

## PC laptop configurations & Windows optimizations

A fast processor and a good amount of memory are important, but they do not necessarily guarantee that a computer will perform well when using audio/DJ applications, which can be very demanding.

This document will cover many changes and modifications that can be applied to your computer to improve performances, and hopefully provide a more satisfying experience when using your Hercules DJ Console.

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### USB

**a)** As all computers are created differently, some USB ports may not be provided with the same amount of power and can share resources with other components. This can create problems such as audio interrupts and/or dropped samples. Try using different USB port on your computer until you find the one that works best.

**b)** It is also recommended to disable the USB ports power management through **Device Manager**:

- Right click on MY COMPUTER icon on your desktop and select **Properties**.
- Select the **Hardware** tab (Windows XP), or in the Left-hand section (Windows Vista), click on **Device Manager**.
- Under **Universal Serial Bus Controllers**, Double-click on **USB root hub**.
- In **Power Management** tab, uncheck **Allow the computer to turn off this device to save power**.
- Repeat for all USB root hub,



c) Regarding USB hubs:

Only quality powered USB hub should be used. However, it is recommended **NOT** to use a USB hub during the driver installation and/or Firmware updates. Once the drivers are installed and you are certain that your Hercules DJ Console works as expected when connected directly to the computer's USB port, then, test using a USB hub.

As well, when connecting multiple devices to the same hub (such as external hard drives), keep in mind that they all have to share the USB port's bandwidth. This means that it is more likely to run into problems when the bandwidth limit of the USB port is reached.

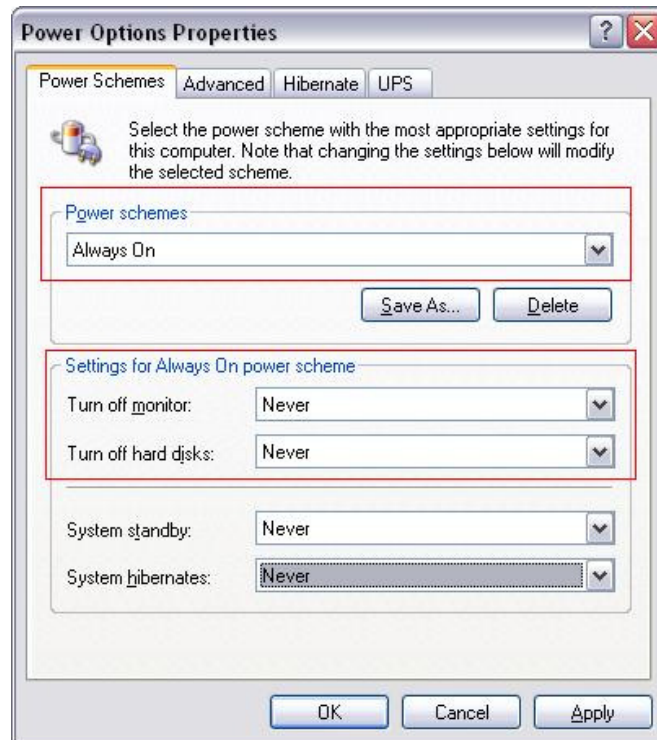
## Power Configuration

By design, laptops are configured to use as little power as possible in order to be operated on battery. This, however, is not desirable when it comes to audio applications.

It is then preferable to use your computer's power supply and to configure your laptop to run as a normal desktop computer:

### - Start > Settings > Control Panel > Power Options

#### a) For Windows XP



- **Power Schemes** should be set to **Always On**
- All other settings should be set to **Never**

## b) For Windows Vista / 7

- Under **Select a power Plan**, choose **High Performance**

Your computer could have specific power option in the BIOS that may also require to be changed. Consult your computer's documentation or the manufacturer's web site for more details.

### Processor (CPU) settings

Recent laptops incorporate a feature that reduces the speed of the processor. This allows to save energy, but again, is not desirable for audio purposes, as it may induce pops, clicks and noise.

This feature, known as **CPU Throttling**, **SpeedStep** or **SmartCPU**, is usually turned **OFF** when the computer's power scheme is set to **ALWAYS ON/ High Performance**, but may also require changes in the BIOS.

Also, if your computer uses a Intel Pentium IV 3Ghz processor (or higher), it is recommended to disable **HyperThreading** from the computer's BIOS.

Regarding these features and their possibilities, please see your computer's documentation or the manufacturer's web site for more details.

### Hard drive and partition

Ideally, you should use multiple hard drives when working with audio and video applications; one affected to the operating system and software, while other(s) used for the files being played and storage/backup.

If this is not possible, creating multiple partitions on the same hard drive is the next suitable solutions, which can provide similar results, preferably with fast drives (7200 rpm)

When using a USB external drives, please refer to the [USB recommendations](#) previously mentioned.

### Internet and Antivirus

Ideally, you computer should be dedicated for DJ performance, and as such, wouldn't need to connect to the Internet. Under these circumstances, antivirus, firewall and similar protection software should not be installed, as they can create problems during audio playback by constantly scanning the hard drives.



However, if you also use your computer for Internet and obviously require protection software to be present, you can take the following steps to reduce the risks of disturbances during a performance:

- Disable your all protections programs ( Antivirus, Firewall, etc)
- Disable any WI-FI or network connections
- Disable all communications software ( Messenger, Skype, etc)
- Close all download applications (Torrents, etc)

## Programs and applications

It is always best to perform a clean install of any operating system, but as it often the case with many manufacturer, your computer probably came with Windows pre-installed and you were provided with a way to restore you system in case of problem.

A down side with this method is that the manufacturer also installs many programs and applications that you may never use, but might utilize precious memory and processor resources even if they are not running.

- Use **Add or Remove programs** (Win XP) or **Programs and Features** (Vista) from Windows **Control Panel** to uninstall any applications and programs that you don't need or use.
- In the Taskbar (near the clock), right click on each icon present. Some programs may give you access to an option or preference menu that could allow you to prevent some taskbar applications from running or launch at startup.

## Windows performance improvements

Following are simple modifications that can be made to Windows to improve the performance of the operations system, and consequently, how applications will perform. Most modifications will be done from Windows **Control Panel**.

Once open, click on **CLASSIC VIEW** in the left column, then proceed to the following icons:

### **a) System**

- In **Remote**, uncheck **Allow Remote Assistance to connect to this computer**.
- In **System Restore** (XP), check **Turn off System Restore**. For **System Protection** (Vista/ 7), uncheck all available disks.



- In **Advance**, open the **Performance** settings.
  - In the **VISUAL EFFECTS** tab, select **Adjust for Best Performance** and click **APPLY**.
  - In the **Advanced** tab, set Processor scheduling to **Background Services**

**b) Sounds and audio device (XP) / Sounds (Vista/ 7)**

- In the **Sound** tab, select **No Sound** in the **Sound Scheme** menu.

**c) Display (XP) / Personalization (Vista/ 7)**

- For **Themes**, select **Windows Classic**.
- For **Desktop**, select **None** (XP) or **Solid Color**(Vista)
- For **Screen Saver**, select **None**

**d) Disable User Account Control (Windows Vista / 7 only)**

- **Start > Run**, and type **msconfig**
- Under **Tools**, scroll down till you find **Disable UAC**.
- Click on the line, the press the **Launch** button.
- Once the operation is completed, close msconfig and reboot the computer for the changes to apply.

