

**[0021]** In some preferred embodiments of the present invention there is provided a method of controlling at least part of an image displayed on an interactive imaging system which creates a perception of depth including at least two screens configured to show a 3-dimensional image characterized by the step of sending or receiving the information necessary to generate the image on the interactive imaging system via the internet or any other suitable communication means.

**[0022]** In preferred embodiments of the present invention the images, or the data corresponding to the images, may be transmitted over the Internet or by other communication means for display at any compatible display unit, or in the absence of a suitable display unit, as one or more separate images simultaneously on a single screen display. The data corresponding to the images may be stored at any compatible remote location for processing or display.

**[0023]** Therefore the present invention has huge advantages over the display systems currently available as a far greater amount of data can be displayed on the display system.

**[0024]** Generally, data for front and rear images can be obtained and stored separately.

**[0025]** Applications where this is appropriate can be in kiosks, games, simulators, training devices and the like.

**[0026]** For example, a flight simulator in its simplest form may consist of two screens wherein the front screen may display the cockpit instruments, control settings and generally illustrate the interior of the cockpit, while the rear screen shows the image as seen through the cockpit windscreen—such as other aircraft, sky, cloud, grounds, the runway and so on, therefore giving the operator a sense of true perspective as different maneuvers are simulated.

**[0027]** Either conventional instrument displays or “head-up” displays can be simulated with this invention, with the “touch-screen” ability improving the “playability” of these applications.

**[0028]** Display kiosks in stores and also for other applications can be configured to show images of products, their use and typically pictorial data for describing, promoting and benefiting from the product on the rear screen, while written or symbolic information about the product can be shown on the front screen.

**[0029]** Alternatively, this order may be reversed, combined or arranged as appropriate for the preferred method of presentation.

**[0030]** The front screen may also have interactive functions such as touch controls, selectors and the like which allow the viewer to select or control either or all of the display screens.

**[0031]** Alternatively the controls may be separate from, but in close proximity to, the screen and still allow the user to manipulate or select separately or simultaneously what is displayed on each screen.

**[0032]** Kiosks based on the invention may be used for a variety of advertising and information presentation purposes. For example, a customer may be attracted to the kiosk by the use of attractive 3 dimensional images which can then show advertising in an attractive and unobtrusive manner principally on one screen while other screens at different depths continue to keep the viewers attention. The viewer may be encouraged to concentrate on action occurring on one screen while advertising or other messages are unobtrusively shown on parts of another screen, typically the front screen, which may be mostly transparent.

**[0033]** This has a significant advantage over prior systems in that far more information can be displayed at any one time, for instance on a two screen system—twice the information is available to the operator than on a single screen system.

**[0034]** The use of kiosks based on the invention allows the dissemination of more advertising within the same footprint or floor area, while also enabling the advertising to be made less obtrusive and more acceptable to customers, allowing the advertising to be more effective.

**[0035]** In effect the available screen size within the same footprint or floor area is expanded allowing more information to be displayed and in a form where it becomes easier to be absorbed.

**[0036]** One huge advantage with the present invention over the systems previously available is that due to having either on-screen touch controls, or controls located adjacent to the screen system, the operator does not need to take their gaze away from the screen area in order to perform a control function.

**[0037]** This not only means that their concentration is not broken but also that they will be able to cope with a higher information rate.

**[0038]** There are a number of applications which are ideally suited to this aspect, in particular computer gaming where taking your eyes from the screen can affect your performance in an extremely adverse manner.

**[0039]** The use of the present invention means that a computer gamer for instance will have a much faster response time to any given situation and less likelihood of missing any on-screen event.

**[0040]** This has even further advantages when the image or images are transferred over the internet as the advantages disclosed previously can be applied to on-line applications.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0041]** FIG. 1 shows a first perspective representation in accordance with one embodiment of the present invention.

**[0042]** FIG. 2 shows a second perspective representation in accordance with one embodiment of the present invention.

#### DETAILED DESCRIPTION OF THE INVENTION

**[0043]** With reference to FIG. 1 there is illustrated an interactive imaging system with a perception of depth generally indicated by arrow 1. The interactive imaging system 1 is comprised of a number of parallel screens 2 configured in order they give a perception of depth.

**[0044]** An image, or part of an image, contained on one or more of the screens 2 can be manipulated by use of the on-screen touch controls 3.

**[0045]** It should be appreciated that the on-screen touch controls are of a known off-the-shelf type.

**[0046]** The on-screen touch controls 3 can be configured to perform a variety of functions including the switching of the screens to the foreground and the manipulation of part of an image from one screen to another.

**[0047]** It is envisaged that in some preferred modes of operation the interactive imaging system 1 will display three dimensional images on the screens 2 that have been transmitted to the interactive imaging system 1 via the internet.

**[0048]** With reference to FIG. 2 there is shown an interactive imaging system with a perception of depth where an image, or part of an image, contained on one or more of the