

# Your graphics card/drivers do not meet the minimum requirements

When launching KISSsoft or KISSsys you might have encountered the following error:

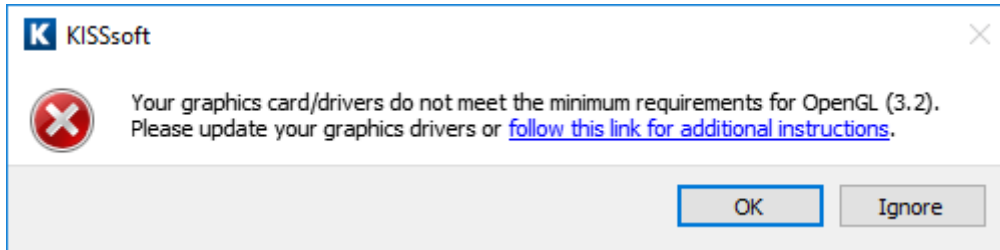


Figure 1: Error message

This message is displayed when the application detects that your computer does not have a graphics card or driver that meets its minimum requirements. This support page explains why you might be seeing this message and what steps you can take to address this issue.

You may consider making your IT support aware of this issue and directing them to this page.

And do not hesitate to contact [our support team](#) who can explain or walk you through these steps in further detail.

- What is OpenGL?

[OpenGL](#) is a widely used software library for drawing 3D graphics and is used by KISSsoft and KISSsys to draw 3D visualizations.

This OpenGL library is usually provided by your graphics card driver and makes use of your computer's graphics card. Newer graphics cards support additional features which ~~is~~are expressed through OpenGL version numbers. At the time of writing, the most current OpenGL version is 4.6.

~~To function,~~ KISSsoft and KISSsys require a graphics card and driver to be installed that supports a certain minimum version of OpenGL.

KISSsoft requires a minimum version of OpenGL 2.1. KISSsys requires a minimum version of OpenGL 3.2.

If you do not have a graphics card that meets these requirements, you can use a [software OpenGL renderer](#) to use KISSsoft without a graphics card. Depending on your hardware and software configuration KISSsys might also work with the software OpenGL renderer, however, we recommend the use of a compatible graphics card.

- What graphics card does my computer have?

To determine what graphics card is installed in your computer, open the Windows **Device Manager** and look for the category **Display adapters**.

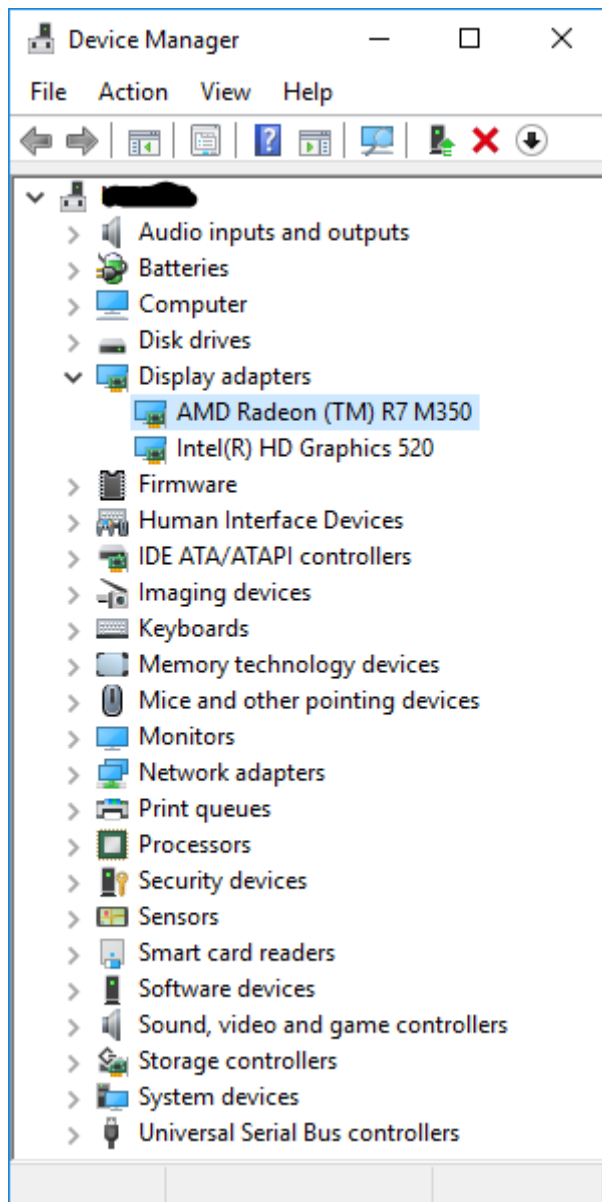


Figure 2: The entries in that category list the graphics cards in your computer

Note the manufacturer and model number (the manufacturer is usually one of **AMD**, **Intel** or **NVIDIA**). You might need this information to download the correct driver for your graphics card.

If there are no entries under Display adapters, your computer might not have a graphics card. For more information see [Servers without a graphics card](#).

Laptops often have multiple graphics cards installed. See [Laptops with switchable graphics cards](#) for additional information.

- Installing Drivers

You can normally download drivers for your graphics card from the manufacturer's website.

[AMD](#)

[Intel](#)

[NVIDIA](#)

For laptops, drivers sometimes need to be installed from the manufacturer of the laptop so you might also need to search on their website for the support page for your computer model.

- What version of OpenGL does my computer support?

Generally, NVIDIA and AMD graphics cards released after 2009 and Intel graphics cards released after 2012 support OpenGL 3.2.

To determine what version of OpenGL your graphics card supports, you can install the free [OpenGL Extensions Viewer](#) application. Once the installation has finished, run **OpenGL Extensions Viewer**.

On the start screen, in the category OpenGL, you can find an entry Version which tells you the OpenGL version supported by your graphics card.

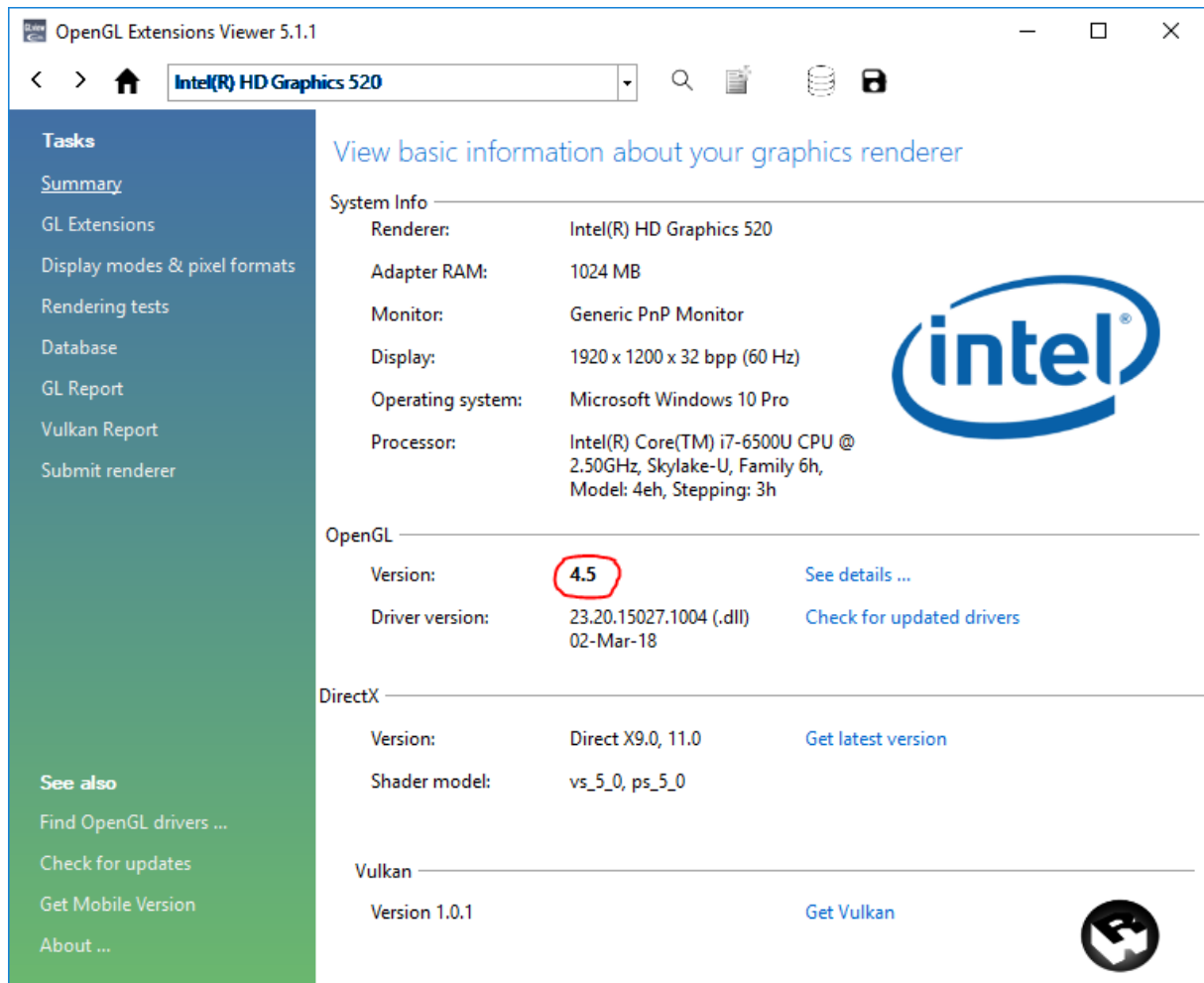


Figure 3: OpenGL Extensions Viewer

- Using KISSsoft without a compatible graphics card

If your graphics card does not support OpenGL 2.1 or your computer has no graphics card installed, you can probably still use KISSsoft by using a software OpenGL renderer. This is an extra software component that simulates a graphics card in software.

Current KISSsys releases might also work with the software renderer on Windows 10.

KISSsys will still display a compatibility error on startup but *might* work if you choose to ignore the error.

You might encounter additional errors, warnings or crashes related to 3D model display but calculation results should not be affected.

When using the software renderer, 3D graphics are drawn more slowly than using a real graphics card and the 3D graphics might look slightly different but KISSsoft should otherwise be fully functional.

Such a software renderer is automatically installed alongside KISSsoft. However, you will need to manually enable it. If KISSsoft was installed in the windows applications folder, you will need administrator rights to enable the software renderer.

To enable the software renderer, go to the **bin32** folder in your KISSsoft installation (for example C:\Program Files (x86)\KISSsoft <version>\bin32).

Search for a file named **EnableSoftwareOpenGL.bat** and run it by ~~double-double~~-clicking on it. If the software driver was enabled, you should see the message "Software OpenGL driver enabled successfully!".

To uninstall the software driver, simply run **EnableSoftwareOpenGL.bat** again and confirm that you want to disable it.

- Servers without a graphics card

KISSsoft and KISSsys require a graphics card supporting OpenGL 2.1 or 3.2 respectively.

However, KISSsoft can still be used without a graphics card by using a [software OpenGL renderer](#).

For KISSsys, we recommend the use of a server with a dedicated graphics card.

While KISSsys might run in conjunction with the software OpenGL renderer, you might encounter additional errors, warnings or crashes.

- Laptops with switchable graphics cards

On some laptops, multiple graphics cards are installed. It is possible that only one of the built-in graphics cards supports OpenGL 3.2.

Usually, a graphics card is automatically selected by the driver when an application uses OpenGL. If one of your graphics cards supports OpenGL 3.2 but KISSsys still displays this warning message, you might need to explicitly configure your driver to use the more capable graphics card with KISSsys.

If the graphics card that supports OpenGL 3.2 is an AMD product, [refer to this support article by AMD on how to assign an application to run on the high performance graphics card](#).

If the graphics card is an NVIDIA product, [refer to this support article on how to set the default graphics processor for an application](#).