operating systems directly from Vista's bootloader with minimal configuration and no headache. By default, Windows Vista's bootloader can only load Vista or Longhorn Server entries, and can also call the NTLDR/Boot.ini and have that boot into older versions of Windows. Adding and removing entries is done from the "Add/Remove Entries" page of EasyBCD.

### Add/Remove Entries Screen

Cannot resolve external resource into attachment.

### Adding Entries

In order to multi-boot Windows Vista with one or more of the [supported operating systems](#), you must first configure the settings in the EasyBCD Add/Remove Entries page. Depending on the operating system you wish to configure, the steps may vary. The child-pages below list some of the fully-supported dual-boot platforms available to EasyBCD users, and contain complete walk-throughs to ensure a properly working configuration.

You can either browse through all the child-pages below and find what you need, or take a quick look at the list of [supported operating systems](#) and follow the links from there for directions on getting a dual-boot config up and running in no time.

## Linux

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This page last changed on Apr 27, 2007 by [computer guru](#).

**i** While this page assumes you are adding Linux to the Vista bootloader, the steps are (mostly) the same for Solaris, BSD, Unix, etc. If in doubt, [ask away!](#)

### Adding Linux to the Vista Bootloader

One of the most features that [EasyBCD](#) brings to the table is full-blown support for Linux, BSD, Solaris, and more [starting from version 1.5](#), putting it a league above the competition. Most importantly, EasyBCD offers several different ways to get these operating systems working with Vista, just in case one or more fail to work out the way you want them to.

Chainloading is a dual-boot term that refers to one bootloader handing off the boot process to another. In this case, we configure the Vista bootloader to ask either Grub or Lilo (the most common Linux bootloaders) to complete the boot process for us - minimizing configuration requirements and ensuring maximum compatibility.

### Vista before Linux

EasyBCD makes installing Linux after you have Windows Vista up-and-running a breeze. These steps assume you have Windows Vista properly installed and booting, and are looking to install Linux on a second hard drive or partition. These steps also assume that you are using the default Windows Vista bootloader, and don't manually change the active partition around. If you had Linux installed before you installed Windows Vista, scroll down to the next section.

1. Put the Linux CD in the drive, and start the installation normally.
2. When prompted to set up the bootloader, make sure you specify to install LILO, GRUB, or whatever to the **bootsector** of the partition that Linux is being installed to and **not the MBR** of your hard drive.
3. Finish the Linux installation, take the CD out of the drive, and reboot.

At this point, you'll go straight back to Windows Vista. Don't panic, everything is OK - you'll be in Linux soon enough!

1. Turn on EasyBCD, go to the "Add/Remove Entries" screen and pick Linux from the tabs at the top.
2. Pick the appropriate bootloader from the drop-down menu (either GRUB or LILO),
3. Give the entry a user-friendly name (and if you want to keep "NST Linux Loader" as the text, we won't say no!)
4. The hardest part of this mind-numbingly difficult exercise (/sarcasm) is choosing the correct hard drive and partition numbers that correspond to the partition you installed Linux (and most importantly, the bootloader) to.  
In EasyBCD (and Windows in general), drive numbers start at 0, and partitions start at 1. So the second partition of the first drive would be 0, 2.
5. Press "Add Entry" and reboot.

When the Vista bootloader asks you what OS you'd like to boot into, select Linux to continue the first-run configuration for your brand-spanking-new Linux install.

It's that simple! 😊

## Linux before Vista

These steps assume you had a *fully working* Linux install before you installed Windows Vista. It also assumes that you've been using either GRUB or LILO to boot Linux in the past. If you used some other bootloader, please consult the appropriate documentation on their respective website(s).

At this point, you have two options. The first option is more compatible & more reliable, but it can be a hassle depending on just how much Linux experience you have. The second uses the all-new NeoGrub bootloader in conjunction with the Vista BCD to get Linux running - but it only works on a limited subset of setups. Skip down to the NeoGrub section for more info.

### Method 1: Linux via GRUB or LILO

Currently, NeoSmart Technologies recommends this method for most users, at least until NeoGrub becomes a mature (and most importantly, compatible-enough) solution for Linux booting needs.

Since Linux *has already been installed* you should already have a bootloader set up. It won't show any more, because Windows Vista's bootloader has taken its place in the MBR. However, its configuration files still exist, so the only thing we need to do right now is just reinstall whatever bootloader Linux was already using to somewhere else.

We **don't** want to install the Linux bootloader back onto the MBR, because that'll just erase the Vista bootloader - leaving you with Linux and nothing else. So we install the bootloader onto a hidden sector called a "bootsector" and we tell Windows Vista where it's installed - then Windows Vista launches (chainloads) this sector on the disk, starting the Linux bootloader up for us.

You need to know what bootloader your Linux distribution came with. Today, most Linux distros come with [GRUB](#) (legacy, but the same steps apply for the 2.x line as well) but your distro may use [LILO](#) instead. Depending on which you have, follow the appropriate directions:

#### Reinstalling GRUB

Stick your Linux CD into the drive, and follow whatever steps you need to boot into a "rescue" or "recovery" mode. This is usually done by entering either one of the words at the screen that shows up when you boot from the CD. Another option is to download a Linux Live CD such as [Kanotix](#) or [Super Grub Disk](#), and fire-up a console from there.

Once the console is open, run the following command:

```
su -
grub
```

You should now be in a GRUB shell - basically an OS within an OS. If you're using Ubuntu or other distributions that work in a similar fashion, use this instead:

```
sudo bash
grub
```

Now that you're within GRUB, continue with the following:

```
root (hdx,y)
setup (hdx,y)
setup (hdx,y)
quit
init 6
```

### Don't type that in literally!

You're going to need to replace the *x,y* in the code sample above with the appropriate drive numbers for the partition Linux is on. *x* represents the number that corresponds to the number of the drive Linux is on, and the *y* corresponds to the partition number.

In Linux, both drive and partition numbers start from zero. For example, if you had Windows on the first partition of the first drive, and Linux on the second partition of the *same* drive, you would use *hd(0,1)* to refer to the second partition of the first drive.

```
(hd0,0)  first primary partition on first hard disk
(hd0,1)  second primary partition
(hd0,2)  third primary partition
(hd0,3)  fourth primary partition (usually an extended partition)
(hd0,4)  first logical partition
(hd0,5)  second logical partition ...
```

If you still can't figure out what *hd* combo you need or you want to double-check, try this code out from within the GRUB prompt:


```
find /boot/grub/stage1
```

It'll return a (*hdx,y*) value you can use to setup GRUB. If it doesn't, you may need to play around with the path to *stage1* which changes from distro to distro, but most likely this is what you're looking for.

The *setup* line is repeated twice because often times the first GRUB setup command will error out, and the second will succeed - because of changes made by the first. No harm done running it twice. We've just installed GRUB to the **bootsector** of the partition. If we wanted to install it to the MBR, we would have written *hdx* only - but we don't want to do that!

The *init 6* command will reboot your PC. Make sure you've removed the CD from the drive so that you can get back into Windows Vista.

### Reinstalling LILO

 This LILO documentation is **untested**, we recommend using GRUB instead. It has more features, is much more powerful, and is much more compatible.

Stick your Linux CD into the drive, and follow whatever steps you need to boot into a "rescue" or "recovery" mode. This is usually done by entering either one of the words at the screen that shows up when you boot from the CD. Another option is to download a Linux Live CD such as [Kanotix](#) and fire-up a console from there.

Once the console is open, run the following command:

```
su -
lilo -b /dev/****
init 6
```

### **Don't type that in literally!**

You need to replace \*\*\*\* in the code sample above with the correct drive letter and number for your Linux partition.

In Linux, drives take one of two forms:

- hdx
- sdx

If Linux is on a SCSI or SATA drive, it's going to be sd\*\* and if it's on an ATA/IDE drive, it'll be hd\* . **\*Please note that certain distros like Ubuntu may just assign sdx values to all drives and circumvent this whole mess.**

The first \* (the x) is a letter from a to z. The first drive is a, the second is b, and so on and so forth. The second \* (the y) is the partition number. Under Linux, partition numbers start from zero onwards.

For example, if you had Windows on the first partition of the first drive, and Linux on the second partition of the *same* drive, you would use /dev/hda1 to refer to the second partition of the first drive. And if it was on a SCSI/SATA drive, it would /dev/sda1 instead.

The *init 6* command will reboot your PC. Make sure you've removed the CD from the drive so that you can get back into Windows Vista.

### **Back in Windows Vista**

At this point, you should be back in Windows Vista with either GRUB or LILO tucked away in a hidden sector somewhere on your drive. Fire up everyone's favorite bootloader manager (EasyBCD, of course!) and go to the "Add\Remove Entries" screen.

1. Choose "Linux\BSD" from the tabs on the top.
2. Select either GRUB or LILO from the drop-down menu depending on what you configured earlier.
3. Choose the correct drive and partition number for your Linux partition. This should be the same partition as the one we just finished configuring.

In EasyBCD (and Windows), Drive numbers start at 0, and partitions start at 1. The second partition of the first drive would be 0 & 2.

4. Enter the name you would like to give the Linux entry in the bootloader.
5. Press "Add Entry" and reboot to test.

These steps can be a bit tricky, and making mistakes could lead to some unwanted trouble (but don't worry, nothing that can't be fixed without dataloss). If you're hesitant about something, don't risk it - just [ask for help](#).

## Method 2: Using NeoGrub to boot Linux

[NeoGrub](#) is NeoSmart Technologies' experimental bootloader intended to allow Windows users to boot into Linux without having to resort to rescue discs, second bootloaders, or messy install routines for GRUB or LILO. NeoGrub uses some work developed by the Grub4Dos project.

As an experimental bootloader, NeoGrub only supports ext2/3 filesystems. This is a technical limitation of going directly from GRUB Stage1 to Stage2 without a 1.5 in between. If you use ext2/3 for your Linux partition (almost all distros do), refer to the [NeoGrub documentation](#) for help on getting it to work.

NeoGrub is the recommended solution for \*nix-phobics - and for people that don't have a rescue/live CD on hand. It's a nifty way of getting Linux to boot **quickly and efficiently** without spending hours switching CDs and rebooting your PC over and over again.

## External Links

These are links to external (non-NST) guides that revolve around dual-booting Windows Vista and Linux - with the help of EasyBCD.

- Herman's excellent [Guide to GRUB](#) (via [SGD](#))
- APC Magazine's [Vista & Linux Dual Boot Guides](#)
- GNU GRUB [Native Installation Docs](#) (no details, rather useless)

## Mac OS X

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This page last changed on Apr 07, 2007 by [computer guru](#).

NeoSmart Technologies **does not in any way, shape, or form** condone the use of warez or otherwise illegally **installing OS X on non-Apple (generic) hardware!**

EasyBCD provides a way for users to **boot into an already installed** OS X partition on Vista-powered PCs. NeoSmart Technologies will not provide help pertaining to the installation or obtainment of OS X redistributables.

### Adding Mac OS X to the Vista Bootloader

Cannot resolve external resource into attachment.

Adding a pre-existing OS X installation to the Windows Vista Bootloader is a very easy and straight-forward process with EasyBCD. There are two ways to get OS X and Windows Vista working together with the Windows Vista bootloader, depending on the order of installation.

#### Windows Vista Before OS X

This section covers booting Windows Vista and OS X together via the Windows bootloader assuming that you installed Vista first and now want to install OS X.

**NeoSmart Technologies does not provide any instructions whatsoever on getting OS X installed. EasyBCD only boots into OS X, nothing more, nothing less.**

1. Install OS X to a primary partition on your PC. If you have the legitimate Dev Preview kit with the official OS X DVD, just stick it in the drive and follow the on-screen prompts.
2. Once OS X has finished installing, the Darwin bootloader should load up OS X for the first time. It should give you an "Other" option to boot into Windows Vista.
3. Select "Other" and start Windows Vista.
4. Fire-up EasyBCD, and go to the ["Bootloader Management" screen](#).
5. Follow the instructions [here](#) to re-install the Vista bootloader.
6. Read the next section for info on how to add OS X to the Vista bootloader.

#### OS X Before Windows Vista

The most common setup for users looking to get OS running on their PCs involves a pre-existing OS X installation followed by a Windows Vista install. In this case, the computer boots into the Windows Vista bootloader, and does not have an option to boot into OS X.

1. Fire-up EasyBCD, and navigate to the ["Add/Remove Entries" screen](#).
2. Select "Mac OS X" from the tabs at the top.
3. From the platform drop-down list, select "Generic x86 Hardware"
4. If you wish to change the name from the default "NST Mac OS X," you may do so now.
5. Select "Auto-configure Mac Settings" and then hit "Add Entry" to finish up.

Under EasyBCD 1.51, there is a new option to proceed with the **highly experimental** manual configuration. **Do not choose this option!** It was included to solve a problem with certain OS X installs, but that has been addressed separately! (See the Troubleshooting section below)

You can now reboot your PC, and select "NST Mac OS X" from the Vista bootloader. OS X should begin to boot immediately.

## Troubleshooting

### 1. Can you help me install OS X?

No!

### 2. I get a "HFS+ Partition Error" when I select OS X from the Vista bootloader... HELP!

This is a common error experienced when you install OS X after installing Windows Vista. Our friends over at InsanelyMac [have compiled a guide](#) (with EasyBCD of course 😊) and a fix for this problem. Scroll down to "Fix for the dreaded HFS+ Partition Error:" for the info.

## External Links

- dilnalomo's Vista & OS X dual-boot guides [one](#) and [two](#).
- Brazilian guide to [dual-booting OS X and Windows Vista](#) via EasyBCD.
- [InsanelyMac](#) forums for OS X help.
- [The Fool-Proof Vista & XP / Mac OS X Dual-Boot Guide](#) on IM.

## OS-2

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This page last changed on Mar 04, 2007 by [computer guru](#).



### Redirection Notice

This page should redirect to [Linux](#) in about 30 seconds.

## Adding OS/2 to the Vista Bootloader

The steps for dual-booting OS/2 with Windows Vista are identical to those for [setting up a Linux dual-boot](#). You will now be redirected to the Linux dual-boot setup page.

EDM2 has also set up [a guide](#) for its OS/2 users on how to get OS/2 working with Windows Vista via EasyBCD. You may use their guide instead, if you like.

# Adding Windows Vista & Longhorn Server

## Supported Systems

Every version of EasyBCD to date has had complete support for all versions of Windows Vista & Longhorn Server. EasyBCD was originally created as a Windows Vista-specific bootloader management tool, and quickly evolved and became the single most-versatile bootloader on the planet. As of EasyBCD 1.51, it has been verified to work with the following Vista systems:

- Windows Vista RTM
- Longhorn Server Beta 1+
- Windows Vista 5086+

It hasn't been tested with earlier versions, but EasyBCD should boot into them all just as well.

## Adding a Vista Entry

Adding a Windows Vista or Longhorn Server entry is a straight-forward process, and can be done from any operating system. Assuming you already have a fully-working BCD setup (i.e. EasyBCD runs OK, and changes can be seen):

1. Run EasyBCD, go to the "Add/Remove Entries" screen
2. Enter the name you'd like to associate with the entry you're about to create in the "Name" box. For instance, "My Vista RTM Install"
3. In the drive box, enter the letter of the drive followed by a colon (e.g. "C:"). It's important to note that the Drive Letter must be the one **currently visible in My Computer** that points to the drive that Vista or Longhorn Server is installed on. Even if the drive letters change from install to install, use the drive letters *as they appear in your current boot*. EasyBCD will automatically convert them to the proper drive & partition numbers.
4. Press the "Add Entry" button, and wait for the audible notification telling you everything went OK.
5. The operating systems list should immediately change to reflect the new changes, and you're all set.

## Troubleshooting

If you added a Windows Vista or Longhorn Server entry, and it fails to boot, you might want to check the following before asking for support.

1. **Did you specify the correct drive letter?**  
Make sure you entered the letter for the Vista partition as it is currently assigned in the operating system you're running EasyBCD from. That's usually the most common reason why Vista won't boot.

To change the drive letter, see the instructions at [Changing the Drive Letter](#).

2. **Do you get a "Corrupt or Missing File" message on attempting to boot the newly created partition?**

Verify that the drive letter specified points to a valid Windows Vista install.

## Windows XP

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This page last changed on Apr 11, 2007 by [computer guru](#).

**While this page is written for Windows XP, the same exact steps (without exception) apply for Windows 2000, 2000 Server, and 2003 Server.**

### Adding an Entry

Adding an entry to Windows XP or Windows Server 2003 is a simple process with EasyBCD, but there is a tiny catch: you have to know your current system configuration well.

#### If Boot.ini and the BOOT folder are on the same drive...

Windows Vista uses a folder called BOOT to store its bootloader info, which can be compared to the boot.ini file for previous versions of Windows. If you don't change settings in the BIOS and installed either XP first then Vista or Vista first then XP (which should be the majority of everyone reading this), then adding a Windows XP entry to the Vista bootloader couldn't be easier:

1. Run EasyBCD, and go to the [Add/Remove Entries screen](#).
2. From the drop-down menu, select Windows XP,
3. Press the "Add Entry" button.

At this point, if you have a valid boot.ini file already existing, you haven't changed the drive orders, and you've not done anything unorthodox with your setup process, rebooting your PC should bring you to the Vista boot menu with a working option to boot into Windows XP. If it doesn't work, read on.

#### Invalid/Missing/Corrupt Boot.ini file

The **active partition** is from where your PC begins to boot. This should contain the "BOOT" folder created by Windows Vista. The BOOT folder contains all the files needed by the bootloader to get your PC up and running.

If Boot.ini is on another drive or doesn't exist, you're going to have to create it manually.

1. Ensure a file named "NTLDR" is present in the active partition. If not, copy it over from the XP drive.
2. If the XP drive contains a file called Boot.ini, copy it over to the active partition as well.

Open the boot.ini file **that's on the active partition** (verses a different drive) in notepad or a similar text editor, and make the necessary changes to the contents of the file to get Windows XP to boot. For the purpose of this step, ignore Windows Vista - just do everything the way you would have in the past.

At this point, you have two options. You may either manually configure the boot.ini file, or you can use a

program that comes with Windows to have it automatically created for you. The automatic method should only be used if you can't manually create the file - it's quite a hassle.

## Manually Editing/Creating Boot.ini

It's recommended to manually create boot.ini. At the moment, EasyBCD can't create the boot.ini entries for you, so you'll have to do it the old-fashioned way.

Microsoft has provided some documentation on [editing boot.ini](#) under Windows XP, 2000, and 2003; however, you may find [these instructions](#) by Victor Laurie or [this explanation of boot.ini](#) by "The Starman" to be a more complete and useful resource on this matter. Once your boot.ini file is ready, save your changes and reboot. Select the entry you created earlier for Windows XP from the Vista bootloader, and if you configured the boot.ini file correctly, it should now work.

If, after reading experimenting, you still can't seem to get boot.ini to work, move on to the next section.

## Automatically Creating Boot.ini

This should be the last-ditch effort to get boot.ini working. While this makes it easier to re-create missing/invalid entries in the boot.ini file, it's quite a hassle to get to.

**This method will not work if you don't have an administrator password! To get around this, use a Windows 2000 CD instead!**

1. Boot from the XP CD. When prompted, enter the [Windows XP Recovery Console](#).
2. Select your XP installation from the on-screen menu by entering the corresponding number and pressing the <Enter> key.
3. At the command line screen, type in the following code:

```
bootcfg /rebuild
```

The program should now begin to scan your hard drive for detected Windows installations, and offer to add them to the boot.ini file. Make sure you say yes to all operating systems.

4. Once it's done adding entries, type in

```
Exit
```

at the prompt to quit the recovery console.

5. Take out your CD from the drive, and reboot.
6. At the Vista bootloader, you should now be able to select Windows XP and have it really boot.

## When All Else Fails...

If you've tried and tried and just can't get it to work or you don't have the energy to spare to do all that, this is the only no-nonsense method guaranteed to fix your problem:

1. Run a repair reinstall of Windows XP (no data is lost) by booting from the XP CD and following [these directions](#).
2. Once you're back in Windows XP, use the steps on our [Bootloader Management](#) page to reinstall the Vista bootloader to the MBR.
3. Reboot.

You will see the Vista bootloader instead of NTLDR, and you'll have an option to boot into Vista or XP - both will now work admirably! 😊

## External Links

This section provides links to external (non-NST) guides regarding dual-booting Windows Vista & Windows XP with EasyBCD.

- Victor Laurie's [Guide to Boot.ini](#)
- The Starman's [Boot.ini Guide](#)
- APC Magazine's [Vista & XP Dual Boot Guides](#)
- The APC Guide [translated to Russian](#)
- Panvasoft's guide to [installing Windows XP after Windows Vista](#)
- Another Russian [XP+Vista Dual-Boot Guide](#)
- Hindi [XP & Windows Vista Dual-Boot Guide](#)

## Bootloader Management

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This page last changed on Mar 01, 2007 by [computer guru](#).

### The Bootloader

If you've ever had a problem booting into Windows, configuring a dual-boot between Windows & Linux, or getting Mac OS' Darwin Bootmenu to show up, you know what a bootloader is. The bootloader is an application of sorts that tells your computer where on the hard drive it can find the various operating systems and how to turn them on. Typically speaking, the bootloader resides in the MBR (a bunch of data at the start of the hard drive) and/or the bootsector (a bunch of data at the start of a partition). The bootloader in the MBR activates the bootloader on the bootsector (a process known as "Chainloading") and from there your Operating System boots up. It's where all the hard-to-solve problems come from, and it's also where EasyBCD does most of its work.

Windows Vista uses the "BCD Bootloader" (Boot Configuration Data) to launch Windows Vista when you turn your PC on. It's a very powerful application that can give you complete customized control over how your Operating System boots and with what options. With Windows Vista, the BCD Bootloader is restricted to loading Windows Vista, Longhorn Server, and Legacy Windows Operating Systems. The first two are loaded directly, the third isn't directly supported and instead is *chainloaded* from two files on your hard drive: NTLDR and Boot.ini.

### The "Bootloader Management" Screen

EasyBCD makes it easy to change the bootloader that's installed on your MBR via the Bootloader Management screen:

Cannot resolve external resource into attachment.

### Picking a Bootloader

This section of the EasyBCD Bootloader Management page allows the user to choose which bootloader resides in the MBR. As of EasyBCD 1.5, the two options available are:

- Windows Vista "BCD" Bootloader
- Legacy Windows NTLDR Bootloader

**Please note: Using this page will overwrite any existing MBR! If you are using a 3rd party MBR like Grub or Darwin, don't worry, EasyBCD [can be used instead](#). However, if you are using any software that customizes the MBR, such as Roxio GoBack or Acronis TrueImage, the post-boot interface for these applications will no longer be available. See *\*this page\** for more information getting these programs to work with EasyBCD.**

### The Windows Vista Bootloader

The Windows Vista bootloader is installed to your first-boot hard drive's MBR the first time you install Windows Vista, and every time thereafter it is updated or rewritten depending on its status. In order to boot into Windows Vista, the Windows Vista Bootloader must be the currently installed MBR script! From the Windows Vista bootloader you may boot Windows Vista, Longhorn Server, and Legacy Versions of Windows by default. With EasyBCD, this feature-set is expanded to include Linux, Mac OS X, and BSD amongst others.

EasyBCD can be used whether or not the Windows Vista bootloader is installed to the MBR, but in order for any of the settings visible in EasyBCD to take place upon reboot, the MBR must contain the Windows Vista bootloader.

## The Legacy Windows Bootloader

The Legacy Windows Bootloader, or NTLDR, is used to boot legacy versions of Windows. NTLDR cannot be used to boot into Windows Vista - to do that you must install the new Windows Vista bootloader. Generally speaking, the only time you'd want to install this bootloader to the MBR is if/when you want to completely remove Windows Vista from your system. The Windows Vista bootloader - through EasyBCD - can load any Operating System that NTLDR can boot and then some; making it almost entirely pointless to install NTLDR to your MBR.

Some cases where you might want to install NTLDR to the MBR include installing Windows XP *after* Windows Vista or attempting to install a Linux distribution that uses the 2.4 kernel.

## Writing the MBR

Once you've picked the bootloader you'd like to use, you can proceed and press the "Write MBR" button. **However, please pay careful attention to the following!**

Writing the MBR is a *very* delicate process that requires direct access to the hard drive. This feature shouldn't be used through a virtualization layer or under custom filesystem drivers. Writing the MBR will may result in some rather unexpected behavior!

- Disrupted I/O access to the hard drive.
- Loss of data in the process of being saved to the hard drive.

None of these are fatal and EasyBCD takes extra precaution to protect your hard drive. Under almost no circumstances will this result in problems, however, you might want to do the following before writing the MBR:

- Stop any running torrents - They might become corrupted.
- Finish burning CDs or DVDs - If you don't, the CD will be corrupt and unfixable.
- Save any open documents - And wait for the save to finish.
- Disconnect from network shares - Make sure no one is remotely using critical data from your hard drive.

If you followed these steps you should be OK to hit that button. Once the process is complete, you may

go back to whatever you were doing.

## Configuring the Bootloader

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This page last changed on Jan 19, 2007 by [computer guru](#).

The "Configure Boot" screen in EasyBCD is where you can modify some of the global variables for the bootloader and entry-specific settings for others. Global variables include [bootloader selection time-out](#) & the [default boot target](#), while entry-specific settings allow you to [rename the entry](#), and [change the drive letter](#).

### The "Configure Boot" Screen

The EasyBCD 1.5 "Configure Boot" screen would look something like this:

Cannot resolve external resource into attachment.

## Global Bootloader Variables

### Setting the Default Operating System

In the Windows Vista bootloader (and in most other bootloaders as well), an entry can be set as the "Default Boot Target," meaning that if you don't manually select an entry while your PC is booting within the [time-limit set](#), the default boot target will automatically load. This is so your PC doesn't get stuck at the bootloader screen waiting for your input. There is no way to disable this feature - an entry will *always* be specified as the default boot target, even if you don't select one.

In the drop-down list titled "Default OS" you will find all the visible entries configured in the bootloader. Simply select the entry you would like to be the default boot-target, and press the "Save Settings" button to commit changes.

### Configuring the Bootloader Timeout Option

The "Bootloader Timeout Option" is the global BCD variable that determines how long the Vista bootloader will wait before it boots to the default boot target. The value is set via the numeric up-down box on the "Configure Boot" screen, and its unit is in seconds. Shorter timeout periods generally mean faster boots - unless of course you stay in front of the PC while it loads and don't mind pressing the <Enter> key to speed things up.

Although above we mention that it is not possible to disable the default boot target; by setting the bootloader timeout value to a very high number you can effectively bypass this limitation. The remaining time is displayed on the bottom of the bootloader screen, and counts down to zero from the initial value you set here. Press the "Save Settings" button to commit your changes - no reboot is necessary.

## Entry-Specific Settings

## Renaming an Entry

When you install Windows Vista for the first time, by default it assigns your entries two names: "Microsoft Windows" for the Vista entry, and "Legacy Versions of Windows" for older (Windows XP and under) entries that may or may not have existed. From the "Configure Boot" screen, it is possible to rename any entry to your liking. This is especially advisable because of the overly-generic default descriptor.

You can rename an entry to anything you like and there is no limit on name length. However, keep in mind that the entries will be displayed on a low-res 800x600 bootloader screen, and it doesn't take much for words to scroll off the side of your monitor. Keep it short and simple: it'll look great and you'll be able to know what you're actually booting into.

To rename an entry, simply select the one to be changed from the drop-down list, and enter the new name of your liking in the text box below it. Pressing "Save Settings" will commit your changes to the BCD store, and EasyBCD will automatically re-scan the bootloader and incorporate any changes just made to entry names.

## Changing the Drive Letter

**Warning! Don't change the drive letter before you read this section of the documentation very thoroughly and make sure you fully understand what's being done! Failure to do so can result in a non-booting system! If your system works, don't mess with this option!**

In cases where the drive letters change depending on what OS you're booted into, all changes should be made according to the drive letters *you currently see* in My Computer. EasyBCD automatically converts drive letters to the appropriate Drive and Partition numbering scheme, so enter the drive letter as you see it from the OS you are in at the time. If/When you run EasyBCD from another partition, enter the letters according to that install as well!

### For a Windows Vista or Longhorn Server Entry

For Windows Vista or Longhorn Server entries, the "Drive:" box should contain the letter of the drive that the Vista install in question is installed to.

For instance, on a system with Drives C: and D: where C: is a Windows XP install and D: is Windows Vista, enter "D:" (without the the quotes) as the drive and press "Save Settings" to commit changes. If you have multiple Vista installs, enter the respective drive letters for each operating system. Don't forget: you have to press "Save Settings" for each entry separately!

### For Other Windows Entries

As of EasyBCD 1.5, the "Drive: " textbox must contain the letter of the drive with Boot.ini, ntldr, ntdetect.com, and the folder "Boot." **This is not necessarily the drive that the Operating System is installed to!**

For instance, on a two-partition setup with Vista installed first to Primary Partition 1 ("Drive C:"), and

then XP installed to Primary Partition 2 ("Drive D:"), *the drive letter would be "C:" and **not** "D:"* because that's where all the boot files are! EasyBCD tells the Vista bootloader to load Boot.ini and NTLDR - and *those* files then load the appropriate entry for you. As such, setting drive "D:" as the drive letter will result in failed messages like "NTLDR not found" or "the specified file is corrupt or missing."

### **For Linux, Mac OS X, and BSD**

The drive letter instructions for Linux, Mac OS X, and BSD are similar to those of "For Other Windows Entries" above. The "Drive" textbox must contain the letter of the the boot drive, usually drive C:, that contains a folder called "NST" in the root of the drive. Again, this **is not** the Drive Letter of your Linux install, but the drive that has the "Boot" & "NST" folders in it.

For instance, if the "NST" folder is on drive D:\, you must set the "Drive" text box to "D:" (without the quotes), and so on & so forth.

## Supported Operating Systems

This page last changed on Mar 04, 2007 by [computer guru](#).

### Supported "Destination" Operating Systems

Follows is an up to date list of the operating systems supported (or not) by the latest version of EasyBCD. If an operating system is not listed below, that doesn't mean it doesn't work, just that we haven't tested it yet. Once an operating system is confirmed not working, it'll be listed below. Platforms listed under "Limited Support" have been vouched for as working with EasyBCD, but at the moment aren't officially supported (meaning no documentation and no guarantees). Other operating systems are completely supported, heavily tested, and thoroughly documented.

Platform	Supported
<a href="#">Windows Vista</a>	✓
<a href="#">Mac OS X</a>	✓
<a href="#">Linux</a>	✓
<a href="#">Longhorn Server</a>	✓
<a href="#">Windows Server 2003</a>	✓
<a href="#">Windows 2000</a>	✓
Windows 98	✓
Windows NT	Limited Support
<a href="#">Linux (Grub)</a>	✓
<a href="#">Linux (Lilo)</a>	✓
<a href="#">Solaris</a>	✓
SkyOS	Limited Support
<a href="#">OS/2</a>	✓
ReactOS	Limited Support
<a href="#">BSD</a>	✓
<a href="#">Longhorn Alpha</a>	✓
DOS	Limited Support
Windows 3.x	Limited Support

### Supported Host Operating Systems

These are the operating systems that EasyBCD can be installed on and used from. Some features may only be available from Windows Vista.

Platform	Supported
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Windows Vista	
Longhorn Sever	
Windows XP	
Windows 2000	
Others with .NET 2.0	
Linux w/ Mono	
OS X	

## NeoGrub

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This page last changed on Mar 06, 2007 by [computer guru](#).

NeoGrub is EasyBCD's "magic bootloader." It was added in EasyBCD 1.51, and since then, it has played a major role in getting non-compliant, buggy, and out-dated operating systems to boot with Windows Vista - along with a number of other nifty tricks that couldn't be done otherwise. NeoGrub makes use of the wonderful work of the Grub4Dos project.

### Installing NeoGrub

Installing NeoGrub is easy, EasyBCD takes care of all of it for you. The hard part is configuring it to do what you want...

1. Launch EasyBCD (preferably from Windows Vista)
2. Go to the ["Add/Remove Entries" Screen](#).
3. Navigate to the "NeoGrub" tab in the "Add an Entry" section.
4. Select "Install NeoGrub"
5. EasyBCD will do the rest for you.

You should now have an entry "NeoGrub" in the Vista bootloader - but the catch is, it's useless. At the moment, NeoGrub doesn't do anything, you have to configure it to do what you need.

### Configuring NeoGrub

Once you've added NeoGrub to the Vista bootloader, when you go back to the Add/Remove Screen, the option to install NeoGrub should no longer be there. Instead, you'll have two shiny, new buttons to use: "Remove NeoGrub" and "Configure." Removing NeoGrub isn't what we want right now (scroll down if that's what you're looking for), so click the "Configure" button to open the NeoGrub menu file in notepad.

### NeoGrub Menu File

NeoGrub uses a file called "menu.lst" kept in X:\NST\ to tell it what to do. This is where we do all our hacking to make operating systems work, drives disappear, and magic happen.

NeoGrub uses the same syntax as its parent bootloader, [GRUB](#). You can edit this menu file in any text editor, we recommend [TextPad](#).

As of EasyBCD 1.6, NeoGrub ships with a number of "profiles" commented out in the configuration file. A comment in menu.lst is a line preceded by the pound "#" sign - NeoGrub sees the line, but it doesn't read it looking for commands. You can uncomment (by removing the # sign) these lines to "activate" them.

Most often, NeoGrub is used to boot into Linux partitions without resorting to Live CDs, GRUB & LILO messes, and partition managers to get a dual-boot working. Here's a standard configuration file for booting into a Linux partition:

```
# NeoSmart NeoGrub Bootloader Configuration File
#
# This NeoGrub menu.lst file should be located at \NST\menu.lst of the boot drive.
# Please see the EasyBCD Documentation for information on how to create/modify entries

title Ubuntu
root (hdl,1)
kernel /boot/vmlinuz-2.6.17-10-generic ro root=/dev/hdb2
initrd /boot/initrd.img-2.6.17-10-generic
```

Given the sample file above, NeoGrub would display a menu with one entry (Ubuntu). When you select Ubuntu from the NeoGrub list, it'll try to find the second partition of the second hard drive, and boot from it.

**The configuration file changes from one computer to another.** If you actually copy and pasted this to your machine, it almost certainly wouldn't work. You have to manually specify the details for the root, kernel, and initrd lines.

Since NeoGrub uses GRUB as the framework, you can refer to the [official GRUB documentation](#) for help with any specific syntax issues.

## Limitations of NeoGrub

NeoGrub is not a full-fledged GRUB bootloader, rather it's a very-much modified version of GRUB intended for configuration from Windows and booting off of NTFS filesystems. As such, it does have several limitations, chief of which is the inability to boot into anything except a FAT, ext2, ext3, or NTFS filesystem. If you have Linux installed on, say, ReiserFS, you can't use NeoGrub.

The most common Linux distributions use ext3fs as the default filesystem, so this shouldn't be too much of an issue. At the moment, there isn't much that can be done, this is a technical limitation imposed by the size of the bootsector. We are not employing the GRUB Stage 1.5 workaround, and instead go straight from Stage 1 to Stage 2 - and the size of the bootsector/mbr means we can only fit so many filesystems into the Stage file. Having NTFS support (needed to read the menu.lst file) meant that we had to sacrifice support for other filesystems.

## Uninstalling NeoGrub

You can easily uninstall NeoGrub by going back to the "Add/Remove Entries" screen and selecting "Remove NeoGrub." EasyBCD will automatically deal with all the grimy details, and NeoGrub will be gone.

**Do not remove NeoGrub from the main Add/Remove Entries screen!**

Simply removing the listing for NeoGrub in the Vista bootloader (from the same place you remove other operating systems and rearrange their order) will only remove the link to NeoGrub. While this isn't fatal, you won't be able to have EasyBCD re-create that link for you, and you must instead manually use the EasyBCD Power Console to get it to work again.

## External Links

- Herman's [Ultimate Guide to GRUB](#) - Just about everything you'll ever need
- [Official GRUB Documentation](#) - Useless for troubleshooting, but excellent for syntax
- [Gentoo GRUB Docs](#) - Troubleshooting & Error Codes

## MBR Backup

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This page last changed on Mar 01, 2007 by [computer guru](#).

## Legacy Windows Versions

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This page last changed on Apr 24, 2007 by [computer guru](#).

With [EasyBCD](#), it is possible to have Windows Vista boot into legacy (DOS-based) versions of Windows - though at the moment it's a slightly convoluted process due to limitations of the Windows Vista bootloader. Hopefully future versions of EasyBCD will provide workarounds that make it a much more enjoyable and easy-to-accomplish task!

## FAQ

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This page last changed on Apr 24, 2007 by [computer guru](#).

### EasyBCD Frequently Asked Questions

#### What is EasyBCD?

EasyBCD is NeoSmart Technologies free bootloader management and configuration tool for Windows Vista. You're now reading the EasyBCD FAQ, you can download it [here](#), or view some screenshots [here](#).

#### Is EasyBCD free?

Yes. It's totally, completely, and forever 100% free. But [you can donate](#), and we won't say no!

#### Does EasyBCD work on x64 versions of Windows Vista?

Do cows eat grass?

#### Does EasyBCD work without Windows Vista?

The official answer is no. EasyBCD only works with Windows Vista installed somewhere on the same machine. However, EasyBCD can be run from any other OS. Technically, you can run it by only installing the Vista bootloader instead of all of Windows Vista, but this isn't a supported method, and no help will be given as far as accomplishing it goes.

#### EasyBCD Corrupted my MBR!!

No it didn't. Read on.

#### Does EasyBCD modify my MBR or Bootsector?

Nope. EasyBCD is a very special and unique application in that it doesn't even *touch* your bootsector or MBR, yet it's still the most powerful bootloader on the planet! Vista installs the "BCD Bootloader" to your MBR and Bootsector. EasyBCD simply adds functionality to the BCD files on your Windows Vista installation to add features and make it a more capable bootloader. **EasyBCD *never* touches the MBR unless you specifically ask it to**, namely when attempting to fix a corrupted bootloader, switch bootloaders, or backup/restore MBR images.

#### Can it boot into xxxxx?

We don't *really* need to know what operating system it is that you're asking about, because at the

moment, there's nothing that EasyBCD **doesn't** boot into! So yes, it can. You check the list of all [verified operating systems](#) to make doubly sure though.

### **How much does it cost again?**

Yeah, we know it's hard to believe too; but EasyBCD is really just 100% free. Sometimes we too wake up in the middle of the night in a cold-sweat thinking that EasyBCD isn't free - but no worries, it is and always will be! (Hint: [DONATE HERE!](#))

### **Can it grow my hair back?**

If you can connect your hair to your Windows Vista PC: yes. Otherwise, not yet.