

Windows XP installation CD Slipstream for eBox-3300 ("Floppy"-less install)

Revision History

Rev.	Date	Author	Description
0.5	06/06/2009	Yogev Ezra	First draft
0.9	20/06/2009	Yogev Ezra	Added missing screenshots, preface and copyright notice. Formatted the document.

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Preface:

DMP eBox-3300 (www.compactpc.com.tw) / NorhTec MicroClient JrDX (www.norhtec.com) uses "RDC Semiconductor" IDE controller, which is not supported "out-of-the-box" by most Operating Systems. Windows XP is not an exception, and it requires a boot-time driver for this controller during Setup, to be able to detect hard disk / CF card during installation.

The standard procedure in this case is to supply a floppy diskette with drivers at boot time (by pressing F6 when prompted for third-party drivers). The problem with this procedure is that by June 2009, floppy disk drives have long been obsolete and do not exist in most computers anymore, while Windows XP is still widely used. So for most users, when they want to install Windows XP on eBox-3300 / MicroClient JrDX, they would have to purchase a USB floppy drive and some floppy diskettes, which a) costs too much money for 1-time usage; and b) requires additional wait time until the ordered floppy drive arrives when the computer itself is already in user's possession.

To save the extra costs and time, a solution is known called "slipstreaming". More information on this solution can be found here: [http://en.wikipedia.org/wiki/Slipstream_\(computing\)](http://en.wikipedia.org/wiki/Slipstream_(computing)). But in short, it is possible to avoid having to purchase a USB floppy, by integrating the missing IDE (and other) drivers directly into Windows XP installation CD.

 NOTE	Basically, you just need to add the drivers to the installation CD and modify <i>TXTSETUP.SIF</i> file that is located in i386 folder of the CD to use the drivers you added. However, the modification is not straightforward, and definitely not for the novice user, so it's much easier to use off-the-shelf software that will automatically modify <i>TXTSETUP.SIF</i> and add the drivers for you.
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Prerequisites:

To complete the job, you would need the following:

1. A **legal** Windows XP installation CD (physical CD or ISO image file).
2. An ISO image burning to CD tool like Ahead "Nero Express" or similar.
3. Another computer (besides the eBox-3300) with CD-RW / DVD-RW device, running Windows (not necessarily XP).
4. A blank 700MB compact disk.
5. We assume that you already have a USB CD-ROM that is needed for eBox-3300.
6. Download all the necessary software (see below).

List of necessary software:

Software description	Software name	Version used in the document	Main download location
Slipstream program	nLite	1.4.9.1	http://www.nliteos.com/
VGA drivers [#1]	XGI Volari Z9S	R1.11.03 2008/11/06	http://www.xgitech.com/sd/sd_download.asp
IDE controller driver [#2]	RDC Atapi D1010	01/19/2009, 1.3.2.1 (hacked)	http://robosavvy.com/Builders/PedroR/Roboard_IDE_TextMode_RobosavvyFix.zip
LAN driver	RDC R6040	06/19/2008, 1.0.01.0619	http://www.compactpc.com.tw/download_drv.htm

 NOTE	Note: all software listed above can be also downloaded from mirror location http://groups.google.com/group/microclient/files
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[#1] For VGA drivers you can use any driver version you find, and it will work fine (both the old one that is available on DMP website, and the newer one on XGI website). But if you're eager to get the latest driver, it might be a bit tricky to find it on XGI website. So, follow the download link in the table above, and then select **Embedded** -> **Volari Z7/Z9/Z9s/Z...** -> **Windows** and click "Go", like on below screenshot:

Download

Choose XGI product from the list below to see all the available downloads.

<div style="background-color: #f0f0f0; padding: 2px;">Desktop</div> <div style="background-color: #f0f0f0; padding: 2px;">Mobile</div> <div style="background-color: #0070c0; color: white; padding: 2px;">Embedded</div> <div style="background-color: #f0f0f0; padding: 2px;">Server</div> <div style="background-color: #f0f0f0; padding: 2px;">Discontinued Prodi</div> <div style="background-color: #f0f0f0; padding: 2px;">Wallpaper</div> <div style="background-color: #f0f0f0; padding: 2px;">Screensaver</div>	<div style="background-color: #f0f0f0; padding: 2px;">Volari XP10</div> <div style="background-color: #f0f0f0; padding: 2px;">Volari V5XE</div> <div style="background-color: #f0f0f0; padding: 2px;">Volari V3XE</div> <div style="background-color: #0070c0; color: white; padding: 2px;">Volari Z7/Z9/Z9s/Z</div>	<div style="background-color: #0070c0; color: white; padding: 2px;">Windows</div> <div style="background-color: #f0f0f0; padding: 2px;">Linux</div>
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[#2] The original IDE controller driver from http://www.compactpc.com.tw/download_drv.htm (DMP website) would do the job fine with USB floppy, but will not work in "slipstream" method. This problem was first encountered by Robosavvy site (which is selling a mobile robot board based on the same CPU & chipset as eBox-3300), and fortunately their developers managed to solve it by altering the .INF file in the driver. At this opportunity I would like to thank them for making our lives much easier!

So you have been warned not to use the original drivers, but if you still try them (or already tried without knowing this problem, and are stuck now), this is what will happen:

The "slipstream" software we are going to use (nLite) will proceed successfully and create a bootable ISO image, which you would be able to burn successfully on a CD. However, during Windows XP installation you will get a blue screen (like on screenshot below) after the first installation part is finished. This is very annoying because you will not know it until you create and burn the CD, format the hard disk / CF card in eBox-3300 and go through Windows XP Setup files copy process (which in total will take you about 2 hours). If you follow the standard install instructions for Windows XP from DMP website, and use the USB floppy, then you should not experience this problem, but then again – our point is to save on purchasing / using the USB floppy.



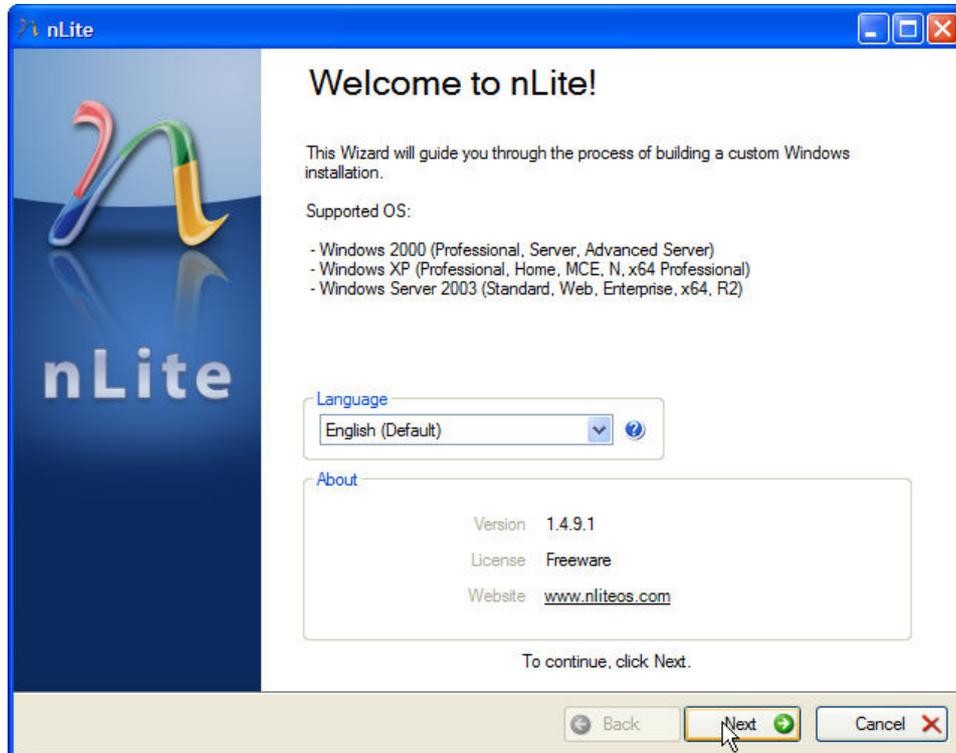
*** STOP: 0x0000007B (0xF9C2A528, 0xC0000034, 0x00000000, 0x00000000)

Installation:

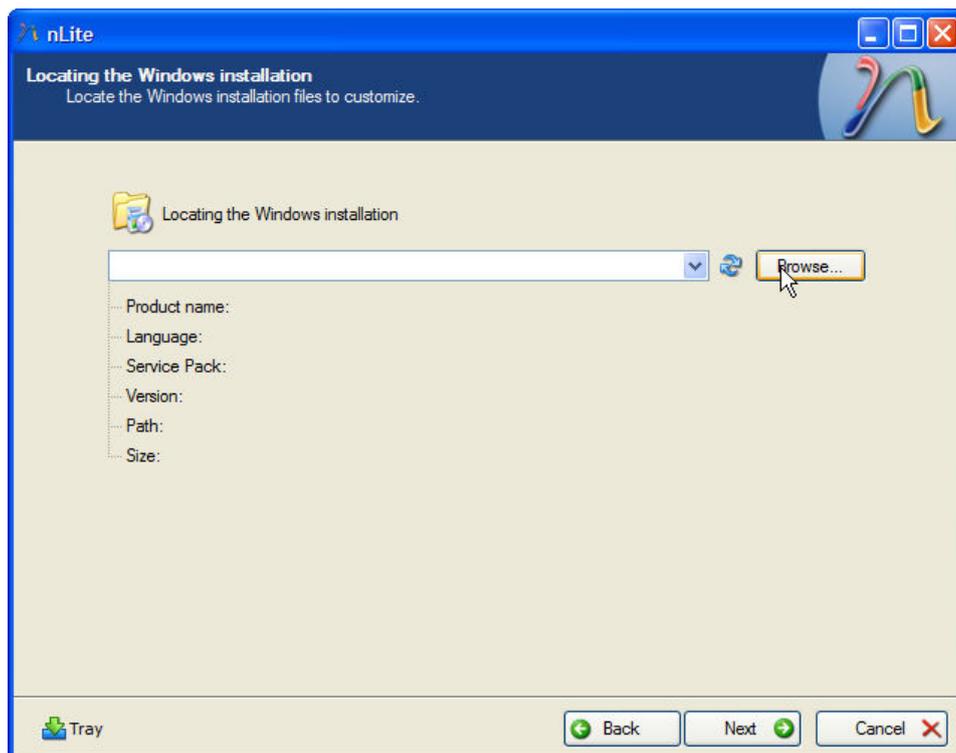
1. Install nLite that you downloaded from the link supplied above.
2. Extract the 3 drivers you downloaded from archived files, and create in your PC a folder named "eBox-3300 drivers". Copy the 3 folders with drivers as subfolders of this folder.
3. Start nLite and follow the steps in the next chapter.

Slipstreaming:

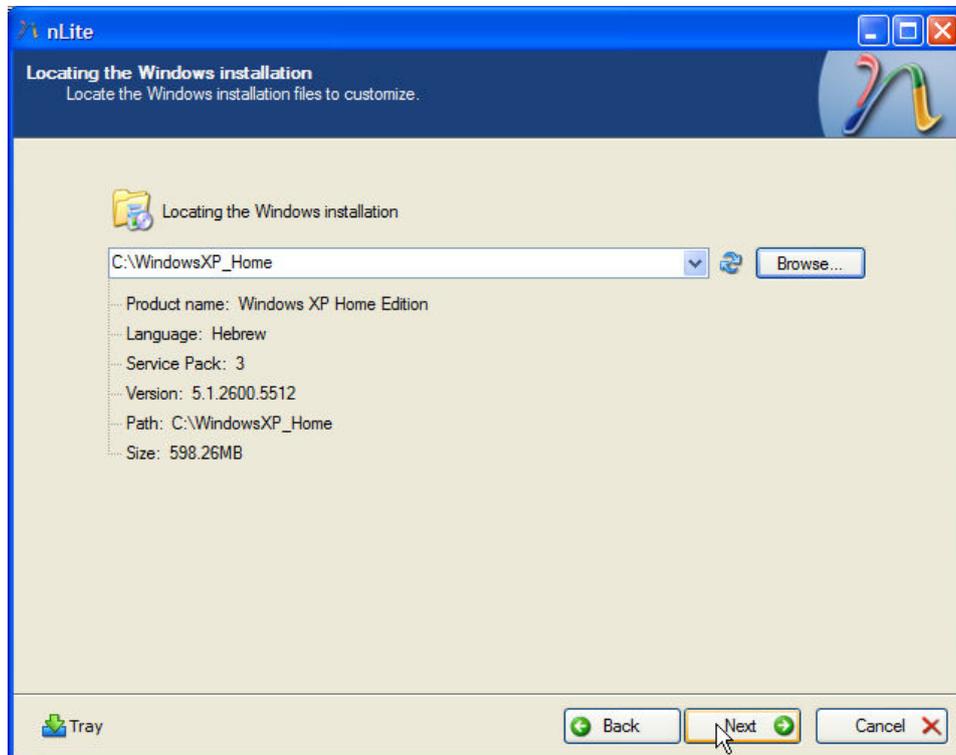
Choose your language and click **Next**. This is not the language of Windows XP that you will work with, but the language of nLite interface.



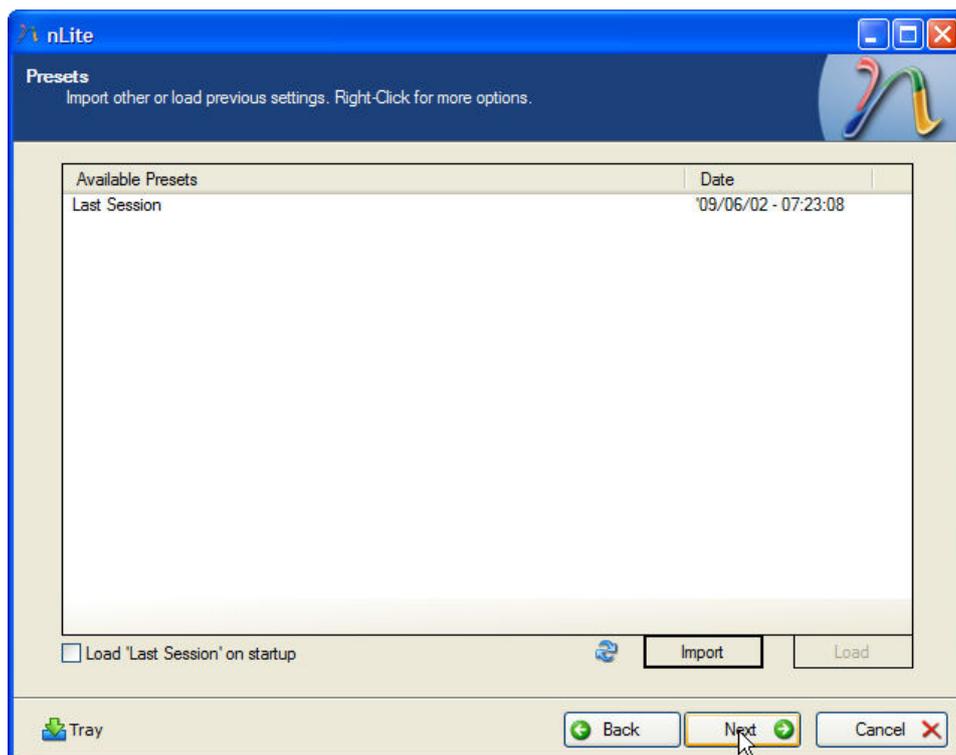
At this point you need to own either Windows XP CD or Windows XP ISO file. If you have Windows XP ISO file, extract it to a folder on your hard disk. If you have Windows XP CD, insert it into your PC.



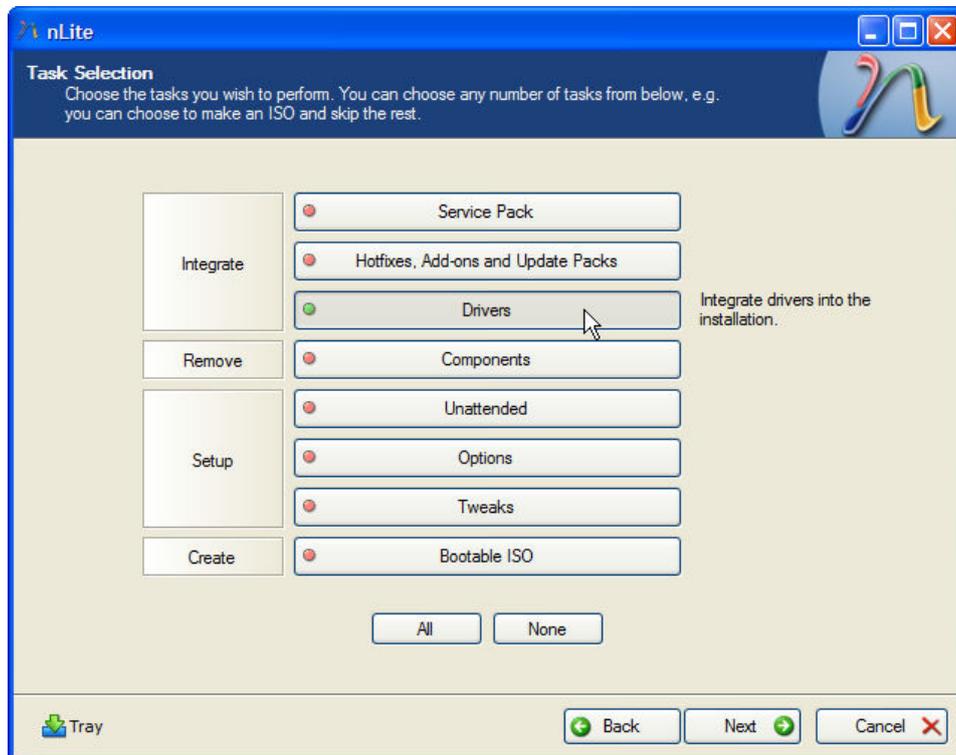
Click **Browse** to point nLite to a valid Windows XP installation CD (or a valid folder extracted from Windows XP ISO). It will detect the Operating System details (as in below screenshot) and allow you to proceed by clicking **Next** (In my case, I use Windows XP Home Hebrew with Service Pack 3).



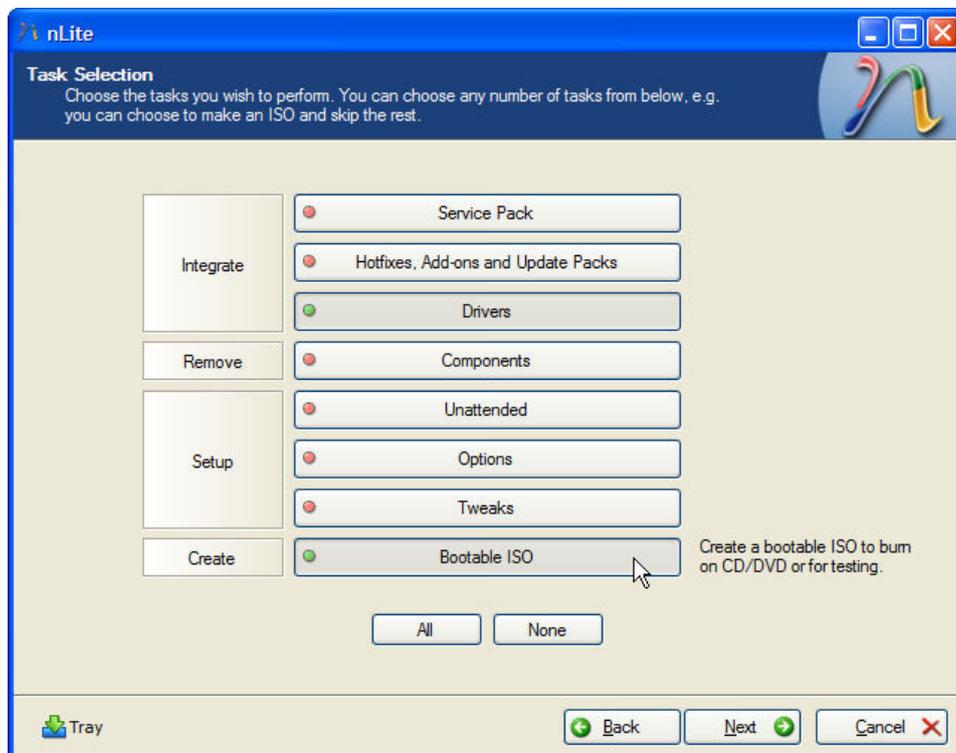
If you already worked with nLite before, the following screen will show you the saved settings. Click **Next** here (or modify your settings if you are familiar with nLite). I just clicked **Next**:



Next screen will allow you to add various drivers, Service Packs and other utilities to the Windows XP CD. Mark the "Drivers" section so that green light appears to the left of it:

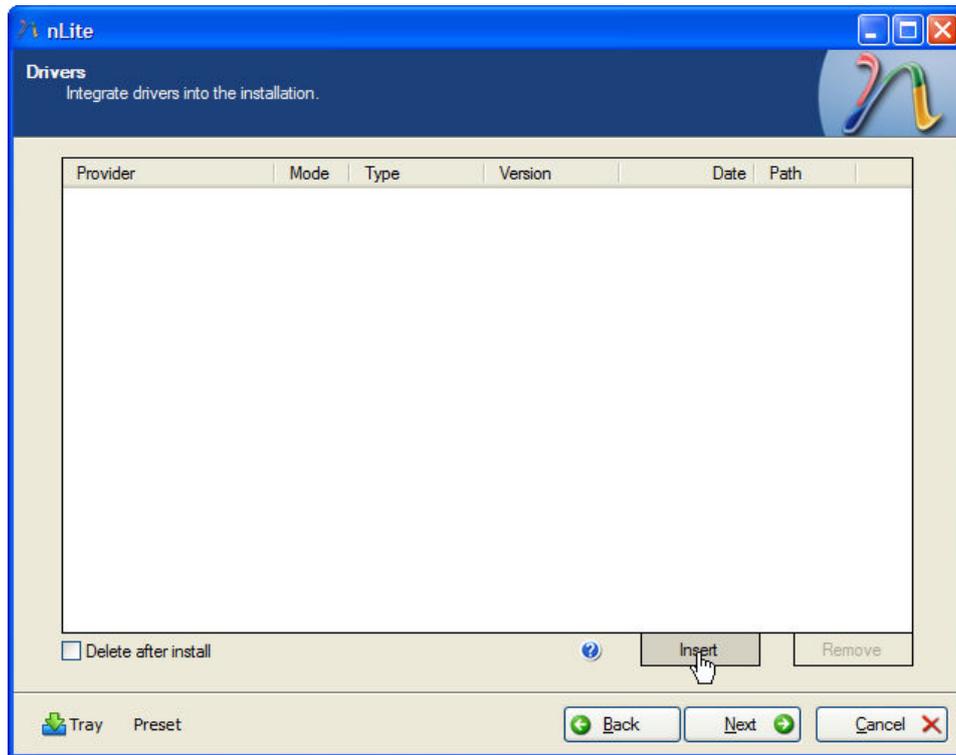


In the end we want to produce a Bootable ISO file which we will later burn to CD using Nero Express or similar software. So we will mark "Bootable ISO" as well:

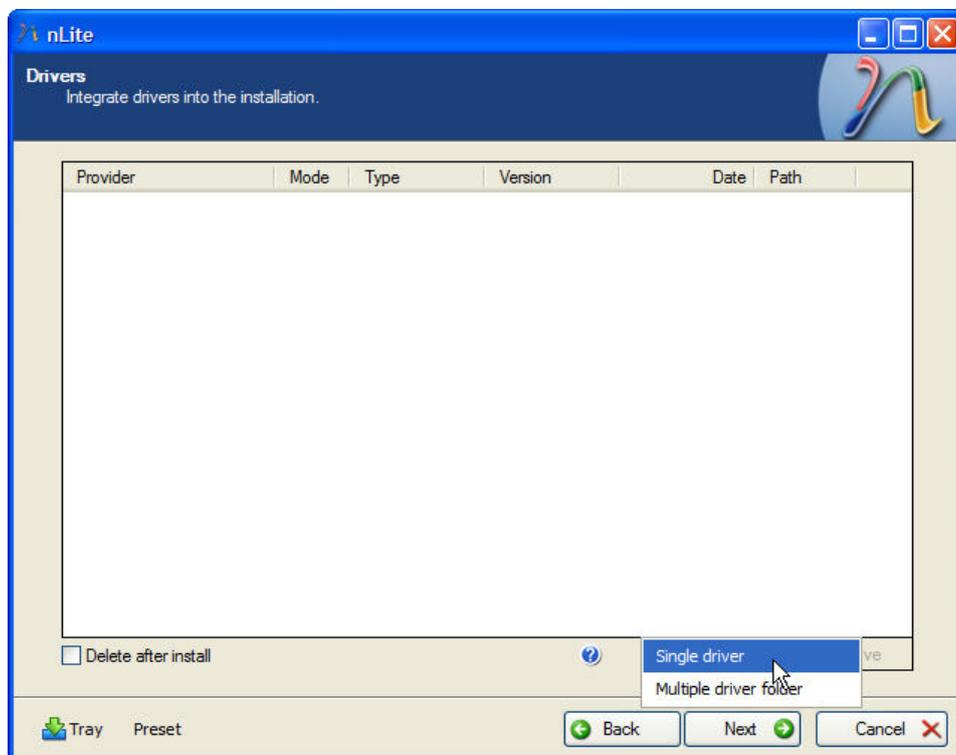


Now click "Next".

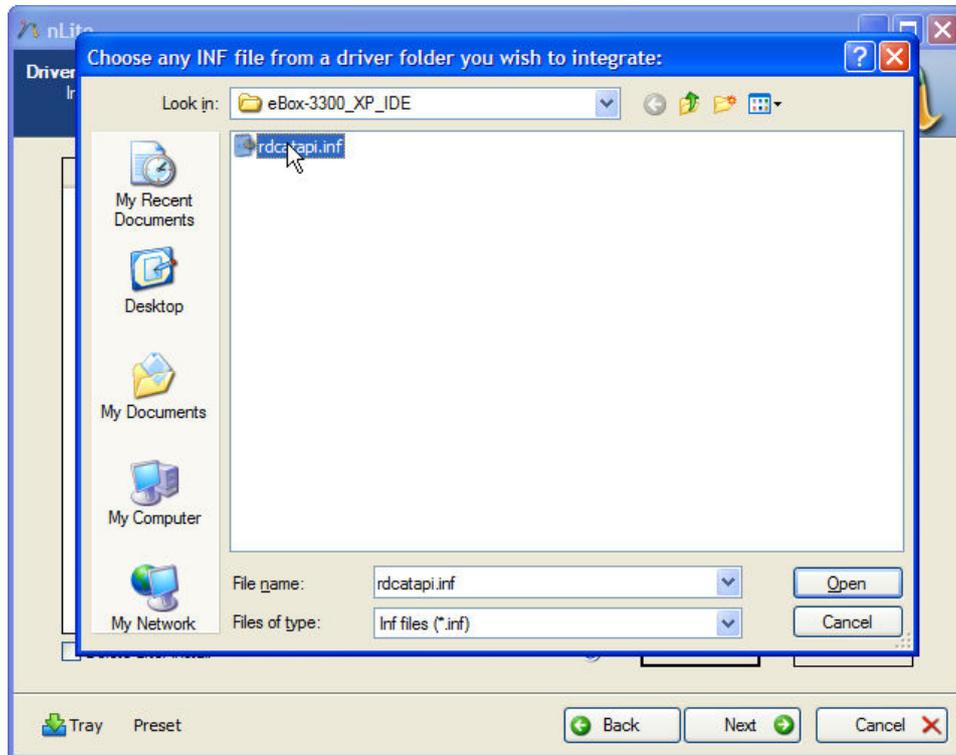
You will get a screen with a possibility to add drivers. Click **Insert**:



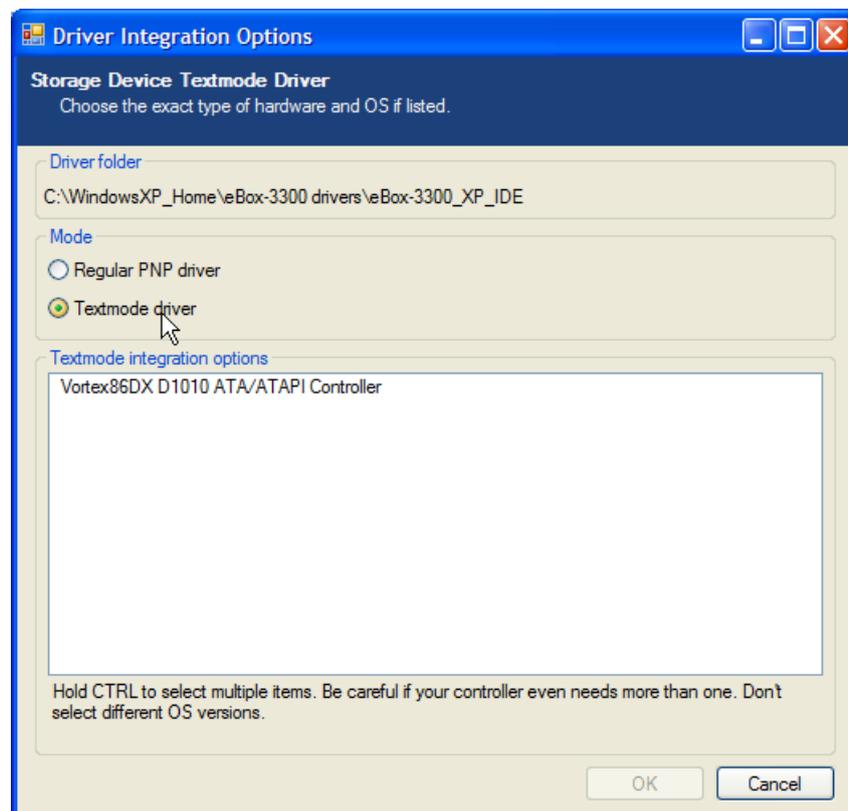
Choose "Single Driver":



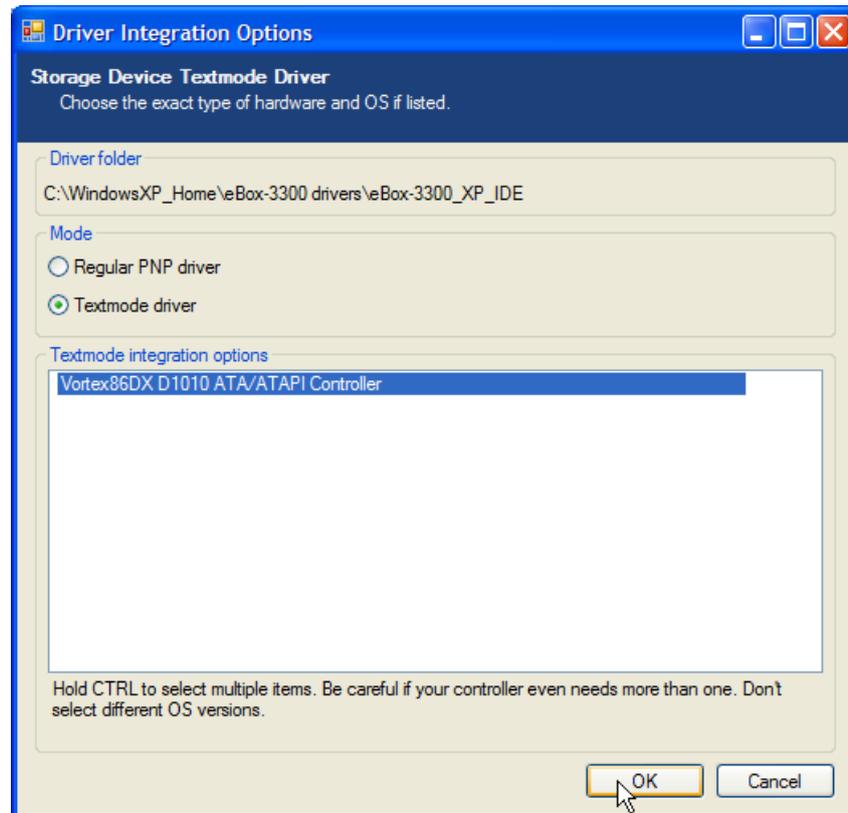
Point your browser to "eBox-3300 drivers" folder that you created in previous chapter (with all the drivers you downloaded according to the "List of necessary software" table), and go inside "IDE drivers" subfolder. Then double-click "rdcatapi.inf":



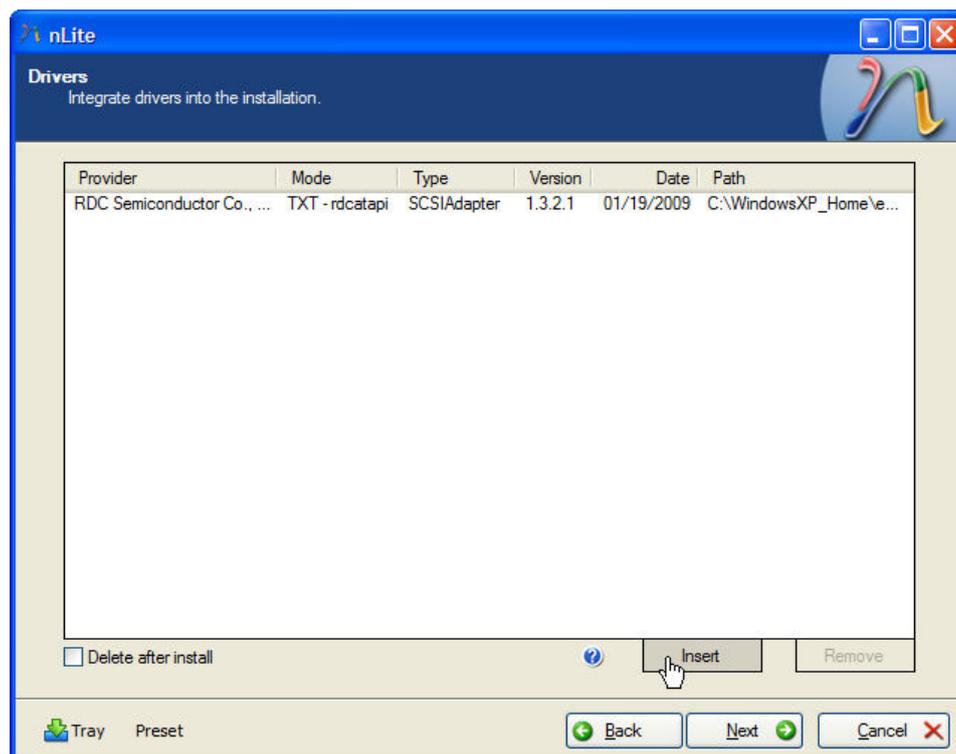
You will get an option to select either "Regular PNP driver" or "Textmode driver". Select "Textmode driver":



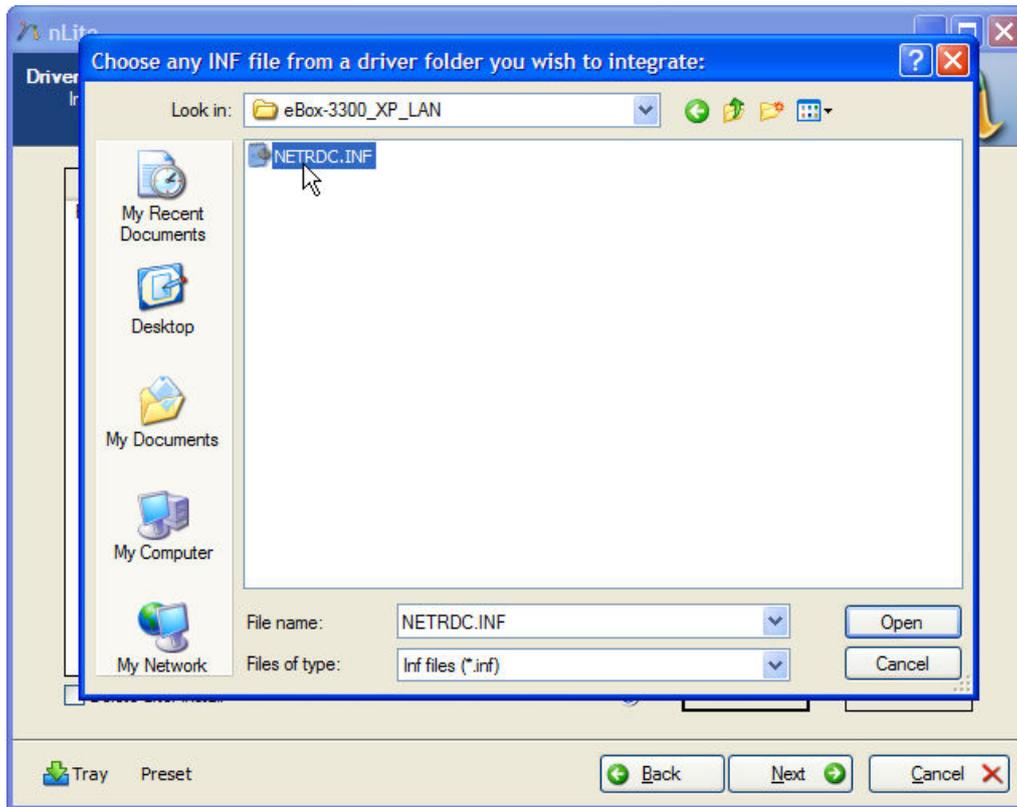
Now click on the driver name in the "Textmode integration options" box, and click "OK":



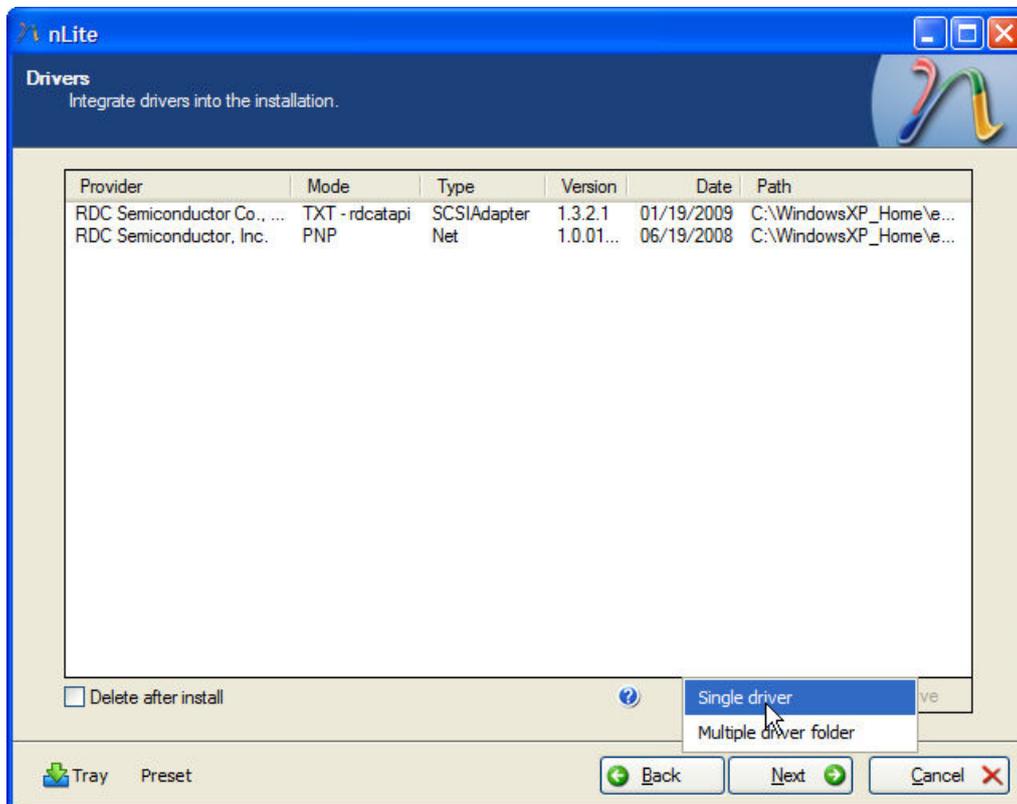
Note that the driver appeared in the drivers list now. IDE driver is the only one needed during Windows XP Setup time, and integrating just it, would already save us from using the CD-ROM. However, if we are at it already, we would like to integrate also the LAN and the VGA drivers. For this, click **Insert** again, and repeat this procedure for LAN driver:



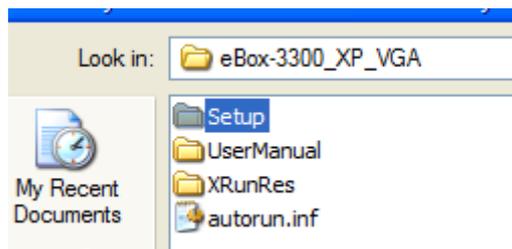
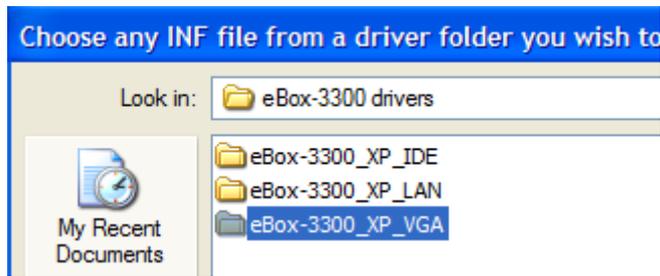
Double-click "netrhc.inf":



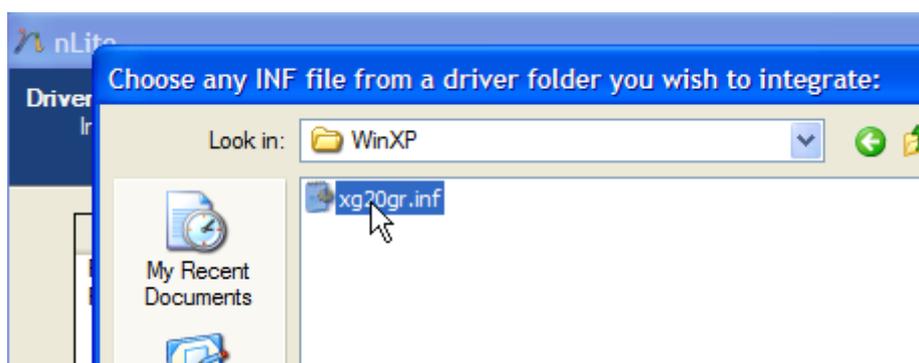
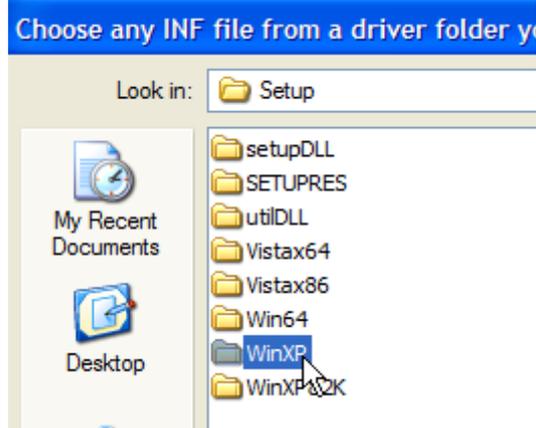
After LAN driver is added, let's do the same for VGA driver:



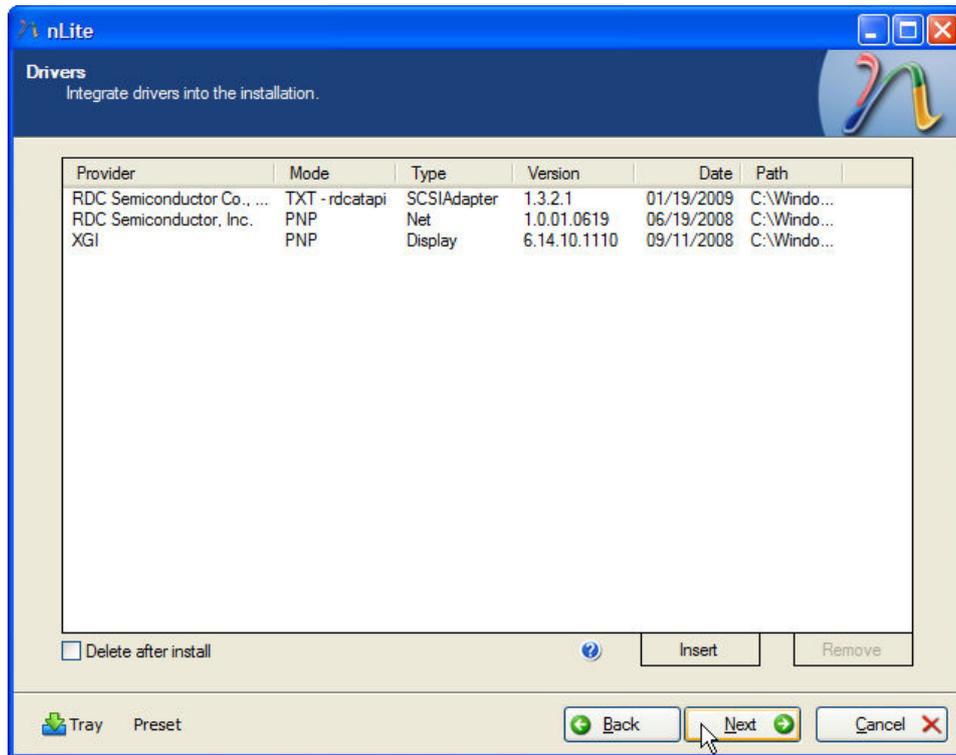
The VGA driver contains more than one folder, so below you see the screenshots that show you from which folder exactly to take the driver. In our case, we navigate to WinXP folder:



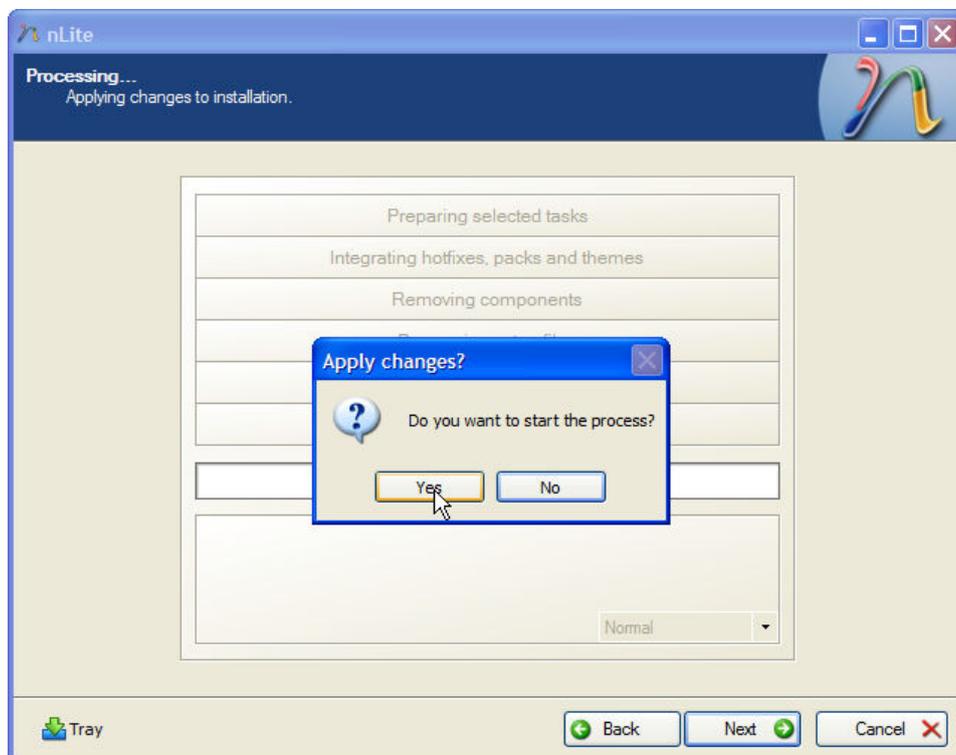
Make sure we select the Windows XP drivers:



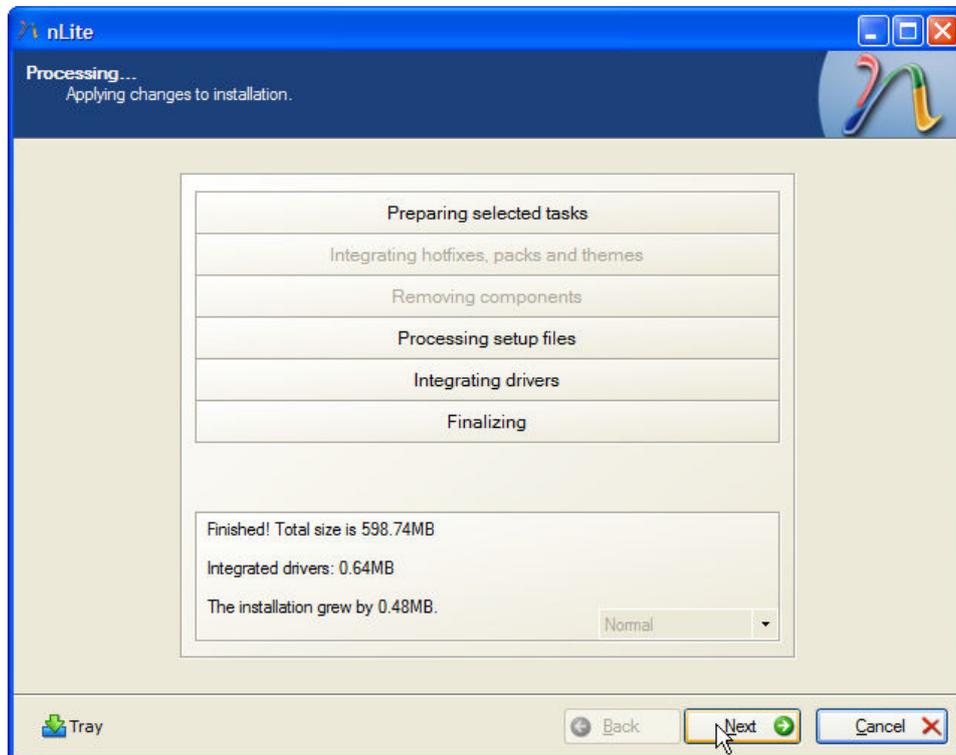
At the end, we should have 3 drivers in the list like shown below. Now click **Next**:



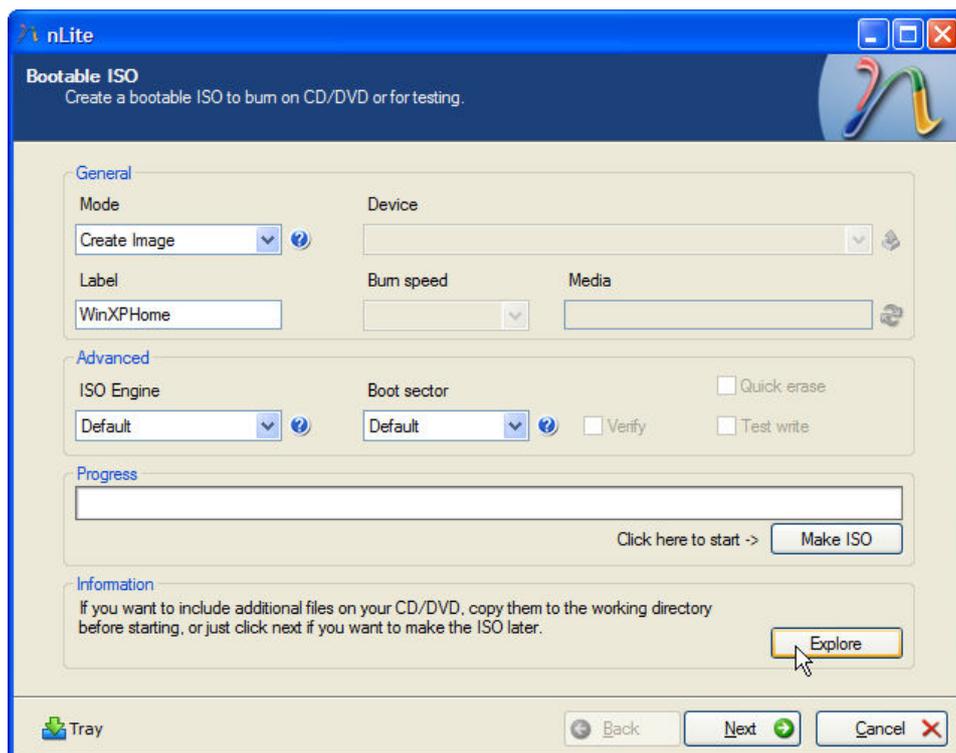
Click **Yes** to start the "slipstream" process.



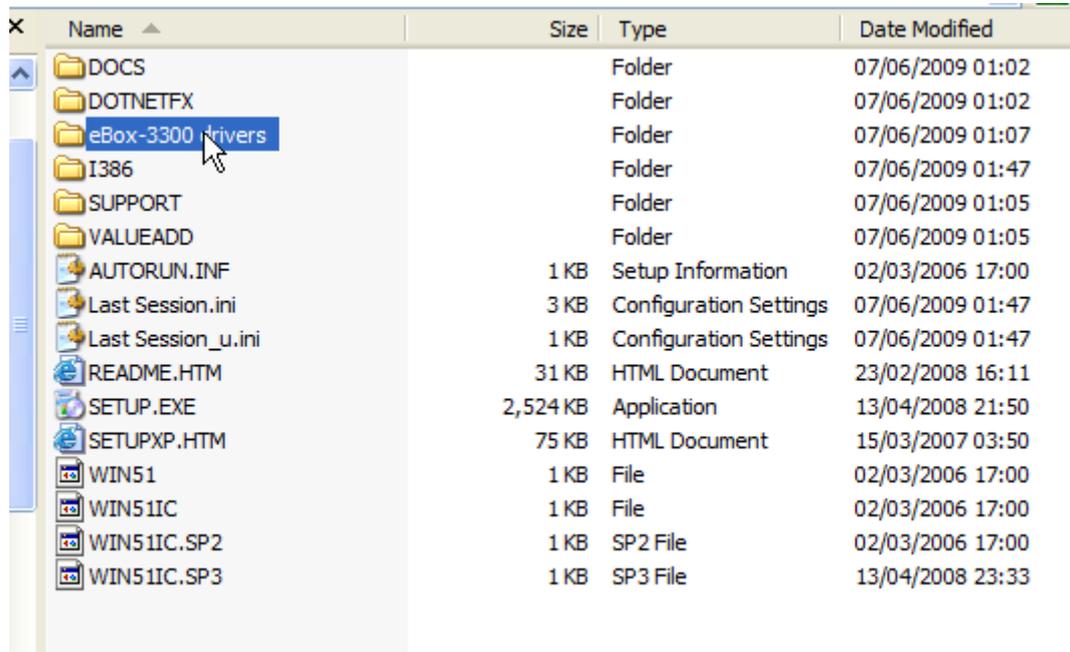
When the process is finished, you will see the info on the current ISO size. Make sure the total size is below 700MB and then click **Next**:



Now you may burn the image directly on CD, but we prefer to create an ISO file first, so that you can burn it again in case your previous CD stops functioning or gets lost. So, here we will select **"Create Image"**. You can change the label from "nLite" to something more meaningful like "WinXPHome". Now we also have the option to add the drivers we just inserted into Windows XP installation also as a folder on the CD, so that we could conveniently copy them from the CD to eBox-3300 after Windows XP installation is finished. Click **"Explore"**:

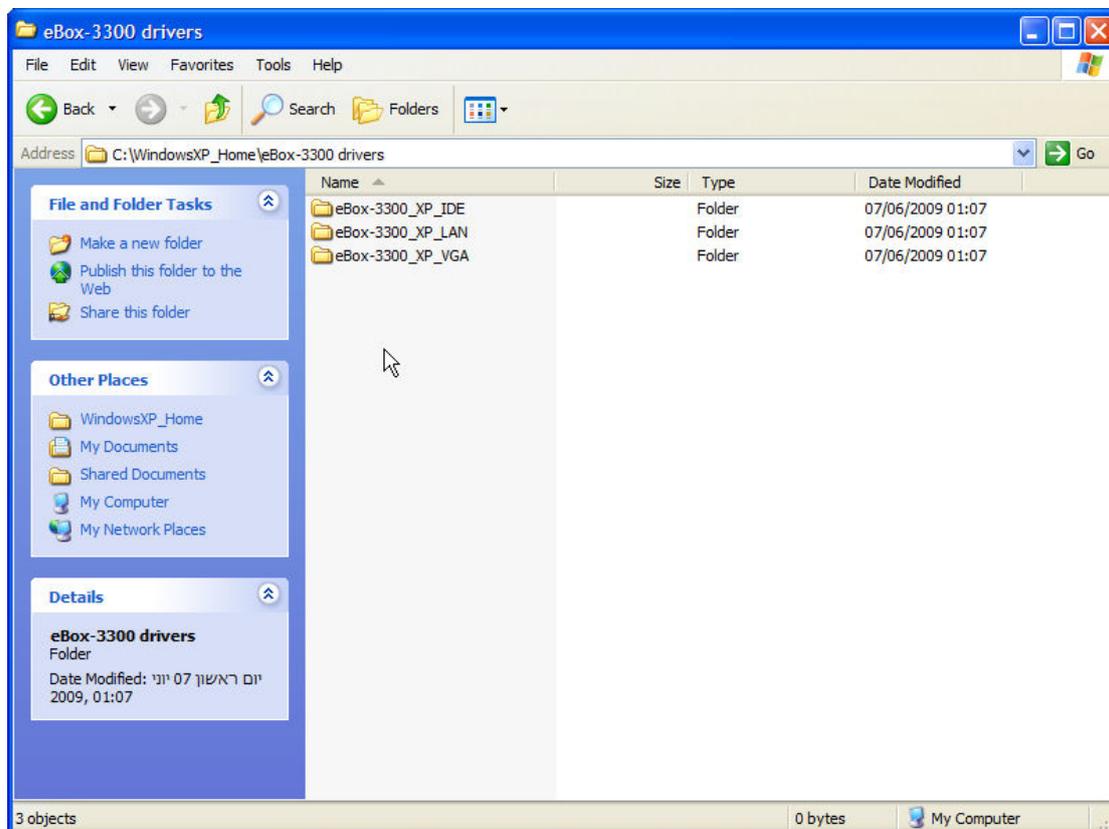


You will get the temp folder opened. Copy here the 3 folders we extracted before from the 3 driver files we downloaded:

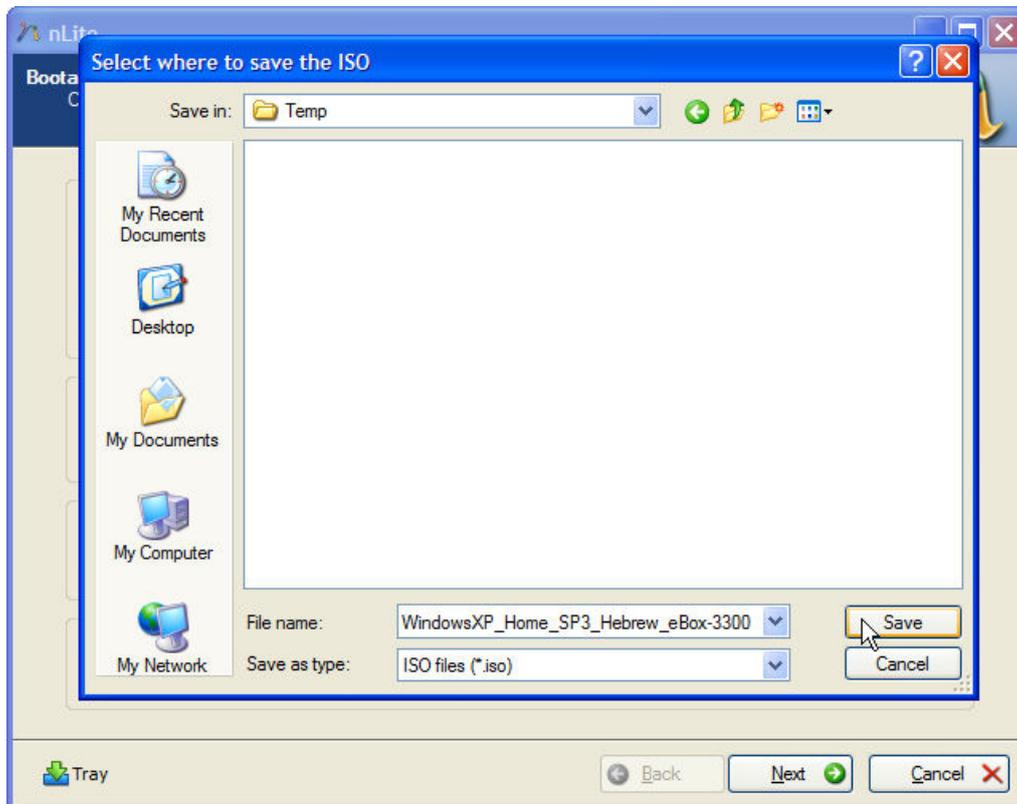


Name	Size	Type	Date Modified
DOCS		Folder	07/06/2009 01:02
DOTNETFX		Folder	07/06/2009 01:02
eBox-3300_drivers		Folder	07/06/2009 01:07
I386		Folder	07/06/2009 01:47
SUPPORT		Folder	07/06/2009 01:05
VALUEADD		Folder	07/06/2009 01:05
AUTORUN.INF	1 KB	Setup Information	02/03/2006 17:00
Last Session.ini	3 KB	Configuration Settings	07/06/2009 01:47
Last Session_u.ini	1 KB	Configuration Settings	07/06/2009 01:47
README.HTM	31 KB	HTML Document	23/02/2008 16:11
SETUP.EXE	2,524 KB	Application	13/04/2008 21:50
SETUPXP.HTM	75 KB	HTML Document	15/03/2007 03:50
WIN51	1 KB	File	02/03/2006 17:00
WIN51IC	1 KB	File	02/03/2006 17:00
WIN51IC.SP2	1 KB	SP2 File	02/03/2006 17:00
WIN51IC.SP3	1 KB	SP3 File	13/04/2008 23:33

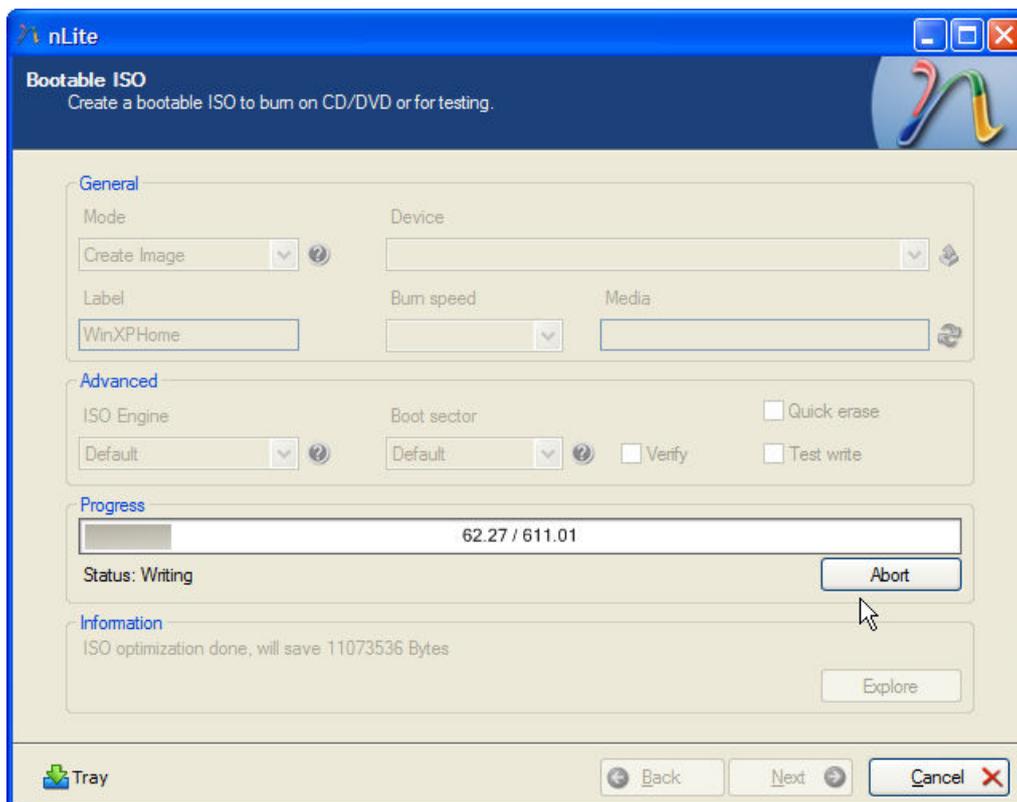
It is good to put them all in the same folder, like "eBox-3300_drivers":



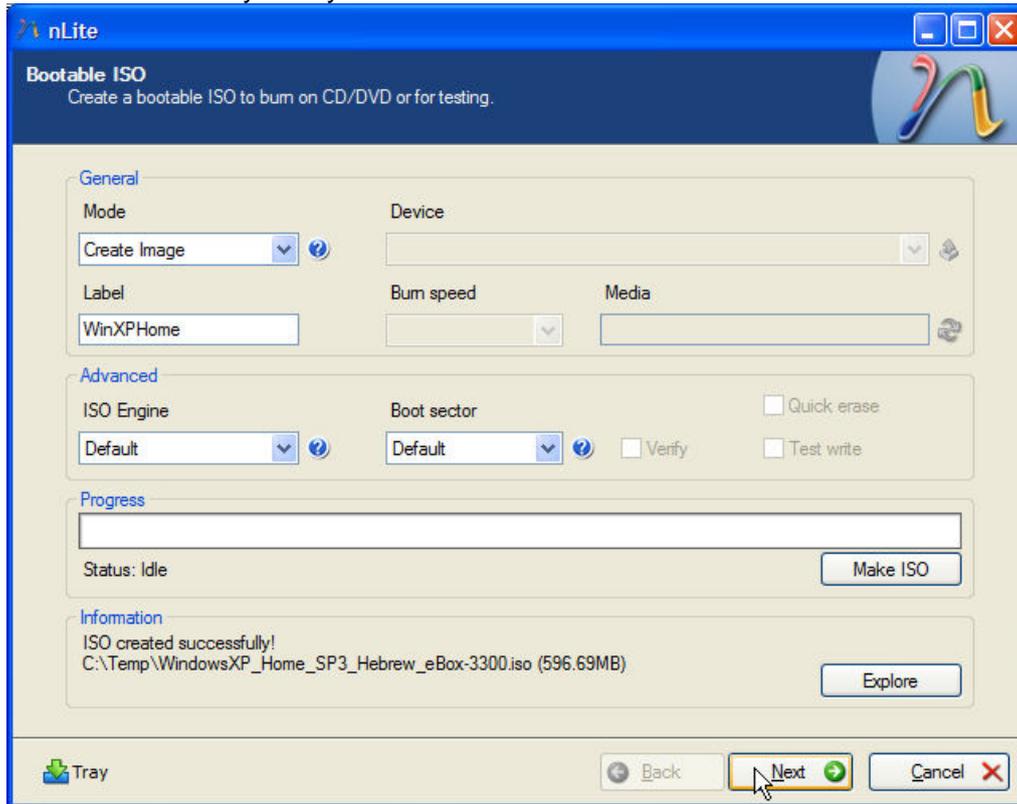
When you finished copying them, return to nLite and click **"Make ISO"**. You will get a prompt to specify the ISO file name. When you wrote the name, click **"Save"**:



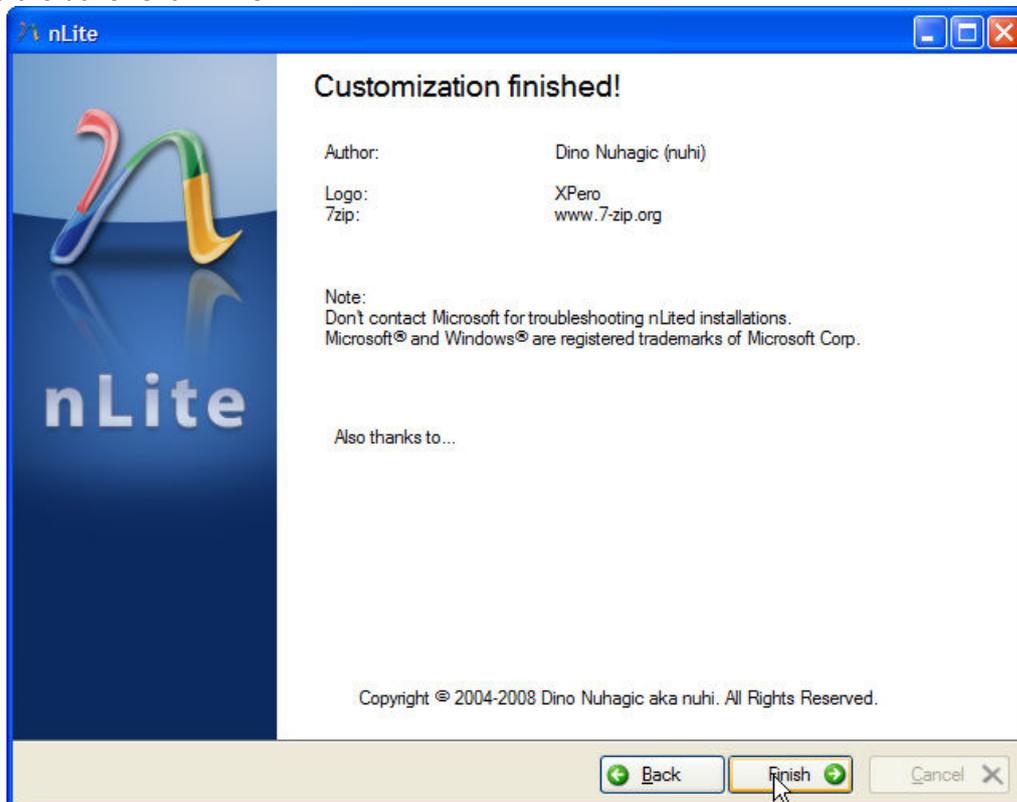
Wait as ISO file is prepared:



ISO created successfully. Verify that it's less than 700MB and click **Next**:



You are done! Click **Finish**:



Now burn your ISO file to a CD using Nero Express or another software. The mode you need to select is "**Burn Image to Disk**" and not "**Create a Data CD**"! After the CD is ready, insert it into USB CD-ROM, connect to eBox-3300 and proceed with Windows XP installation. All the drivers should be already recognized by Windows, and you would not need to install anything.