

gaming apparatus. The memory may comprise a first memory portion physically configured in accordance with computer program instructions that would cause the gaming apparatus to allow a person to make a wager, and a second memory portion physically configured in accordance with computer program instructions that would cause the gaming apparatus to convert a view of a graphical three dimensional (3D) representation into display data for display on a display unit, the graphical 3D representation comprising a game in a 3D graphics space and at least one payline in the 3D graphics space. The memory may also comprise a third memory portion physically configured in accordance with computer program instructions that would cause the gaming apparatus to determine a value payout associated with an outcome of the game represented in the 3D space.

[0014] Additional aspects of the invention will be apparent to those of ordinary skill in the art in view of the detailed description of various embodiments, which is made with reference to the drawings, a brief description of which is provided below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] FIG. 1 is a block diagram of an embodiment of a gaming system;

[0016] FIG. 2 is a perspective view of an embodiment of one of the gaming units shown schematically in FIG. 1;

[0017] FIG. 2A illustrates an embodiment of a control panel for a gaming unit;

[0018] FIG. 3 is a block diagram of the electronic components of the gaming unit of FIG. 2;

[0019] FIG. 4 is an illustration of objects in a 3-dimensional model space;

[0020] FIGS. 5A and 5B illustrations of objects in a 3-dimensional model space being projected onto a 2-dimensional virtual display;

[0021] FIGS. 6A and 6B are block diagrams of embodiments of a graphics processor;

[0022] FIG. 7 is a flowchart of an embodiment of a main routine that may be performed during operation of one or more of the gaming units;

[0023] FIG. 8 is a flowchart of an alternative embodiment of a main routine that may be performed during operation of one or more of the gaming units;

[0024] FIG. 9 is an illustration of an embodiment of a visual display that may be displayed during performance of the video poker routine of FIG. 11;

[0025] FIG. 10 is an illustration of an embodiment of a visual display that may be displayed during performance of the video blackjack routine of FIG. 12;

[0026] FIG. 11 is a flowchart of an embodiment of a video poker routine that may be performed by one or more of the gaming units;

[0027] FIG. 12 is a flowchart of an embodiment of a video blackjack routine that may be performed by one or more of the gaming units;

[0028] FIG. 13 is an illustration of an embodiment of a visual display that may be displayed during performance of the slots routine of FIG. 15;

[0029] FIG. 14 is an illustration of an embodiment of a visual display that may be displayed during performance of the video keno routine of FIG. 16;

[0030] FIG. 15 is a flowchart of an embodiment of a slots routine that may be performed by one or more of the gaming units;

[0031] FIG. 16 is a flowchart of an embodiment of a video keno routine that may be performed by one or more of the gaming units;

[0032] FIG. 17 is an illustration of an embodiment of a visual display that may be displayed during performance of the video bingo routine of FIG. 18;

[0033] FIG. 18 is a flowchart of an embodiment of a video bingo routine that may be performed by one or more of the gaming units;

[0034] FIGS. 19A and 19B are illustrations of a virtual slot machine and a payline in a 3-dimensional model space;

[0035] FIG. 20 is an illustration of a virtual slot machine and a payline in a 3-dimensional model space;

[0036] FIG. 21 is a flowchart of an embodiment of a payline generation routine;

[0037] FIG. 22 is a flowchart of an embodiment of a routine for generating a payline in 3-dimensional model space;

[0038] FIG. 23 is a flowchart of an embodiment of a routine for generating a curve comprising a plurality of triangles;

[0039] FIG. 24 is an illustration of a payline comprised of primitives in a 3-dimensional model space;

[0040] FIGS. 25A and 25B are illustrations of a game display and an object in a 3-dimensional model space;

[0041] FIG. 26 is a flowchart of an embodiment of a routine for generating a transparent object on a game display; and

[0042] FIG. 27 is a flowchart of another embodiment of a routine for generating a transparent object on a game display.

DETAILED DESCRIPTION OF VARIOUS EMBODIMENTS

[0043] Although the following text sets forth a detailed description of numerous different embodiments of the invention, it should be understood that the legal scope of the invention is defined by the words of the claims set forth at the end of this patent. The detailed description is to be construed as exemplary only and does not describe every possible embodiment of the invention since describing every possible embodiment would be impractical, if not impossible. Numerous alternative embodiments could be implemented, using either current technology or technology developed after the filing date of this patent, which would still fall within the scope of the claims defining the invention.