

screen may be a planar, two-dimensional screen or a non-planar, three-dimensional display screen. The non-planar, three-dimensional display screen may be in the shape of a dome, a human face and a half-cylinder. The controller may further be programmed to cause a non-planar, three-dimensional video image of one of the following to be generated on the non-planar, three-dimensional screen: a face, a bonus game, a payout table, casino information, game information, game instructions, an advertisement, a movie, an animation and an attraction sequence. The non-planar, three-dimensional display screen may include an inner surface and an outer surface. The three-dimensional video image may be projected on the inner surface and viewed by a person on the inner surface or the outer surface. The gaming apparatus may further include one or more controls to allow a person to manipulate the three-dimensional video image. The controls may include motion-sensitive controls, touch-sensitive controls and controls responsive to the person's eye movements.

[0008] The controller may further include a three-dimensional image controller programmed to receive two-dimensional image data, correct the two-dimensional image data for at least one of the following: image distortion, brightness distortion and color aberrations, and display the corrected two-dimensional image data as a non-planar, three-dimensional video image on the non-planar, three-dimensional display screen. The three-dimensional image controller may include an image processor and a correction memory operatively coupled to the image processor, and be programmed to translate one or more pixels of the two-dimensional image data to correct for image distortions, vary the size of one or more pixels of the two-dimensional image data to correct for image distortion, adjust the color of one or more pixels of the two-dimensional image data to correct for color aberration and adjust the brightness of one or more pixels of the two-dimensional image data to correct for brightness distortion.

[0009] The controller may be programmed to receive three-dimensional image data, to correct for at least one of the following: image distortion, brightness distortion and color aberrations when the three-dimensional image data is displayed on the non-planar, three-dimensional display screen as a video image, and to cause a non-planar, three-dimensional video image representing a game to be generated on the display unit from the corrected three-dimensional image data. The three-dimensional image data may be planar or non-planar three-dimensional image data.

[0010] The invention is also directed to a gaming method that may comprise receiving two-dimensional image data, converting said two-dimensional image data into three-dimensional image data, causing a non-planar, three-dimensional video image representing a game to be generated on a non-planar, three-dimensional display screen from said three-dimensional image data, and determining a value payout associated with an outcome of the game.

[0011] Additional aspects of the invention are defined by the claims of this patent.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a block diagram of an embodiment of a gaming system in accordance with the invention;

[0013] FIG. 2 is a perspective view of an embodiment of one of the gaming units shown schematically in FIG. 1;

[0014] FIG. 2A illustrates an embodiment of a control panel for a gaming unit;

[0015] FIG. 3 is a block diagram of the electronic components of the gaming unit of FIG. 2;

[0016] FIG. 4 is a flowchart of an embodiment of a main routine that may be performed during operation of one or more of the gaming units;

[0017] FIG. 5 is a flowchart of an alternative embodiment of a main routine that may be performed during operation of one or more of the gaming units;

[0018] FIG. 6 is an illustration of an embodiment of a visual display that may be displayed during performance of the video poker routine of FIG. 8;

[0019] FIG. 7 is an illustration of an embodiment of a visual display that may be displayed during performance of the video blackjack routine of FIG. 9;

[0020] FIG. 8 is a flowchart of an embodiment of a video poker routine that may be performed by one or more of the gaming units;

[0021] FIG. 9 is a flowchart of an embodiment of a video blackjack routine that may be performed by one or more of the gaming units;

[0022] FIG. 10 is an illustration of an embodiment of a visual display that may be displayed during performance of the slots routine of FIG. 12;

[0023] FIG. 11 is an illustration of an embodiment of a visual display that may be displayed during performance of the video keno routine of FIG. 13;

[0024] FIG. 12 is a flowchart of an embodiment of a slots routine that may be performed by one or more of the gaming units;

[0025] FIG. 13 is a flowchart of an embodiment of a video keno routine that may be performed by one or more of the gaming units;

[0026] FIG. 14 is an illustration of an embodiment of a visual display that may be displayed during performance of the video bingo routine of FIG. 15;

[0027] FIG. 15 is a flowchart of an embodiment of a video bingo routine that may be performed by one or more of the gaming units;

[0028] FIG. 16 is a block diagram of an embodiment of a three-dimensional projection system;

[0029] FIG. 17 is a block diagram of an embodiment of a light engine for a three-dimensional projection system;

[0030] FIG. 18 is a block diagram of an embodiment of a micro-display engine for a three-dimensional projection system;

[0031] FIG. 19 is a block diagram of another embodiment of a micro-engine display for a three-dimensional projection system;

[0032] FIG. 20 is a cross-sectional side view of an embodiment of a three-dimensional display screen;