Computer graphics

Computer graphics This article is about graphics created using computers. For the article about the scientific study of computer graphics, see Computer graphics (computer science). For other uses, see Computer graphics (disambiguation). [pic] Computer graphics are graphics created using computers and, more generally, the representation and manipulation of image data by a computer.

The development of computer graphics, or simply referred to as CG, has made computers easier to interact with, and better for understanding and interpreting many types of data. Developments in computer graphics have had a profound impact on many ypes of media and have revolutionized the animation and video game industry. Overview The term computer graphics has been used in a broad sense to describe " almost everything on computers that is not text or sound".

Typically, the term computer graphics refers to several different things: the representation and manipulation of image data by a computer the various technologies used to create and manipulate images the images so produced, and the sub-field of computer science which studies methods for digitally synthesizing and manipulating visual content, see study of computer graphics Today, computers and computer-generated images touch many aspects of our daily life.

Computer imagery is found on television, in newspapers, for example in their weather reports, or for example in all kinds of medical investigation and surgical procedures. A well-constructed graph can present complex statistics in a form that is easier to understand and interpret. In the media " such

graphs are used to illustrate papers, reports, theses", and other presentation material. History The advance in computer graphics was to come from one MIT student, Ivan Sutherland. In 1961 Sutherland created another computer drawing program called Sketchpad.

Using a light pen, Sketchpad allowed one to draw simple shapes on the computer screen, save them and even recall them later. The light pen itself had a small photoelectric cell in its tip. This cell emitted an electronic pulse whenever it was placed in front of a computer screen and the screen's electron gun fired directly at it. By simply timing the electronic pulse with the current location of the electron gun, it was easy to pinpoint exactly where the pen was on the screen at any given moment. Once that was determined, the computer could then draw a cursor at that location.

Image types 2D computer graphics D computer graphics are the computer-based generation of digital images" mostly from two-dimensional models, such as 2D geometric models, text, and digital images, and by techniques specific to them. The word may stand for the branch of computer science that comprises such techniques, or for the models themselves. 2D computer graphics are mainly used in applications that were originally developed upon traditional printing and drawing technologies, such as typography, cartography, technical drawing, advertising, etc..

In those applications, the two- dimensional image is not Just a representation of a real-world object, but an ndependent artifact with added semantic value; two-dimensional models are therefore preferred, because they give more direct control of the image than 3D computer graphics, whose approach is

more akin to photography than to typography. Pixel art Pixel art is a form of digital art, created through the use of raster graphics software, where images are edited on the pixel level. Graphics in most old (or relatively limited) computer and video games, graphing calculator games, and many mobile phone games are mostly pixel art.