



3D has arrived!

The ultimate viewing experience



PHILIPS
sense and simplicity

A cluster of dandelion seeds with their white, feathery parachutes, some in motion as if blowing away, positioned to the left of the main title.

Experience a new dimension

3D viewing is nothing new; in fact, it is as old as the human race. Artists have long appreciated man's ability to see in three dimensions. The cave paintings in France and Spain, for example, show that even 15,000 years ago, artists were trying to express perspective. In some of the paintings, those artists used the natural contours of the walls to show the bulk of the animals.

Still, the prehistoric cave painters and the artists that followed them were basically working on a two-dimensional canvas. And this situation holds true today, even with displays. Decades after it was first envisioned, 3D has arrived.

Philips 3D Solutions is enabling new ways of experiencing 3D on monitors, televisions, and various other sorts of displays. But don't worry: you don't have to wear those special 3D glasses from the 1950s. Actually, Philips 3D Solutions is doing nothing less than making technology conform to the real world. The goal is to achieve what all artists, ever since the cave painters, have long dreamed of: giving human beings a viewing experience that does full justice to our ability to see in 3D.

The advantages of 3D are clear:

3D is exciting

For game players, medical professionals, television viewers-indeed, or nearly anyone who uses an electronic display-3D provides a richer, more lifelike, more informative, and more entertaining experience than 2D.

3D is affordable

Recent advances are driving the quality of the 3D experience up while driving the price of the technology down.

3D is available

Games, movies, and medical data are already being created in 3D, but until now are shown only on 2D screens. Philips brings this content alive with its end-to-end 3D solutions.

3D is exciting, affordable and available!



Spectacle without spectacles

Intelligent WOWvx 3D displays

Philips 3D Solutions offers a range of autostereoscopic 3D displays for professional applications. Based on Philips WOWvx technology, they provide the best 3D viewing experiences today, without the need for special 3D glasses. The slanted multi-view lenticular lens technology leads to full brightness, full contrast, and true color representation.

Moreover, it allows multiple users to view 3D content at the same time within a large comfort zone. Philips 3D displays are based on a high-definition panel and create exciting viewing experiences in both 2D and 3D mode. Integrated, advanced display signal processing offers content creators and end-users full control over the picture quality and depth-effect characteristics.

Next to Philips branded products, Philips 3D Solutions sells key components and licenses its technology to third party manufacturers to guarantee a broad supply of competitive devices on the market.

2D-plus-Depth format

The Philips 3D display solution is designed for maximum reuse of content and concepts from the 2D world. Easy creation or adaptation of existing applications and content for the 3D display are possible thanks to the use of a flexible 3D data format, in the form of 2D-plus-Depth. The 2D-plus-Depth format is compatible with existing production equipment and compression tools, and ensures 3D application performance within existing distribution mechanisms and standards, with a required bandwidth close to 2D.

Moreover, the 2D-plus-Depth format decouples content creation from content visualization and allows applications to use different 3D display screen sizes and designs in the same system.

Supported by various companies across the display industry, the 2D-plus-Depth format has been standardized officially by MPEG as a 3D video standard.

Philips autostereoscopic 3D displays support the unique Declipse image format. The Declipse image format enables a true look-around effect along with the 3D visualization. Furthermore, easy creation of 3D overlays is provided by applying the Declipse format.

3D content creation and visualization

The 3D display solution from Philips is a complete end-to-end 3D system that supports the process from 3D content creation up to visualization. Some applications today already use a 3D dataset, but deliver a 2D image at the end. Philips now unlocks this content by supporting the visualization in 3D.

Philips provides advanced tools to visualize 3D computer animations, real-time 3D applications, and video conversion from 2D to 3D as well as stereo to 3D conversion tools. Visualization of regular video content on the WOWvx 3D displays is enabled by the BlueBox and the RedBox. The BlueBox converts both 2D and stereo video content to 3D offline (semi-automated). The RedBox converts stereo content to 3D in real time, enabling broadcast of live events and sports, produced with stereo camera set-ups. With these tools, Philips will unlock the customer's new and existing video material for high quality visualization in 3D using the 2D-plus-Depth format.

Market opportunities for 3D

The list of possibilities for 3D technology is virtually limitless. Among the applications that benefit from 3D technology are games, user interfaces, data visualization, digital images, TV, and movies. For makers of computer games, the 3D future is now. A wealth of 3D content already exists, and the majority of new games are created with 3D capability. 3D displays will push the boundaries of games, enabling the most immersive experience possible. 3D movies are especially compelling, because they greatly enhance the impression of reality that a viewer experiences. With the development of conversion algorithms that use depth estimation, older 2D movies will soon also be shown in true-to-life 3D. New movies increasingly are being made in 3D format. Application areas for 3D include professional and consumer markets as well as single- and multi-user environments.

3D displays will push the boundaries of games, enabling the most immersive experience possible.

The following are some of the areas in which Philips 3D Solutions is active:

Digital signage: advertising & entertainment

3D display technology enhances the power of digital signage. Today's consumers are being constantly bombarded by messages from all sorts of media. In the fierce battle for consumers' attention, the company using 3D displays is likely to attract more viewers than the company relying only on posters and other "flat" media. Moreover, viewers are more likely to remember the 3D message than conventional messages. 3D digital signage is particularly effective in such media-rich environments as shopping malls, airports and railway stations, theme parks, casinos and indoor events such as conventions.

Point-of-Sale advertising and retail

3D is the new way to get your marketing message across with impact. According to research, 3D imaging is a valuable tool in raising brand or product awareness. A Philips WOWvx 3D display at the point-of-purchase in a retail store or kiosk therefore reinforces the customer buying behavior.

3D Gaming and 3D-TV

For games and televisions, 3D is a natural step forward; the culmination of an evolution from monochrome to color to high definition. For games, digital images, mobile phones, movies and TV, 3D provides the ultimate viewing experience—one that can be enjoyed by a single viewer or by an entire family.



WOWvx technology



Philips WOWvx promises to help professionals create an exciting viewing experience.

WOWvx based products make content richer, more informative and more entertaining for the viewer so that it almost comes 'alive'.

WOWvx provides the latest innovation in signal processing and display technology to attract the consumer's attention and is well positioned for use in a wide range of consumer and professional applications such as digital signage, gaming, simulation and video.

WOWvx signifies the WOW-effect that a Philips 3D display creates, where vx is an abbreviation of 'viewing experience'.



Who is Philips 3D Solutions?

Philips 3D Solutions is a line of business within Royal Philips Electronics that provides end-to-end 3D system solutions, ranging from displays, content creation tools and technology licensing.

Philips 3D Solutions combines the vibrancy of a young company with experience that stretches back to the earliest days of the modern 3D movement. Our skills, combined with the resources of Philips, mean that Philips 3D Solutions can support your business at every link of the 3D value chain. We provide complete 3D solutions; everything from displays and signal processing to licensing of our state-of-the-art technology. Furthermore, the skills of our people have given Philips 3D Solutions a head start in 3D. Some of our colleagues have been working in 3D since the mid-1990s. The intellectual capital that we have accumulated is constantly being reinvested in new projects and ideas, helping Philips 3D Solutions strengthen its position as a leader in 3D technology.

We are part of the family of Philips, one of the world's biggest electronics companies. Philips 3D Solutions can draw on the expertise of Philips and make use of its worldwide distribution networks, allowing us to match your requirements and needs. We can offer a complete solution, which in the 3D world is not just a matter of convenience, but of quality. As your partner in design and development, Philips 3D Solutions can help you shorten your time to market. The team of Philips 3D Solutions shares your excitement about the world of 3D technology, and we stand ready to forge a business relationship with you. If you wish to discuss possible business opportunities with us, one of our representatives will be happy to speak with you.

The skills of our
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