

[0013] FIGS. 2A and 2B illustrate perspective views of an exemplary gaming machine.

[0014] FIG. 2C illustrates in block diagram format an exemplary control configuration for use in a gaming machine according to various embodiments of the present invention.

[0015] FIG. 3 illustrates in block diagram format an exemplary network infrastructure for providing a gaming system having one or more gaming machines according to one embodiment of the present invention.

[0016] FIGS. 4A through 4C illustrate exemplary single plane spanning techniques for the presentation of images displayed on each screen of a multi-layer display device according to various embodiments of the present invention.

[0017] FIG. 5A illustrates an exemplary video output on a single display screen in a horizontal spanning mode.

[0018] FIG. 5B illustrates the exemplary video output of FIG. 5A on a multi-layer display device.

[0019] FIGS. 6A and 6B illustrate an exemplary pointer when images from the combined in-plane video space are viewed in a horizontal spanning mode according to one embodiment of the present invention.

[0020] FIG. 7 illustrates a flowchart of an exemplary method for presenting images displayed on each screen of a multi-layer display device according to one embodiment of the present invention.

#### DETAILED DESCRIPTION

[0021] Embodiments are described herein in the context of a single plane spanning mode to be used across multiple display screens of a multi-layer display device. The following detailed description is illustrative only and is not intended to be in any way limiting. Other embodiments will readily suggest themselves to such skilled persons having the benefit of this disclosure. Reference will now be made in detail to implementations as illustrated in the accompanying drawings. The same reference indicators will be used throughout the drawings and the following detailed description to refer to the same or like parts.

[0022] In this application, numerous specific details are set forth in order to provide a thorough understanding of the present invention. However, the present invention may be practiced without some or all of these specific details. In other instances, well known process steps have not been described in detail in order not to obscure the present invention.

[0023] Reference will now be made in detail to some specific examples of the invention, including the best modes contemplated by the inventor for carrying out the invention. Examples of these specific embodiments are illustrated in the accompanying drawings. While the invention is described in conjunction with these specific embodiments, it will be understood that it is not intended to limit the invention to the described embodiments. On the contrary, it is intended to cover alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.

[0024] Similarly, the steps of the methods shown and described herein are not necessarily all performed (and in some implementations are not performed) in the order indi-

cated. Moreover, some implementations of the methods discussed herein may include more or fewer steps than those shown or described.

#### Multi-Layer Displays

[0025] A general overview of multi-layer displays will first be provided. FIGS. 1A and 1B illustrate exemplary devices having multi-layer displays. FIG. 1A shows a generic device 1 having a multi-layer display with two display screens 18a, 18c positioned front-to-back, while FIG. 1B shows a wager-based gaming machine 10 having a multi-layer display with three display screens 18a, 18b, 18c positioned front-to-back. A predetermined spatial distance "D" separates display screens for the multi-layer displays. This predetermined distance, D, represents the distance from the display surface of display screen 18a to the display surface of an adjacent display screen (18b in FIG. 1B or 18c in FIG. 1A). This distance D may be adapted as desired by a multi-layer display manufacturer. In one embodiment, the display screens are positioned adjacent to each other such that only a thickness of the display screens separates the display surfaces. In this case, the distance D depends on the thickness of the exterior display screen. In a specific embodiment, distance "D" is selected to minimize spatial perception of interference patterns between the screens. Distance D can be adapted to improve perception of a three-dimensional display. Spatially separating the screens 18a and 18c allows a person to perceive actual depth between visual output on display screen 18a and visual output on rear display screen 18c.

[0026] Layered display devices (i.e., multi-layer displays) may be described according to their position along a common line of sight 2 relative to a viewer 3. As the terms are used herein, 'proximate' refers to a display screen that is closer to a person, along a common line of sight (such as 2 in FIG. 1A), than another display screen. Conversely, 'distal' refers to a display screen that is farther from a person, along the common line of sight 2, than another. While the layered displays of FIGS. 1A and 1B are shown set back from a touch screen 26, it will be understood that this is for illustrative purposes, such that the exterior display screen 18a may be closer to touch screen 26. Further, in some embodiments a touch screen may not be included, such that outer viewing surface 26 can merely be glass, plastic or another see-through material comprising a covering component. In other embodiments, no covering component 26 is provided, and the proximate display screen from the multi-layer display may be directly exposed to a viewer.

[0027] Under the control of an associated display processor, which may store visual data and/or also facilitate the transmission of display signals, display devices or screens 18a, 18b, 18c generate visual images and information for display to a person or player 3. The proximate display devices 18a and 18b each have the capacity to be partially or completely transparent or translucent. In a specific embodiment, the relatively flat and thin display devices 18a and 18b are LCDs. Other display technologies are also suitable for use. Various companies have developed relatively flat display devices that have the capacity to be transparent or translucent. One such company is Uni-Pixel Displays, Inc. of Houston Tex., which sells display screens that employ time multiplex optical shutter ("TMOS") technology. This TMOS display technology includes: (a) selectively controlled pixels that shutter light out of a light guidance substrate by violating the light guidance conditions of the substrate and (b) a system for