



Gaia 3D FAQ

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What are the main types of 3D?

There are four main types of 3D commonly used:

- Passive 3D
- Active 3D
- Auto stereoscopic 3D
- Anaglyph

What are the main differences between them?

- **Passive 3D** – This is what is most commonly used in 3D cinemas. It is characterised by the use of cheap glasses. However passive technology is currently expensive to adopt, as you need dual projectors with polarizing filters. It must also be projected onto a polarising (or ‘silver’) screen.
- **Active 3D** – More commonly used in schools and home cinemas. Typically, active 3D projectors do not require a special screen in order to function, and can even be projected onto blank walls. The glasses used are called ‘active shutter’ glasses. Active shutter means that they flicker on and off at 120 Hz (120 times per second). These glasses are more expensive than passive glasses.
- **Auto Stereoscopic** – This type of 3D does not require the user to wear any form of glasses. In this case, the screen does the work of giving the illusion of 3D. A good example of this is the Nintendo 3DS.
- **Anaglyph** – This is characterised by the use of the glasses which have two different lens colours, typically red and blue.

Can I wear my prescription glasses when watching 3D?

Yes. If you wear normal prescription lenses and place the 3D glasses over the top, you will still be able to experience the 3D effect.

Can everyone see 3D?

No. Experts vary in their estimations but it is thought to be around 4 – 10% of the population cannot view 3D.

Does viewing 3D content make you feel ill or cause headaches?

Viewing certain content can cause headaches or other ill effects in **some** viewers, particularly over a longer period of time. We recommend that the 3D is used in short periods, and this certainly fits with the type of good practice we see in schools who use 3D.

Typically 3D is used at the start of a lesson to introduce a concept, and perhaps at the end to recap or revise what has already been covered. Therefore, only being used for a total of 15/20 minutes of the lesson.

Can those suffering with epilepsy watch 3D?

A very small proportion of epilepsy sufferers, suffer from photosensitive epilepsy (up to 5%, according to the epilepsy society). Photosensitive epilepsy is epilepsy triggered by flashing lights, or certain patterns. This usually happens between 3 – 60Hz (flashes per second).

We would always suggest that if someone has a concern about either epilepsy or photosensitive epilepsy, then they should consult their GP or an eye specialist for further information.

For more information please follow the link:

<http://www.epilepsysociety.org.uk/aboutepilepsy/whatisepilepsy/triggers/photosensitiveepilepsy>

How do I purchase a license for Gaia 3D?

You can purchase Gaia 3D directly from Gaia Technologies Plc, or you can use a company that you would normally purchase your hard/software from.

If I decide to purchase Gaia 3D, how do I get my license?

Once the purchase order has been processed, you will receive an email which includes the link to the download and your activation key. We can provide a USB or DVD ROM with the software, for an additional small fee.

Does Gaia 3D provide any other equipment I need to be able to get started with 3D?

Yes. You can think of Gaia as a one-stop shop for all your 3D needs. We are more than happy to provide you with advices and guidance on any aspect of 3D. We can also provide you with everything you need to help you adopt the technology, including:

- Projectors
- Projector screens
- PCs/laptops
- Graphics cards
- 3D enabled monitors
- Active shutter glasses

How do I add pupils work to an environment – e.g. Gallery?

Included with the Gaia 3D Viewer, is a simple interface for customising environments with students own work. This customisation can be saved for later use.

How is the software updated with new content as Gaia produces it?

Gaia 3D will release new content every few months. You will be made aware of any updates via the community website (www.gaia3dcommunity.com). In order to get the content, click on *Start -> Gaia 3D Viewer -> Check for automatic updates*. The content will then be downloaded and installed.

Can I make my own folders for content?

Yes. You will need to locate the main directory where the content is already installed. The default location for the folders is: *Local Disk -> Program Files -> Gaia Technologies Plc -> Gaia 3D Viewer -> Viewer -> Lessons.*

To add a new category, just add a new folder and rename as appropriate. Rather than the long navigation every time, it is possible to put a shortcut to the *Lessons* folder on your desktop.

Other than the content I get when I buy Gaia 3D, can I use other content?

Yes. Gaia 3D will accept content that has been created in other software packages. For example:

- 3D Studio Max
- Blender
- Maya
- Mudbox
- AutoCAD
- Google SketchUp

Can I get content from other places?

Yes. There are thousands of models available in the Google 3D Warehouse (<http://sketchup.google.com/3dwarehouse/>). Many models can be downloaded as a Collada (.dae) file. If the model is not available as a Collada file, then it can be downloaded as Google SketchUp (.skp) file. In SketchUp, you can then export (*File -> Export -> 3D Model*) the model as either a .dae or .kmz file to be brought directly in to the software.

What formats can GAIA 3D import?

Gaia 3D will import all the major and industry standard file formats. These include:

- .wrl
- .ive
- .3ds
- .obj
- .dae
- .zip (for .dae)
- .fbx
- .osgb
- .osg
- .kmz (for .dae)
- .sdf (Protein data bank - PDB)

How do I import my own content?

If you have any of the file formats listed above, simply drag/copy and paste the file into the relevant category in the lessons folder. Gaia 3D will accept zip files (e.g. Collada files). There is no need to unzip these files, the software will take care of this for you.

What sort of glasses do I need?

Gaia 3D software will work with any type of 3D configuration. In order to find out what glasses you require, consult your projector or TV manual. If you are still unsure, Gaia will be happy to offer assistance.

Do I need to change the batteries in the glasses?

Not necessarily. There are three main types of active glasses:

- **Battery Powered** – these usually take a calculator style battery, and will need to be replaced when depleted. They also have an 'on' button. Students can sometimes be under the impression that their glasses are flat, when in actual fact, they haven't switched them on.
- **USB rechargeable** – these can either be a mini or a micro USB connection. These too will more than likely have an 'on' button.
- **Recharging dock** – these glasses sit on a dock to recharge which is connected to the mains power supply. They typically take an hour to fully charge and then will provide upwards of forty hours use.

What type of graphics card do I need?

The minimum graphics memory required for standard definition (SD) display devices is **512MB**. We recommend a graphics card with **1GB** or more for high definition (HD) display devices.

For the best experience, we recommend that you use a computer with an **nVidia Quadro FX graphics card**. However, Gaia 3D will also work with a non Quadro FX card, as long as you have a 3D enabled display that has the ability to run 'side-by-side' or 'top-bottom' configuration.

Does Gaia 3D support HD?

Yes. The content is dependent on the output resolution of the hardware.

Do I need special cables to carry the 3D from my computer to the screen?

Standard Definition displays do not require any special cable. They can utilise existing VGA, composite or HDMI cables.

High Definition displays such as 1080p will require the use of a HDMI 1.4 cable.

Does it work with a 3D Television?

Yes. The software will run on a 3D television by plugging your PC in to the television using an HDMI cable. You will need to change the 3D settings in the *Options* to the relevant viewing type.

The typical setting for 3D TV's is **side-by-side**.

What type of projector do I need?

You will need to use a 3D enabled projector. All major projector brands manufacture them, and the good news is that you do not pay any extra for having 3D enabled.

Can I use it on my laptop for familiarisation and preparation?

Yes. There is a 'non-stereoscopic' (2D) version of the software that can be purchased separately.

This 2D license is only available to 3D customers.

Can the pupils use it in school on school computers?

Yes. The same conditions apply to the answer above.

Gaia 3D can also be viewed in 3D on a 3D Vision enabled monitor.

You will also need a 3D Vision kit, an nVidia Quadro FX graphics card.

Can the pupils use it at home?

Yes, on the basis of the previous answers.

Can I buy a site license?

Yes. Site licenses are available in three categories:

- primary school
- secondary/college
- university