OCZ Forum

User Guide

PC Bootable Toolbox

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Installation Technical Support
OCZ products include free technical support for direct, expert advice.

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1. Quick Guide

a. Download the OCZ Bootable Toolbox ISO file from the Forum or: http://ocz.com/consumer/download/firmware

b. Create the bootable media of your choice (USB or CD) as outlined in section 3.

c. Insert your Media and manually boot to it

d. Verify your Network connection (includes wireless network setup) as outlined in section 4a-c below.

e. Complete the task you are attempting (update firmware etc.) then shutdown and remove the USB or CD.

2. Limitations, Disclaimers, General Notes

a. If you have issues with Secure Erase, close the Toolbox and click the desktop. In the menu that pops up select applications, then select "Alternative HDParm Secure erase" to Secure Erase your drive.

b. If you have issues booting to the media, depending on your system capabilities, you may have to have Legacy Mode/CSM enabled and Secure Boot disabled when in UEFI mode. You may also have to disable "xHCI" or "USB 3.0" on some systems. If you do NOT have these settings available, please contact one of the Forum staff for further assistance.

c. This guide ONLY pertains to execution of these tools on a PC there is a different guide for the MAC tools.

d. These tools are for use on all OCZ SSD models EXCEPT the following: RevoDrive Hybrid, Vertex, Agility, Onyx, Solid2, Apex, Core, or Summit drives.

e. A bit of confusion is arising about drive naming. An Agility drive is NOT the same as an Agility2, Agility3, or Agility4 drive. Same thing goes for Vertex. So, if these tools say they don't work on Vertex and Agility that is correct. They **DO WORK** on Vertex2, 3, or 4 and Agility2, 3, or 4.

f. These tools run directly from the CD or USB stick, thus they can be used on ANY drive listed, even if Windows/OSX/Linux is installed on the drive. The only option within the tools that will ALWAYS result in complete data loss is **Secure Erase**.

g. Some drives may need what we call a "destructive update" to get to the next firmware level/revision. This will depend on what firmware revision your OCZ SSD is currently on. If this applies to your drive you will be warned before the program updates. Data backup is advised at his point should you require it. Even if an update is NOT destructive we always recommend you have a backup before attempting any of this. Additionally, you should always use the latest MAC Bootable Toolbox version when updating firmware. Using old versions may result in an unsuccessful update.

h. These tools will only work with the drive connected to a SATA port. You cannot use the tools through a USB external enclosure. We have seen some e-SATA enclosures work but we do not officially support using this method. No list of compatible enclosures is available.

i. These tools are specifically designed for the SATA controller to be in AHCI mode. Some systems that do not have AHCI mode may experience errors with updating the firmware and other functions within these tools.

j. Laptop users: The built in trackpad will, most likely, not allow you to move the mouse within. Best choice is to use a USB mouse with the tools.

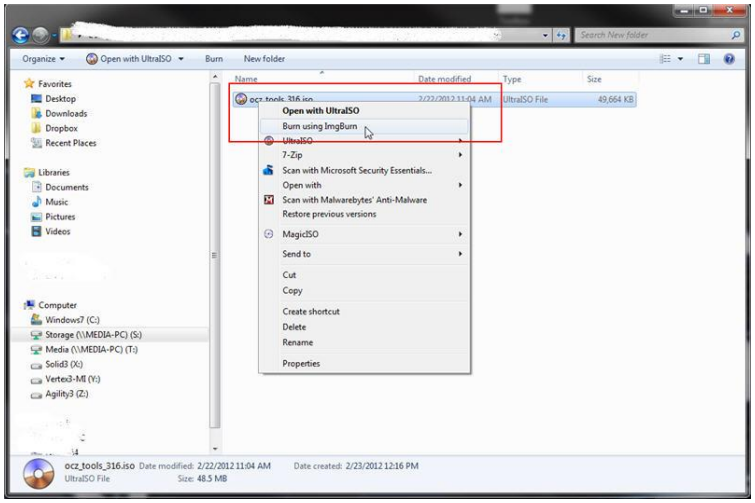
3. Preparing the bootable Media

a. The OCZ Bootable Toolbox download contains a zipped ISO file. To use this ISO you must first unzip the file. If you are using Windows XP, Vista, or 7, then unzip support is built into the OS. Right click on the zip file you just downloaded and select "Extract All", then click extract. A video example in Windows 7 can be seen here: http://www.youtube.com/watch?v=ZQOYqzGHiDY

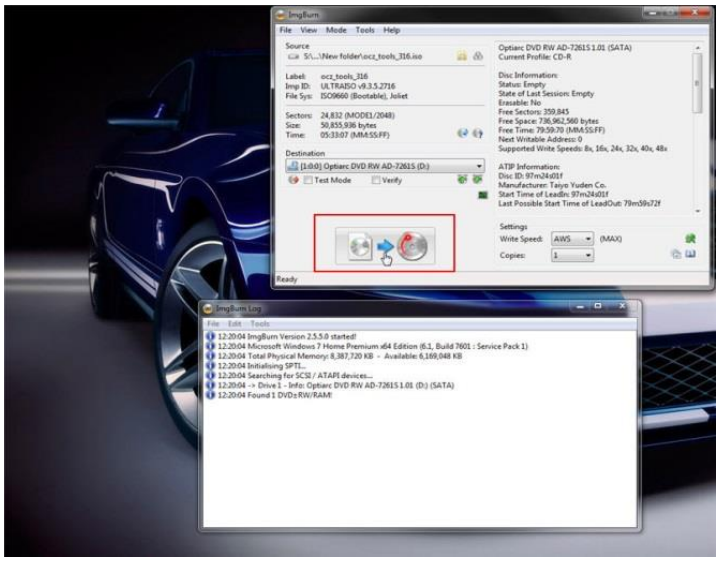
b. If you have a Zip utility already installed on your machine (7-zip, Winzip, etc.) then you will just use the context menu for those programs to unzip the file.

c. Installing the ISO to a CD

(1) A simple easy to use and free Windows image burning software is IMGBurn: http://www.imgburn.com/.
Once you install ImgBurn it becomes part of your "Right click" context menu as you can see in this 1st photo. Just right click the ISO file and select "Burn using ImgBurn":



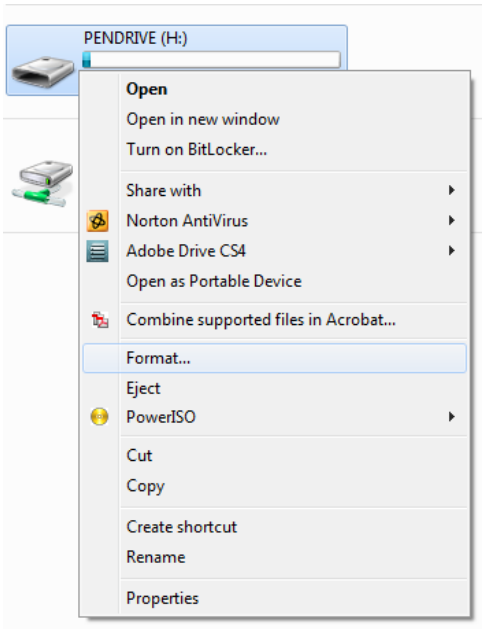
(2) After you select "Burn using ImgBurn" two windows will open. Do not close the 2nd window as it is necessary for ImgBurn to run but you don't need to really pay attention to it. Place a blank CD/DVD into your CD/DVD drive and then click the highlighted button. The program will take care of the rest and will alert you when it is finished. Once finished you simply remove the disk from the drive:

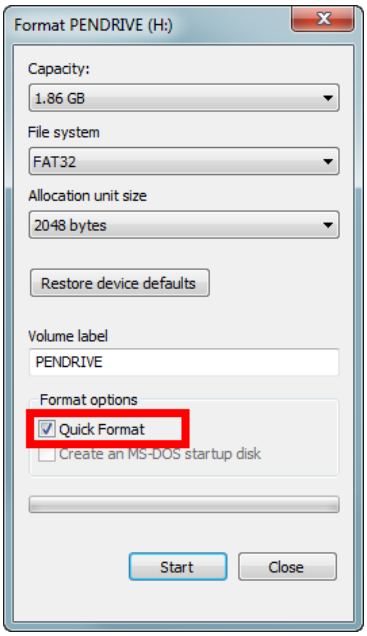


(3) This completes the CD installation section.

d. Installing the ISO to a USB stick

(1) The first thing you want to do is format your USB stick. Open My computer and right click on the drive (may not be named or lettered as shown) so you can select format. Once you select format make sure you check the "Quick format" box and then click Start to begin:



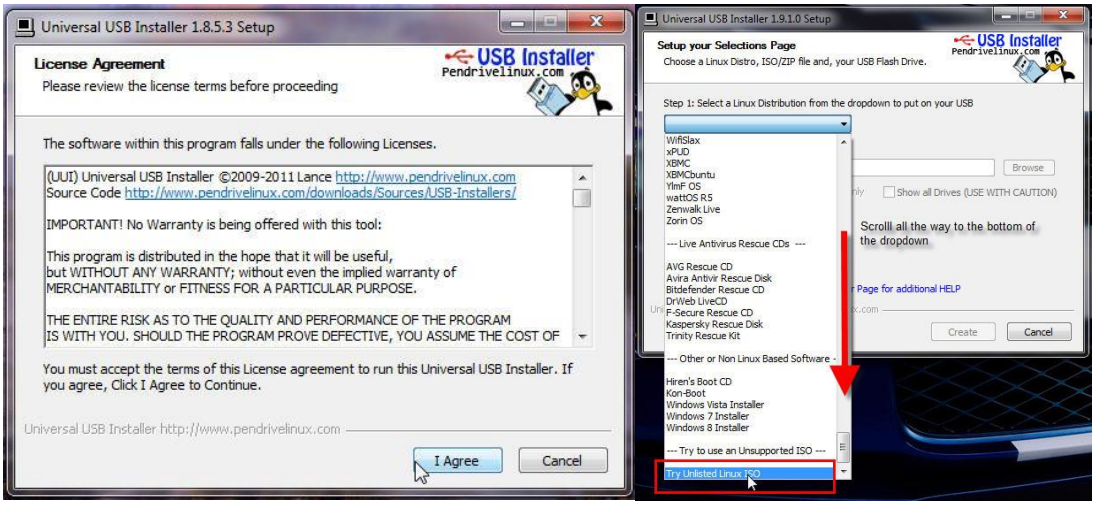


(2) Once the drive is formatted click OK to proceed.

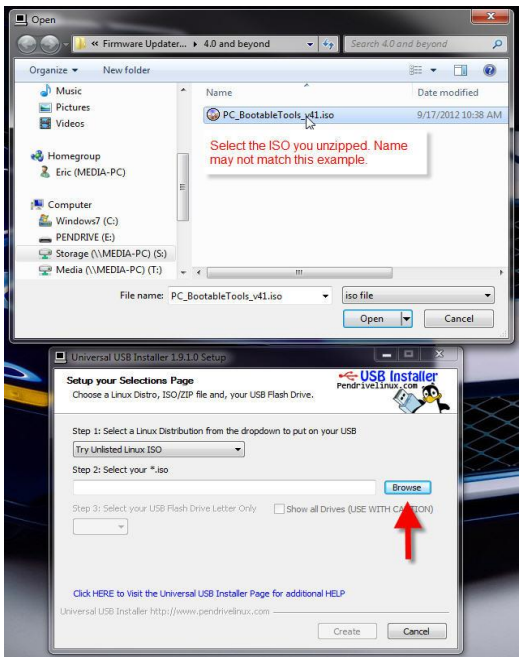
(3) For installing to a USB stick I recommend Universal USB installer:

http://www.pendrivelinux.com/universal-usb-installer-easy-as-1-2-3/

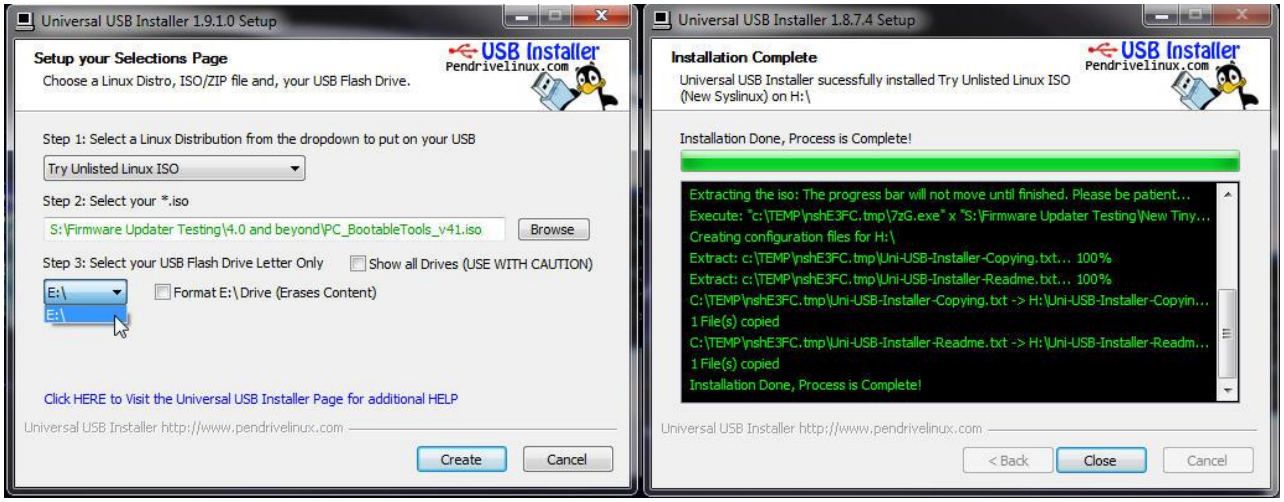
(4) To put the ISO on a USB stick using Universal USB, you download the exe from the site (to your desktop) and then just run it. There is no installation of the utility needed. Make sure you are running this file as administrator. Even if you login to your Windows instance with an Administrative account it doesn't mean the file will execute with administrative privileges. Right click the file and select "Run as Administrator". When you start the program you are greeted with their licence agreement. Just click "I agree". Once you do that you are greeted by the main screen. In the drop down under step 1, you want to select "Try unlisted Linux ISO" all the way at the bottom:



(5) Once this is completed you need to point the utility to the unzipped ISO file you downloaded above. When you click browse a new window opens to browse to the ISO:



(6) Now select your USB stick (make sure you know its drive letter) and click create. It will do its thing and then give you the completed message shown below:



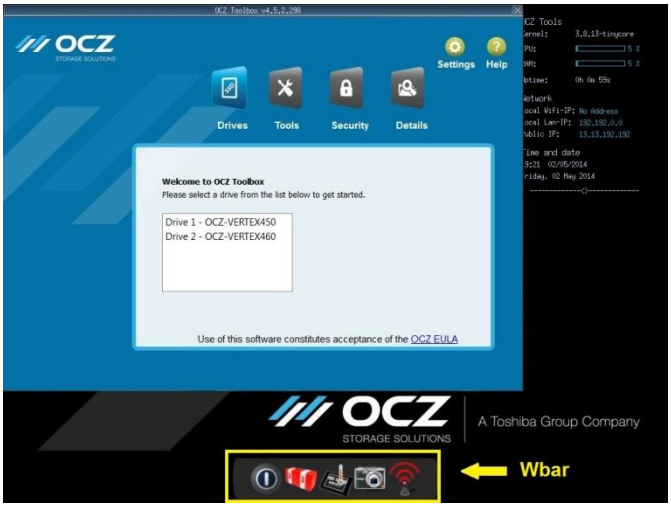
(7) If you created this USB stick on a different PC to the one that has your SSD, unplug the stick and place it in the PC where you will be using it. If this is the same PC then simply reboot and select the USB stick as your boot device from the boot menu.

(8) A note about using a USB stick: New motherboards have both USB3 and USB2 ports. Some new laptops only come with USB3 ports. Booting from all USB3 ports may not work. It really depends on the implementation of the USB3 controller the manufacturer used. Most USB3 controllers require drivers and not all the USB3 drivers may be built into the Linux kernel. Thus you may get a failure to boot. We have tested this on some Dell laptops and it works fine but your mileage may vary. If you have other USB ports try them if you get a failure. If you have known USB3 vs USB2 ports, put the USB stick into a USB2 port.

4. Firmware Updating Procedure

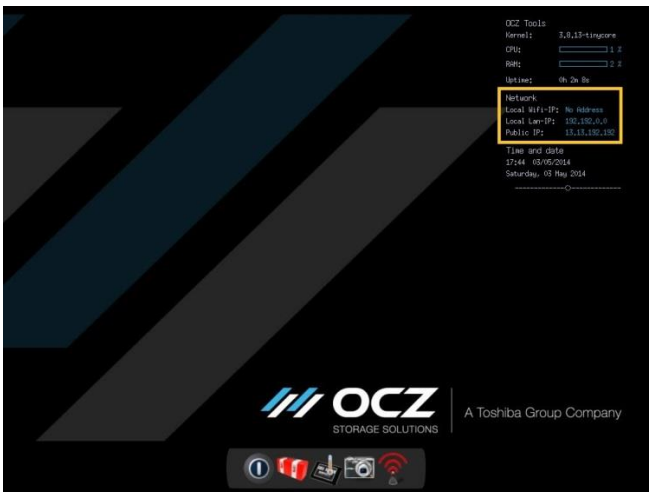
a. Network Setup / Verification

Once you have the CD burnt or USB stick created restart your computer and select the CD or USB stick as your boot device to start the tools. Some text based information will appear on your screen which relates to the boot process of the Linux environment. After this you will see a desktop and hovering over any of the Icons in the "Wbar" at the bottom of the screen will reveal the name of the icon. From left to right they are - Shutdown/Reboot menu, Toolbox, Temperature fix (3 series only), snap2usb, and Wifi Setup:



b. Network Setup / Wired Internet Connections

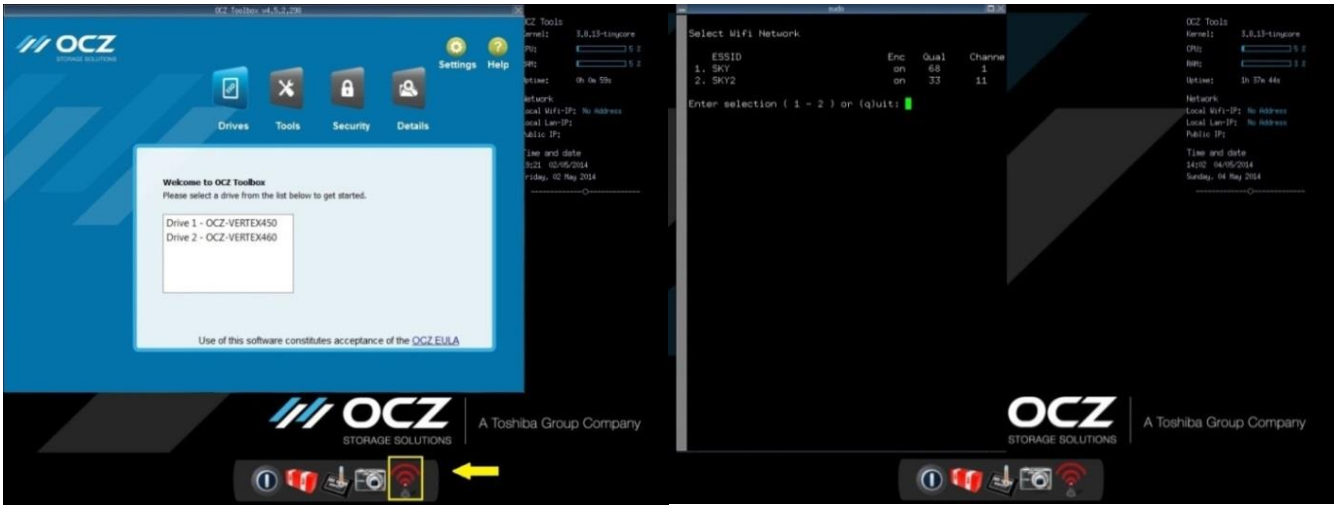
(1) If updating the drive's firmware one of the first things you will want to do is make sure you have an internet connection. **The Firmware update will require this**. If you have an Ethernet cable connected to your PC or laptop then you are using a wired internet connection. As shown in the screenshot below you SHOULD have a Local LAN-IP by the time the system reaches the desktop. If you do not then wait about 15-20 seconds and it should appear. If, after 30 seconds or more, you do NOT have a Local Lan-IP listed in the top right then your network adapter may not be supported with the included drivers. We have done our best to cover drivers for Intel, Realtek, Marvell and others but we may not have all of them:



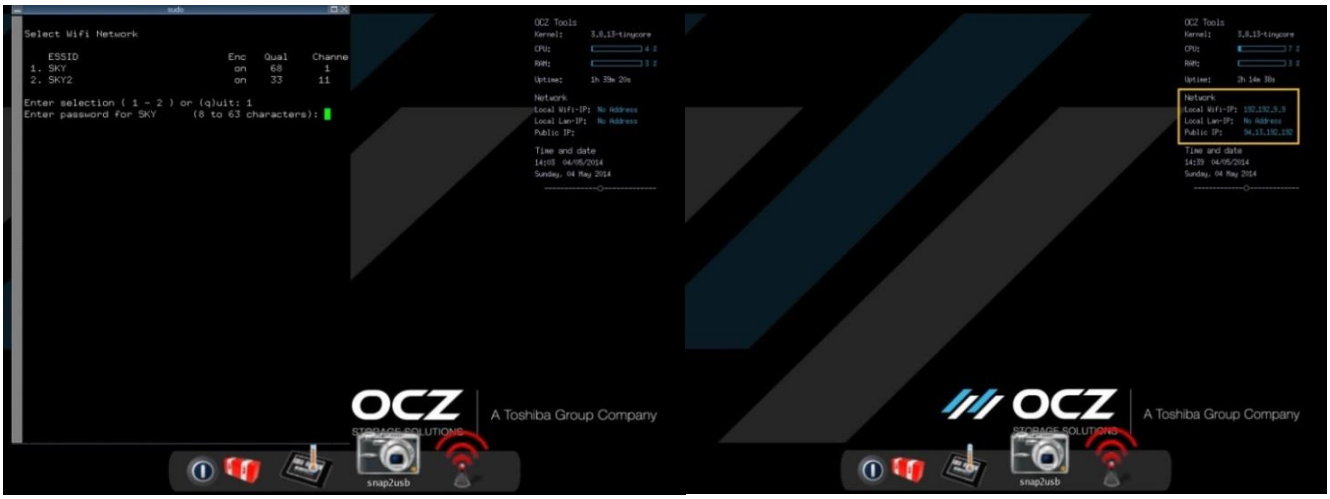
(2) This concludes Wired internet setup. You are now ready to update your firmware.

c. Network Setup / Wireless Internet Connections

(1) If you are going to update the drive's firmware and have a wireless card in your PC, or are using a Laptop with wireless then this is the section for you. Click the "Wifi" Icon in the Wbar and the terminal window should open the relevant info displayed. Keep in mind the names etc. will not be the same as in the screenshots below. But you should see the wireless ESSID that corresponds with your wireless network or an open wireless network near you. If you see "No wifi devices found" in the terminal window then your wireless adapter is not supported with a driver:



(2) Press the number corresponding to the wireless network you want to connect to. If the network has security enabled (WPA or WEP possible. WPA is shown in the example) you will then be asked for the password as shown in the screenshot. Put your password in and press enter. Within 20 to 30 seconds you should see a Local Wifi-IP address appear under network in the top right:



(3) This concludes the Wifi setup. You are now ready to update your firmware.

d. Updating the Firmware of your OCZ SSD

(1) In order to update your firmware you MUST complete the steps in 4a, 4b and 4c above for your network/internet connection type. If you do not complete those steps you CANNOT update your firmware. These tools are specifically designed for the SATA controller to be in AHCI mode. Systems that do not have AHCI mode may experience errors with updating the firmware.

(2) Firmware updates may result in loss of user data. You should back up your data before updating the firmware.

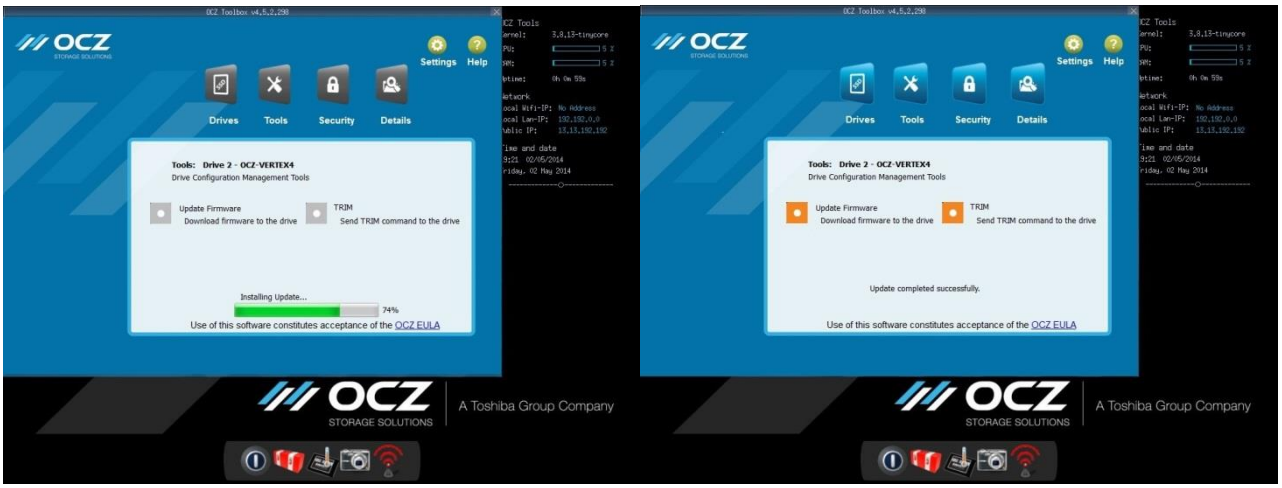
(3) This is what you will see when the toolbox system completes the booting and network connection sequence:

(4) Click on the drive you want to update and the drive info will be displayed along with current firmware:

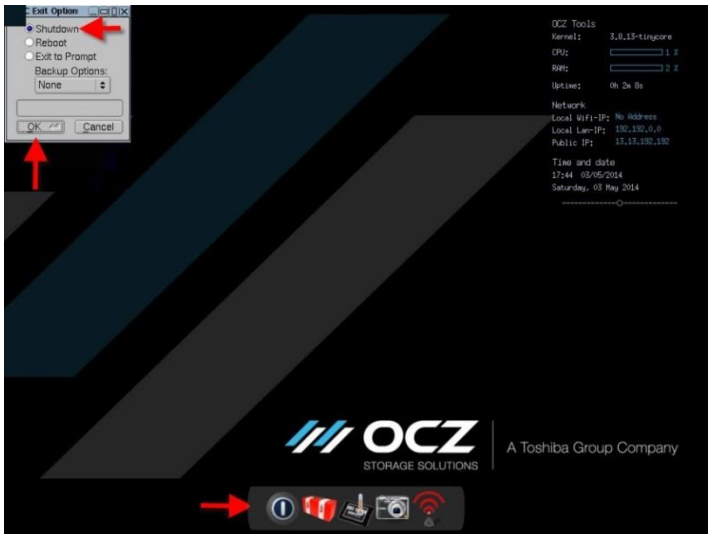
(5) Click the "Tools" button at the top of the screen and you will see the firmware update selection:

(6) Click update firmware and you will see a warning that the update may delete the data on your drive:

(7) You will then see a progress bar and a notification that the update is complete:



(8) You must now shutdown the PC by clicking the power button just left of the Toolbox icon. Make sure shutdown is selected then press ok:



(9) Now you may remove the USB stick or the CD and power the system back on. Once your OS boots you should notice that you have the latest firmware installed.

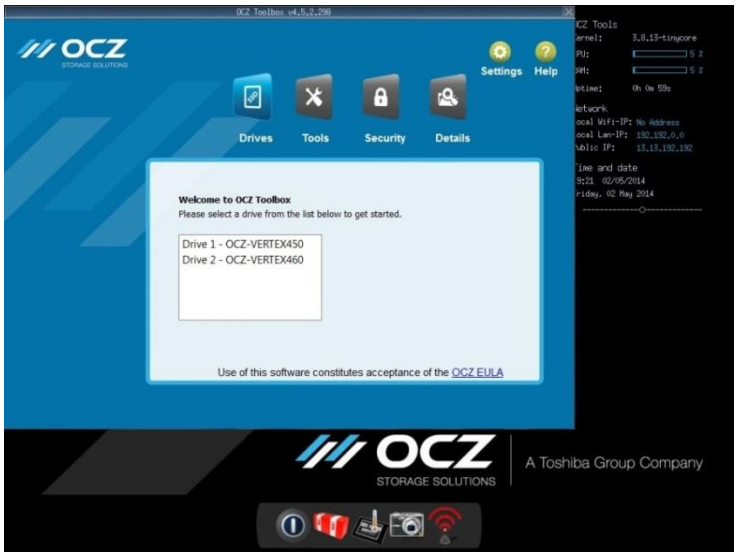
5. Secure Erasing your OCZ SSD

a. The Secure Erase feature of the tools (referred to as SE for the rest of these instructions) is supported on all recent OCZ SSD's. Drives not supported are 1st series Agility/Vertex/Solid/Onyx, Colossus, Core, Apex, Summit, Nocti and Enyo. If you have any doubts ask support or post on the Forum.

Notes:

(1) *A Revodrive will show 2 drives available, you need to SE each one of them to actually SE the "whole" drive.*
(2) *A Revodrive x2 will show 4 drives, you need to SE each of them to actually SE the "whole" drive.*
(3) *An OCZ IBIS drive will show 4 drives, you need to SE each of them to actually SE the "whole" drive.*

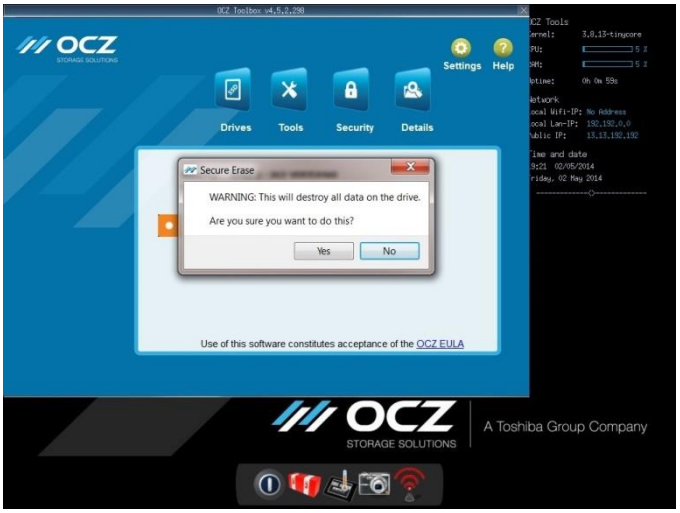
b. At the main Toolbox screen you will see a list of available drives:



c. Click on the drive to see its details:

d. To begin the Secure Erase click on the Security button at the top of the window:

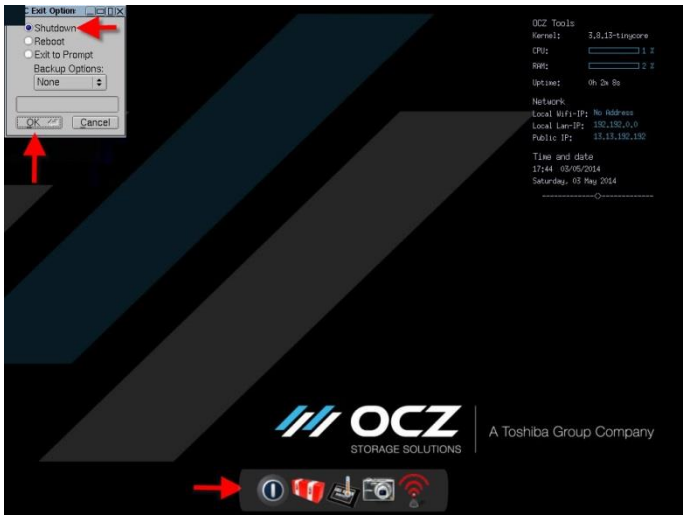
e. If you are sure you want to continue click on Secure Erase. You will then see the data loss warning:



f. Clicking on yes will begin the SE process. **Once SE is started you cannot go back so make sure you are ready**. You should see a progress bar during the process:

g. Once it is complete you will see the completion screen and instructions to reboot the PC:

h. We recommend shutting down at this point rather than just restarting. You shutdown by clicking the icon and making sure shutdown is selected then clicking on OK.



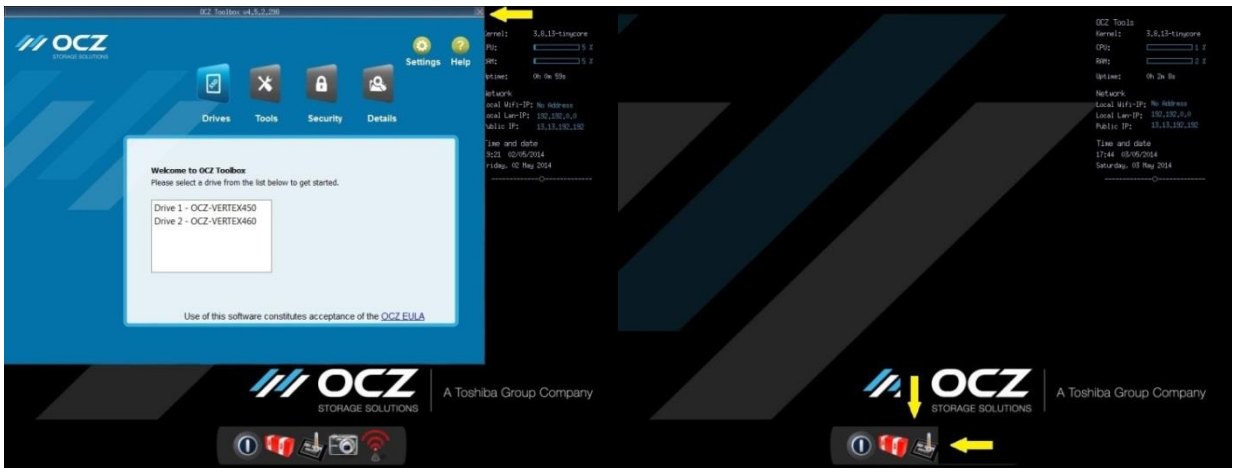
i. Your drive is now restored to "out of the box" condition and completely blank/erased.

6. Applying the Temperature sensor patch

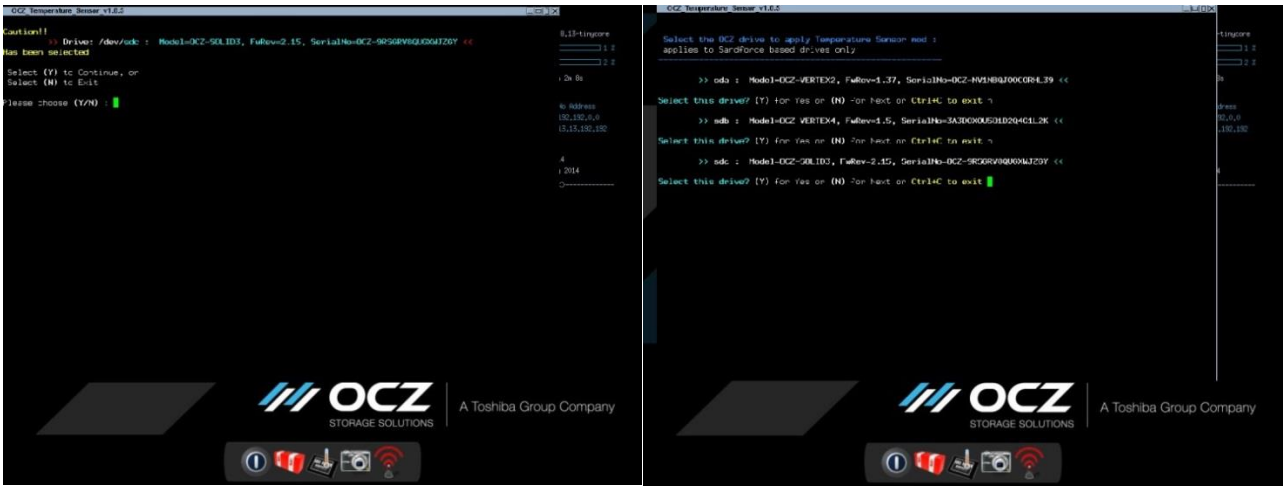
a. This section only applies to "3" series SSD's - Vertex3, Agility3, and Solid3 - in all sizes:

b. There are no temperature sensors on the drives so there is nothing that can read temperature. SMART interprets the lack of data as 128C and many programs may warn you that the drive is too hot. This is not really the case but if you wish to have any program not report this then apply the fix as below.

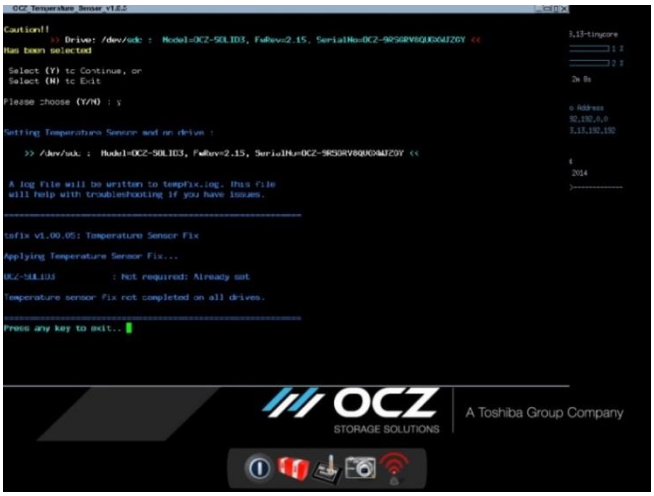
c. When you boot the tools you will be greeted with a Toolbox screen. Click the "X" in the upper right corner of the Toolbox window to close it. The Toolbox will not apply the temperature fix. Click on the Temp fix icon:



e. Once the Temp Fix Utility opens you will see the first connected drive displayed on the screen. This fix ONLY applies to the "3" series. If you have any other OCZ drives connected you may see them listed first. If this is the case just answer "N" for next to cycle to the next available drive. This excludes any drive that you do not want to update. When you get to the drive you do want to apply the fix to select "Y" and you will see the following confirmation:



g. Select "Y" again to start the application. Once it is completed the program will tell you as such. In the example shown the fix had already been applied:



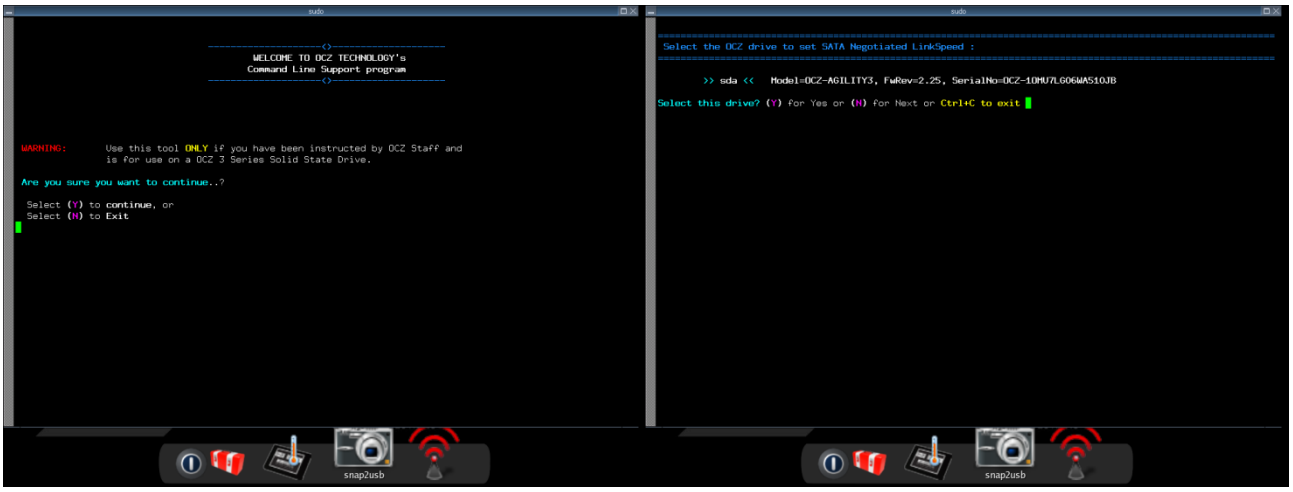
7. Applying the SATA link patch

a. The OCZ SATA Link Speed Application is primarily for Nvidia chipset based motherboards. It applies to SATA 3 "3" series Vertex, Agility and Solid drives. This does not apply to Vertex4, Agility4 or any of the "2" series drives. THIS SHOULD PRIMARILY BE USED TO SET AND LOCK THE LINK SPEED TO SATA 2 (3Gb/s) ON SATA 2 PORTS. IT CAN BE USED TO RETURN A LOCKED LINK SPEED BACK TO SATA 3 (6Gb/s).

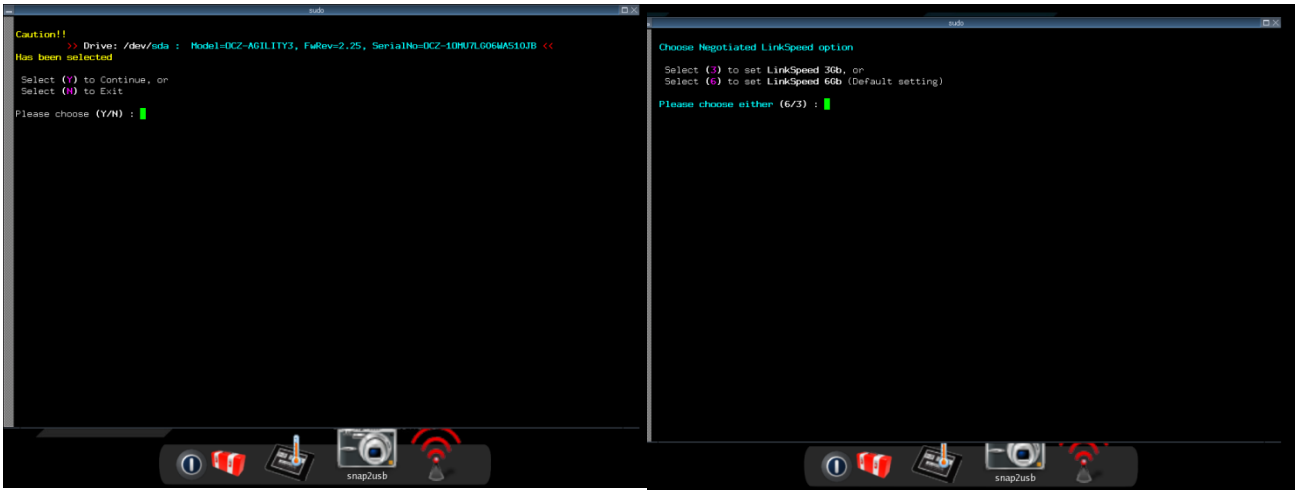
b. Once the Bootable media has been created:

(1) Boot to Desktop and Right Mouse click to select Applications> OCZ_SATA_LinkSpeed. Notice WARNING.

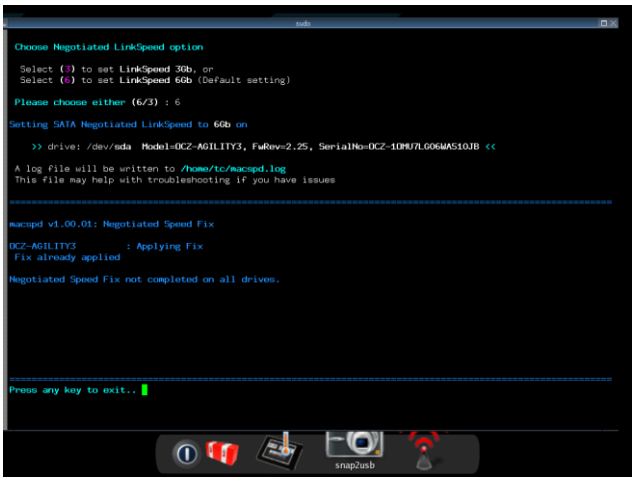
(2) Select "Y" to continue to the Select Drive screen. ENSURE YOU SELECT THE CORRECT DRIVE (Press "N" until the correct drive is shown). Select "Y" once the correct drive is shown:



(3). After the next drive warning Select "Y" then Select “3” or “6” to set Link Speed (example shows 6Gb/s):



(4). Once complete Power Down and wait 2 min. The drive will now be at the selected Link Speed:



c. If the Link Speed needs to be returned to a previous speed:

(1) Follow steps (1)-(3) above except when at step (3), reverse the change accordingly to “3” for 3Gbs / SATA 2 or “6” for 6Gbs / SATA 3. THEN power cycle as in step 4.

d. MAC users should use the MAC edition of the Bootable Toolbox and instructions.

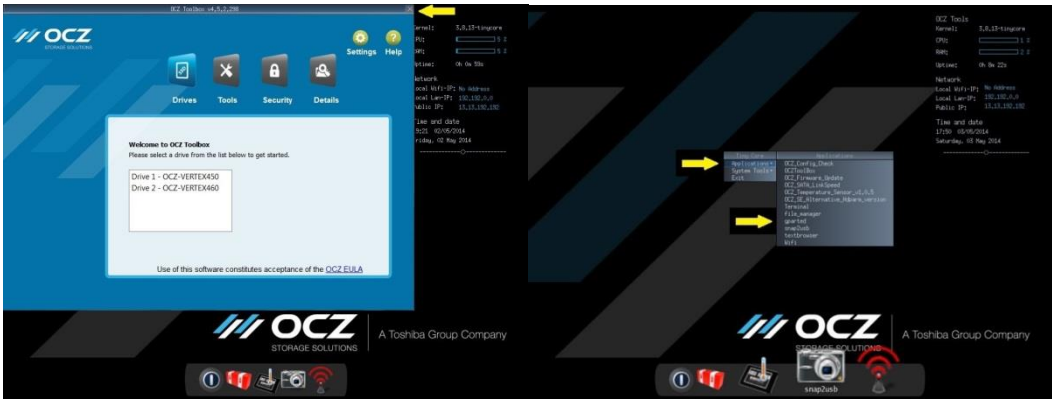
8. Using Gparted to create an Aligned Partition (Windows XP users)

Using Gparted to create an Aligned Partition (Windows XP users)

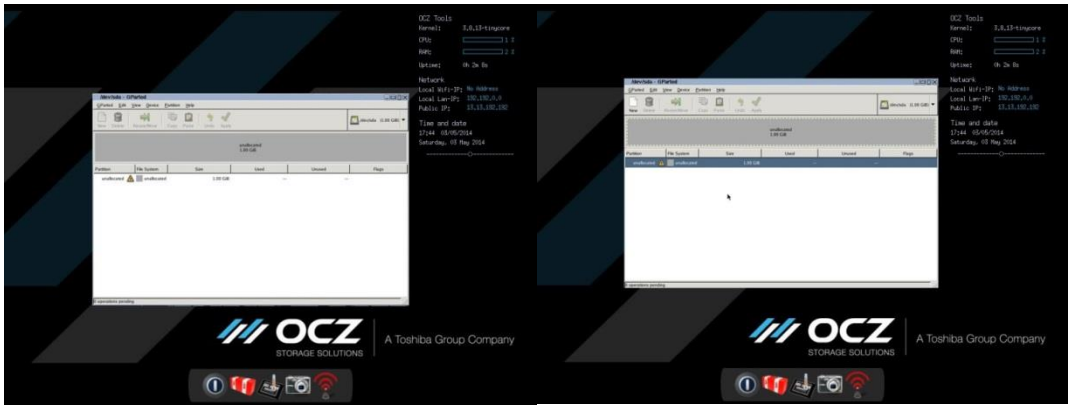
a. This procedure will work on all OCZ's single 1.8, 2.5, or 3.5" SSD's. It will NOT work on our PCI-e SSD's. If you are installing Windows 7/8 or Vista to your SSD, this is not necessary, it really only applies to XP users.

b. We recommend disconnecting the SATA cables from all other drives during this process. If you have data drives or RAID arrays connected you could accidentally create a partition on the wrong drive and your data would be lost.

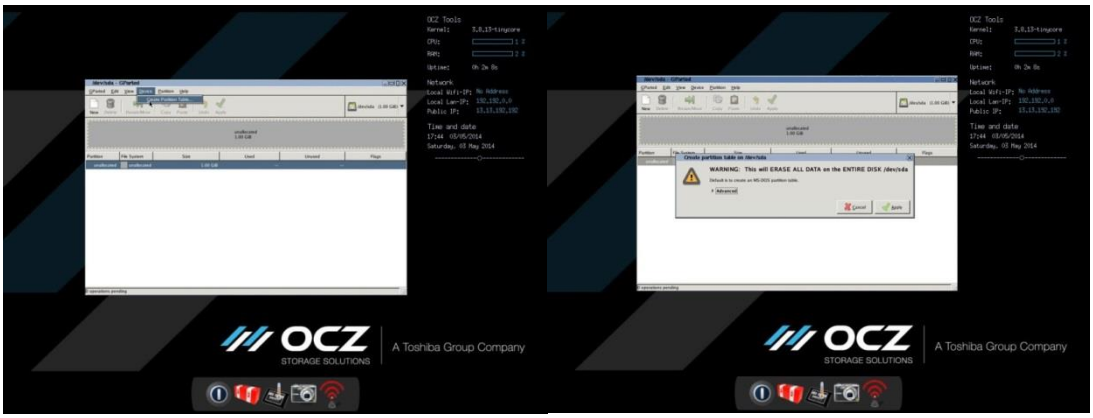
c. Once you are booted into the desktop of the OCZ tools close the Toolbox screen by clicking the "X" in the upper right corner of its window. Then click anywhere on the desktop (left or right click makes no difference) and you will see a menu popup. Select applications then Gparted as shown below:



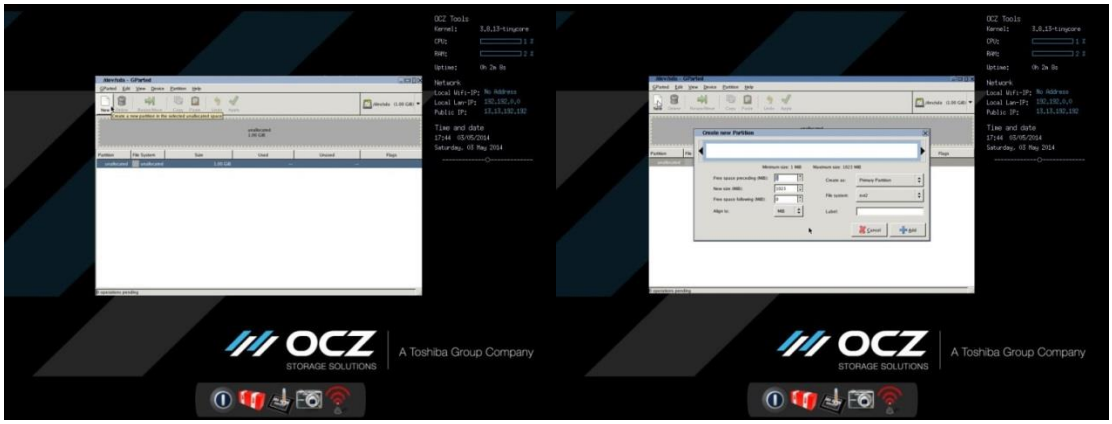
d. The main Gparted window will open and you should see your drive in the window. Now you want to click on the unallocated space on the drive which will highlight it:



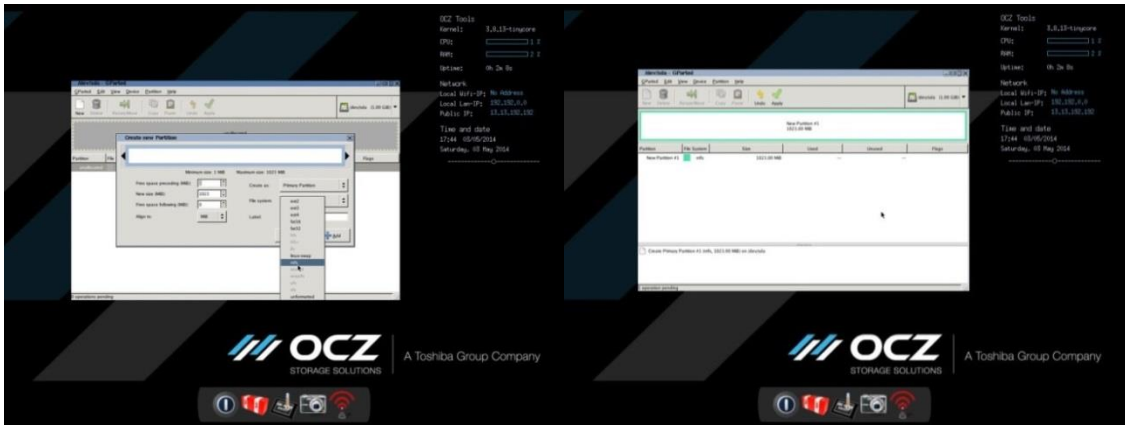
e. Once highlighted you move up to the "Device" heading in the Toolbar and select "Create Partition Table". Once you do that you will receive a warning that all data will be gone on the target device. Do not click the advanced details here. The default "MS-DOS" partition table is what you want:



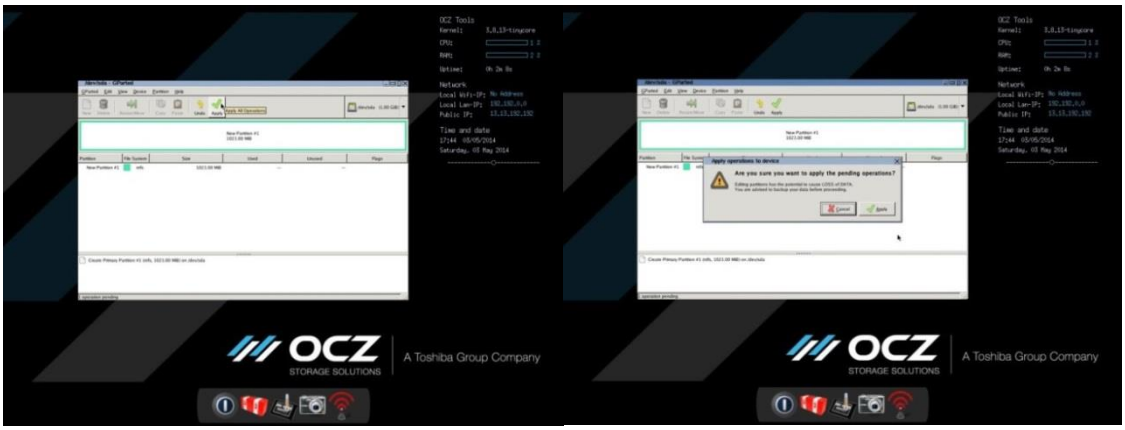
f. Now you have a partition table you can create a new partition. Click "New" in the top left toolbar. You can choose your parameters for the partition from here. You want to set 1MiB for the "Free space preceding" and you want the "Align" field to say "MiB" as shown. If you do not want the full size of the drive as a partition, this is where you select it. Just set the size you want. The example shows the full 1GiB selected as partition size:



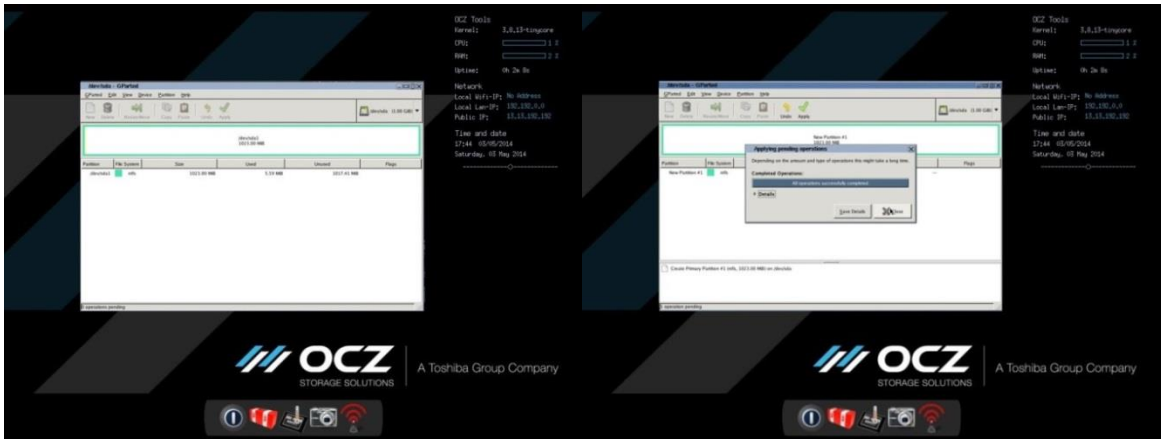
g. Under "File System" you will want to change it to NTFS for a typical Windows XP install. You can select Fat32 if you like but that would not be a normal XP install. XP would normally format NTFS by default. After this Gparted is ready to apply your changes and it shows a summary of what you have asked it to do:



h. Click Apply in the Toolbar as shown. You will get a confirmation of the changes and the fact that all data will be deleted on the drive. Then click apply again:



i. When the operation has completed you will get a confirmation window. You can just click close it. The window will then refresh and show your drive and newly created/aligned partition:

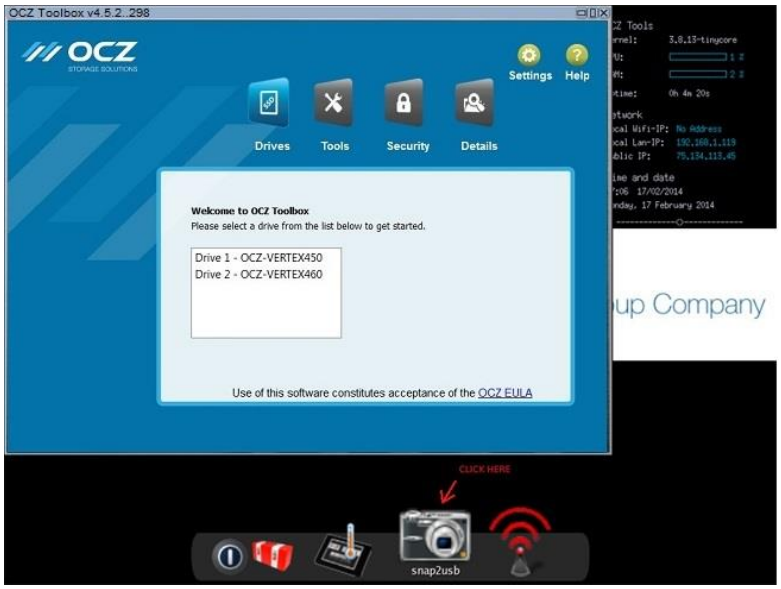


j. You are now ready to exit the Linux tools and boot the PC with your Windows XP install media. **Make sure you select install to an "existing partition" during the XP install process.** If you let Windows create new partitions they will be misaligned and this process will have been unsuccessful.

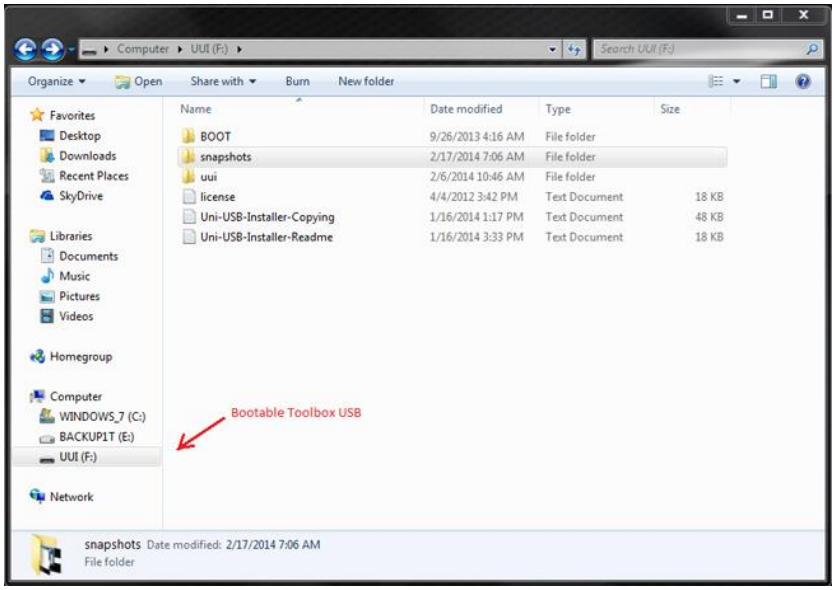
9. Save a Screenshot with snap2usb (USB)

a. You can easily save a screenshot from the Bootable Toolbox environment to your USB drive. This is helpful for confirming a drive's firmware version or SMART data.

b. Boot to your Bootable Toolbox USB. Once at the desktop select the target drive and navigate within the Toolbox to the desired location. This may be the initial screen showing the drive firmware version or the details screen showing the drive SMART data. Click the snap2usb icon to capture the current screen content:



c. Power off and boot back into the OS (or connect the USB to any OS installation). Navigate to the Bootable Toolbox USB drive. You will see a snapshots folder on the Bootable Toolbox USB:



d. Now just open the folder and use that screenshot in your Support enquiry or Forum post.

10. Changelogs

a. Tools updated to version **5.1.0.227**.

(1) Now works for all firmware updates on all OCZ drives.

(2) New version of Toolbox (4.5.2.298) to match the Windows Toolbox

(3) New Kernel

(4) New screen capture utility

(5) More wifi and Ethernet drivers

(6) Z87 support.

(7) General tweaks and UI enhancements