

not overlap (that is, the images are not superimposed). In other instances, the images overlap. It should also be appreciated that the images displayed on the display screen can fade-in fade out, pulsate, move between screens, and perform other inter-screen graphics to create additional affects, if desired.

[0084] In a specific embodiment, display devices **18** display co-acting or overlapping images to a person. For example, front display device **18a** (or **18b**) may display paylines in transparent portions **15** that illuminate winning combinations of reels **125** disposed on display devices **18c**.

[0085] In another specific embodiment, layered display devices **18** provide 3D effects. A gaming machine may use a combination of virtual 3D graphics on any one of the display devices—in addition to 3D graphics obtained using the different depths of the layered display devices. Virtual 3D graphics on a single screen typically involve shading, highlighting and perspective techniques that selectively position graphics in an image to create the perception of depth. These virtual 3D image techniques cause the human eye to perceive depth in an image even though there is no real depth (the images are physically displayed on a single display screen, which is relatively thin). Also, the predetermined distance, D (between display screens for the layered display devices) facilitates the creation of 3D effects having a real depth between the layered display devices. 3D presentation of graphic components may then use a combination of: a) virtual 3D graphics techniques on one or more of the multiple screens; b) the depths between the layered display devices; and c) combinations thereof. The multiple display devices may each 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 proximate screen(s) block the view objects on the distal screen(s), 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 (and not just perspective virtually created on a single screen).

[0086] In another specific embodiment, the multiple display devices output video for different games or purposes. For example, the interior display device may output a reel game, while the intermediate display device outputs a bonus game or pay table associated with the interior display, while the exterior and foremost display device provides a progressive game or is reserved for player interaction and video output with the touchscreen. Other combinations may be used.

[0087] Controlling transparency of the outer one or two display devices also provides game presentation versatility on a single gaming machine. In one embodiment, an outer or intermediate display device acts as a light valve that controls whether the interior display device is visible, or what portions of the interior display device are visible. For example, window portions of the intermediate display device may be left transparent to permit viewing of a select number video reels arranged behind the light valve.

[0088] In another embodiment, the outer display device completely blocks out the interior display device, where the outermost display device is now solely visible and used for game presentation. The gaming machine now resembles a conventional gaming machine that only includes a single LCD panel. The gaming machine may then respond to digital controls to switch between a reel game, a multi-layer/multi-

display game, and a simple one-panel LCD game. Other uses of the layered displays are possible and contemplated.

[0089] Gaming machine **10** uses the layered display devices **18** to show visual information on the different screens that a player can simultaneously see. Additional sample game presentations and uses of the layered display devices will now be discussed.

[0090] In another specific example, the gaming machine generates a game image on an interior display device and a flashing translucent image on a proximate display device. The game could for example, be reels or one or more wheels, and a flashing image on the proximate display could be a translucent line that indicates the payline(s) on the reels. Since some games permit multiple paylines based on the person's wager, this permits the game to show multiple paylines responsive to the person's actions. Alternatively, the proximate display may show a symbol or message that provides a player with helpful information such as a hint for playing the game. Notably, each of these examples allows the person to play the game while viewing the flashing image without having to change his or her line of sight or having to independently find such information from another portion of the gaming machine.

[0091] In one embodiment, the gaming machine presents different game types on the layered display devices. For example, the interior and backmost display device may output a main game with reels **125** while a proximate display device shows a bonus game or progressive game. The bonus game or progressive game may result from playing the main game. Again, this permits the player to play the game while viewing a flashing bonus image without having to change his or her line of sight or having to independently find such information from another portion of the gaming machine.

[0092] Visual information on each of the distal screens remains visible as long as there are transparent or semi-transparent portions on the proximate screens that permit a user to see through these portions. Transparent portions may be selectively designed and timely activated according to game design, and changed according to game play. For example, if a game designer wants a person to focus on a bonus game on the front screen, they can use an intermediate light valve to black out a distal reel game.

[0093] Similarly, visual information displayed on distal transmissive-type screens may obscure overlapping visual information on a proximate screen. When illumination for the layered displays is provided from behind the rear-most display panel, light transmitting from behind layered displays to a proximate display screen can be blocked by an overlapping low transmissive area on a distal screen. Any displayed graphics will result in local attenuation and lower transmissivity through the graphics than would a corresponding "white," or maximally transmissive, window. If illumination from a rear-most backlight is sufficiently attenuated by image information before reaching a proximate screen, an observer may perceive indistinct shapes at lower illumination. Because an image on any level of the layered display may adversely affect an observer's ability to discern the desired visual information, it is usually beneficial to coordinate visual information among and between the various layers such that graphics on proximate displays receive adequate light.

[0094] In one embodiment, the layered display devices are all-digital and permit reconfiguration in real time. This permits new or different games to be downloaded onto a gaming machine, and reconfiguration of the three display devices to