

# Unofficially enabling SLI on ASRock X370 ITX/ac (running PCIe bifurcated mode 2x8)

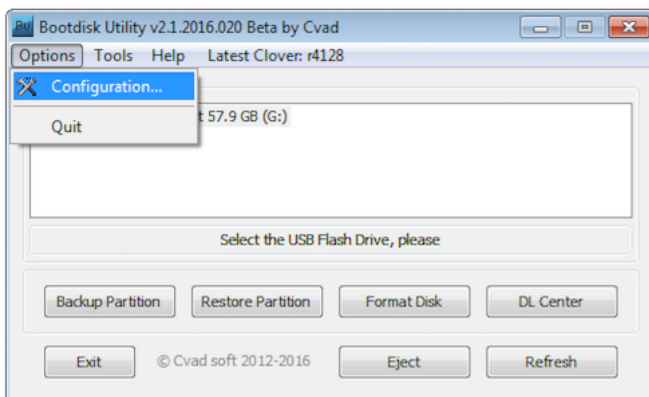


## 1. What you'll need

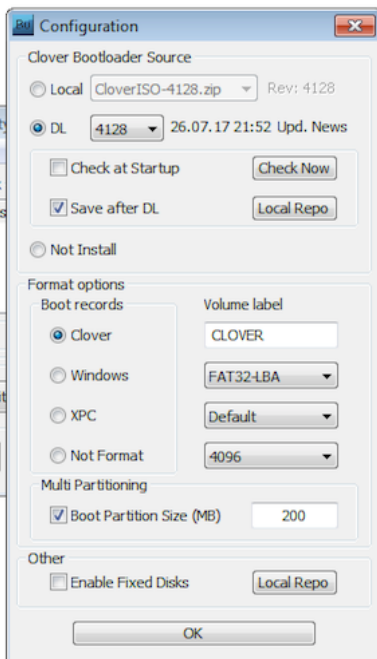
- ASRock Fatal1ty X370 ITX/ac (recipient motherboard)
- ASRock Fatal1ty X370 Gaming K4 (donor motherboard)
- USB stick (2GB or bigger)
- BootDiskUtility.exe ([http://cvad-mac.narod.ru/index/bootdiskutility\\_exe/0-5](http://cvad-mac.narod.ru/index/bootdiskutility_exe/0-5))
- DSDT Editor (<https://www.hackintosh.zone/file/129-dsdt-editor-and-patcher/?do=download&confirm=1>)
- IASL (<https://www.acpica.org/downloads/binary-tools>) (*NOT NEEDED AS ITS INCLUDED IN DSDT Editor, for reference only*)
- Windows computer

## 2. Prepare CLOVER bootable USB stick

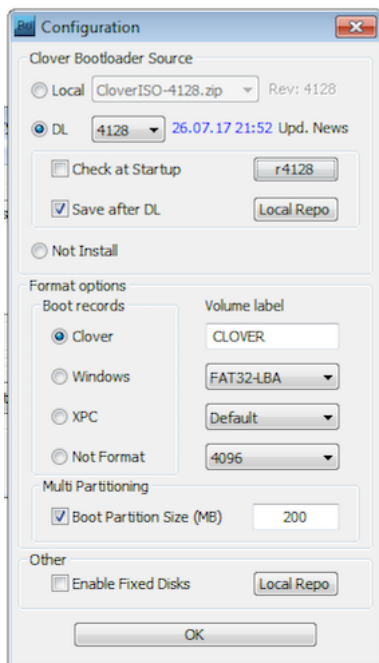
- Download BootDiskUtility and run BootDiskUtility.exe
- Insert your USB stick into the computer
- Go to: **Options** -> **Configuration**



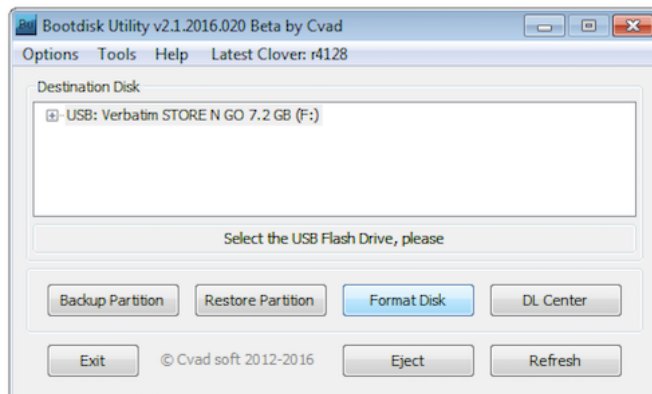
- Select option: **DL**
- Check option: **Save after DL**
- Press: **Check Now**



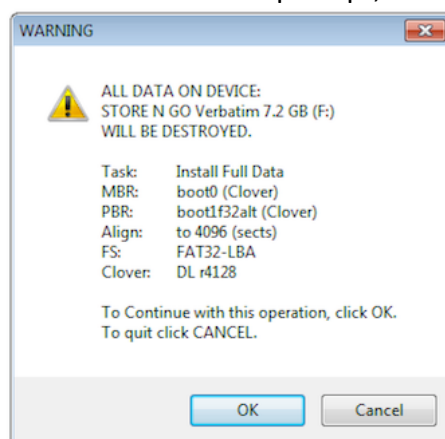
- After the BootDiskUtility has successfully “checked” for a newer version, the “Check Now” button will change to a release number e.g. r4128



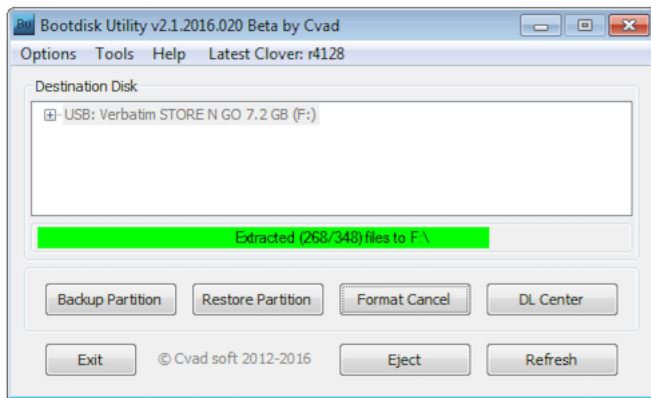
- Make sure the remaining parameters are as in the screenshot above
- Click: **OK**
- From the main application menu, **select the USB drive** you want to put CLOVER on and click: **Format Disk**



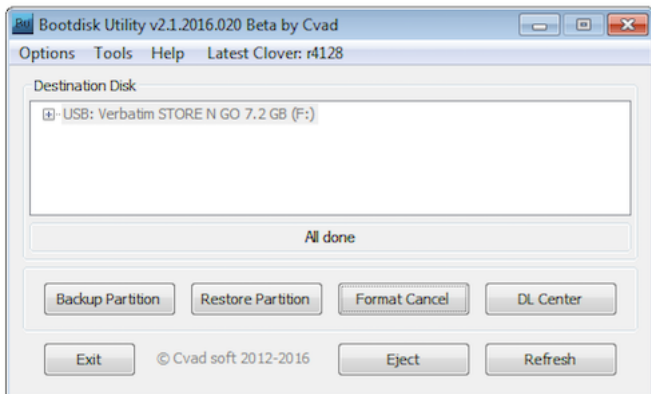
- On the confirmation prompt, click: **OK**



- The utility will now prepare your USB stick



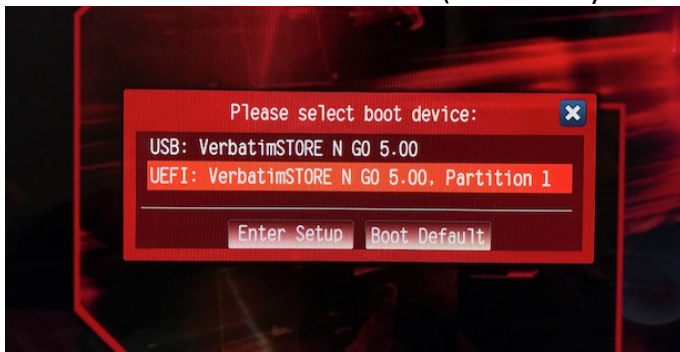
- Once you get the “All done” message you can “Exit” the application



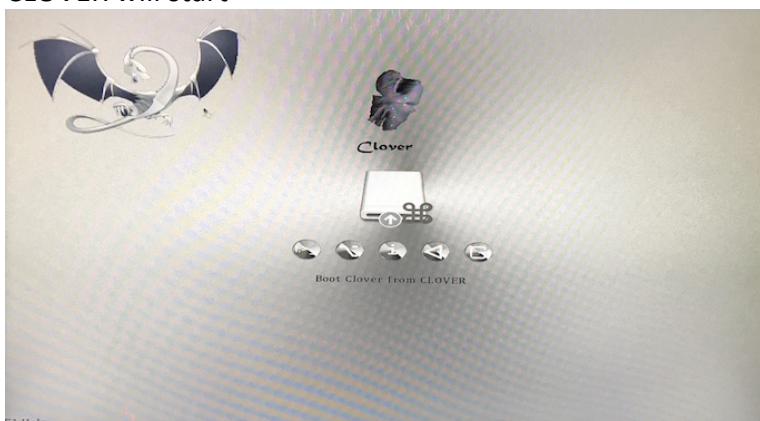
- Disconnect the USB drive from your PC

### 3. Dump DSDT from donor motherboard (ASRock Fatal1ty X370 Gaming K4)

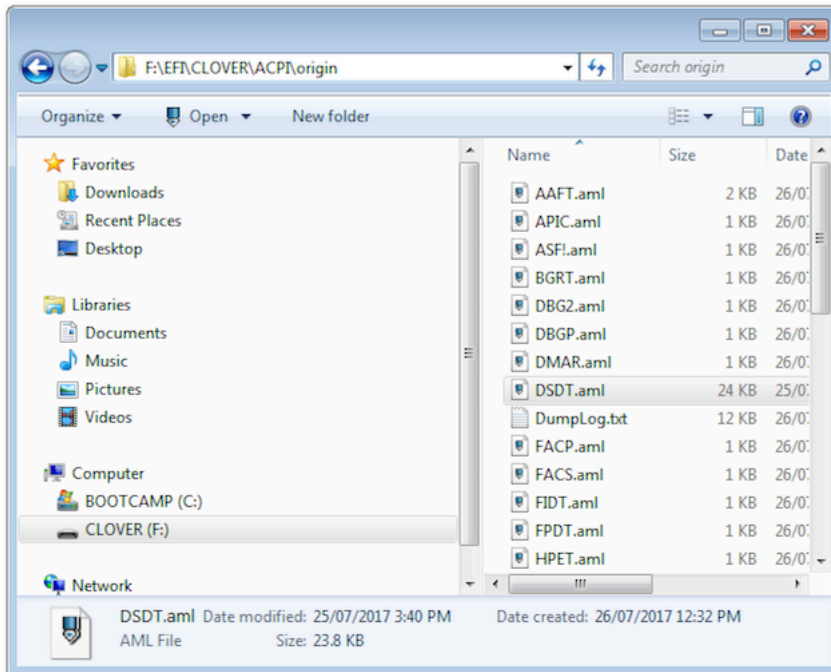
- Insert the USB stick you prepared in step 2 into the donor motherboard
- Start up the system
- Press F11 to reach the boot menu
- From the boot menu select: UEFI (+ name of your boot USB stick)



- CLOVER will start



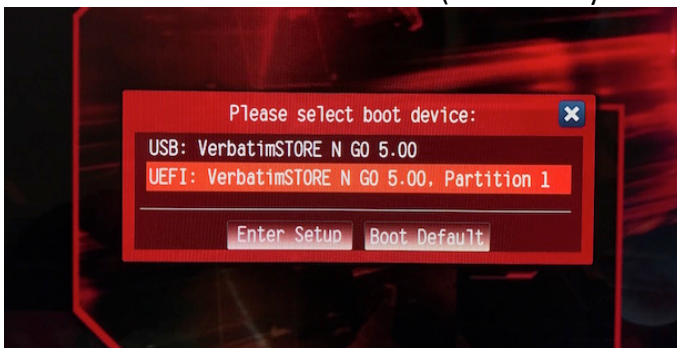
- On the clover main menu press **F4** . The spinning clover logo will freeze for a few seconds. Once it resumes spinning that means your DSDT has been dumped.
  - **NOTE:** *If the clover logo does not resume spinning and the application gets stuck, try using a different USB stick.*
- You can now EXIT CLOVER, which will return you back to the BOOT DEVICE selection screen. You can now power off system with the donor motherboard and remove the USB stick.
- Insert the USB stick to your workstation / laptop and copy the file located at **USB:\EFI\CLOVER\ACPI\origin\DSDT.aml** to your **Desktop**



- Rename the **DSDT.aml** file to **K4\_DSDT.aml**

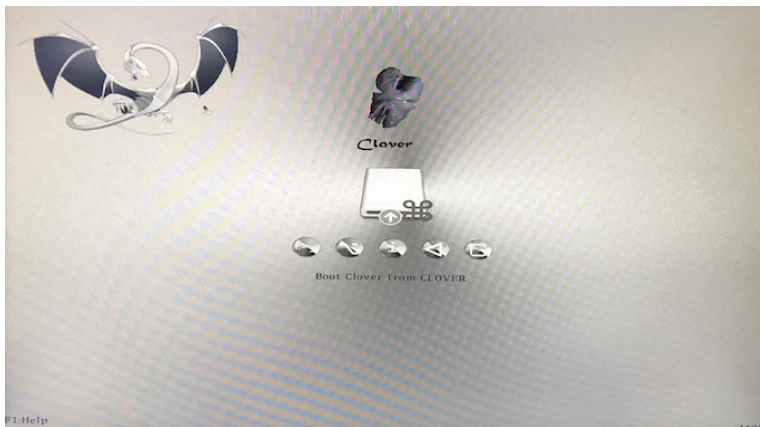
#### 4. Dump DSDT from recipient motherboard (ASRock Fatal1ty X370 ITX/ac)

- Insert the same USB stick you prepared in step 2 and used in step 3 into the recipient motherboard
- Start up the system
- Press F11 to reach the boot menu
- From the boot menu select: UEFI (+ name of your boot USB stick)

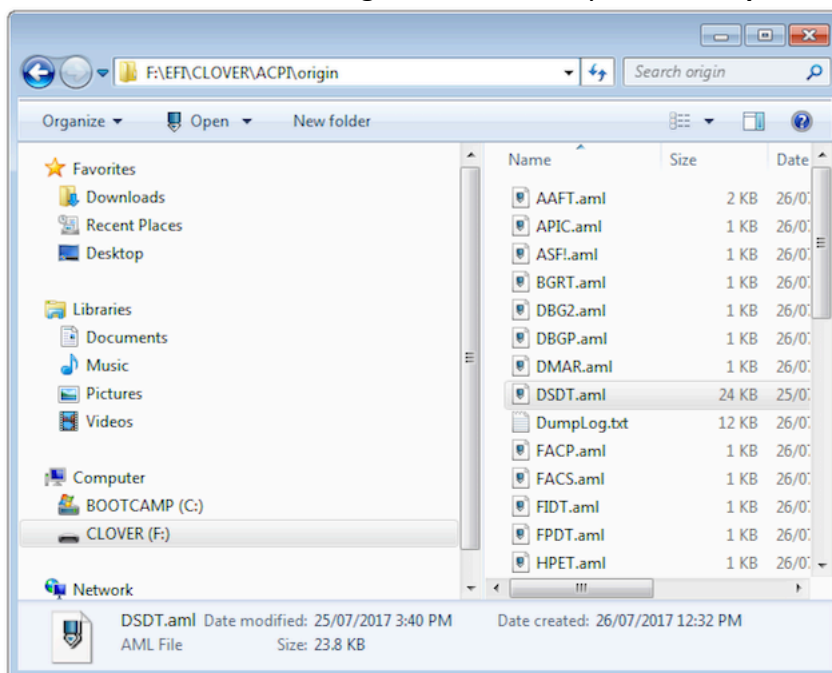


- CLOVER will start





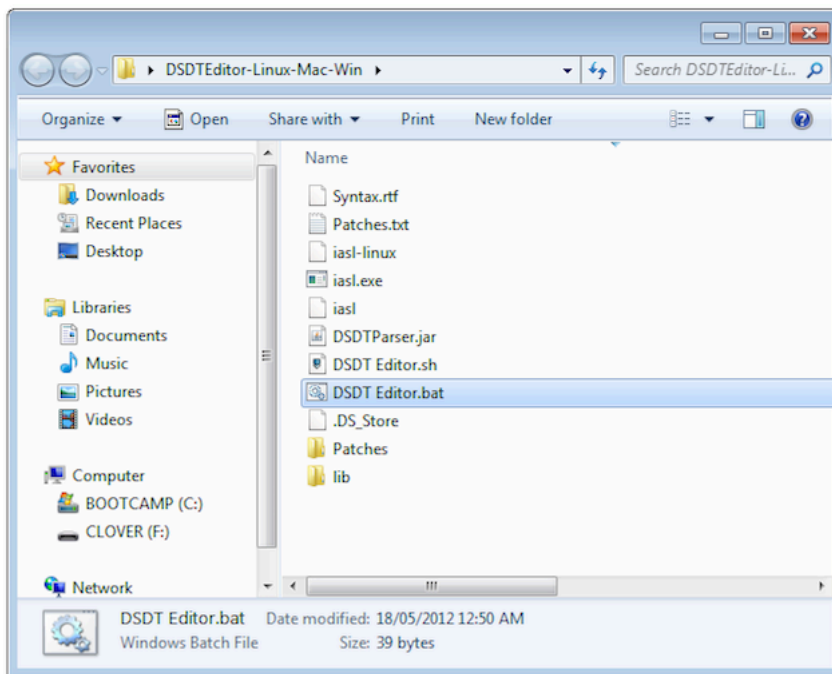
- On the clover main menu press **F4** . The spinning clover logo will freeze for a few seconds. Once it resumes spinning that means your DSDT has been dumped.
  - **NOTE:** *If the clover logo does not resume spinning and the application gets stuck, try using a different USB stick.*
  - **NOTE:** *Any previous files will be overwritten*
- You can now EXIT CLOVER, which will return you back to the BOOT DEVICE selection screen. You can now power off system with the donor motherboard and remove the USB stick.
- Insert the USB stick to your workstation / laptop and copy the file located at **USB:\EFI\CLOVER\ACPI\origin\DSDT.aml** to your **Desktop**



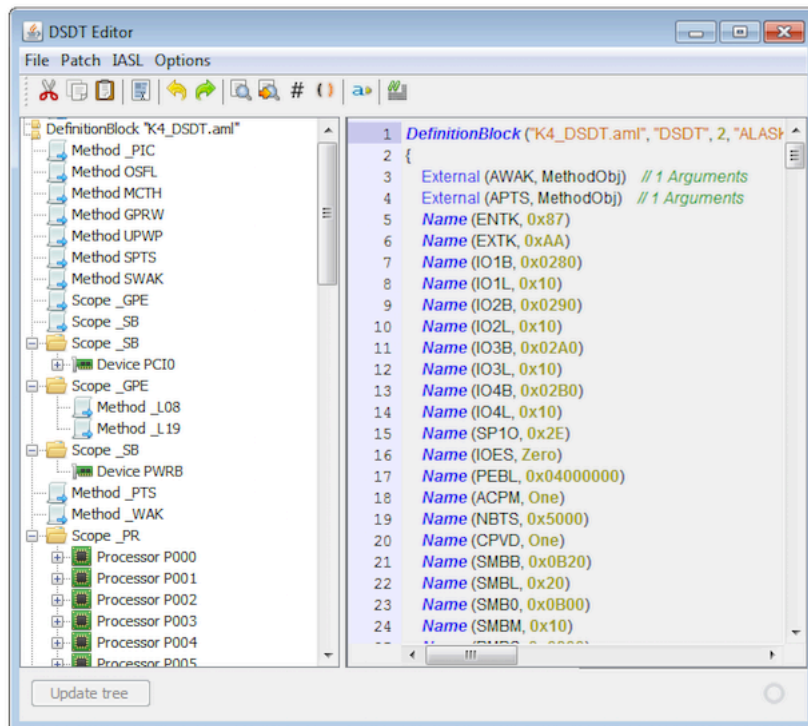
- Rename the **DSDT.aml** file to **ITX\_DSDT.aml**

## 5. Transplant the SLI certificate from K4\_DSDT.aml

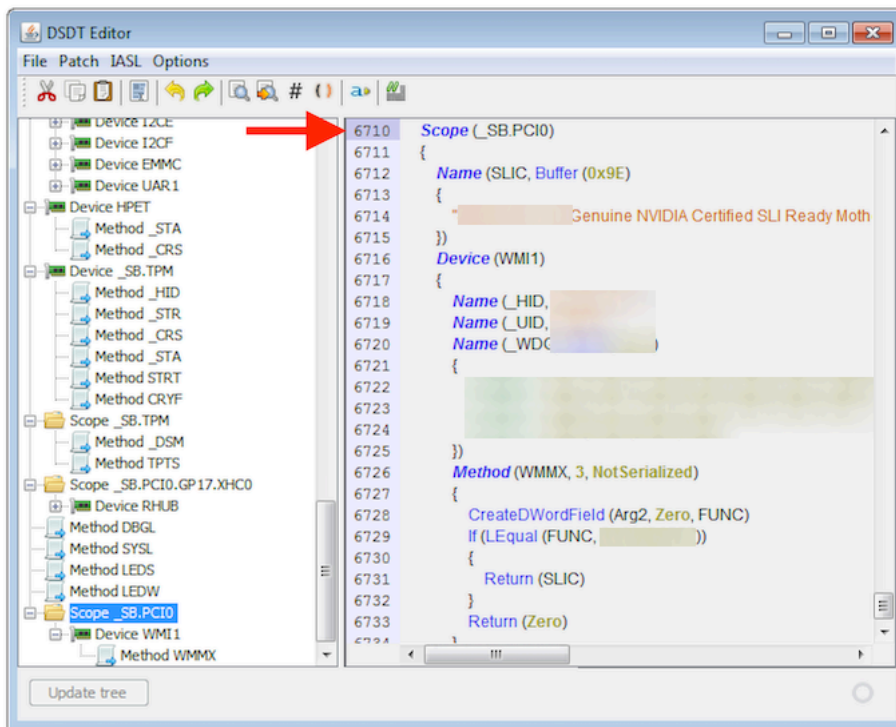
- Extract DSDTEditor to a directory on your desktop and start it with **DSDT Editor.bat**



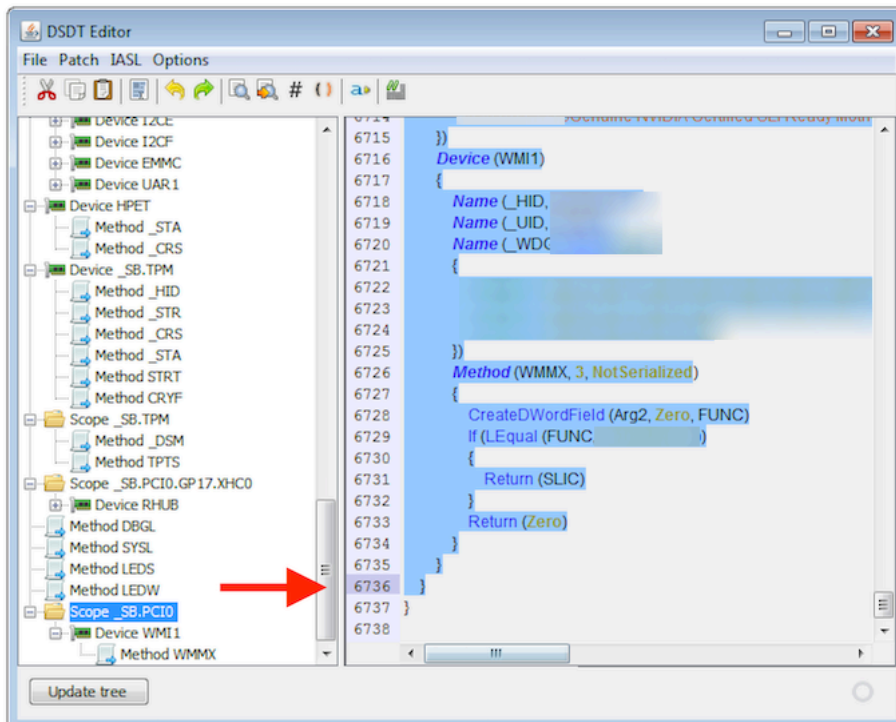
- Once DSDT Editor starts, select: **File -> Open**
- Select the **K4\_DSDT.aml** file and open it:



- Scroll down to the section that starts: **Scope\_SB.PCI0**

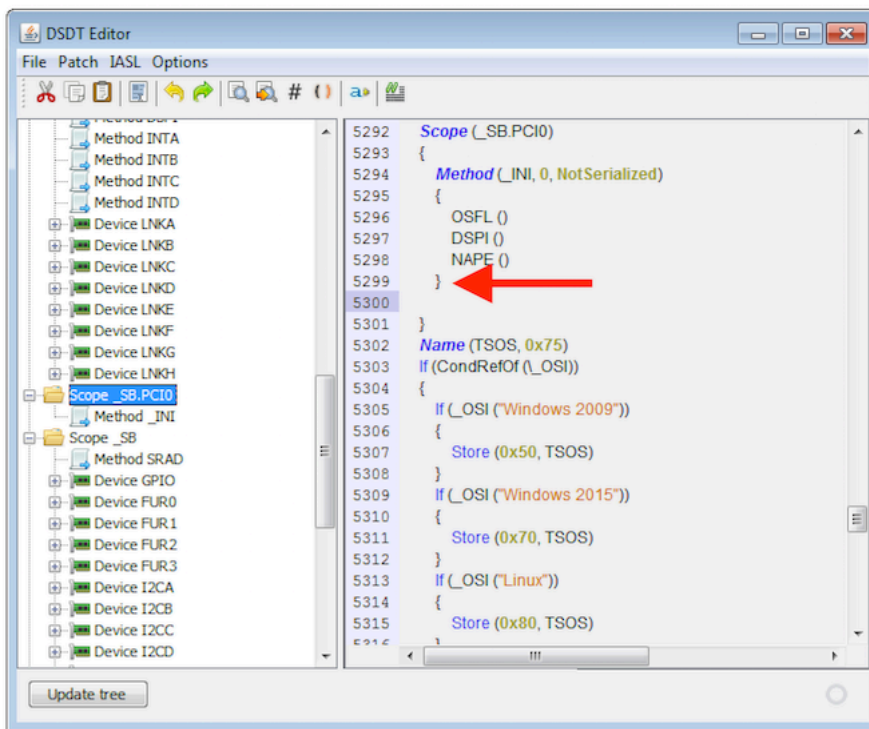


- Select everything that belongs to code section **Scope \_SB.PCI0**

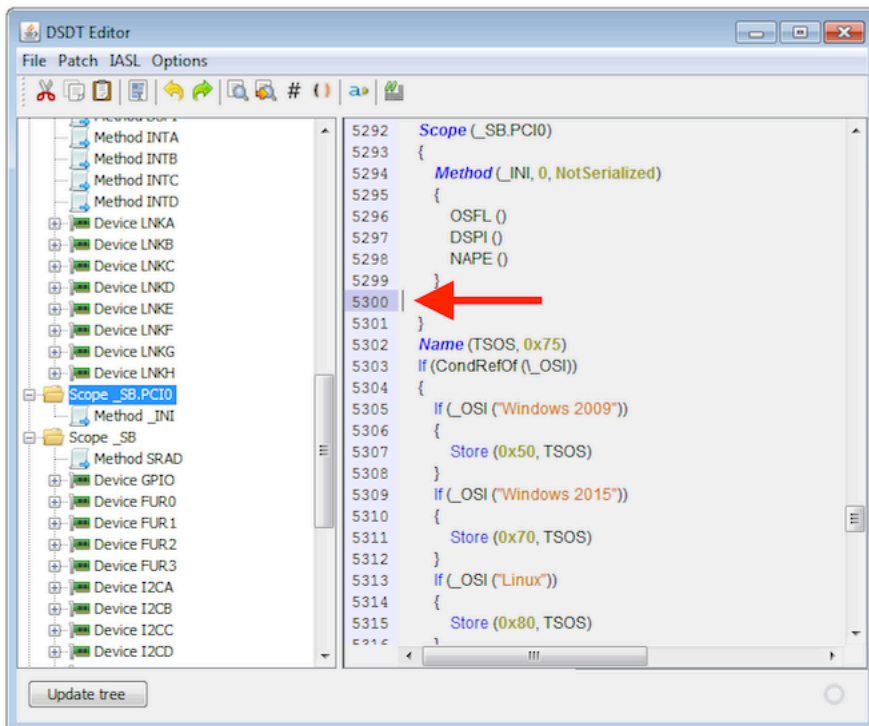


- Press **CTRL + C** to copy the contents into the clipboard
- Now open the **ITX\_DSDT.aml** file in DSDT Editor.
- Scroll down to section: **Scope \_SB.PCI0**
- After the closing curly bracket for code section **Method** make a carriage return by pressing **ENTER**.

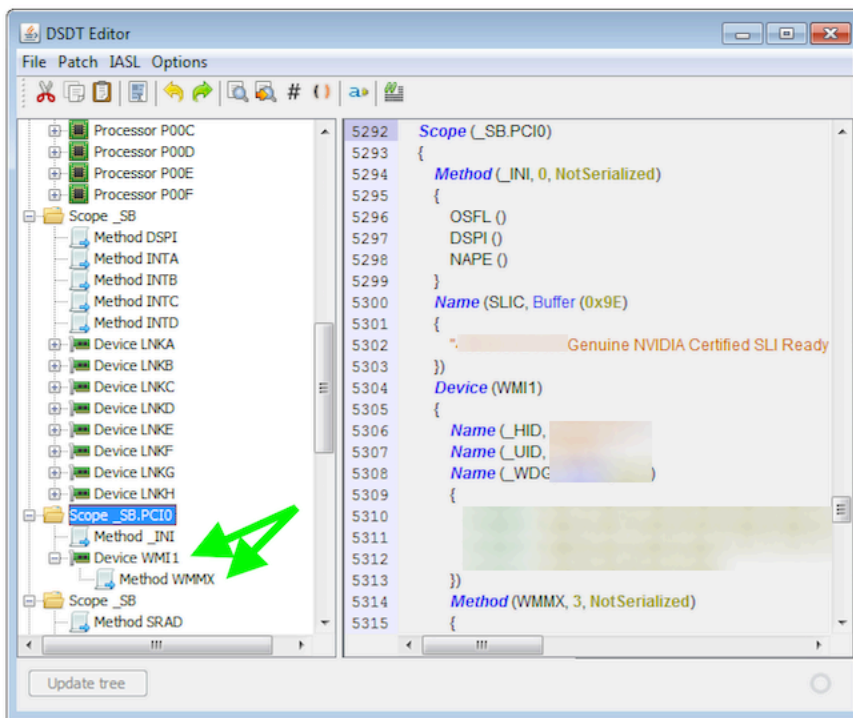




- Make sure the cursor is at the left most position:

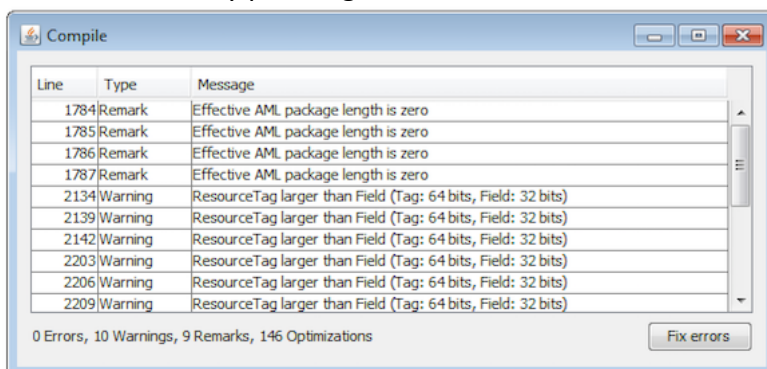


- Now paste in your SLI certificate (**CTRL + V**) and click **Update Tree**
- If you did everything right, your DSDT should now look like this:

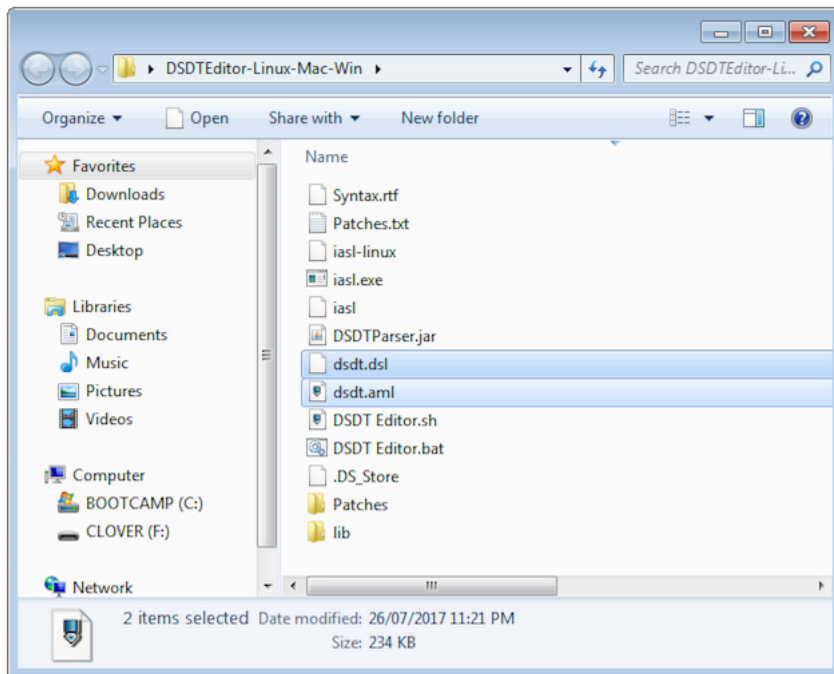


**NOTE:** You should now see new definitions: **Device WMI1** and **Method WMMX**

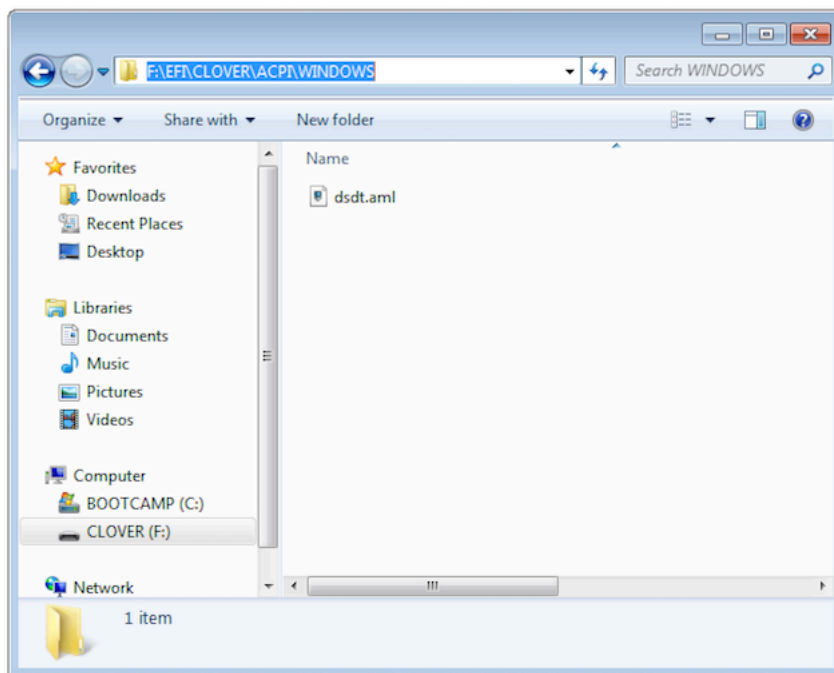
- From the menu bar select **IASL -> Compile** (or press **F5**). A screen will come up with a summary recording your Errors, Warning, Remarks and Optimizations. Make sure there are 0 Errors. If errors exist you may be able to fix them by pressing “Fix errors”



- Close the Compile window by pressing the red X and close DSDT Editor.
  - NOTE:** There was no SAVE function. DSDT Editor automatically created a new dsdt.aml file for you when you closed the application.
- In your DSDT Editor directory you will now have two new files:
  - dsdt.dsl
  - dsdt.aml



- Copy **ONLY** the **dsdt.aml** file to your CLOVER usb stick, to the following directory:  
USB:\EFI\CLOVER\ACPI\WINDOWS\



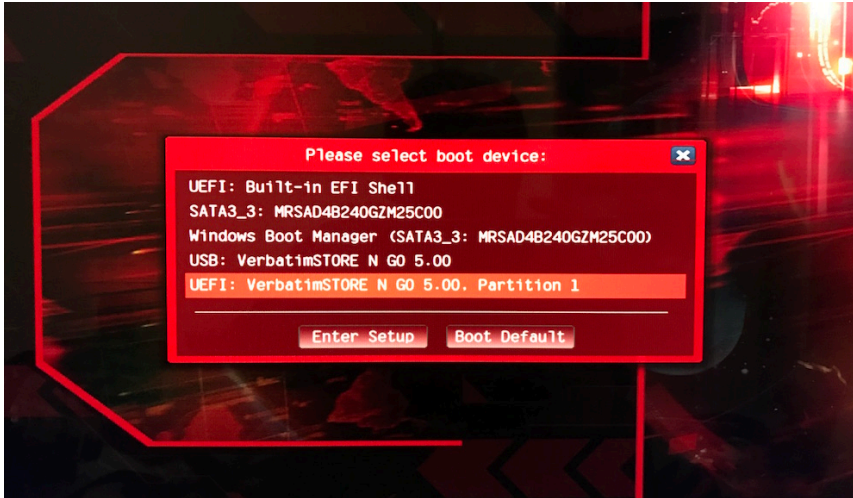
- Safely eject the USB stick

## 6. Enabling PCIe bifurcation on the ASRock X370 ITX/ac motherboard

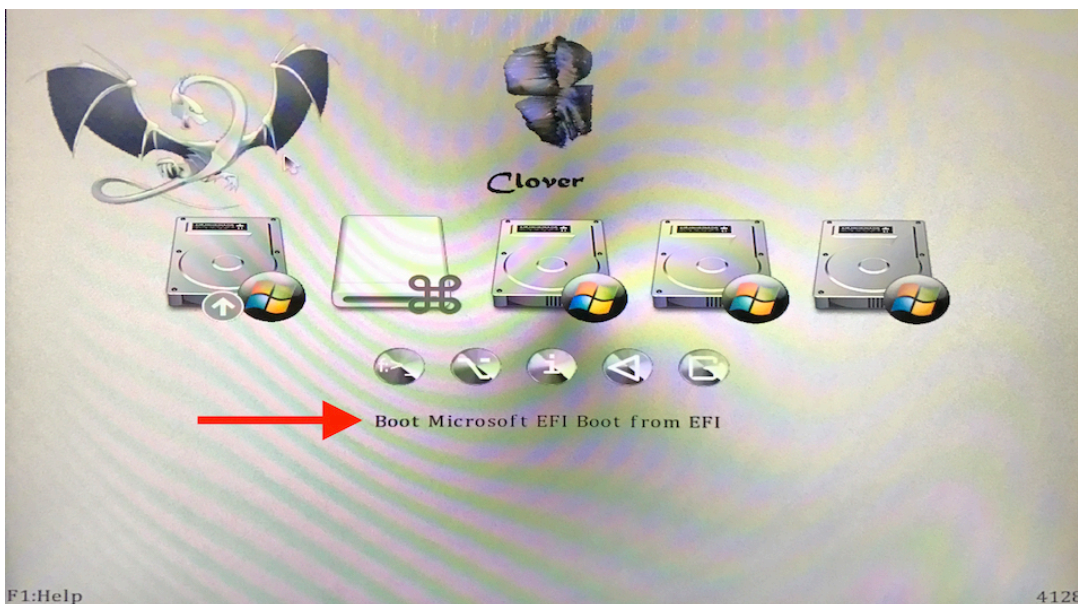
- Start up the system
- Press **DEL** to enter UEFI
- Go to the **Advanced** tab
- Select **AMD PBS**
- Change: **PCIe x16/2x8 Switch** to: **2x8**
- Save and Exit

## 7. Booting your ASRock X370 ITX/ac with SLI enabled

- **NOTE:** At the time of writing, with the current version (r4128) of CLOVER I couldn't boot Windows 10 from Samsung 950Pro NVME SSD. I had to use a SATA SSD.
- Insert the same USB stick you prepared in step 5 to the motherboard
- Start up / restart the system (if its already running)
- Press **F11** to reach the **boot menu**
- From the boot menu select: **UEFI: (+ name of your boot USB stick)**



- CLOVER will start
- From the CLOVER main menu select the boot drive option that states: **Boot Microsoft EFI Boot from EFI**



- Windows will now boot and you should be able to enable SLI in the nVidia control panel