

a control configuration for use in a gaming machine in accordance with another specific embodiment of the present invention.

[0120] Processor **132** is a microprocessor or microcontroller-based platform that is capable of causing a display system **18** to output video data such as symbols, cards, images of people, characters, places, and objects which function in the gaming device. Processor **132** may include a commercially available microprocessor provided by a variety of vendors known to those of skill in the art. The present invention may also include one or more application-specific integrated circuits (ASICs) or other hardwired devices. Furthermore, although the processor **132** and memory device **134** reside on each gaming machine, it is possible to provide some or all of their functions at a central location such as a network server for communication to a playing station such as over a local area network (LAN), wide area network (WAN), Internet connection, microwave link, and the like.

[0121] Memory **134** may include one or more memory modules, flash memory or another type of conventional memory that stores executable programs that are used by the processing system to control components in a layered display system system. Memory **134** can include any suitable software and/or hardware structure for storing data, including a tape, CD-ROM, floppy disk, hard disk or any other optical or magnetic storage media. Memory **134** may also include a) random access memory (RAM) **140** for storing event data or other data generated or used during a particular game and b) read only memory (ROM) **142** for storing program code that controls functions on the gaming machine such as playing a game.

[0122] A player uses one or more input devices **138**, such as a pull arm, play button, bet button or cash out button to input signals into the gaming machine. One or more of these functions could also be employed on a touch screen. In such embodiments, the gaming machine includes a touch screen controller **16a** that communicates with a video controller **146** and processor **132**. A player can input signals into the gaming machine by touching the appropriate locations on the touchscreen.

[0123] Processor **132** is also connected to a currency acceptor **116** such as the coin slot or bill acceptor. Processor **132** can operate instructions that require a player to deposit a certain amount of money in order to start the game.

[0124] Although the processing system shown in FIG. 7 is one specific processing system, it is by no means the only processing system architecture on which the present invention can be implemented. Regardless of the processing system configuration, it may employ one or more memories or memory modules configured to store program instructions for gaming machine network operations and operations associated with layered display systems described herein. Such memory or memories may also be configured to store player interactions, player interaction information, and other instructions related to steps described herein, instructions for one or more games played on the gaming machine, etc.

[0125] Because such information and program instructions may be employed to implement the systems/methods described herein, the present invention relates to machine-readable media that include program instructions, state

information, etc. for performing various operations described herein. Examples of machine-readable media include, but are not limited to, magnetic media such as hard disks, floppy disks, and magnetic tape; optical media such as CD-ROM disks; magneto-optical media such as floptical disks; and hardware devices that are specially configured to store and perform program instructions, such as read-only memory devices (ROM) and random access memory (RAM). The invention may also be embodied in a carrier wave traveling over an appropriate medium such as air-waves, optical lines, electric lines, etc. Examples of program instructions include both machine code, such as produced by a compiler, and files containing higher-level code that may be executed by the computer using an interpreter.

[0126] The processing system may offer any type of primary game, bonus round game or other game. In one embodiment, a gaming machine permits a player to play two or more games on two or more display screens at the same time or at different times. For example, a player can play two related games on two of the display screens simultaneously. In another example, once a player deposits currency to initiate the gaming device, the gaming machine allows a person to choose from one or more games to play on different display screens. In yet another example, the gaming device can include a multi-level bonus scheme that allows a player to advance to different bonus rounds that are displayed and played on different display screens.

[0127] The present invention also relates to methods imparted using a gaming machine with a layered display. FIG. 8 is flowchart or software routine of a display routine **250** that may be executed by a gaming machine controller in accordance with a specific embodiment of the present invention. FIG. 8 also makes reference to the display system arrangement of FIG. 1C.

[0128] At block **252**, the routine may determine whether a game has been initiated. If a game has been initiated, the routine may deactivate light valve **93** and cause the light valve to become transparent at block **254**. Depending on the particular light valve **93** being utilized, deactivating the light valve **93** may involve either applying (or increasing) a current to the light valve **93** or discontinuing (or decreasing) the current being applied to the light valve **93**.

[0129] At block **256**, the routine generates graphics on the rear display unit **92** related to the game. If provided with video slot machine reels, the reels of the rear display unit **92** are illuminated. Other video output and graphics that correspond to the game display may be activated on the rear display device **92** as part of the display. Additional graphics may also be generated on the front video display device **90**, and are superimposed over the graphics of the rear display device **92**. At block **258**, the routine generates graphics such as player information (e.g., player identification, cumulative winnings, a player profile, favorite games, etc.), game information, advertisements, graphics related to the game, etc., which are displayed on the front video display device **90**. At block **260**, a game routine is performed and output on the front and rear display units **90**, **92**. The video is updated accordingly as the game routine proceeds.

[0130] The display routine **250** may further determine whether a bonus game has been initiated at block **262**. If the bonus game has been initiated, the routine activates the light valve **93** at block **264**, causing the light valve to become