

Bed Against The Wall

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Wednesday, July 29, 2009

Solving Color Problem (Red Grass, Purple Water) In Age Of Empires 2: Age Of Kings (The Conquerors And Others Too) On Vista And Windows 7

Changelog

- Update (30-Jul-2011): A new update for the Palettetealersuspender program is up. This release brings some significant UI changes. The tool now loads and saves settings and hides to the notification area so it can run and monitor games in the background. I've restructured the accompanying blog post to move program instructions to [a separate page](#).
- Update (24-Apr-2011): A new update for my PaletteStealerSuspender program is up. This release fixes some bugs, and adds the ability to use the program in "batch/console"-mode. The readme contains usage details. The download link below leads you to the latest version.
- Update (08-Sep-2010): I've added explanation for the new registry method (see [comment](#)). Also added a link to [Jari Komppa's Ddraw implementation](#).
- Update (18-Apr-2010): A new version of the program is up again. This version includes the ability to wait for a game until it is started instead of starting the game itself. This is useful when using launchers or lobby programs like Garena which start the game for you.
- Update (27-Mar-2010): I've added a new version of the program which fixes the "CD not found"-issue when using patch 1.0c for The Conquerors. Turns out the working directory for the executable should be set to "C:\Install Path\Age Of Empires 2" and not C:\Install Path\Age Of Empires 2\age2_x1".
- Update (7-Feb-2010): I've added a new version of the program to fix a minor error which caused an exception to appear when starting the game in some rare cases. Download link still below.

Introduction

Recently I wanted to play an old favourite of mine: Age Of Kings: The Conquerors. The game had been running fine all the way from Windows 98 (and NT 4 as well, which was a pain to play games on at the time, but I digress) until Windows Vista. However, with Windows 7 - which I've been running happily for some time now - I stumbled on a roadblock: the colours were all wrong.

This is not an uncommon problem. Many people have had problems when running the game on Vista or Windows 7, this is how you could describe it:

- Basically, the colors are all off.
- It's Age Of Empires: Mars Edition.
- Grass turns red, or green, after playing a few seconds...
- ...or the water turns purple.
- Some trees turn red as well.

And this is what it looks like:

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The thumbnail doesn't really bring it out, look at this ("zoom, enhance"):



The tree has an ugly red border around it and the grass turns too green (your experience might be worse).

Age Of Kings isn't the only game with this problem. Basically a lot of old Directdraw games suffer from this problem, like the first Age Of Empires, Worms Armageddon, and even Starcraft:



It's not too bad here though, most of the terrain looks okay.

Solutions and methods

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There are a few different solutions floating around. Let's list the most common ones. I've also listed how well they work next to each number, so you can quickly scan the list. Newest and best performing methods come last.

Unreliable and/or hard methods

Most methods below are unreliable, or do not work with everyone. Most of them are pretty annoying and/or hard to execute as well. If you want better solutions, just skip this part...

(1 - unreliable) Alt-tab out of the game, and then maximize it again. This worked in XP (and in Vista for some users), and works in some cases in Windows 7. I had no luck with this anymore though. The colors would work for a few seconds, but then changed again.

(2 - unreliable) Change your in-game resolution. Doesn't work in Windows 7 anymore either. After switching resolutions, the colors even became worse. This might work in Vista, but this solution is not really preferred (you want to play on the best resolution possible).

(3 - unreliable) Before starting the game, open a explorer window. My Computer, a random folder, anything works. Surprisingly, this often worked in Vista with most Directdraw games. In Windows 7, not anymore.

(4 - unreliable) Mess around with the compatibility options, especially Run in 256 colors, Disable visual themes, Disable desktop composition, Display display scaling on high DPI settings and Run as administrator. This works for some games/users, but I don't really like this method as it has a lot of drawbacks (desktop windows/icons messed up when you exit etc...).

(5 - mostly reliable but annoying) Close explorer.exe using the Task Manager. This works on both Vista and 7, for most games, but if you're like me, you don't like to close your 5+ open explorer windows. Besides, there's a better solution...

This method has been added to the program (see below). Another way is to create a batch script, if you don't want to use the program:

```
REM kill explorer.exe
taskkill /f /IM explorer.exe
REM start the game and wait to finish
REM note: /D indicates the starting directory, often the same as your
game's exe
start /WAIT /D "C:\path\to\game.exe" "C:\path\to\game.exe"
REM start explorer.exe again
start explorer.exe
```

Or, another method:

```
taskkill /f /IM explorer.exe
"C:\path\to\game.exe"
REM if the game finishes press enter to restart explorer
pause
start explorer.exe
```

(6 - mostly reliable but annoying) Download a mod or tool for Age Of Kings: The Conquerors to play it in windowed mode. You can get it [here](#). Unzip the archive into your installation folder, and run AoC.exe. If you want, you can also mess around in the config.xml file to change some options. This is how it looks:

Irrational Exuberance

Jason Kottke

Just Bento

Lifehacker

Macuyiko's Tumblr

Mashable!

Signal vs. Noise

Smashing Magazine

Techcrunch

Terminally Incoherent

Twenty Sided

Waiter Rant

Worse Than Failure

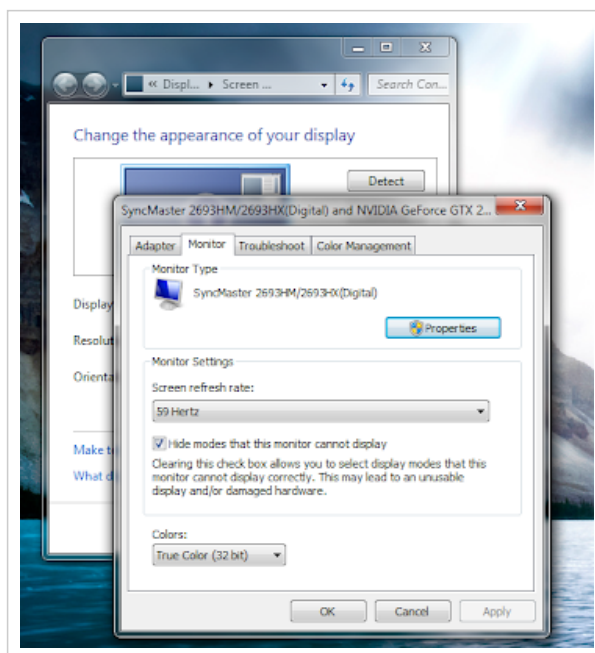
xkcd



On my large monitor, I actually enjoy playing this way.

There are other mods out there for other games which allow to run them in windowed mode. For Age Of Empires: Rise Of Rome, you can get [this mod](#). Or you can get DxWnd which forces Directdraw (DirectX >=7) games to run in a window. I had no luck with it for The Conquerors however. For Starcraft, there are also some tools floating around to fix the resolution/window/colors. For Worms: Armageddon, CyberShadow is working on a fix for the game (see [here](#)), so you might want to keep an eye out for that.

(7 - mostly reliable but annoying) This is the newly found strange "Screen Resolution"-method. Found on [this forum](#) recently. This is a weird workaround but seems to work on every game I've tried. Follow these steps exactly: right click on your desktop and pick Screen Resolution. You're not done yet (!), in the Screen Resolution window, click Advanced settings. Another window will open - click the Monitor-tab in that window. You should now be looking at something like this:



Now, leave these windows open, and start the game. The colors should work. Unbelievably weird (I had to pick the Monitor tab for it to work), but it works. If it works for you too, you may stop reading here :).

Newer and/or reliable methods

You'll find the easier, newer and more reliable methods in this section.

(8 - reliable) Download a tool I quickly whipped up to play Directdraw games in fullscreen without them changing colors. This tool will act as a launcher which places itself in your notification area and automatically suspends all applications which are changing the game's colors and will bring them back alive when you close the game. A full explanation and usage instructions for the tool can be found [here](#).

(9 - reliable) Thanks to this [comment](#) I found out that Windows 7 actually provides a compatibility hack build in to allow running old DirectDraw games in all their glorious colors. The HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\DirectDraw\Compatibility\ registry entry (or

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\DirectDraw\Compatibility\ for 64bit Windows) contains entries for some popular games, such as Age Of Empires and Starcraft.

Then why are those games not working right? It turns out that the ID used in the registry entries are very specific to the game version. You can follow along with [this blogpost](#) to find out all about this hack.

If you don't want to download procmon to figure out the application ID yourself then you can download a tool by Mudlord [here](#) (or mirrored by me [here](#) because the original source seems to be down). The source code is included, and looks clean. To use it, open the w7ddpatcher.exe executable, and press Patch to add a DirectDraw application to the registry. After patching, the game should always work with correct colors, and you won't have to use the program every time you want to play the game (unless you change the executable e.g., by updating the game).

(!): note that this tool might not work with Windows Vista or XP, I've only tested it with Windows 7 myself. If you're using XP, you're probably better off using my tool (see #8 above), since it probably doesn't come with those registry entries. Also, the tool won't work out of the box for Age Of Empires 2 (and other SafeDisc using games), as that game needs an entry for age2_x1.icd instead for age2_x1.exe, as stated on [this forum thread](#). Take a look at HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\DirectDraw\MostRecentApplication to find out the correct application ID and edit the registry entry manually accordingly.

(10 - reliable for certain games) A few days ago, [this writeup](#) from Jari Komppa got my attention. This coding wizzard has programmed a custom ddraw.dll which wraps all DirectDraw calls and redirects them to an OpenGL surface. Tip of the hat to this guy. Download the DirectDraw Hack DLL binary from [his site](#) and put it in the same directory as the game executable you're trying to run. It should work for Wing Commander, StarCraft 1, WarCraft 2, Fallout and Fallout 2.

(!): the DLL alas, does currently (as per last update to this blog post) not work for Age Of Empires 2. So I'm still shamelessly plugging my tool for that game (see #8 above).

Technical explanation

If you're interested in a little background on why this problem is happening, read on.

When I first encountered this problem, I already knew a little about [DirectX](#), the [GDI](#) and the [Windows API](#). Basically, back in the day, DirectX (which handles a lot of the graphics and multimedia workload in games and other program) included a component called Directdraw, used for rendering 2D graphics.

PCs back then weren't really powerful. Everything had to be as fast as possible, even color handling. So something which Directdraw did for you was maintaining a palette of 256 colors. Like a painter, programmers could fill this palette with 256 colors they would use: ten greens for grass, 6 blues for water, and so on. Some of these 256 colors are static (but then again, not always) and cannot be changed. If you're interested in the deep and dirty details: [this page](#) does a good job explaining it.

Now this is the thing: if you're a fullscreen game, you don't want other programs screwing up the system palette, changing your beautiful chosen colors to ugly greens and reds. And this is what's happening in Windows 7. If you read [System Palette and Static Colors](#) on MSDN, it states that "However, because changing the static colors can have an immediate and dramatic effect on all windows on the display, an application should not call SetSystemPaletteUse, unless it has a maximized window and the input focus." Alas, this is not enforced by Windows, and thus explorer.exe (which comes from Microsoft mind you) and other programs will happily call SetSystemPaletteUse and mess the poor fullscreen DirectDraw game up.

I googled a bit around to see if I could find any clues. [This message](#) at Stackoverflow describes the same problem. This message is actually posted by the maintainers of Worms: Armageddon. No-one provided an answer though. I opened up Visual Studio (which was still installed) to quickly throw something together in VB.NET to intercept the WM_SYSCOLORCHANGE, WM_PALETTECHANGED, WM_PALETTEISCHANGING and WM_QUERYNEWPALETTE messages and look at where they're coming from. Basically, three processes are fighting:

```
CHANGING from (0)
CHANGED from Age of Empires II Expansion (135458)
Device context: 16847861
Process: 4508: age2_x1
Got 256 palette size scr
[...]
CHANGED from GDI+ Window (917744)
Device context: 184626156
Process: 2452: explorer
Got 256 palette size scr
CHANGED from (65552)
```

Device context: 1744905863

Process: 540: csrss

Got 256 palette size scr

[...]

The game itself, explorer.exe, and csrss.exe.

I then wanted to make a program which would change the palette back every time an outside process tried to change it. I had a whole list of functions loaded and code written, but it just didn't work out and turned out to be too difficult. Also, I was beginning to suspect that this method could work, but would still result in flickering while changing palettes. I was browsing around at the Worms Armageddon forums, and found out that somebody wrote a DLL with source code for this problem. The code was written in Delphi and easy enough to read: grab a process, find every thread, and send the suspend message to every thread. I converted this code to VB.NET and slapped it on a form which would grab every WM_PALETTECHANGED message to update its list of processes.

Note that there is actually also a lesser known way to suspend a process with one API call, without iterating all the threads, which is used in the PsSuspend- and Process Explorer tools made by SysInternals:

```
-  
Public Shared Function NtSuspendProcess(ByVal ProcessHandle As IntPtr) As Integer  
End Function
```

```
-  
Public Shared Function NtResumeProcess(ByVal ProcessHandle As IntPtr) As Integer  
End Function
```

The full source code for my PalettetealerSuspender program can be found on [this page on my blog](#). Consider it a reward for reading all the way to the end.

By Unknown @ 02:57

Labels: 7 , aoe2 , aok , color , directdraw , purple water , red grass , seven , solved , starcraft , vista

119 comments :

Brian August 05, 2009 3:47 PM

Thanks very much for this informative post. It brings some clarity into what seemed to be a random annoyance.

Unfortunately your program doesn't seem to work for me. I'm running Windows 7 RC x86 build 7100 and although the program loads I get an "unhandled exception" error when I try to play a game. Running your program as administrator gets me into the game but doesn't fix the colours and I have an "unhandled exception" error waiting for me in the background. I can send you the error dump if you wish.

[Reply](#)



Unknown August 05, 2009 3:52 PM

Brian,

Thanks for reporting this error. I would gladly take a look at it. Send the dump to macuyiko[at]gmail[dot]com

[Reply](#)

Brian (Not the same as above) August 15, 2009 11:27 AM

Works on Windows 7 RTM build 7600. I don't know how to combine this with IGZones.com (multiplayer replacement for AoE2). But thanks anyway!

[Reply](#)

Anonymous August 23, 2009 5:52 PM

THANK YOU! the closing explorer.exe did the trick for me

[Reply](#)

Anonymous [October 05, 2009 2:47 PM](#)

AWESOME!!! I have been searching thruout the internets for a way to make AOE2 windowed.

Now, thanks to you, I have it!

You rock!

[Reply](#)

Anonymous [October 24, 2009 12:10 AM](#)

Im using windows xp, and i notice the graphic problems ONLY happens at exact hour, i mean, when i got that graphic issue, not only in AOE2 but in other 2D game, i tab out and the windows clock its at zero minutes, like this last time, it was at 23:00, and im sure the next situation will happen at 24:00.

Thx for all this well explained tips.

[Reply](#)

Anonymous [November 28, 2009 4:17 PM](#)

Thanks man, that leaving the windows open trick worked. Thanks bud.

[Reply](#)

Mchief111 [December 10, 2009 2:09 AM](#)

I love you, man. Will you (or, failing you, the program) marry me?

[Reply](#)

Anonymous [January 02, 2010 10:46 AM](#)

Thanks for very helpful information

[Reply](#)

Anonymous [January 09, 2010 3:31 PM](#)

Using Vista 64 and Recommended option and I still get the color change. Once I didn't get the color change but I locked up about 20 min into the game. Noticed that my USB keyboard lights went out. Sad that this game does this. My friends and I still play it multiplayer. Or at least we did...

[Reply](#)

Anonymous [January 25, 2010 12:35 AM](#)

I can't seem to get the windowed version to work, where exactly does it have to be. I just get an error message just before the game starts every time.

[Reply](#)



Unknown [January 25, 2010 2:00 PM](#)

The archive needs to be extracted so that aoc.exe is in the same location as age2_x1.exe.

[Reply](#)

Anonymous [January 26, 2010 6:04 AM](#)

That's where I had the files placed, yet I get the same error message saying "An error occurred while trying to start the game.". I don't know if you have any idea why this is happening.

[Reply](#)



Unknown [January 27, 2010 1:30 PM](#)

Not really. What happens when you extract the contents of the archive to the same location as empires2.EXE and try to run it from there? It appears that this does make a difference for my

installation.

[Reply](#)

Anonymous February 15, 2010 3:08 PM

what about installing mod packs from MPS to the game. MPS won't install..can that be fix ??

[Reply](#)

Anonymous February 24, 2010 4:42 AM

Ah!!! i need help!!
it plays as windowed mode
but when i try to start a game, any game
it says "An error occurred while trying to start the game"
please help!!
i just clicked and dragged the items onto the main folder

[Reply](#)



Unknown February 24, 2010 1:26 PM

@Anonymous: I've never used MPS so I wouldn't know about that, sorry :).

@Anonymous: players who're getting errors with the windowed mode: which version are you using? Dragging to the main folder (same location as empires2.exe) should work, and does work here with Conquerors 1.0c. It might not work with other versions (e.g. unofficial 1.0e)...

[Reply](#)

Anonymous March 04, 2010 4:28 AM

When I try to start the age of empires with the tool, it gives me an error saying 'Please insert the correct CD-ROM'. I'm using Windows 7 32 bit Professional release versions

[Reply](#)

Anonymous March 24, 2010 3:39 PM

When trying to run AOC 1.0c, I receive the same error of "Please insert the correct CD-ROM". I'm using Windows 7 Ultimate 64 bit.

[Reply](#)



Unknown March 27, 2010 3:25 PM

@Anonymous and @Anonymous above me: Thanks for reporting this problem! I've checked by digging up my original CD and using patch 1.0c.

The problem lies in the fact that the working directory should not be set to the same path as the executable, but to the path of empires2.exe. The new version of the program handles this automatically for The Conquerors and should work now.

[Reply](#)

Anonymous April 17, 2010 5:25 AM

Thanks man.

That tool works very well.

But I have a question.

I'm using Garena to play multi player game.

How could I get the effect on Garena?

There's just a "game boot parameter".

Would you let me know??

[Reply](#)



Unknown April 18, 2010 3:45 PM

@Anonymous and others using Garena, lobby programs, launchers and mod packs which launch the executable for you:

I've uploaded a new version of the program which include a new feature to help you out. First of all, start the program, then Browse to the game executable (which we're going to start now with another program).

Then press "Watch Game" instead of "Start Game". The program will now wait until the game is started. Now go to your launcher/lobby/whatever program and start the game from there. Once the game is launched the Suspender will activate itself and suspend all the process. It will then wait until you exit the game.

[Reply](#)



Unknown April 18, 2010 3:45 PM

... since this is still a new feature, please let me know if this works.

[Reply](#)

Anonymous April 19, 2010 4:21 PM

WOW WOW WOW!!

Thank you for answering quickly.

AND

IT WORKS!!!

I don't know how to appreciate you!!!

Thank you very much!

[Reply](#)

Anonymous April 26, 2010 6:54 PM

I have been using your program for a while, the last version and 3.0, and I think that the program might delete the explorer.exe over time because I had to reinstall the game three times.

[Reply](#)

Anonymous April 26, 2010 6:59 PM

Please disregard the previous comment, I figured out what I was doing wrong.

[Reply](#)



oneman May 06, 2010 4:11 AM

Thanks so much for all of your work doing this! I think the future will be virtualizing whatever platform the game was designed for, but even at this point AOE2 doesn't play in my virtualized XP on my linux machine, but this lets me play it on a Win7 machine.

Thanks so much! I've spent alot of my life investigating even more inane things!!

[Reply](#)

Anonymous July 01, 2010 4:49 AM

Hello, your program does quite well when playing Age of Empires, it works wonders if I use the 3rd option, but, it does not have any effect when I play Star Wars Galactic Battlegrounds (being more accurate, the expansion pack). If I pick the 4th option (kill the process), "kills" explorer.exe, but it stats again before the game loads.

My OS is Windows 7 Pro, if you need more specific info, please let me know.

Regards.

[Reply](#)

Anonymous July 01, 2010 6:36 AM

Found what happened, I was opening a launcher instead the actual game. Thanks for the program!

[Reply](#)



Unknown July 01, 2010 12:33 PM

Great to hear it works.

[Reply](#)

Anonymous July 04, 2010 1:39 AM

Hi, just wanted to say thanks for this - I was having the colours problem with Fallout 2, purchased from gog.com. Your tool is the only fix that works, and now I can enjoy this awesome game again!

Maybe you should contact gog and see if they'd pay you some money for your tool, since a LOT of people on there are having the same problem.

[Reply](#)



Unknown July 08, 2010 5:43 PM

Cheers, useful info to have and a good explanation of the technical background to it.

It's mad explorer.exe is allowed to get away with this theft, especially as the problem has been present in the last 3 desktop Windows editions in some form. Good workaround.

[Reply](#)

Anonymous July 24, 2010 5:01 AM

I tried everything till I found this.It works a treat.Thank you so much

[Reply](#)

Anonymous August 03, 2010 12:33 AM

Applications like this aren't required anymore.

mudlord.hcs64.com/code/w7ddpatcher.zip

Run that
start game

game and app will terminate automatically.
Start the game again and colours will work fine Permanently.

doesn't do a thing about the freeze though unfortunately, nobody knows the exact cause of it.

[Reply](#)

Anonymous August 03, 2010 12:35 AM

what it does is grab the ddraw app id, and apply a ddraw compatibility fix in the [HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\DirectDraw\Compatibility or [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\DirectDraw\Compatibility sections.

[Reply](#)

Anonymous August 16, 2010 7:48 PM

Hallelujah, i tested it with Warcraft 2 BNE (had this color bug) and it works perfectly.
Thanks to the great mind who made up this programm ^^

[Reply](#)

Anonymous August 18, 2010 8:33 PM

you're program runs fine so far! Thank you!

[Reply](#)



Richard [August 25, 2010 5:26 PM](#)

great stuff! it works!

[Reply](#)

Terry [September 04, 2010 3:26 PM](#)

This tool works perfectly for my laptop:

Compal (Sager) FL90 w/ Nvidia M8600GT 512Mb video, Intel Core2 Duo, 4Gb, Win7 x64. The red in the grass was much more pronounced than what you have in your sample images above, but your little program worked to get AOEx1 Conquerors back to normal. Thanks!

[Reply](#)

Anonymous [September 18, 2010 5:43 AM](#)

i'm having a problem with number 9, i did the patch and it fixed my color but now i can't load old saved games or save new ones. why?

[Reply](#)

Anonymous [September 25, 2010 2:16 AM](#)

For the above poster, for some reason (depending on what game you're playing) if you run a game but run it as an administrator then you may not have access to some of your previous saved games, if you first started playing the game without running it as an administrator. Not sure why it is but its happened for a few of my older games when I do that, probably has to do with Windows 7.

[Reply](#)

Anonymous [October 02, 2010 2:23 AM](#)

Thanks man!! Your program worked for me on Windows 7.

[Reply](#)

Anonymous [October 23, 2010 1:56 AM](#)

Thank you, now I can finally play Fallout 2 again! You have no idea how many things I've tried before I found your blog!

[Reply](#)

Anonymous [October 23, 2010 6:57 AM](#)

The application above is brilliant. Thanks!

[Reply](#)

Jared [November 08, 2010 3:43 PM](#)

Great article! So well laid out and researched, you present the information in a very compact and easy to read way.

Thank you for your time!

[Reply](#)

Anonymous [November 11, 2010 9:39 PM](#)

YES, fallout 1 Works windowas 7!!!

You are AWESOME!!

[Reply](#)

Anonymous [December 06, 2010 3:50 PM](#)

http://www.4shared.com/file/xelljXSm/DirectDraw_Compatibility_Tool_.html

too bad none of these fix the freezing and system lock issues

[Reply](#)

Anonymous [December 09, 2010 1:08 AM](#)

Thanks for the effort man!!

The tool works on Conquerors (AOC) on a newly booted w7pro - however, exiting the program and running AOC again makes it "lockup" with a black screen and the only way to get "back" is to hard-reset the PC. I had the same problem using the .bat file thats circulating (the one using kill task explorer).

[Reply](#)



Unknown [December 09, 2010 1:42 PM](#)

@Anonymous: the first time after you exit the game, are you able to use your computer normally? Meaning that it is only after starting the game for a second time that you get the lockout?

[Reply](#)

Anonymous [December 09, 2010 7:17 PM](#)

That is correct. I use your util, start the game, all is fine, I exit the game, all is still fine, but when I try to launch the game a second time it will "hang" as mentioned above.

[Reply](#)



Unknown [December 09, 2010 9:49 PM](#)

@Anonymous: interesting. If you're willing to contact me by e-mail (macuyiko@gmail.com), I'll send you a debug version this weekend which will create a log file to help me track down to problem.

[Reply](#)

Anonymous [December 10, 2010 4:50 PM](#)

Sure no problem. Email sent.

[Reply](#)

Anonymous [December 14, 2010 7:59 PM](#)

I'm sorry (happy?) but I'm having difficulty reproducing the problem. For some reason its not locking up any more... If I'm able to reproduce the problem I'll e-mail you the log.

[Reply](#)



Unknown [December 14, 2010 8:04 PM](#)

No worries, I'm happier to see problems disappear rather than to encounter new ones :).

[Reply](#)

Anonymous [December 14, 2010 10:09 PM](#)

I have a feeling the problem went away after patching with the mudlord-thingy...not sure tho..

[Reply](#)

Anonymous [February 08, 2011 9:54 AM](#)

Nice Work man !

[Reply](#)

Anonymous [March 20, 2011 6:37 AM](#)

Quick question

I'm using Method 6 and the game works perfectly in windowed mode however I can't re-size the window and nothing I've tried in the config file lets me change the window size.

Do you know how to change the size of the window even if it's just to 1280*1024?

[Reply](#)



Unknown March 20, 2011 11:38 AM

@Anonymous

Correct, the config does not allow you to change the window size. Using the in game options menu however should allow you to change your resolution (800x600, 1024x768 and 1280x1024). The window should resize by itself to the new size.

[Reply](#)

Anonymous April 06, 2011 9:31 AM

my screen keeps scrolling diagonally right up!!!

arrows dont work!

Help!

AOE 2 age of kings

[Reply](#)

Anonymous April 19, 2011 10:45 AM

Thank you so much for the programe, exactly what I was looking for!

[Reply](#)

John April 19, 2011 8:14 PM

fantastic work.well,thanks for these instructions.it will very helpful to us.it was nice post.i liked it.

[Reply](#)

Anonymous April 20, 2011 12:58 PM

Hi!

The 8. method works fine with Age of Empires 2 and Star Wars Galactic Battlegrouns. Thanks man! :)

[Reply](#)

Anonymous May 03, 2011 12:44 AM

The PalettetealerSuspende program you made works perfectly. Previously I had used the registry solution which worked 95% of the time but yours works perfectly.

However, I have a few suggestions to make it more gamer friendly.

1) Could the program be expanded to run 24/7 in the system tray?

2) For the above to work better, one should be able to add game executables to a list for the program to constantly watch for when in the system tray.

Assuming of course, the program doesn't take up much resources. Doesn't seem like it has so far.

[Reply](#)

Anonymous May 03, 2011 12:48 AM

Above guy here.

If you don't have time or interest to expand it anymore, could the source be released so that others can do it?

[Reply](#)

Unknown May 05, 2011 10:58 PM



@Anonymous above: Interesting suggestion. I like the systray and game watchlist idea, but this would mean that the program would have to save and load this list somewhere, together perhaps with the list of offending processes to suspend. This'll require some changes to the user interface as well, to combine the current "one-shot" gui mode, console mode and systray mode together in a coherent whole. I'll think about a good way to do this and post an update when a new version is online.

As for the source code, a link to the source is already made available in this blog post.

[Reply](#)

Anonymous [May 09, 2011 6:51 PM](#)

I'm having a problem it seems with Conquerors. I installed the game and tried running it, it stopped responding every time. I installed 1.0c and was getting the "Please insert the correct CD" issue. Found this site and downloaded the Palettetealer program. It shows as -

Game:

C:\Program Files (x86)\Microsoft Games\Age of Empires II\age2_x1\age2_x1.exe

Start in:

C:\Program Files (x86)\Microsoft Games\Age of Empires II

But it still keeps on asking for the CD.

Any ideas? :)

[Reply](#)



Maxi Ng [May 18, 2011 2:36 PM](#)

I can't believe this problem is solvable! you are a genius.

could you explain what is causing this problem?

[Reply](#)

Anonymous [May 31, 2011 2:26 AM](#)

Huge thanks for the program you made. I've been fiddling around with Fallout for about 3 hours trying to get it fully working, and this has sorted it out straight away.

Thanks again!

[Reply](#)

Anonymous [July 06, 2011 6:49 AM](#)

Thanks, method 8 worked for me

[Reply](#)

Anonymous [July 16, 2011 5:32 PM](#)

Thanks for this most informative post. I've been trying to solve the color problem in Fallout for more time than I'd like to admit, and solution number 10 worked perfectly. Thanks again to you for posting and to the hacking pro who modified ddraw.dll!

[Reply](#)

Anonymous [July 20, 2011 5:19 AM](#)

Amazing, simply amazing. nothing worked, then a simple download and patch and it's perfect

[Reply](#)

Anonymous [July 21, 2011 6:00 PM](#)

I have another problem, however. Sometimes, when i go to reopen the game, it doesn't open to the game I had last saved, but an even more previous game I have already finished. I haven't tried method 8. Does method 8 fix that problem?

[Reply](#)

Anonymous [August 05, 2011 10:04 PM](#)

Thankyou so much for the palettetealersuspender - finally I can enjoy Fallout (for the first time, I'm very late to the game lol)

Much respect.

[Reply](#)



Atta991 August 14, 2011 9:56 PM

Thanks Alot thats really informative stuff.
by the way i have some problem with rise of nations too on windows 7.

[Reply](#)

Tower Defense Games October 10, 2011 3:41 PM

Thank you so much! I've been looking all week to fix this problem! :)

[Reply](#)

Anonymous October 11, 2011 10:42 PM

Hi, sorry i just tried to run Star wars battlegorunds saga, and tried the program form stept 8 but it doenst seems to work.... i first thought of using stepp 9 but my computer knowledge is to low im afraid. really sorry to bother but could anyone make an step by step description of NR 9

[Reply](#)



Unknown October 11, 2011 10:51 PM

@Anonymous

- 1) Download and extract <http://static.macuyiko.com/files/w7ddpatcher/w7ddpatcher.zip>
- 2) Run "w7ddpatcher.exe"
- 3) Press "Patch" and pick the game's executable (found in the game's installation directory)
- 4) Start/play the game as normal, the colors should look fine

[Reply](#)

Anonymous October 12, 2011 9:37 AM

Thanks for answering so fast! and thanks for your post is really the best ive found realted to this problem. and just a little tipp for the ones that install Star wars galactic battlegrounds saga... you have to patch both executables in the game folder(for the normal and expansion) then it all works wonderful!!! thanks a lottt!!!!!!

[Reply](#)

Anonymous October 13, 2011 12:34 PM

Macu, sorry to bother with this but my computer just crashed i patched with the program a total of 3 executables from the game it worked fine yesterday and today i tried to start my computer but it got stuck. i Runned starupfix program form windows and after an hour it said it couldnt fix it. Right now im running my computer in safe modus but ive no idea what can i do would oyu have an idea on how to undo the patches ? perhaps thatll fix my problem :S

[Reply](#)

Anonymous October 13, 2011 12:41 PM

o i have a windows 7 home premium

[Reply](#)



Unknown October 13, 2011 12:56 PM

I'd bet your problem is not related to the patches. You would fare better by uninstalling recent drivers, programs, performing a virus scan, and chkdsk-ing your drive.

Still, undoing the patches can be done as follows:

- 1) Boot in safe mode
- 2) Start -> run "regedit"
- 3) Navigatte to

- for 32 bit (probably your case):

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\DirectDraw\Compatibility\

- for 64 bit:

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\DirectDraw\Compatibility\

4) You will see directories corresponding with the game, right click those and press "Delete" (make sure to only delete the folders corresponding to the Star Wars games)

5) Close and restart

[Reply](#)

Anonymous [October 13, 2011 1:34 PM](#)

hey, i agree with you i doubt its a patches problem hmmm i desintalled alreday the game (the only program recent installed) i belive i havent installed an new drivers but i cant semm to be able to run my antivirus :S thanks for the info do, first on ill try to see if i can run the antivirus !

[Reply](#)

Anonymous [October 13, 2011 2:08 PM](#)

well i tried undoing the patches but there werent ther i guess they were just erased wenn i uninstalled the game OO but still my computer is f* up :S my best guess is that its a virus that came with the game but i cant run the antivirus T__T macu do you have any suggestion of what i could try ? im desperate here T__T

[Reply](#)



Unknown [October 13, 2011 2:10 PM](#)

No, sorry, this is an unrelated problem which could be caused by many factors. Other than a virus, it could also be that one of your drives is failing...

Try scheduling a checkdisk by running the following in a command line (in safe mode):

```
chkdsk c: /f /r
```

This will ask if you want to schedule a drive check next time you restart, press yes and restart and let the check do its work.

Maybe a reinstall of Windows is in order...

[Reply](#)

Anonymous [October 13, 2011 2:19 PM](#)

Ty ill try it, btw i can only use safe mode :S cant start it normally. And yup im trying to get an external drive to save at least my privat data it looks ill have to format my computer OO

[Reply](#)

Anonymous [October 13, 2011 3:43 PM](#)

sorry quick question in order to reinstall windows you have to erase all of your data right?

[Reply](#)

Anonymous [December 01, 2011 1:21 AM](#)

I have a slight problem. I have a Toshiba laptop with Windows Vista x64 bit, and whenever I'm done playing Age of Empires 2: The Conquerors my computer locks up in a black screen and does nothing until I hold the power button down to force shut down. Help me please? And thanks for the help.

[Reply](#)

Anonymous [December 01, 2011 8:52 PM](#)

Oh, and I need to clarify: I used your program, the one you made yourself. It worked fine the first 2 times I started the game, but then it locks up. :C

[Reply](#)

Alex [December 25, 2011 2:37 PM](#)



@ Anonymous (and everyone who's trying to solve the black screen problem after quit AOE)

You don't need to hold the power button but CTRL+SHIFT+ESC to load the Task Manager. Find the palette suspender-related stuff and close it. You may have to close both exes to get back the desktop (explorer.exe).

If anyone knows a better solution to solve this issue let us know.

[Reply](#)

Elizabeth February 07, 2012 11:24 AM

An Awesome article!!!!

Those pictorial representation helped me a lot in the troubleshooting phase.

Thanks Guys!!!!

[Reply](#)

Anonymous March 11, 2012 6:00 AM

I use XP, and I have Same Problem..
which one the trick i have to use for AOE 2 : Age Of King ?

[Reply](#)

Anonymous March 14, 2012 7:45 PM

Thanks a lot!!!

Method #9 is obviously the BEST solution for several games of the "ancient time"...

[Reply](#)

Anonymous March 22, 2012 9:01 PM

#7 Works! Thanks a lot! It really is a weird solution haha

[Reply](#)

Anonymous March 24, 2012 12:05 AM

Thank you so much for the tool, it works amazingly simple.

[Reply](#)

Anonymous June 17, 2012 2:36 PM

Go into task manager select the processes tab and end explorer.exe then alt-tab back into age of empires

Note: this will make your task bar disappear and any open folders

To restart explorer open the task manager again in the applications tab hit new task and type explorer in the box

The colours change because of the Aero theme's poor handling of colours

Edit:

You can also make a batch file with the following lines and place it in the same location as your age of empires 2 executable

```
taskkill /F /IM Explorer.exe
age2_x1.exe
Start explorer.exe
```

-
- 1.Download directdrawfix at <http://www.xomicron.com/software/directdrawfix/>
 - 2.Run DirectDrawFix.exe as administrator
 - 3.Browse the age of Kings Executable to fix. Most likely it would be C:\Program Files\Microsoft Games\Age of Empires II\empires2.exe and press apply
 - 4.Now browse the conquerors Executable to fix. Most likely it would be in C:\Program Files\Microsoft Games\Age of Empires II\age2_x1\age2_x1.exe and press apply

By then you can run age of empires without color issues. By the way You won't need to create any batch files at all. It was an old concept until Xomicron the good company decided to fix.

NOTE: The tools quit working for me for some reason. A Windows Update maybe???

[Reply](#)

Chucky [July 06, 2012 7:02 AM](#)

Nice advice! But here's a faster way.
<http://j.gs/1249116/age-ii-bug-fix>

[Reply](#)

Anonymous [July 28, 2012 7:19 PM](#)

Method 7 with the monitor tab method worked for me.

Fixed star wars galactic battleground.

Great compilation, many thanks!

P.s: I still don't understand what kind of sorcery is that, but if it works!

[Reply](#)



piratecheese13 [August 05, 2012 8:12 AM](#)

8=win
just unzip start and tell it what games you play and it will turn Mars green

[Reply](#)



Unknown [August 13, 2012 4:43 AM](#)

Is there any way for someone (like me) who has no technical knowledge, to accomplish the fix?
Thank you for any help.

[Reply](#)

Anonymous [August 16, 2012 1:53 AM](#)

Just great!!! Back to the glorious days of Age of Empires!!! Solution 9 worked for me!

[Reply](#)

Anonymous [August 25, 2012 9:22 PM](#)

i don't know too much on how to download programs and files on my computer but somehow i was able to get number 8 from above to work thanks alot

[Reply](#)

Calgary Web Design [September 12, 2012 4:32 PM](#)

You are a GOD among men sir!!!
I've been trying to play Sanitarium without graphic glitches, and your palette suspender worked PERFECTLY.

THANKS AGAIN!

[Reply](#)

Anonymous [September 20, 2012 2:56 AM](#)

Removing the "explorer.exe" in task manager worked a charm for me!

Except it removes the task bar, and i have to re-do the function to see it again...

How do you tell the PC to close "explorer.exe" automatically when you start the game, and re-open it when you exit? As you mentioned above:

REM kill explorer.exe

```
taskkill /f /IM explorer.exe
REM start the game and wait to finish
REM note: /D indicates the starting directory, often the same as your
game's exe
start /WAIT /D "C:\path\to\game.exe" "C:\path\to\game.exe"
REM start explorer.exe again
start explorer.exe
```

Where do you put this command????

[Reply](#)



Unknown September 20, 2012 4:41 AM

@Anonymous: copy/paste the commands in notepad and save as a ".bat"-file (*not* ".txt"), e.g.: "startgame.bat". Double clicking the .bat file will then start the game and restart explorer.exe.

Make sure you edit "C:\path\to\game.exe".

[Reply](#)

Anonymous September 21, 2012 1:49 PM

Wow!

Absolutely insane but i got Monkey Island 3 to work in the right colours by just leaving the advanced settings of screen resolution open.

I have no idea why it works but you are totally brilliant!

Thanx

[Reply](#)

Anonymous November 03, 2012 2:09 AM

Wow, finally got a fix for Master of Orion 2 that doesn't involve killing explorer. w7ddpatcher.exe worked perfectly.

[Reply](#)



Virado no Guéde! November 08, 2012 2:55 AM

Friend, thank you!

Congratulations, your program has saved my AoE. Brazilian greetings.

Hug!

[Reply](#)



Eon December 05, 2012 12:40 PM

Hey, I'm trying to get the Palettetealer to work for Age of Kings, The Conquerors. However, I want to use the widescreen fix provided by someone else (another genius ;-)) This fix comes with a .BAT file looking like this:

```
@echo off
```

```
ECHO Using process.exe to suspend explorer.exe (win7, vista palette fix)
```

```
"C:\Program Files (x86)\Microsoft Games\Age of Empires II\AoE2Wide\Process.exe" -s explorer.exe
```

```
ECHO Starting Age of Empires II - The Conquerors in the correct screen mode
```

```
"age2_x1_1.0c_1920x1080.exe" 1280
```

```
ECHO Resuming explorer (was suspended before)
```

```
"C:\Program Files (x86)\Microsoft Games\Age of Empires II\AoE2Wide\Process.exe" -r explorer.exe
```

So, in effort to be able to play multiplayer AND widescreen, I thought of this:

- Rename "age2_x1_1.0c_1920x1080.exe" to age2_x1 and place in original directory, replacing original exe.

- Use Palettetealer instead of process.exe -s / -r to suspend explorer.exe.

This way, Gameranger should start the widescreen version, and your tool should be able to suspend palettetealers. However, I can't get it to work :(May the issue be, that you don't pass parameters to the exe? Because, I tried the "NOSTARTUP" and I still get the intro screens.

Any help much appreciated! :)

Cheers,

[Reply](#)



Ty December 19, 2012 8:54 PM

I've tried all of these... unfortunately my Age of Empires 1 still does not display correctly :(when using your tool, the only difference it made was on the start menu the game didn't have faulty colours.. but as soon as I go to single player, I can't see a thing the colour is so bad :(

[Reply](#)

Anonymous January 06, 2013 2:21 AM

Regarding solution #9 for Age of Empires 2 Conquerors:

There is a Version distributed by Ubisoft as 1 DVD with AoE 1 and 2 with Expansion on it.

The following post seems to provide the registry keys with the right ID values:

<http://www.sevenforums.com/gaming/100379-how-i-fixed-corrupt-color-palette-some-old-games-windows-7-a-3.html#post2233986>

Insert the Registry code mentioned there into a .reg file and import it to the registry. However, keep in mind that this is only for the Ubisoft version. For any other version the ID values may be different! (rest should be the same though)

As far as i can see this is intended to work on both 32 and 64 bit (i successfully tried with 64 bit) but for 32 bit i would skip the registry values which are intended for 64 bit.

[Reply](#)

febri January 18, 2013 3:05 PM

All of that is very complicated,,,
This is the simple thinks if you want to playing AOE2 in Windows 7..
in the main menu click option, and then change the graphic detail to medium..
It's Solved for Me...

[Reply](#)

Anonymous April 12, 2013 9:05 AM

Thanks !
killing explorer.exe worked for me on windows 7.
Will be trying out solution#8 for easier workaround.
More thanks for explaining in detail the technical bits as well for the curious.

[Reply](#)

Anonymous April 12, 2013 9:26 AM

I don't even know what Windows I'm using, safe to say I'm better off with the green grass outside

[Reply](#)



mabbhoscas April 14, 2013 9:46 AM

Thanks a lot, it worked charmfully to fix AoE II.
Cheers.

[Reply](#)



Unknown April 15, 2013 8:24 PM

Well hello gys,
Im happy to inform you that you wont be struggling anymore to get Aoell to work properly.Hidden path entertainment has remastered the whole game in HD and made it working in modern systems!It is available on steam by now..It's has the good old multiplayer and this time its easier than before and you can play private matches as well with steam.Amazing work..Happy

playing everyone! :)
<http://www.hiddenpath.com/games/age-of-empires-ii-hd-edition/>

[Reply](#)

Anonymous [April 25, 2013 4:50 PM](#)

I fixed the purple water and red grass in Age of Empires II in Windows 7 by doing the following:

1. Right click on the desktop, and left-click on Personalize
2. Under Basic and High Contrast Themes, left-click on Windows Classic
3. Close the window.

In other words, I think it's the "glass Aero" borders around windows that cause the problem.

Another thing that might work is to right-click on the AoE icon, and choose Properties. Under Compatibility, check "Disable desktop composition".

[Reply](#)

Replies

Anonymous [April 25, 2013 4:57 PM](#)

Another, unrelated bug in the game is that sometimes the background music won't play at all.

The CD has to be in the alphabetically first CD/DVD drive for music to play (e.g. E: drive won't play the music if you also have a DVD-ROM drive called D:).

Anonymous [April 27, 2013 1:01 AM](#)

Palette stealer Suspender Works Great.. Thx

[Reply](#)

Anonymous [May 27, 2013 8:55 AM](#)

I dl the palette stealer which was working great for about 20 mins and then got black screen and then total shut down I can't restart my comp or try to reboot it as it shuts down again....help

[Reply](#)

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