display their own graphics and images, or cooperate to provide coordinated visual output. Objects and graphics in a game may then appear on any one or multiple of the display devices, where reels and other graphics on the front screen **118***a* blocks the view objects on the back screen **118***c*, depending on the position of the viewer relative to the screens. This provides actual perspective between the graphics objects, which represents a real-life component of 3D visualization.

[0064] In some embodiments, the multiple display screens or devices output video or other visual images for different games or purposes. For example, one display device may output a reel game, while another display device outputs a bonus game or pay table associated with the other display, while still another display device provides a progressive game or is reserved for player interaction and video output with a touchscreen. One or more display screens or devices may also present one or more gaming wheels, which may be shown as static, in motion, or preferably both at various times. Other combinations may be used, as may be desired. Furthermore, while the foregoing embodiment has been described with respect to only two screens, it will be readily appreciated that additional screens may also be used for such a multi-layer display. For example, a middle screen (not shown) can be disposed between front layered screen **118***a* and back layered screen **118***c*, with such a middle screen also being adapted for the presentation of a coordinated video presentation or other visual image to a viewer. Still further screens may also be implemented into the multi-layer stack, as desired.

[0065] Wager based games output by the display devices or screens in such a multi-layer display may include, for example, any video game emulation that portrays one or more reels. Typically, the gaming machine simulates the rotation of the video reels using motion graphics for the symbols on the reel strips and motion graphics for the mechanical components. In various particular embodiments, the use of multiple screens may be made to account for any special effects or more realistic simulations that are desired through the use of a multi-layer display. For example, reel symbols may be moved from a back display to a front display and then to the back display again as they appear to rotate or spin along their respective virtual reels. Such movement of reel symbols from one screen to another within a multi-layer display can aid in a more realistic emulation of physical mechanical reels on a processor-based gaming machine. Other details regarding the depiction of simulated reels on a multi-layer display can be found in U.S. patent application Ser. No. 11/858,695, filed on Sep. 20, 2007, and entitled "Realistic Video Reels," which application is incorporated herein by reference in its entirety and for all purposes.

[0066] Various embodiments of the present invention can involve a more realistic emulation of physical reels though additional visual techniques, which can be used on processor-based gaming machines having multi-layer displays as well as those having more traditional displays, such as a simple CRT, LCD, flat panel display, or the like. Such visual techniques can include varying the timings of reel spin lengths as well as successive reel stops, which timing variances may involve sampling the spins of actual physical reels and modeling virtual reel spin times and successive reel stop times after the sampled physical reel spins. Various levels of randomization may also be introduced into such reel spin and reel stop times, so as to more realistically simulate the slightly varying reel spin and reel stop times of actual physical reels. Instead of and/or in addition to gaming reels, similar techniques may be used in the presentation of one or more emulated spinning gaming wheels.

[0067] Various embodiments of the present invention can also involve a more realistic emulation of physical reels and/or wheels though added audio techniques, which audio techniques can be used separately or in combination with one or more of the above visual techniques. Such added audio techniques can include providing audio playback of actual sounds sampled and recorded from rotating physical reels, which replayed sounds can be selected from multiple and/or lengthier sound samplings from mechanical reels that are stored in an associated memory. A separate audio track can be implemented for each virtual reel, and such separate tracks can be directed for play at a plurality of speakers, which play can be stereophonic in nature. Variances in the audio playback can also be similarly randomized, so as to more realistically simulate the slightly varying sounds of actual physical reels in motion. Further details regarding the realistic emulation of reels in a processor-based gaming machine can be found at, for example, copending and commonly owned U.S. patent application Ser. No. 11/858,845 by Williams, et al, entitled "Multimedia Emulation of Physical Reel Hardware in Processor-Based Gaming Machines," which application is incorporated herein by reference in its entirety and for all purposes. It will be readily appreciated that various teachings of this reference with respect to the presentation of gaming reels can be correlated to the presentation of gaming wheels.

Multimedia Presentation of Gaming Wheels

[0068] Various embodiments of the present invention relate to the presentation of one or more moving wheels on a processor-based gaming machine, such as on one or more video or visual displays and one or more accompanying speakers. This can be accomplished at least in part through the use of a specialized multi-layer display adapted for a more realistic presentation of rotating reels, as well as a specialized wheel processing unit, and/or one or more speakers adapted to present physical wheel sounds, which sounds may be presented in stereo.

[0069] Referring next to FIG. **4**, various components of an exemplary processor-based gaming machine adapted to provide more realistic emulations of physical wheels both visually and audibly according to one embodiment of the present invention are illustrated in block diagram format. Processor-based gaming machine **100** contains many components that can be similar or identical to those set forth in gaming machine **10** above. For example, general speakers **132**, input devices **121** and currency acceptor **123**, as well as other peripheral devices **128**, can correspond to similar items in gaming machine **10**. As noted above, display(s) **126** can include a multi-layer display such as that shown and described with respect to FIG. **3**. In some alternative embodiments, however, it will be appreciated that various visual and audio emulation techniques disclosed herein can be presented with respect to a gaming machine having a more traditional display, rather than a multi-layer display.

[0070] One or more sound cards **143** can be used to drive general speakers **132**, and one or more video cards or controllers **144** can be used to drive display(s) **126**, which display (s) can be adapted to present a gaming wheel **190** in one or more suitable views. In various embodiments involving multi-layer displays, multiple video cards or controllers **144** can be used, such as one video card or controller for each