

nature of the present invention allows games and video data to be reconfigured at will by a controller on the gaming machine. For example, a reel game (e.g. FIG. 5B) or video poker game (e.g. FIG. 5D) may be selected in real-time. This is useful for reconfigurable gaming machines that offer multiple games and select a specific game for play when a player approaches a gaming machine (and is identified by the machine); in this case, the video reels may reset immediately for a game for that person. For the video poker game shown in FIG. 5D, the frontmost display device 18a displays a virtual 3D first reel image 143 with poker card values. Again, all other portions 133 of screen 134 are translucent or transparent. The intermediate display device 18b shows a virtual three dimensional reel image 145 on one portion of its display screen 136, while all other portions 137 of screen 136 are translucent or transparent. The third display device 18c displays a virtual 3D reel image 147 with poker card values and a background image 149 covering the portions of its screen 131 outside reel image 147. Display screens 134, 137 and 131 simultaneously display each respective poker image to enable a player to see an overall 3D image, as illustrated in the FIG. 5D, for a 3-card poker game. The number of reels may also change from 3 to 5 or 7 to permit a 5-card poker game or a 7-card poker game. Configuration of the reels on each screen may vary. For a five card game, two reels may be included on front screen 134, two reels on middle screen 137 and one reel on the back screen 131. Other card and reel configurations are suitable for use herein.

[0101] Although it is not fully apparent by viewing the 2D representation shown in FIGS. 5B and 5D, the overall video display (whether still or animated) of FIG. 5B provides an engaging 3D representation because the three reel images are formed in different planes and actual 3D space. Specifically, the representation of reel 132 being closer to the player than the reel 135 is based upon and determined by the actual distance between the first display screen 134 and the second display screen 137. Similarly, the representation of the reel 135 being closer to the player than the reel 138 is based upon and determined by the actual distance (not shown), which separates the second display screen 137 from the third display screen 139.

[0102] Thus, by simultaneously displaying different images (partially or wholly) on layered display devices of the present invention, the gaming machine achieves 3D video output in three actual dimensions. A person can physically move and change their perspective relative to the layered displays and look around the reel 132 on the first display screen 134, thus gaining a different view of reel image 135 the intermediate display screen 136 and a different view of reel 138.

[0103] Curvature of the interior display device 18d of FIG. 1B also adds real depth for the creation of 3D visual output. For reels, the reel symbols pass from top to bottom (or vice versa) of the curved device and thus move towards and away from the viewer in real space as they do so, which not only simulates traditional mechanical reels better, but also adds to real 3D effects of the layered displays. This type of three-dimensional representation is highly engaging and interesting to players because symbols on the reel are actually formed or generated in all three dimensions.

[0104] In another 3D video output embodiment, an image of a card dealer, displayed on an interior display device,

deals cards that are shown on an exterior display device. This provides a person with a three-dimensional view of the card game in which the cards physically come forward between the display devices.

[0105] In a specific embodiment, a gaming machine includes a sensor such as a camera or other suitable device to detect position of a player or the player's head. When the player's head moves (e.g., translates or rotates left, right, up or down), images on one or more of the display devices change to provide a virtual impression to the player that the player can look around an object or images on the display devices, which provides a better impression of 3D reality.

[0106] One of the display devices in a layered arrangement may also output live video such as television or a movie (or parts of either). For example, the television or movie video may be output on a rear display while a game is played on a proximate display. This permits a person to watch television or a movie while playing a game at a gaming machine, without changing position or line of sight to switch between the game and live video. The live video may also be related to the game being played to enhance enjoyment of that game, e.g., a science fiction movie related to a science fiction game being played or a 1960's television show related to a 1960's television game. The video may also play commercials for the gaming establishment, such as advertisements and infomercials for businesses related to a casino or businesses that pay for the advertising opportunity. Advertisements may include those for a local restaurant, local shows, house offers and promotions currently offered, menus for food, etc.

[0107] The present invention may employ a wide variety of gaming machines. For example, the present invention may be used with a gaming machine provided by IGT of Reno, Nev. Gaming machines from other manufacturers may also employ layered display systems as described herein. FIGS. 6A and 6B illustrate an exemplary gaming machine 10 for use according to one embodiment of the present invention.

[0108] Gaming machine 10 includes a top box 11 and a main cabinet 12, which generally surrounds the machine interior and is viewable by users. Main cabinet 12 includes a main door 38 on the front of the machine, which opens to provide access to the interior of the machine. Attached to the main door are typically one or more player-input switches or buttons 39; one or more money or credit acceptors, such as a coin acceptor 42, and a bill or ticket scanner 23; a coin tray 24; and a belly glass 25. Viewable through main door 38 is the exterior video display monitor 18a and one or more information panels 27.

[0109] Top box 11, which typically rests atop of the main cabinet 12, may also contain a ticket printer 28, a keypad 29, one or more additional displays 30, a card reader 31, one or more speakers 32, a top glass 33 and a camera 34. Other components and combinations are also possible, as is the ability of the top box to contain one or more items traditionally reserved for main cabinet locations, and vice versa.

[0110] It will be readily understood that gaming machine 10 can be adapted for presenting and playing any of a number of games and gaming events, particularly games of chance involving a player wager and potential monetary payout, such as, for example, a wager on a sporting event or