

**MECHANICAL REEL HARDWARE  
SIMULATION USING MULTIPLE LAYER  
DISPLAYS**

**CROSS REFERENCE TO RELATED  
APPLICATIONS**

**[0001]** This application claims priority under 35 U.S.C. §119(e) to U.S. Provisional Patent Application No. 60/858,741 filed on Nov. 13, 2006, which is incorporated herein by reference in its entirety for all purposes.

**FIELD OF THE INVENTION**

**[0002]** This invention relates to gaming machines. In particular, embodiments described herein relate to gaming machines with video features that simulate hardware configurations of a mechanically driven reel slot machine.

**BACKGROUND**

**[0003]** Traditional mechanical and electromechanical reel gaming machines, often referred to as “stepper” machines, arrange a number of rotating mechanical reels behind a fixed glass layer. As technology in the gaming industry progresses, the traditional mechanically driven reel slot machines are being replaced by electronic machines having an LCD video display or the like. Processor-based gaming machines are becoming the norm. One reason for their increased popularity is the nearly endless variety of games that can be implemented using processor-based technology. The processor-based gaming machines permit the operation of more complex games, incorporate player tracking, improve security, permit wireless communications, and add a host of digital features that are not possible on mechanical-driven gaming machines. The increasing cost of designing, manufacturing, and maintaining complex mechanical gaming machines has also motivated casinos and the gaming industry to abandon these older machines.

**OVERVIEW**

**[0004]** The present invention provides a processor-based gaming machine with layered displays. The layered displays include a front screen and back screen that provide actual physical separation between visual representations on the front and back screens; the separation mimics the actual distance seen between a glass layer and mechanical reels in a traditional mechanical stepper gaming machine. This distance between video screens also provides parallax and increases the ability of a processor-based gaming machine to realistically emulate older mechanical reel gaming machines.

**[0005]** In one aspect, the present invention relates to a gaming machine. The gaming machine includes a cabinet defining an interior region of the gaming machine. The cabinet is adapted to house a plurality of gaming machine components within or about the interior region. The gaming machine also includes a first video display device and a second video display device. The first video display device is disposed within or about the interior region and configured to output a visual image in response to a control signal. The second video display device is arranged inside the interior region relative to the first video display device. The gaming machine further includes at least one processor configured to execute instructions, from memory, that a) display video data for multiple video reels on the second video display device, b) display video data, on the first video display device, that includes

multiple transparent video windows and a non-transparent video portion that separates each pair of adjacent transparent video windows, where a common line of sight passes through each transparent window on the first video display device to a video reel displayed on the second video display device, and c) permit game play of a reel game of chance that uses the multiple video reels displayed by the second video display device.

**[0006]** In another aspect, the present invention relates to a method of providing a game of chance on a gaming machine. The method includes displaying the game of chance using a proximate video display device and a distal video display device. The proximate video display device and the distal video display device are arranged to include a set distance between a display panel in the distal video display device and a display panel in the proximate video display device. The set distance is less than about 10 centimeters. The method also includes displaying multiple video reels on the distal video display device, where each video reel includes multiple video symbols on a video reel strip. The method further includes displaying video data, on the proximate video display device, that includes multiple transparent video windows and a non-transparent video portion that separates each pair of adjacent transparent video windows. A common line of sight passes through each transparent window to a video reel on the distal video display device. The method additionally includes displaying video data, during the video reel game, that simulates the movement of symbols on each video reel in the multiple video reels on the distal video display device. The method also includes providing an outcome related to a set of symbols shown on the multiple video reels when the movement of symbols on each video reel stops.

**[0007]** In yet another aspect, the present invention relates to a method of providing parallax for a game of chance in a gaming machine. The method includes displaying the game of chance using a proximate video display device and a distal video display device. The proximate and distal video display devices are arranged with a set distance between a display panel for the proximate video display device and a display panel for the device video display device, and the set distance is less than about 10 centimeters. The method also includes displaying video data, on the distal video display device, that includes multiple video reels. The method further includes displaying video data, on the proximate video display device, that includes multiple transparent video windows and a non-transparent video portion that separates each pair of adjacent transparent video windows. The multiple transparent video windows permit multiple common lines of sight that each passes through a transparent window in the proximate video display device to a video reel on the distal video display device. The method additionally includes simulating the movement of symbols, during the video reel game, on each video reel in the multiple video reels on the distal video display device.

**[0008]** In yet another aspect, the present invention relates to logic encoded in one or more tangible media for execution and, when executed, operable to provide a game of chance on a gaming machine.

**[0009]** These and other features and advantages of the invention will be described in more detail below with reference to the associated figures.

**BRIEF DESCRIPTION OF THE DRAWINGS**

**[0010]** FIG. 1A shows a simple depiction of perspective viewing of a gaming machine with mechanical reels.