

Swapping Motherboards without a clean Windows install

This is a step-by-step instruction pertaining to preparing Windows XP for a swap of your motherboard without having to reformat and do a clean install of Windows following the swap. This is for a system with a PATA IDE Hard Drive as the system drive, there may be further steps for SATA and I am not covering them here. I had no problems with this method, the worst that could go wrong is that you would have to do a clean install, but just the same please understand, all liability is yours and not that of any individual or entity involved in creating or presenting this how-to article.

It should be noted that while handy, a clean install is probably always going to be the optimum answer to this situation if at all possible. For me this was more of an exercise, to see could I do it, and how would it work out, going from an i865PE board & P4 2.8C to a VIA K8T800Pro board & A64 3500+? The answer is of course, yes I could do it, and it worked out quite well. I will still probably turn around and do a clean install, partly to remove any doubts of lagging performance via this method (I currently see none), but mostly because I love to tinker.

A large credit goes to "Hat Monster" and his excellent thread on this subject at the ARSThecnica Forums, which can be found [here](#), it clued me to a step I missed when I tried this a couple years ago. I suggest you read the entire thread thoroughly. I have simply done a more in-depth step by step for you, and corrected what I found to be a missed command line in his after swap cleanup procedure, at least as how they pertained to my Windows XP installation.

The goal of this exercise is to allow Windows to see the Hard Drive via the new Motherboard's IDE Controller, and to allow you to be presented with video; Windows will take care of the rest. The reason I would say this should be considered in the realm of mid to advanced level users is because there are variable names of the items you want to change based on the current motherboard, ask at 1PCBuilder or the forum above if you need help finding them.

Preparing for the new IDE Controller

Click "start"> right click "my computer"> click "properties"> click "hardware" tab> Click "device manager">

Find the item "IDE ATA/ATAPI Controllers" and click the (+) plus sign to expand it (an alternate name for this item might be "Bus Master IDE Controller")>

Under the previous heading find the Controller that refers to your motherboard (example: Intel 82801 Ultra ATA Storage Controller) and right click on it>

Click properties> click "driver" tab> click "update driver">
Select "Install from a list or specific location"> click "next">
Select "Don't search I will choose the driver to install"> click "next">
Highlight "Standard Dual Channel PCI IDE Controller"> click "next".

When the Driver Update Wizard has finished you will be asked to reboot, reply no! **Do not reboot at this time.**

Uninstall Graphics Card drivers

Click "start"> click "control panel"> double click "add/remove programs">
Locate your graphics card drivers and click "uninstall".

When the Uninstall Wizard has finished you will be asked to reboot, reply no! **Do not reboot at this time.**

Prepare for new CPU to AGP Controller

Click “start”> right click “my computer”> click “properties”> click “hardware” tab> Click “device manager”>

Find the item “System Devices” and click the (+) plus sign to expand it>

Under the previous heading find the item that refers to your motherboard’s “CPU to AGP Controller” and right click it>

Click properties> click “driver” tab> click “update driver”>

Select “Install from a list or specific location”> click “next”>

Select “Don’t search I will choose the driver to install”> click “next”>

Highlight “Standard PCI to PCI Bridge”> click “next”.

When the Driver Update Wizard has finished you will be asked to reboot, reply no! **Do not reboot at this time.**

Just about there

You are for all intents and purposes done now, but if there are other items that are on this current build that will not be replaced on the new one, such as a sound card, PCI modem or PCI NIC then you might want to get to add/remove programs and remove the software for them. **In the process do not grant any reboot requests.**

When you are quite sure you are ready, shut down the computer through the normal Windows procedure. **That is “turn off computer” not restart.**

Switch off and/or unplug your power supply and install your new Motherboard.

Powering back on

After you are done with the install have your new motherboard’s driver disc on hand for when you need it. Power up, but do not let it finish POST before you start hitting the Delete (or appropriate key) and enter the BIOS setup. *If you don’t know what you are doing at this point you probable need to ask more questions before you perform any of the stuff written in this guide!* Do the usual checking to make sure everything is recognized; drives, memory, CPU, etc. Set the system clock; disable any onboard audio device if you have a sound card installed. When you are ready, save to CMOS and exit.

Before or during the appearance of the Windows desktop you may receive a popup window asking you to reactivate windows, tell it you will do it later (you don’t have an internet connection yet).

When the Windows desktop appears there will be a flurry of activity with new hardware items being found one after another, just sit back and let it happen, Windows will follow through and install the drivers for some stuff automatically and tell you it is ready. When an install new hardware wizard window does appear and remain on your screen prompting you for drivers from a location just click cancel. This may happen several times, when everything quiets down you are ready to move on.

Cleaning up

What we want to do now is clean out all the drivers for hardware devices associated with your old

Motherboard that are no longer present. I believe this is an import step, and not getting it done correctly is probably what screwed me up when I tried this procedure a couple years ago.

Windows has to be commanded to show you the non-present devices in device manager, to do that follow these instruction, and/or refer to this [Microsoft KB article](#).

Click “start”> point to “all programs”> point to “accessories”> click “command prompt”

At the command prompt type>

```
set devmgr_show_nonpresent_devices=1
```

Then hit enter

At the next command prompt type>

```
cd\system root\system32
```

Then hit enter

Note: The above term “system root” should be replaced with the name of the folder where Windows is installed, in my case that is simply, “windows” (without quotes).

At the next command prompt type>

```
start devmgmt.msc
```

Then hit enter

The device manager will open, and first thing go to the top and click “view”, then click “show hidden devices”. You can now go down through the categories expanding the lists of devices and you will see crystal icons (semi-transparent), you can right click on them and click properties and instead of telling you “this device is working properly” it will tell you something to the effect of “this device is not present, error:45”. If you have come this far through this guide I figure you are experienced enough to know which devices relate to your old Motherboard and/or CPU, and you will right click on them and select “remove”. You are quite likely to find some in there for items you installed and then removed on your computer ages ago. This is actually a good clean-up procedure even if you have not just installed a new Motherboard. A note of caution even for the experienced don’t take something out if you are not pretty sure what it is, I removed what I thought was a duplicate driver for my sound card and ended up having to reinstall the software (Creative Labs drivers suck).

When you are done return to the command prompt and type exit.

You are now ready to install all your new motherboard and graphics drivers!

When you are done be sure and re-activate Windows if you were prompted to do so earlier.

Good luck.

James M. Daly

The information in this how-to is common knowledge.

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3 Jan 2005, Revision 1 (edit minor spelling errors)