

3-D virtual gaming environment. In **610**, a final state on or more virtual reel strips is determined. The final state may be generated from a paytable as part of a game outcome presentation **602**, as described in **FIG. 8**. In **612**, a master gaming controller on the gaming machine may determine a sequence of symbols to display from the one or more virtual reel strips. The sequence of symbols may comprise all or a portion of the symbols between an initial state on the virtual reel strip and the final state on the virtual strip defined for the virtual reel strip.

[**0213**] As described with respect to **FIGS. 3A-3G** and **4**, when displaying symbols from the virtual reel strip, the present invention may allow for one or more jumps between a first location on the virtual reel strip to a second location on the virtual reel strip. For the jump, the sequence of symbols on the virtual reel strip between the first location and the second location may not be displayed. However, the missing symbols in the sequence may not be noticeable in a rendering of the 3-D gaming environment displaying the symbols because the motion of the symbols may be too fast to allow a viewer of the symbols to determine which symbols are actually displayed.

[**0214**] In **614**, the sequence of symbols for each virtual reel strip may be mapped to one or more surfaces on 3-D objects in the 3-D gaming environment. For instance, the sequence of symbols in **612** may be mapped to a single flat reel or single round reel which moves in a manner that allows the sequence of symbols to be displayed, as described with respect to **FIG. 2, 3A-3G, 4, 5A** and **5B**. As another example, the sequence of symbols from a virtual strip in **612** may be mapped to a sequence of 3-D objects that move in the 3-D gaming environment, such as the two examples described with respect to **6A** and **6B**.

[**0215**] In **616**, a motion of the one or more 3-D surfaces that allows the sequence of symbols to be displayed may be determined. For instance, when the symbols are displayed on a rounded reel in the 3-D gaming environment, the angle to rotate the reel through and the rate of rotation for the rounded reel may be determined. The motion of the 3-D objects may be affected by input received through one or more input devices on the gaming machine. For instance, based upon player input, a generated reel may spin faster or slower. In **618**, the determined motion of the 3-D surfaces in **616** with the mapped symbols from **614** are generated. As described with respect to **604** and **606** in **FIG. 8**, a sequence of two-dimensional projection surfaces rendered from the 3-D surfaces in the 3-D gaming environment may be displayed to the display screen as part of a game outcome presentation.

[**0216**] In **620**, a stop command may be received to stop the game outcome presentation. For instance, as described with respect to **FIG. 4**, a reel generated in the 3-D gaming environment may include one or more touchable segments that allow the reel to be stopped in response to an input received on a touch screen on the gaming machine. In **620**, when a stop command is received, a new sequence of symbols to display may be determined in **612** and then **614, 616** and **618** may be repeated. When a stop command is not received, in **624**, the final state of the 3-D surfaces in the 3-D gaming environment may be generated and rendered to the display screen. The final state of the 3-D surfaces may include a combination of symbols that correspond to a determined game outcome for the game of chance.

[**0217**] **FIG. 10** 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 (see **FIGS. 13** and **14**). 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.

[**0218**] 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.

[**0219**] 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, 1900, entitled "Using a Gaming Machine as a Server" which is