

layer. The player's selections determine one or more game evaluation methods and display modes. For example, the player may choose to put money on a particular pay line which includes one or more "Z" layers (i.e., the player may "stake" a three-dimensional pay line). After one or more random numbers are generated, the outcome of the game is displayed to the player based on the selected game evaluation methods and display modes. Many different game evaluation methods (described in detail below) are possible with the addition of "Z" layers.

[0157] The routine 485 begins when the player selects one or more play options (block 1802). For example, the player may select a number of play layers. Play layers include the base layer and any "Z" layers. For example, by selecting one play layer, the player is indicating he wishes to play a typical (e.g., 3x5) reel layout (i.e., just the base layer). By selecting two play layers, the player is indicating that he would like to play with one "base" layer and one "Z" layer. Similarly, by selecting three play layers, the player is indicating that he would like to play with one "base" layer and two "Z" layers. In addition, the player may choose various three-dimensional payout options. For example, the player may choose whether "Z" layer reels are to be played separate from other layers, linearly combined with other layers, non-linearly combined with other layers, only used for free game opportunities, only used for bonus multipliers, only used for progressives, etc. These three-dimensional payout options are described in detail below.

[0158] After the player selects one or more play options, the video slot machine controller 100 checks any three-dimensional selections for allowability (block 1804). For example, at a one dollar slot machine with three play layers selected, the option to play each layer separately selected, and the option to linearly combine the three play layers selected, the player may be required to have at least four dollars in the machine. If the three-dimensional selections are allowable (block 1806), the controller 100 checks if the player has enough credits wagered to play the selected options (block 1808). In the example above, the player must wager four dollars. If the player has enough credits wagered (block 1810), the controller 100 waits for an input from the player to initiate play (block 1812). For example, the player may pull a traditional slot machine lever or push a button to initiate play.

[0159] Subsequently, the slot machine controller 100 determines the "Z" interaction types from the player selections. In this embodiment, the controller begins this sub-process by initializing a "Z" variable (e.g., Zflag=0000) (block 1814). Next, the controller 100 may determine if any "Z" layer options were selected by the player (block 1816). If at least one "Z" layer option was selected by the player, the controller 100 determines if the player selected an option which includes interaction between the base layer and one or more "Z" layers (block 1818). For example, the player may choose to play three completely independent layers with no interaction between the single base layer and the two "Z" layers. Alternatively, the player may select an option which includes pay lines that cross through different play layers (e.g., three of a kind with one matching symbol in each layer).

[0160] If the player selected an option which includes interaction between the base layer and one or more "Z"

layers, the controller 100 may modify the "Z" variable accordingly (e.g., Zflag=0001) (block 1820). Similarly, if the player selected base layer interaction with more than one "Z" layer (block 1822), the controller may modify the "Z" variable to reflect this player selection (e.g., Zflag=0011) (block 1824). If the player also selected "Z" layer payouts (i.e., wins are possible from layer interaction) (block 1826), the controller may further modify the "Z" variable accordingly (e.g., Zflag=0111) (block 1828). Subsequently, the routine 485 exits.

[0161] FIG. 30 is a more detailed flowchart of the "determine payout" routine 500 shown schematically in FIG. 12. The routine 500 may be embodied in a software program which is stored in the program memory 102 of a gaming unit 20 and executed by the microprocessor 104 in a well known manner. However, some or all of the blocks of the routine 500 may be performed manually and/or by another device. Although the routine 500 is described with reference to the flowchart illustrated in FIG. 30, a person of ordinary skill in the art will readily appreciate that many other methods of performing the acts associated with routine 500 may be used. For example, the order of many of the blocks may be changed without departing from the scope or spirit of the present invention. In addition, many of the blocks described are optional. Although this description focuses on a video slot machine, a person of ordinary skill in the art will readily appreciate that the teachings described herein may be applied to any type of gaming unit 20 without departing from the scope and spirit of the present invention.

[0162] The routine 500 begins when the video slot machine controller 100 selects one or more "Z" layer win evaluation methods based on the state of the "Z" variable. If no "Z" layer interaction types are selected by the player (e.g., Zflag=0000) (block 1930), no "Z" layer win evaluation methods are used by the controller 100. If the player selected base layer interaction with at least one "Z" layer (e.g., Zflag=0001) (block 1932), the controller 100 selects a single "Z" layer win evaluation method (block 1934), determines a single "Z" interaction style (block 1936), and flags a special mode single layer "Z" evaluation code (block 1936). In this manner, an appropriate evaluation routine may be selected for single "Z" layer interaction. The flagged win evaluation routine may determine what symbol combinations form predefined wins and award the associated prize(s).

[0163] If the player selected base game interaction with more than one "Z" layer (e.g., Zflag=0011) (block 1938), the controller 100 selects a multiple "Z" layer win evaluation method (block 1940), determines a multiple "Z" interaction style (block 1942), flags a special mode multiple layer "Z" evaluation code (block 1942), and overrides the single layer "Z" evaluation code (block 1942). In this manner, an appropriate evaluation routine may be selected for multiple "Z" layer interaction. The flagged win evaluation routine may determine what symbol combinations form predefined wins and award the associated prize(s). If the player also selected "Z" layer payouts (e.g., Zflag=0111) (block 1944), the controller adds a "Z" layer win evaluation code to the current evaluation method (block 1946).

[0164] Next, the controller 100 performs a win evaluation using either standard methods (i.e., one dimension) or extended methods (i.e., three dimensions) depending on the