File by davidep85, [THREAD UFFICIALE] Pcsx2: emulatore playstation 2, http://www.hwupgrade.it/forum/showthread.php?t=1722510

REQUISITI E PRESTAZIONI:

Processori:

Non funziona, non perdete tempo a provare:

Intel Pentium Intel Pentium II AMD Athlon (non-XP) AMD Thunderbird AMD Duron

Funziona, ma molto lentamente, possibili problemi:

Intel Pentium III Intel Celeron (qualunque P3 o successivo) AMD Athlon XP AMD Sempron AMD Turion

Funziona senza problemi di compatibilità ma lentamente:

Intel Pentium IV (4) Intel Pentium D (probabilmente il migliore di questo gruppo) Intel Pentium M (Dothan) AMD Athlon 64 Single Core AMD Opteron Single Core AMD Athlon FX Single Core

Funziona ad una ragionevole velocità (non per forza implica la massima velocità):

Intel Core 2 Duo (and laptop Core Duo equivilant) Intel Core 2 Quad AMD Athlon X2 (and Turion laptop equivilant) AMD Opteron Dual Core AMD Athlon FX Dual Core

Processori e schede grafiche notebook:

Non raccomandiamo l'uso di computer portatili se non con caratteristiche paragonabili a quelle già descritte e con supporto alla tecnologia SSE2 per il processore. A parità di modello di scheda video, il notebook è nettamente inferiore. Tutte le schede video integrate non sono supportate.

Schede video:

Non funziona (o produce risultati inaccettabili). C'è la remota possibilità di utilizzare la modalità software del plugin grafico gsdx (velocità lentissima):

Geforce 3 o inferiori Geforce 4 MX series (funzionante ma molto lentamente) ATi Radeon 8xxx series e inferiori ATi Radeon 9100 La maggior parte delle schede video integrate (escludendo la Geforce 61X0 series e 5200 Go)

Funziona ma richiede gsdx con performance molto basse:

Radeon 9200 (funzionante anche con zerogs) Radeon 9250 Intel GMA950 (confermata la compatibilità) Geforce 4

Funziona con entrambi I plugin grafici con performance basse:

Radeon 9500 to 9800 series Radeon X300 to X8x0 series Geforce 5200 (Go inclusa) to 6500 series (inclusa anche Geforce 61x0 integrata) Geforce 7100 – (da confermare)

Funziona con prestazioni dal ragionabile al molto buono con entrambi i plugins:

Geforce 6600 series e superiori (escluse quelle menzionate sopra) ATi Radeon X1300 series and above (necessità di conferma per X1300)

Altre raccomamdazioni hardware:

512mb ram per Xp e 1gb ram per Vista
Windows XP con Service Pack 2
Windows 2000 – Richiede la versione TLB (pcsx2t.exe)
Windows XP 64 con Service Pack 1 - funzionante
Windows Vista 32/64 Con service Pack 1 – funziona su entrambe le versioni con l'emulatore a 32 bit; per far funzionare la VM è probabile dover abilitare manualmente il blocco di pagine in memoria

Specifiche pc, il mio computer otterrà buoni fps?:

A fairly large number of posts involve questions regarding computer speed, and how fast/well a game can play on a computer with certain specifications. There are many misconceptions regarding a certain processor and its performance in PCSX2. This guide is for PCSX2 0.9.2 and will be updated accordingly if any changes are made for future versions. If you are interested, check out the <u>WIKI</u>, which has information regarding performance.

Before I start on the hardware end of things, I'd like to recommend Windows XP SP2 as the Operating system to be used for PCSX2. There is a new version of PCSX2 specifically meant for Linux users (0.9.3) but the latest version of PCSX2 that most users have is PCSX2 0.9.2 for Windows. Windows 2000 works, but when you use Windows 2000 you are unable to use Virtual memory, and have to use the TLB build (PCSX2t.exe), which is slower. Thus Windows XP Professional SP2 or Home Edition SP2 is recommended. There is no performance difference between these two editions, and Windows XP Media Center Edition is essentially identical to Windows XP Professional.

Based on the results of many from this forum (including the screenshots thread), this is an approximate guide to how well your PC may be able to play games. Keep in mind that although considerable thought has gone into the making of this guide, it is only a guide. If you disagree with something you see here, feel free to PM me or post in this thread suggesting the change. That said, it is probably a decent guide if you are confused as to why your computer isn't running PCSX2 very fast. Some computers will be able to get games to run, while others (faster) will be able to get games to be PLAYABLE. Let's define PLAYABLE as 40 - 60 FPS, REASONABLE as 20 - 40, and SLOW as 0 - 20 FPS.

Some games will play differently than others, in terms of speed as well as the way it looks on screen. Games like Final Fantasy X are pretty standard, and have been thoroughly tested and will perform better than less tested games; but FFX is more graphics intensive than some others (in particular strictly 2-dimensional games) and you may get a higher frame rate for these 2-D games even though they haven't been tested.

Your computer will be able to PLAY some games at [very] slow FPS if you have the following:

Processor: At the very least 1.5 GHz. Don't bother trying if you don't have this. No Pentium III or AMD-K63 or Duron chip will be able to handle PCSX2 at any reasonable rate. Unless it is at the bare minimum 1.5 GHz, ASSUME you need to upgrade your processor to get games to run even SLOWLY. A good rule of thumb is that if the computer is worth less than a brand new Playstation 2, you probably won't have much luck.

Video Card: Intel has made their GMA (Graphics Media Accelerator) for both desktops and laptops - if you have this, it will limit severely the performance in PCSX2. Not only that, but there have been reports of compatibility with those video cards. ATi also has their Xpress line-up, which are integrated as well and equally slow. Nvidia also has some integrated graphics chipsets. If you have a brand new Core 2 Duo (the best processor for PCSX2 – see below) matched up with a desktop with an integrated graphics card, don't be surprised if your FPS are low (particularly in 3-D looking/graphics intensive games). In desktops with a PCI-express slot (or AGP) you can upgrade to a dedicated video card, but you must consider a few things such as power consumption (get a bigger Power supply if needed), whether your motherboard supports a 4x or 8x AGP slot, or (preferred) a PCI-express 16x slot – and it is crucial that it is a 16x PCI-e slot.

These are the two main components in your computer that can make a huge difference in terms of speed - your CPU and your GPU. It is recommended that you have at least 512 MB RAM; > 1GB is preferred. If you bought your PC fairly recently (within the last 5-6 years), it likely has one of the following processors. Let's look more in depth:

Processor: Intel Pentium IV (P4) (1.3 - 3.8 GHz)

The Willamette (1.3 - 2.0 GHz) or first generation P4's will NOT be able to generate even reasonable frame rates. Even with 2 GeForce 8800 GTX's in SLI (top-of-the-line video card setup - who would have a combination of these cards with Pentium 4 processors anyways?) you would not get reasonable frame rates. These are single-cored processors that are about 6 years old and will generate SLOW fps no matter what video card you have. Celeron is a stripped down version of Pentium 4 and will perform slower than a Pentium 4 in most cases.

A 3.8 GHz Prescott P4 (fastest single core P4) mixed with a high end video card may get decent frame rates on 2-d games, but if you get much above 40 fps in gameplay you are doing quite well. With a more moderate (~3.0 GHz) processor you will probably get more like 10 - 20 fps with a decent video card. However the Pentium 4's perform slightly better than the next set...

Processor: AMD Athlon, Athlon XP (not including Athlon 64 - 500 MHz - 2.33 GHz)

These should give fairly similar results to the P4's in most respects, give or take a little. The Athlon XP's will likely be a little slower than the Pentium 4 equivalent models by most approximations. The Athlon XP processors do NOT have SSE2 which is an instruction set that is built into the CPU. SSE2 is used extensively in PCSX2, and helps a great deal with speed, so this means if you have an Athlon XP you will not be able to use the SSE2 enabled plugins, and your speed will be very slow.

Processor: Intel Pentium D (including EE's 2.8 GHz - 3.73 GHz)

The Pentium D (8xx) are two Prescott (P4) processors slapped together on a single chip. They did not by any stretch of the imagination represent Intel's finest work. While they ARE dual core (which helps somewhat), playing Final Fantasy X with MTGS and Dual core enabled in PCSX2 0.9.2 yields 13 - 28 FPS with a GeForce 7300 (in my own experience). The video card may have been limiting somewhat, but the processor is really not that great for PS2 emulation. A Pentium D 840 (clocked at 3.2 GHz) combined with a decent video card you can probably get more like 35 - 40 FPS (in a standard game like Final Fantasy X). The 9xx series are a great improvement to the Netburst 8xx processors, and with a good video card (see later) can likely get playable games (possibly maxed in some games). The 8xx EE (extreme editions) and 9xx EE with a decent video card could probably pump out about mostly full FPS when combined with a decent video card and proper configuration.

Processor: Athlon 64 / X2 (excluding FX-?? 1.8 - 2.6 GHz)

The Athlon 64 processors are a great lineup and are usually better than their Intel competitors (Pentium 4 and Pentium D) - pricewise, and performance-wise, even with lower clock speeds. The Athlon 64 single cored processors will be pretty similar to the Pentium 4 single cores (slightly faster, maybe 35 fps in gameplay with other good components; probably less ~25 fps for the most part) - At 2.8 GHz, Athlon 64's have been shown to play at very good frame rates. The Athlon X2's (a dual core processor far superior to the Pentium D processors) can run FFX with a good video card at 45 - 60 fps in gameplay. A high end Athlon 64 X2 should be able to run at pretty much full frame rates, except in the most CPU intensive areas. This is quite good, and is very playable. These are also somewhat overclockable if you know what you're doing, and so can result in an increase in fps rate.

Processor: Athlon FX (single core, dual core)

These are the gaming line of processors from AMD, and come in single and dual core flavours. If

you own one of these, you likely don't need to be told approximately how good a frame rate you will get but with a dual core (or even quad core) processor you should be able to get very playable results when combined with a decent video card – these are CPU's purchased specifically for gaming. The single cores will be significantly slower due to the fact that PCSX2 can take advantage of dual core processing. An Athlon FX-62 dual core can probably get full framerates with a decent video card.

Processor: Core Duo, Core 2 Duo (dual core, 1.66 - 2.93 GHz)

Core Duo processors are only available in laptop models with the 945 chipset, but the Core 2 Duo's are the cat's meow when it comes to gaming, and are available in both desktops and laptops. Not only are they extremely fast and dual/quad core, but the desktop versions are very overclockable. If you really know what you are doing, you can overclock 50-80%. This essentially translates into a 50-80% increase in speed! Note that for laptops with integrated video cards, the FPS will be significantly less than dedicated video cards. A high end video card combined with a Core 2 Duo/Quad processor can get the best results currently available now (can play FFX in game at > 60 fps).

Recently, it has been mentioned that 64-bit support will be implemented in the next release of PCSX2 - 0.9.3. This should offer significant speed gains (nobody knows how much just yet), but this means that a 64-bit processor combined with a 64-bit OS such as Windows XP x64 and Windows Vista X64 will be see good increases in speed. A 180 day trial of Windows XP Professional can be downloaded from Microsoft's website for free (with a valid email address)

The 64-bit processors include:

Some Pentium 4's (mostly 5xx and 6xx series - all are socket 775 and have Hyperthreading) Pentium D (all) Core 2 (all - extreme, duo, and quad) Celeron M 520 (mobile, as well as some socket 775 Celerons) Pentium EE (all) Athlon 64 (including FX series, and X2) Sempron (all) Turion 64 (mobile also) Opteron (all) Xeon (all)

Some notes: The Video card is marginally less important in PCSX2 than the CPU is but is still required to render 3D images in 3D intensive PS2 games. I will attempt to give a basic guide in the quality of video cards:

AGP cards have been known to have some issues in some games. AGP cards include: NVidia GeForce FX series, some GeForce 6200 series, GeForce 7600 GS and GT (but these cards are more commonly PCI-express cards); ATI: Radeon 9x00 series, X1550 (AGP) X1600 AGP, X1650PRO AGP, X1950 Pro AGP. This list is by no means exhaustive, but AGP is an older interface and is slower than PCI-express; older cards such as the 9x00 (9600, 9700, 9800) may have compatibility issues, as well as Geforce 5500, 5700, 5900FX series.

For nVidia, in recent generation cards, the most important number is in bold in the following example: GeForce 7<u>8</u>00. The number that is closest to the two 0's indicates whether it is a high, mid, or low end GPU (graphics processing unit) while the first number indicates the generation of video cards (produced by nVidia). Thus, a GeForce 6800 is much faster and better than a GeForce 7300, even though the number 7300 > 6800. (Because '8' is > '3'). If the hundreds number is the

same, but the generation number is different (i.e. comparing 7800 to 6800) the higher generation card is better. In the case of either "ultra" or "GTX" addition, there are exceptions (i.e. a GeForce 7800 GTX is much better than a GeForce 7900GS). There aren't many comparisons between the different generations of video cards.

For ATi, a similar naming system is used. The PCI-express video cards have model numbers (Radeon) X##0 or X1##0 (and now, finally X2##0). For example X850 or X1300. Again, the number in the 'hundreds' digit shows the model as high, mid or low end. In the example, an X850 is far superior to an X1300 even though 1300 > 850. Actually the X1300 is somewhat comparable to an X300, but is a newer generation card and thus has newer technologies implemented, and is generally somewhat faster.

In general, either a GeForce 7600 or Radeon X1600 or X600 is adequate for most games with a fast CPU (getting REASONABLE FPS), although for 3D games, a GeForce (GF) 7800 or better; or a Radeon X800 or X1800 or better are required for better frame rates.

It is hard to compare all possible combinations of systems; this is meant to give a guide to the new user who doesn't understand why his/her Pentium 4 or Athlon XP is only running at 5 FPS. If you want to play games with full frame rates, use your PS2 or upgrade to a dual core (Core 2 Duo>Athlon FX>Athlon X2 in that order) processor, with a decent video card. Note that it is costs \$130 to buy a PS2, while a good processor, which will not play perfectly on your computer regardless, will cost at least 300 dollars. So if you are one of those n00bs who wants to play PCSX2 because you don't have one, then buy one! (It's worth it; the PS2 is a very good console. Note that you will receive no help if you are playing emulating a PS2 and do not yourself own one).

There are also server processors such as the Opteron or Xeon which are overclockable, and some motherboards can have two physical processors (or more) which theoretically is very good for PCSX2 speed. Again, if you have a system with an Opteron you probably do not need to be told that your system will perform fairly well, but this is just a general guide.

In general, PCSX2 will run your game as fast as your system can. You likely will NOT be able to double your FPS from by a simple "How do I make PCSX2 run faster" solution. The exception is enabling multi-thread and dual core options (on Hyperthreading or dual core CPUs, respectively), which can be found in the guide and can increase performance by ~10fps (some more, some less). You may also be able to increase performance by overclocking - either your video card or processor.