

mode presentations, maintenance operation information, game operation information and casino information may be generated in a 3-D virtual gaming environment and displayed to a display screen on the gaming machine. Further, transition screens that allow a smooth transition between different gaming presentations may also be generated and displayed on the display screen. For instance, a transition screen may be generated to for a display a smooth transition between a game outcome presentation and a bonus game.

[0220] FIG. 11 is a block diagrams of gaming machines that utilize distributed gaming software and distributed processors to generate a game of chance for one embodiment of the present invention. A master gaming controller 250 is used to present one or more games on the gaming machines 61, 62 and 63. The master gaming controller 250 executes a number of gaming software modules to operate gaming devices 70, such as coin hoppers, bill validators, coin acceptors, speakers, printers, lights, displays (e.g. 34) and other input/output mechanisms. The master gaming controller 250 may also execute gaming software enabling communications with gaming devices located outside of the gaming machines 61, 62 and 63, such as player tracking servers, bonus game servers, game servers and progressive game servers. In some embodiments, communications with devices located outside of the gaming machines may be performed using the main communication board 252 and network connections 71. The network connections 71 may allow communications with remote gaming devices via a local area network, an intranet, the Internet or combinations thereof.

[0221] The gaming machines 61, 62 and 63 may use gaming software modules to generate a game of chance that may be distributed between local file storage devices and remote file storage devices. For example, to play a game of chance on gaming machine 61, the master gaming controller may load gaming software modules into RAM 56 that may be located in 1) a file storage device 251 on gaming machine 61, 2) a remote file storage device 81, 2) a remote file storage device 82, 3) a game server 90, 4) a file storage device 251 on gaming machine 62, 5) a file storage device 251 on gaming machine 63, or 6) combinations thereof. The gaming software modules may include script files, data files and 3-D models used to generate 3-D objects in the 3-D gaming environments of the present invention. In one embodiment of the present invention, the gaming operating system may allow files stored on the local file storage devices and remote file storage devices to be used as part of a shared file system where the files on the remote file storage devices are remotely mounted to the local file system. The file storage devices may be a hard-drive, CD-ROM, CD-DVD, static RAM, flash memory, EPROM's, compact flash, smart media, disk-on-chip, removable media (e.g. ZIP drives with ZIP disks, floppies or combinations thereof. For both security and regulatory purposes, gaming software executed on the gaming machines 61, 62 and 63 by the master gaming controllers 250 may be regularly verified by comparing software stored in RAM 56 for execution on the gaming machines with certified copies of the software stored on the gaming machine (e.g. files may be stored on file storage device 251), accessible to the gaming machine via a remote communication connection (e.g., 81, 82 and 90) or combinations thereof.

[0222] The game server 90 may be a repository for game software modules and software for other game services provided on the gaming machines 61, 62 and 63. In one embodiment of the present invention, the gaming machines 61, 62 and 63 may download game software modules from the game server 90 to a local file storage device to play a game of chance or the game server may initiate the download. One example of a game server that may be used with the present invention is described in co-pending U.S. patent application Ser. No. 09/042,192, filed on Jun. 16, 2000, entitled "Using a Gaming Machine as a Server" which is incorporated herein in its entirety and for all purposes. In another example, the game server might also be a dedicated computer or a service running on a server with other application programs.

[0223] In one embodiment of the present invention, the processors used to generate a game of chance may be distributed among different machines. For instance, the game flow logic to play a game of chance may be executed on game server 92 by processor 90 while the master gaming controller 250 may execute the game presentation logic on gaming machines 61, 62 and 63. The gaming operating systems on gaming machines 61, 62 and 63 and the game server 90 may allow gaming events to be communicated between different gaming software modules executing on different gaming machines via defined APIs. Thus, a game flow software module executed on game server 92 may send gaming events to a game presentation software module executed on gaming machine 61, 62 or 63 to control the play of a game of chance or to control the play of a bonus game of chance presented on gaming machines 61, 62 and 63. As another example, the gaming machines 61, 62 and 63 may send gaming events to one another via network connection 71 to control the play of a shared bonus game played simultaneously on the different gaming machines or in general to affect the game play on another machine.

[0224] Although the foregoing invention has been described in some detail for purposes of clarity of understanding, it will be apparent that certain changes and modifications may be practiced within the scope of the appended claims. For instance, while the gaming machines of this invention have been depicted as having top box mounted on top of the main gaming machine cabinet, the use of gaming devices in accordance with this invention is not so limited. For example, gaming machine may be provided without a top box or a secondary display. Both of these types of gaming machines may be modeled in a virtual gaming environment stored on a gaming machine.

What is claimed is:

1. A method of providing a game of chance in a gaming machine that is operable i) to receive cash or indicia of credit for a wager on a game of chance and ii) to output cash or an indicia of credit as an award for the game of chance where the gaming machine comprises a master gaming controller, a display device, a memory device and a 3-D graphical rendering system, the method comprising:

- receiving the wager for the games of chance controlled by the master gaming controller on the gaming machine;
- determining a game outcome the games of chance;
- rendering one or more two-dimensional images derived from three-dimensional (3-D) objects in a 3-D gaming