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(54) **SLOT MACHINE GAME WITH ENHANCED WILD SYMBOL FEATURES**

(52) **U.S. Cl. 463/20**

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(57) **ABSTRACT**

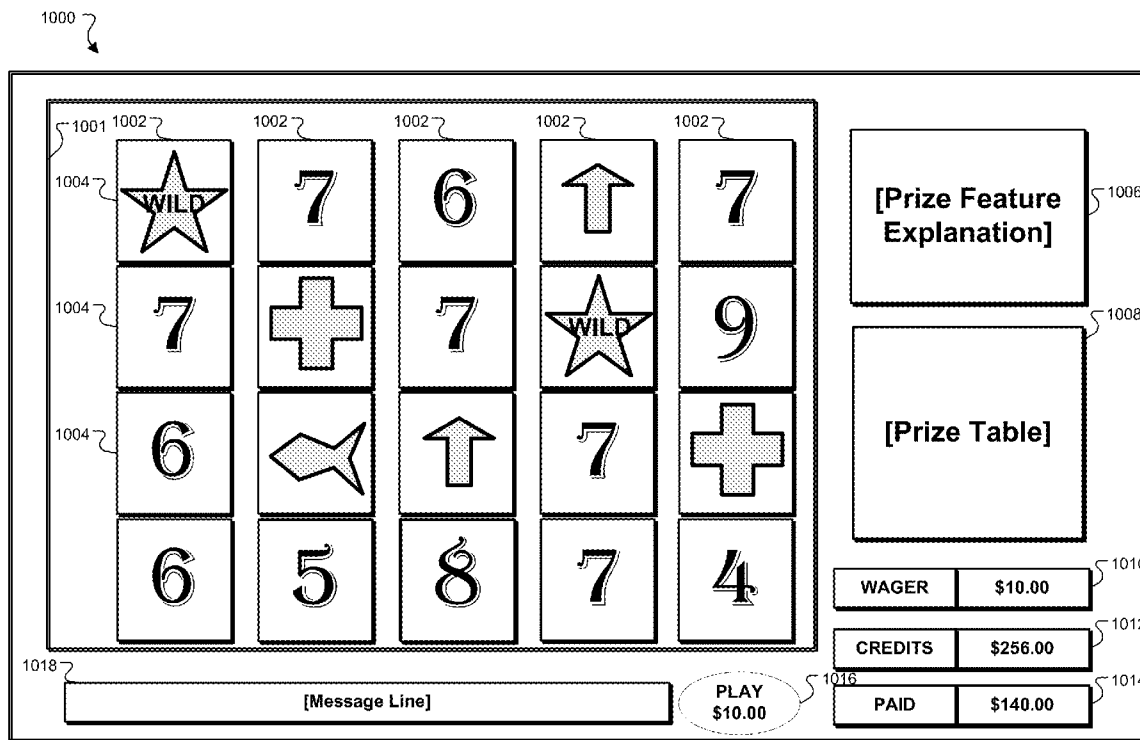
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A game is provided including a special wild symbol that applies a transformation field to other symbols around it. The effect of this transformation field is to change the symbols into wild symbols. Multiple transformation fields may overlap, increasing the value of the transformed symbol in certain designated ways. Rules are provided for applying the transformation field in certain directions with respect to the special wild symbol with which it is associated.

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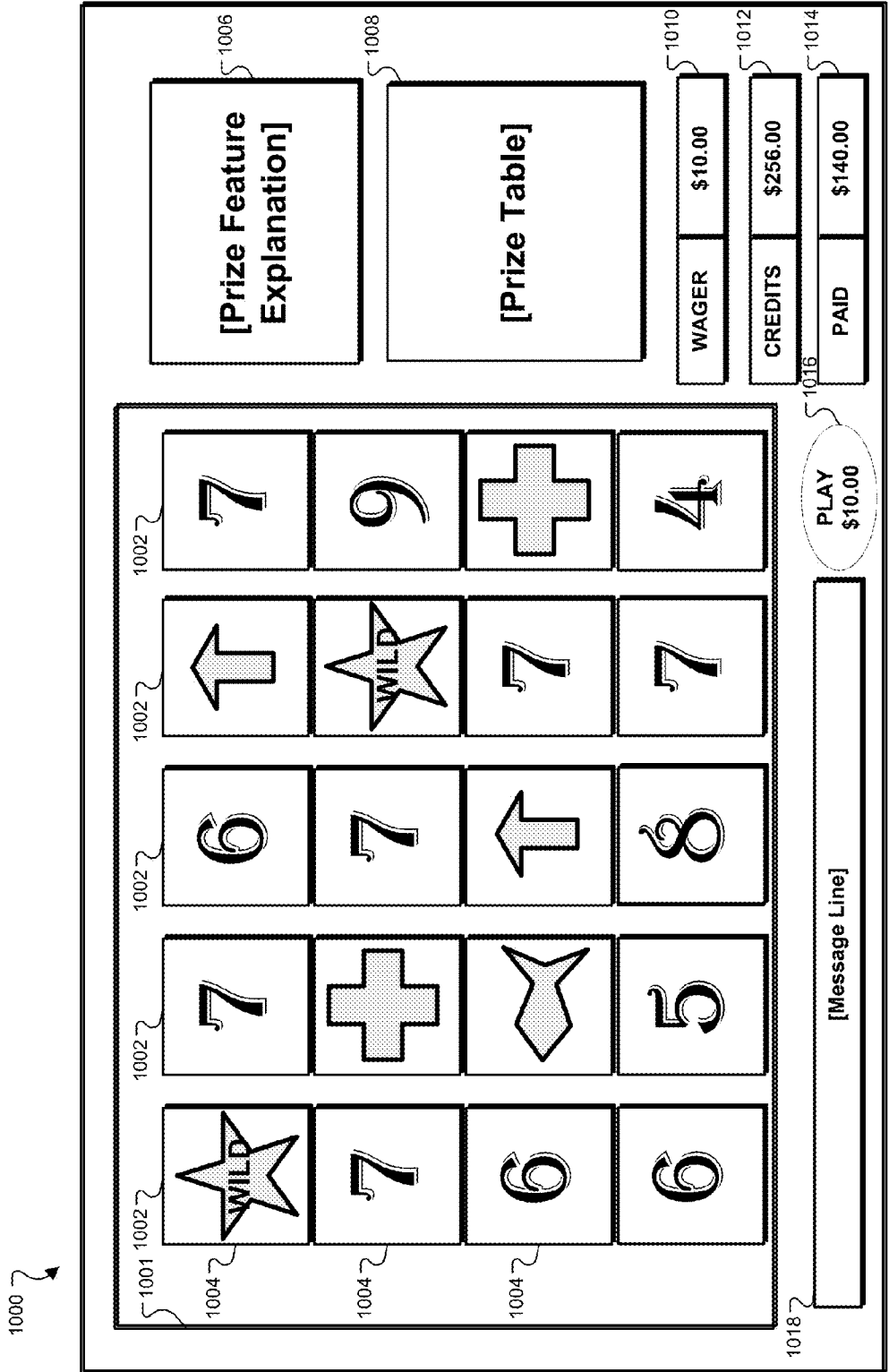


Fig. 1A

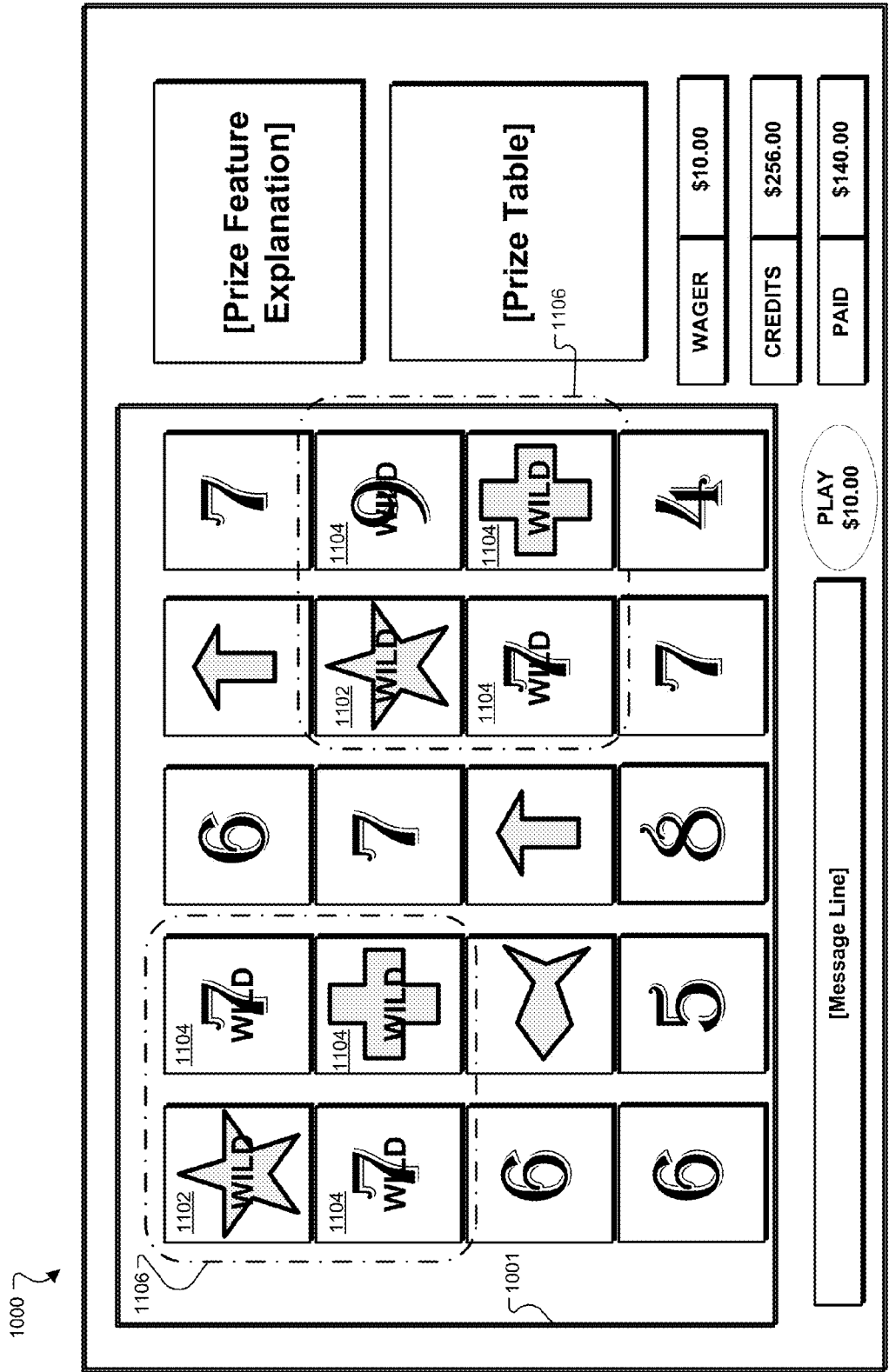


Fig. 1B

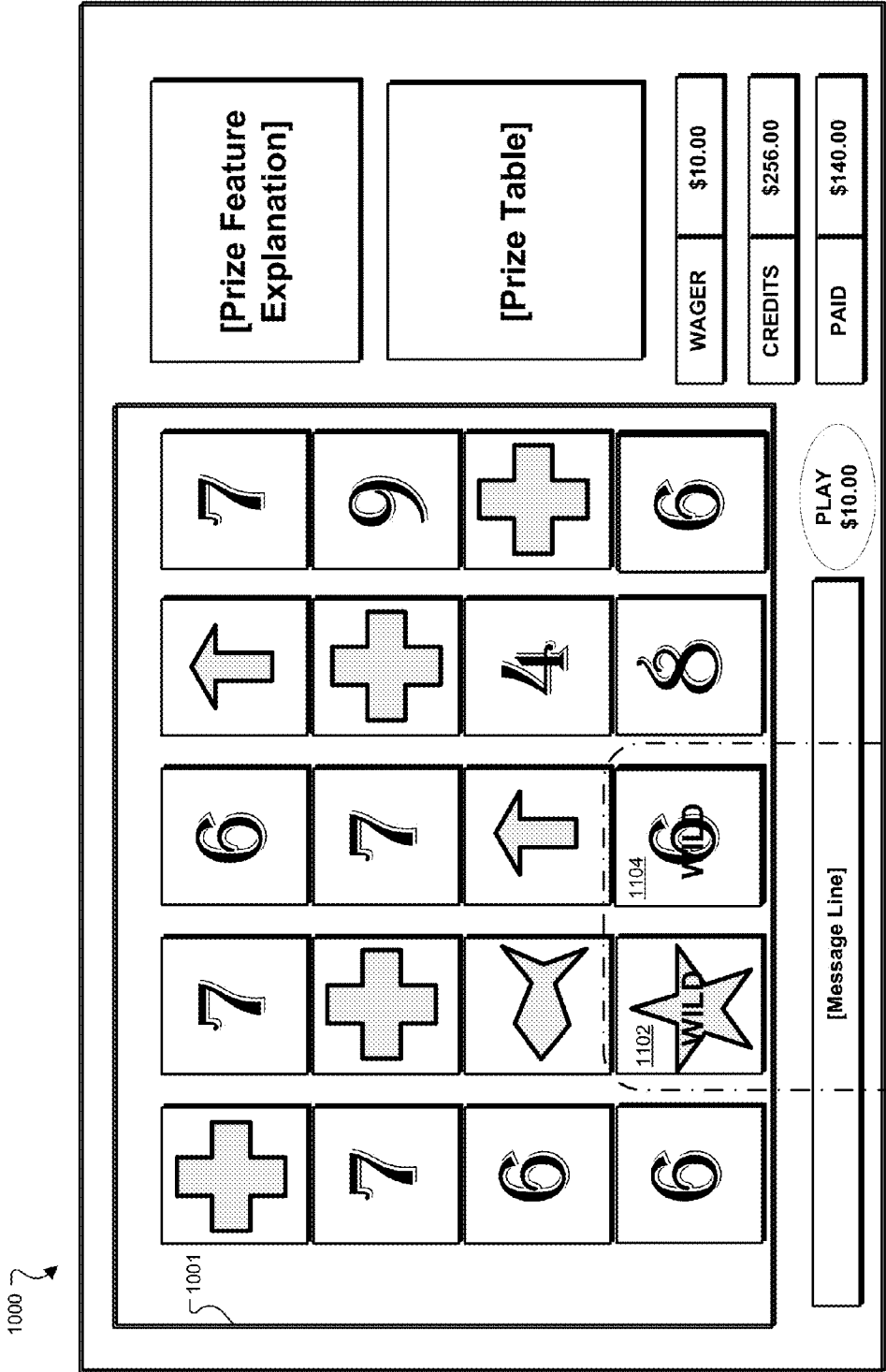


Fig. 1C

1000 ↗

1106 ↗

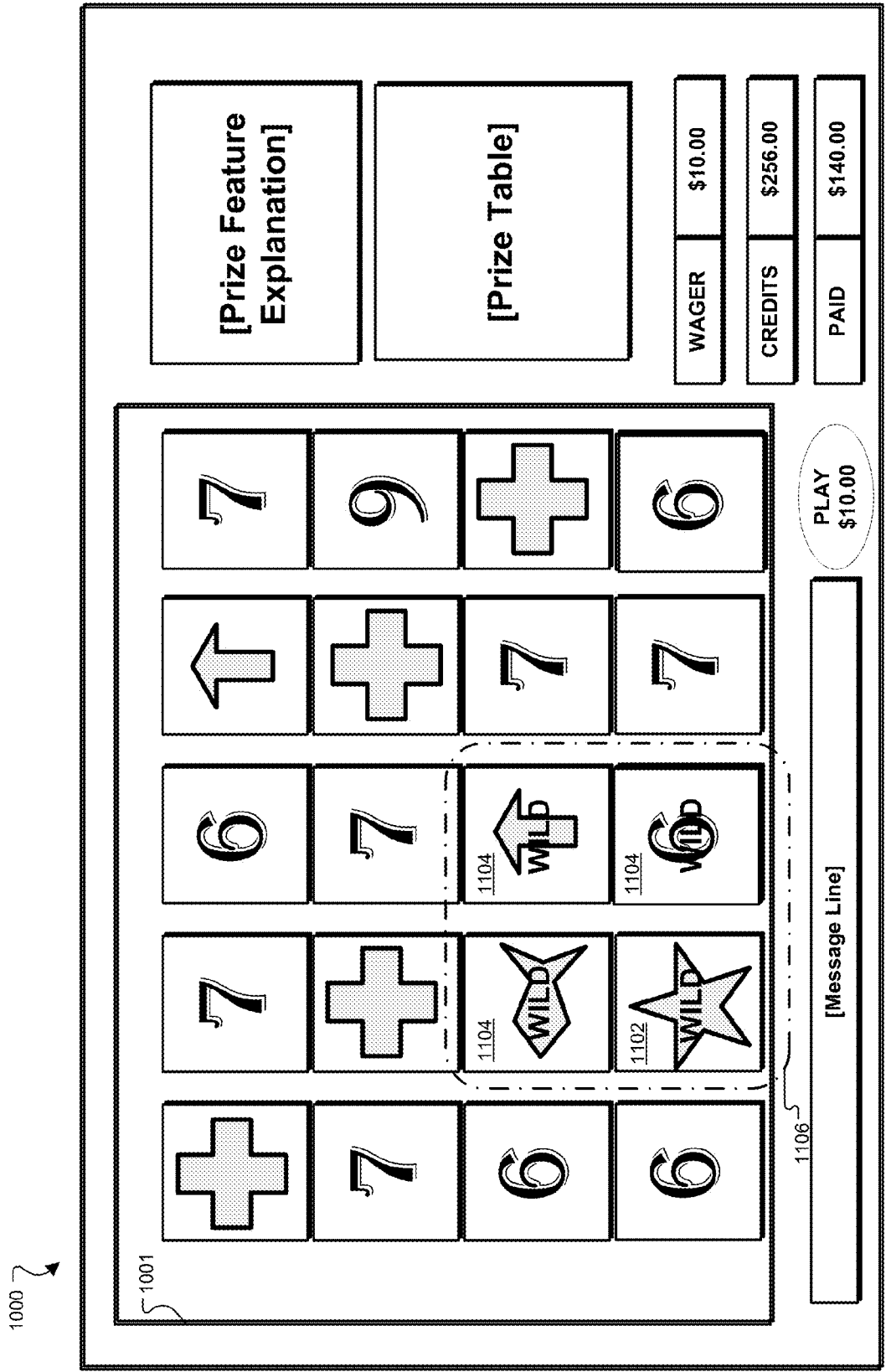


Fig. 1D

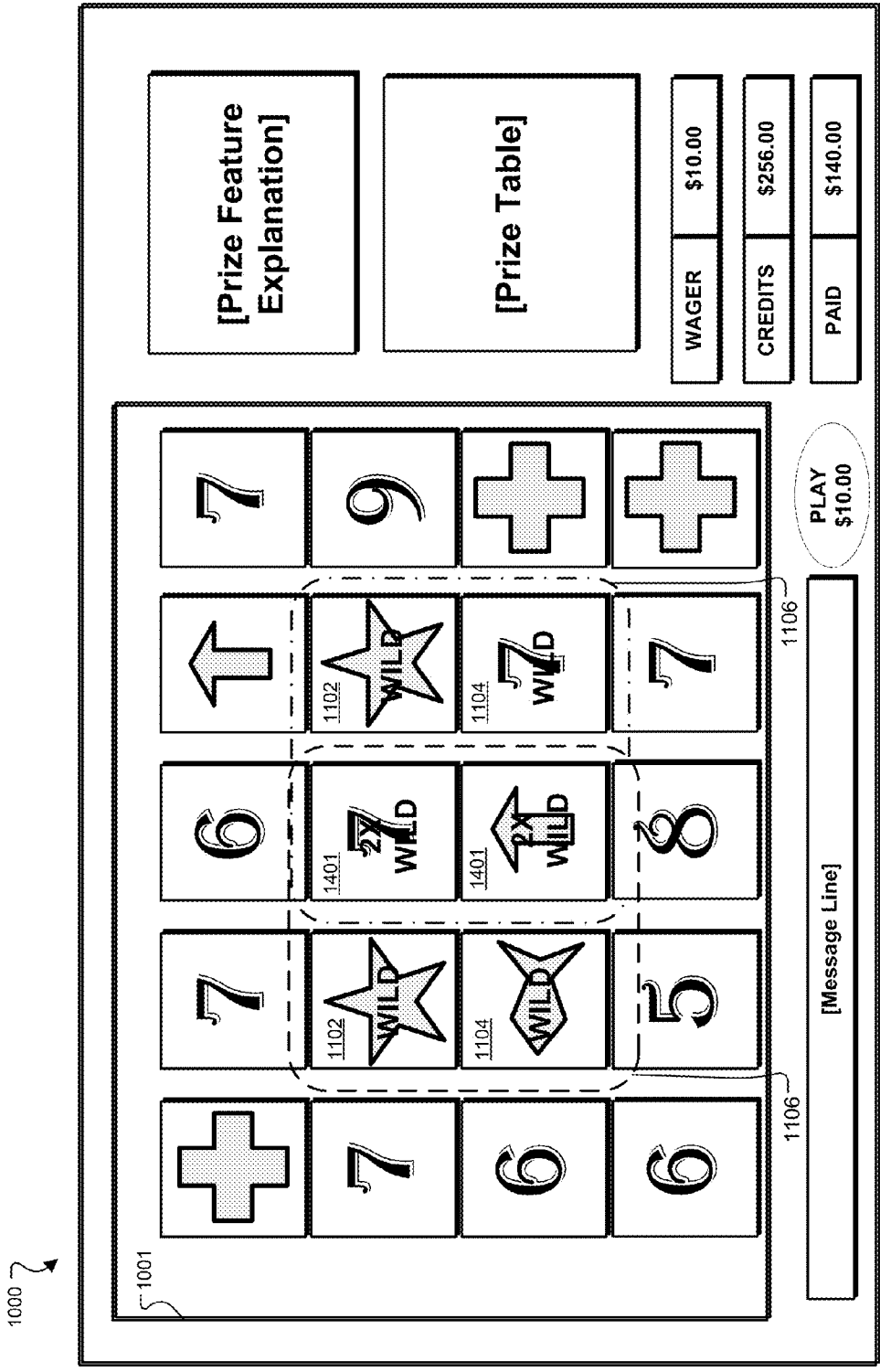


Fig. 1E

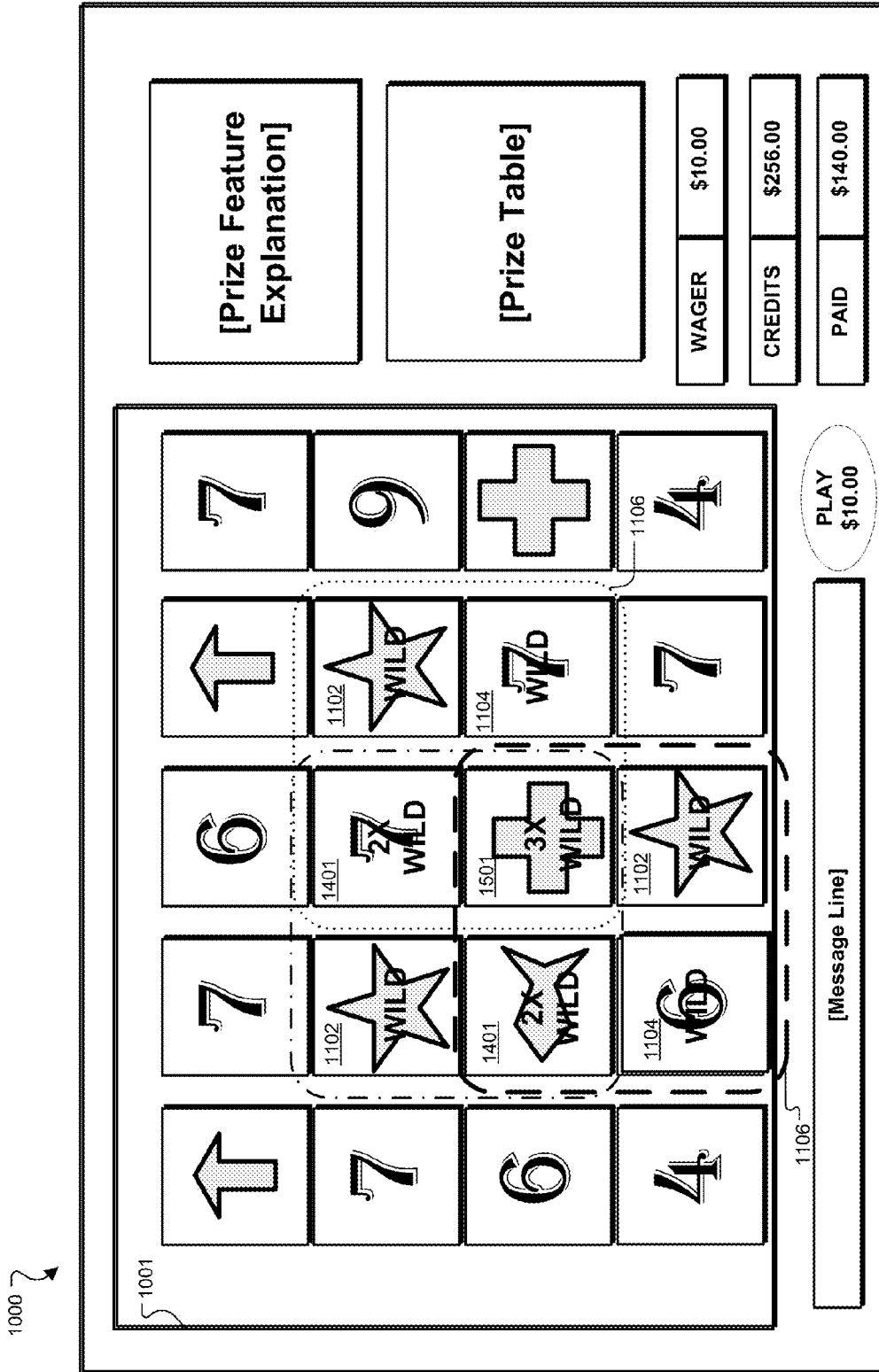


Fig. 1F

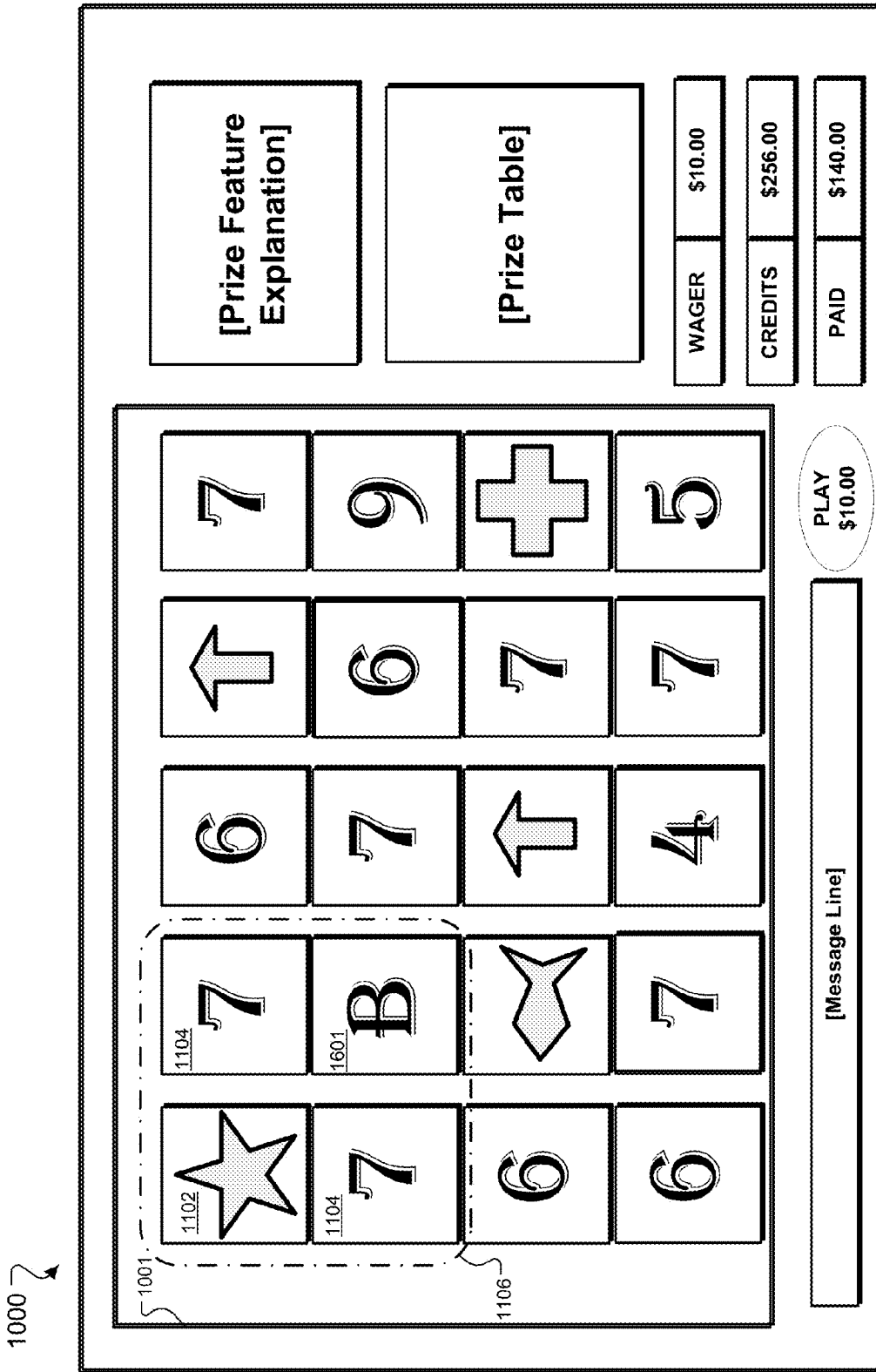


Fig. 1G

2000

Fig. 2A

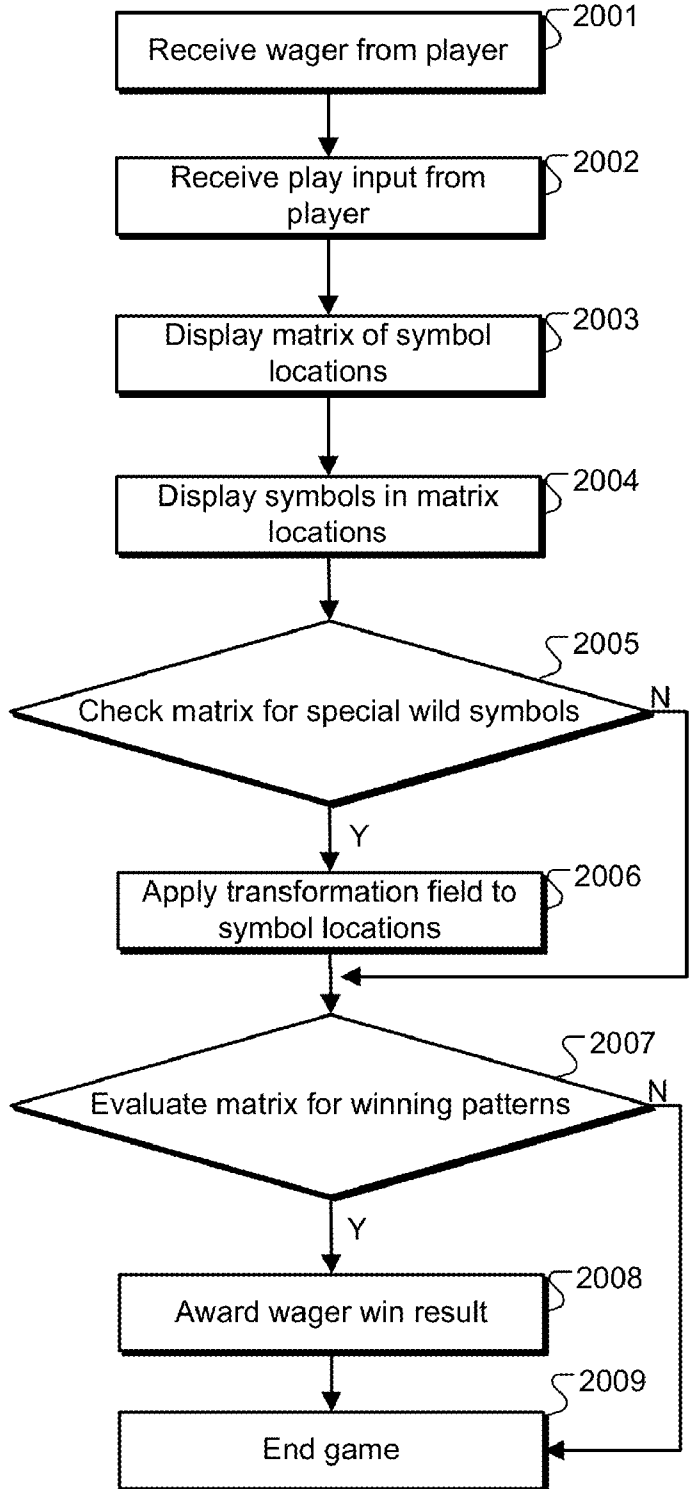
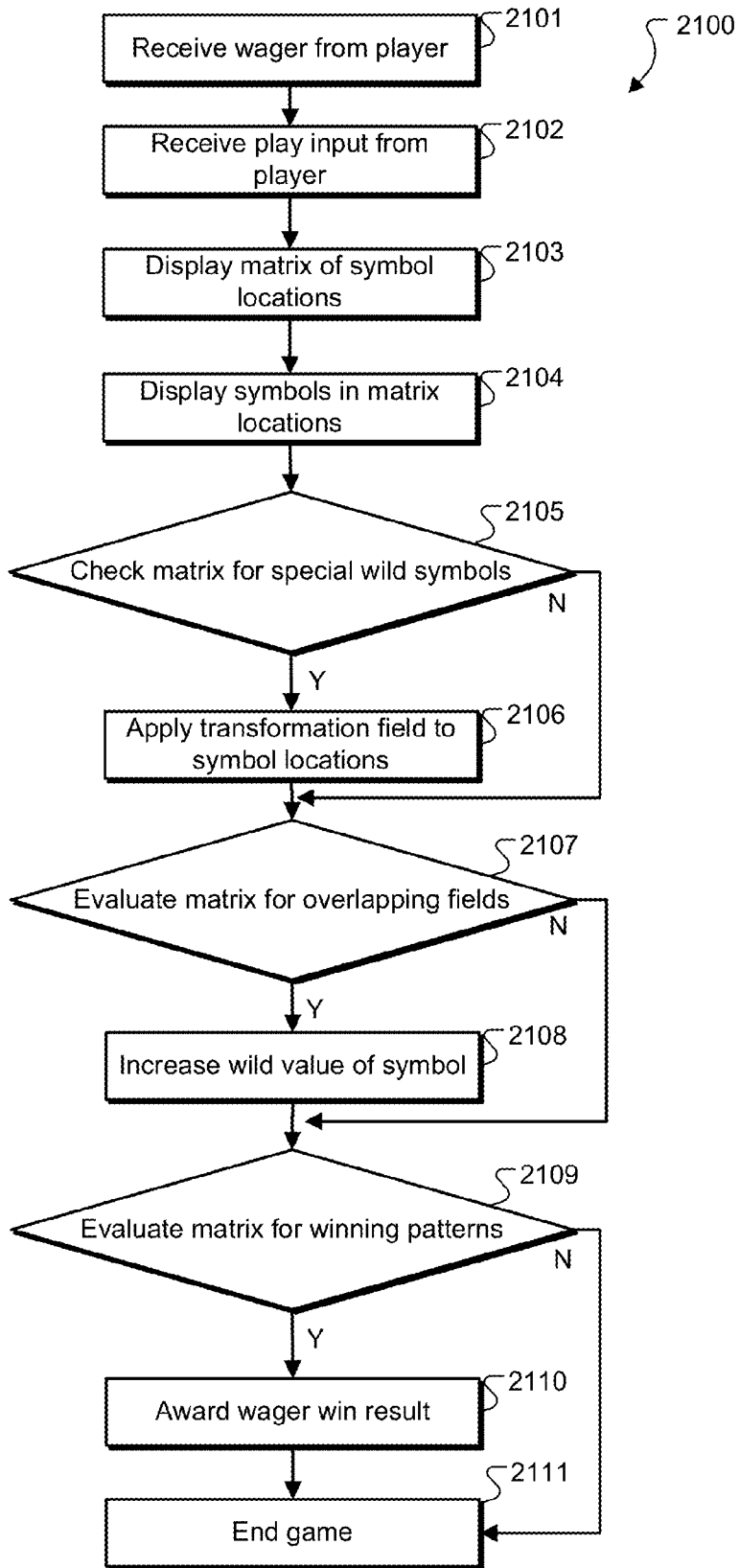


Fig. 2B



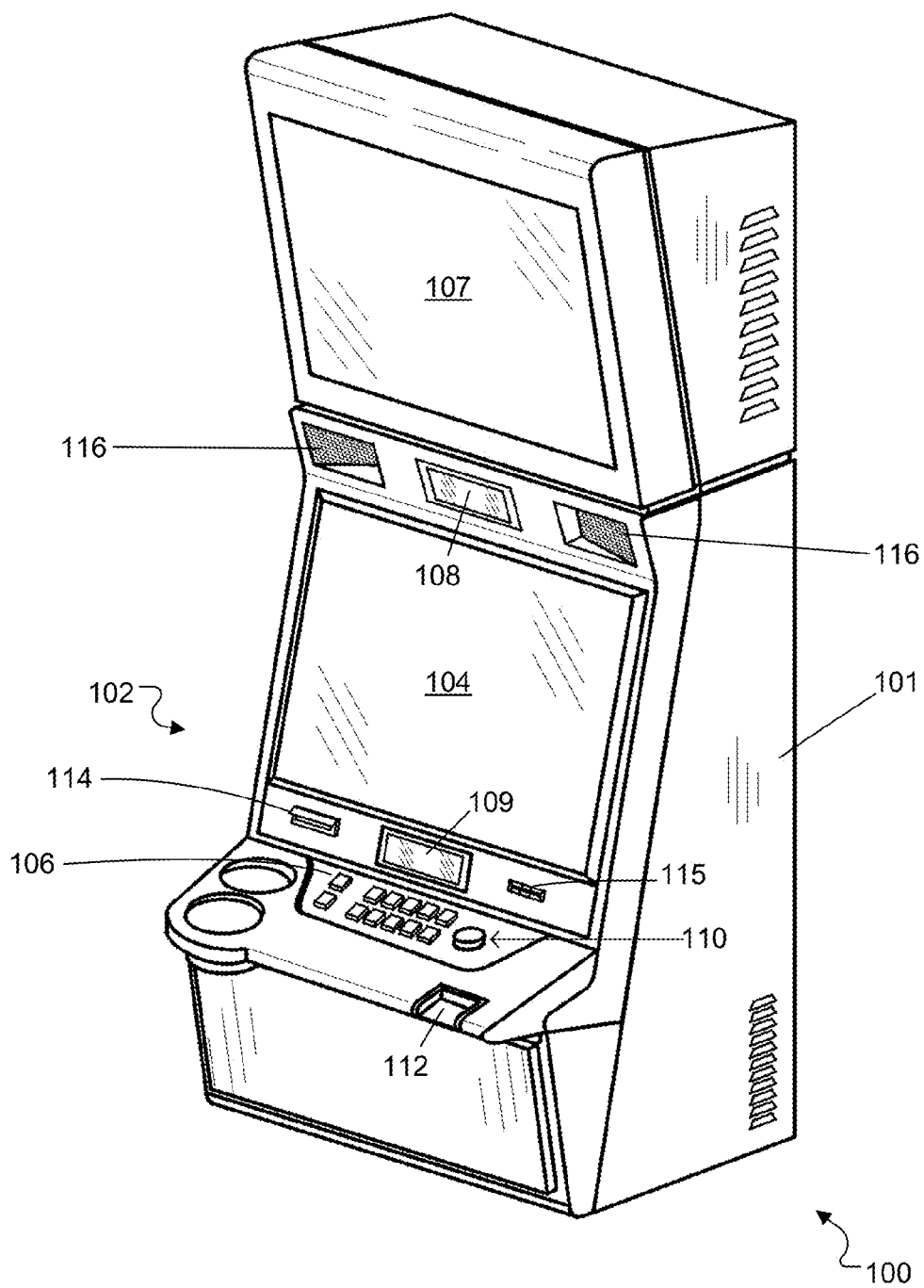


Fig. 3A

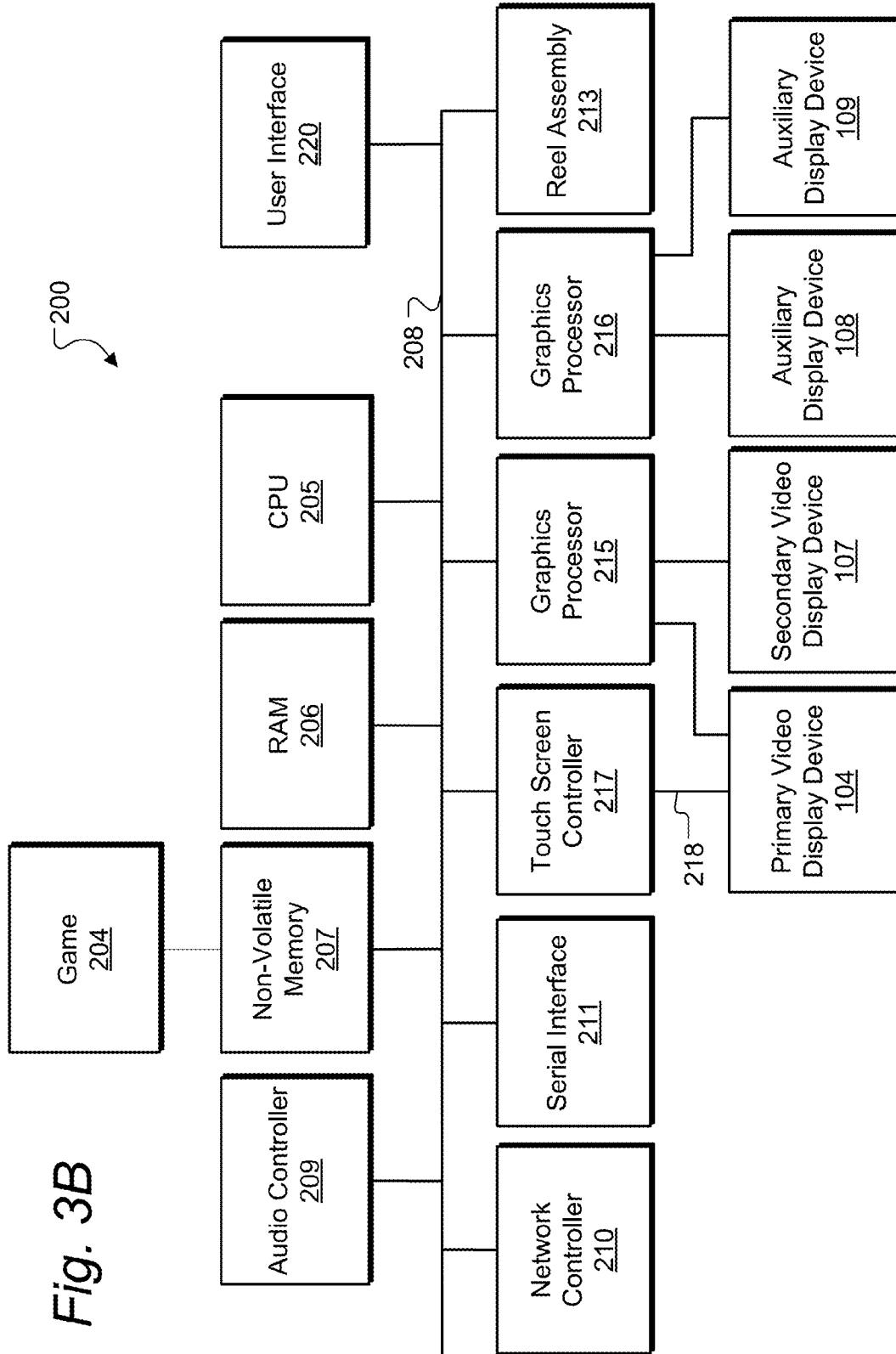


Fig. 3B

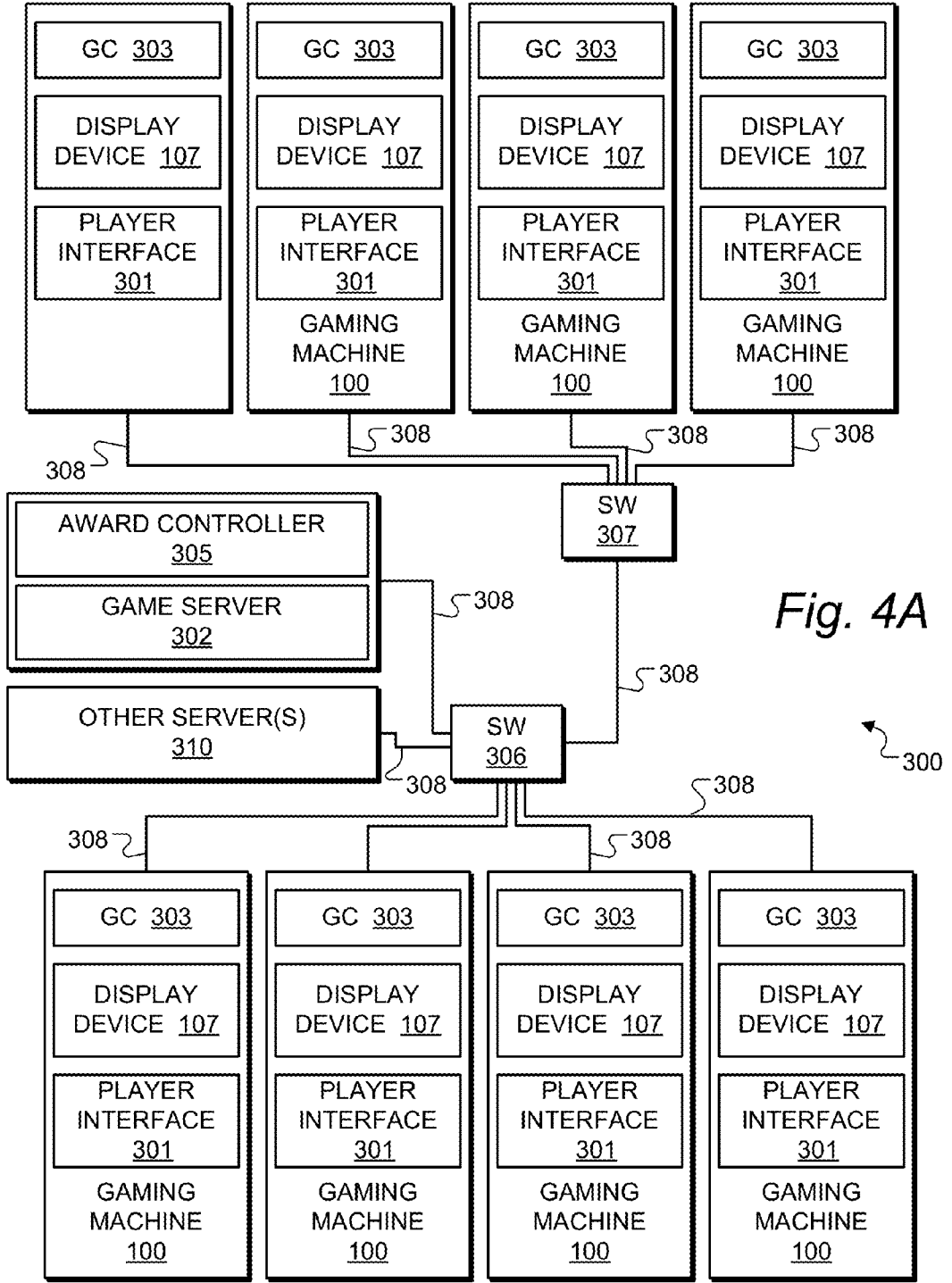
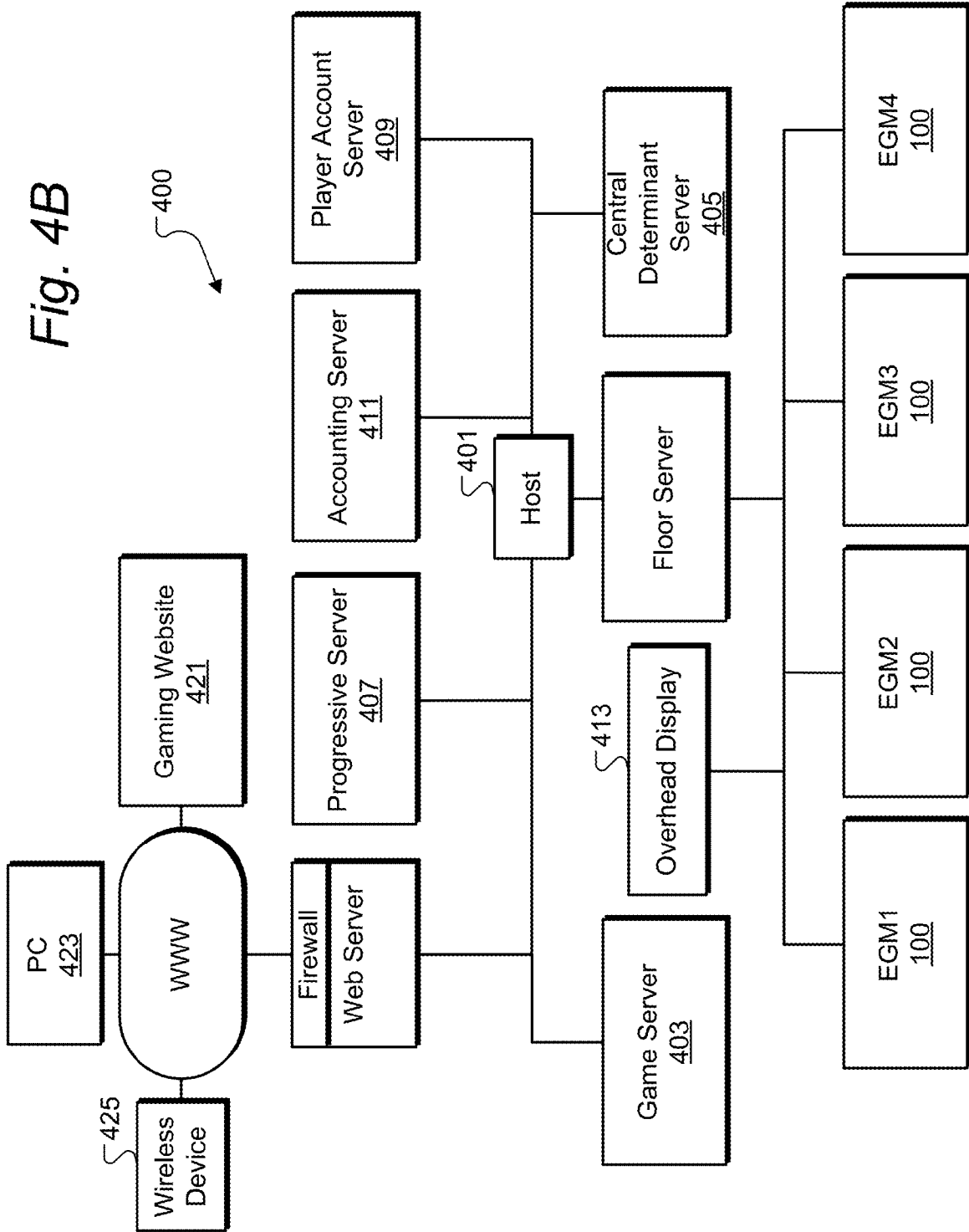


Fig. 4A

Fig. 4B



SLOT MACHINE GAME WITH ENHANCED WILD SYMBOL FEATURES

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TECHNICAL FIELD OF THE INVENTION

[0002] This invention relates to gaming systems and to gaming machines through which players may participate in wagering games. More particularly, the invention relates to methods for conducting an interactive reel or symbol array type wagering game including special wild symbols.

BACKGROUND OF THE INVENTION

[0003] Various slot machine games use wild symbols to enhance the game experience for games with reels, simulated reels, or other arrays of gaming symbols. Some machines use an “expanding wild” symbol that can expand to fill an entire reel, thereby creating more potential for forming winning patterns in a particular game result. Other games known in the art use an expanding wild symbol that expands until it reaches a termination symbol. Still other games use various special features associated with wild symbols.

[0004] What is needed are more exciting variations for the use in the creation of wild symbols in order to increase player excitement and enjoyment of slot machine games.

SUMMARY OF THE INVENTION

[0005] The present invention includes a highly entertaining method of conducting a game for one or more players. The entertainment value is achieved partially by a game including a reel symbol known as a special wild symbol which has the ability to make a 2x2 section of reel positions wild. That is, when the special symbol lands in the visible window on any reel, the symbol itself is wild, it makes an adjacent position on that same reel wild, and it also makes the corresponding two positions on an adjacent reel wild. Preferably, such transformation is accomplished by using a transformation field associated with the special wild symbol.

[0006] Because the transformation zone that is activated by a special wild symbol is non-symmetric about the triggering symbol, a rule is necessary to specify which direction the zone is placed about the triggering symbol. Several advantageous rules are disclosed. A static rule may be used which provides that the transformation field is always positioned in the same direction with respect to the triggering symbol (e.g. the triggering symbol always ends up as the top left symbol in the 2x2 section of wilds). This has the possibly undesirable consequence that the transformation field will sometimes go outside the visible window and hence make fewer than 4 positions wild. An alternative which avoids this is to make the rule that the transformation field is always positioned towards the center of the matrix—if the symbol lands on one of the top two rows, then its transformation field is positioned downward, whereas if it lands on one of the bottom two rows, then the associated transformation field is positioned upward. If it

lands on reel 1 or 2 then it is positioned towards the right, whereas if it lands on reel 4 or 5 then it is positioned towards the left.

[0007] In some embodiments, if two special wild symbols land on the same play, there is the possibility of their transformation fields overlapping. In this case, the overlapping position(s) become 2x wild(s) (see FIG. 1E). Depending on the rules for direction of transformation fields, it is even possible to have 3 fields overlap, becoming 3x wild(s). No more than 3 fields can overlap, assuming no two special symbols are placed close together on the same reel.

[0008] Special rules are provided to handle the situation if a transformation field covers a scattered bonus symbol (which wilds do not substitute for). In that case, there is preferably a depiction showing that the symbols overlap, and that the bonus symbol is still active along with the wilds. In a preferred embodiment, a side bet is required to activate the special wild symbol feature. If the side bet is not placed, the special symbol could either act as a single-position wild, or it could be a completely dead symbol. In a preferred embodiment, the game also has a free-spin bonus, within which it is guaranteed that each free spin will hit at least one special wild.

[0009] Another version of the invention is a computer program stored on a non-transitory readable medium. The software version is, of course, typically designed to be executed by a gaming machine or networked gaming system. The software includes multiple portions of computer executable code referred to as program code. Gaming results are provided in response to a wager and displayed by display program code that generates simulated slot reels each including one or more symbol locations. The program also has game controller program code for determining game play results for a designated number of spins of the reels, each spin producing a spin result, each spin result having a chance to include one or more of the special wild symbols.

[0010] Another version of the invention is a gaming system that includes one or more gaming servers, and a group of electronic gaming machines connected to the servers by a network. The various functionality described herein may be distributed between the electronic gaming machines and the gaming servers in any practically functional way. For example, the current preferred architecture is for the servers to determine all aspects of game logic, random number generation, and prize awards. The gaming machines provide functionality of interfacing with the player and animating the game results to the present the results received from the server in an entertaining manner. However, other embodiments of course might use a thin client architecture in which the animation is also conduct by the server and electronic gaming machines serve merely as a terminal to receive button or touch screen input from the player and to display graphics received from the server.

[0011] Different features may be included in different versions of the invention. For example, different animation themes may be applied that display the application of the special wild transformation field in different ways.

[0012] These and other advantages and features of the invention will be apparent from the following description of the preferred embodiments, considered along with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. 1A is a representation of a graphic display showing an initial status of a matrix of symbol locations with gaming symbols and wild symbols according to one embodiment of the invention.

[0014] FIG. 1B is a representation of sample transformation fields of the wild symbol according to one embodiment of the invention.

[0015] FIG. 1C is a representation of the transformation field going outside the matrix of symbol locations according to one embodiment of the invention.

[0016] FIG. 1D is a representation of the transformation field expanding towards the center of the matrix of symbol locations according to one embodiment of the invention.

[0017] FIG. 1E is a representation of two transformation fields overlapping according to one embodiment of the invention.

[0018] FIG. 1F is a representation of three transformation fields overlapping according to one embodiment of the invention.

[0019] FIG. 1G is a representation of a transformation field overlapping a bonus symbol according to one embodiment of the invention.

[0020] FIG. 2A is a flow chart showing the general process of play at a gaming machine that includes a special wild symbol according to one embodiment of the invention.

[0021] FIG. 2B is another flow chart showing the general process of play at a gaming machine that includes multiple special wild symbols according to one embodiment of the invention.

[0022] FIG. 3A is a front perspective view of a gaming machine which may be used in a gaming system embodying the principles of the present invention.

[0023] FIG. 3B is a block diagram showing various electronic components of the gaming machine shown in FIG. 3A together with additional gaming system components.

[0024] FIG. 4A is a system block diagram of a gaming system according to one embodiment of the present invention.

[0025] FIG. 4B is a system block diagram of a gaming system according to another embodiment.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0026] FIG. 1A shows a representation of a graphic display 1000 that may be performed at various gaming machines 100 including gaming system 300 shown in FIG. 4A. In this embodiment, the graphics display includes a matrix of symbol locations 1001 that displays symbols in four locations 1004 on five separate reels 1002. The graphic display 1000 also includes a box 1006 for displaying texts regarding prize features. There may also be displayed a prize table 1008. A group of accounting indicators at the lower right displays various pieces of data such as the current wager box 1010, available credits 1012, and or payouts 1014. The touch screen play button 1016 also displays the wager for each game 1016. A message line 1018 displays messages concerning game progress, results, and related information.

[0027] In preferred embodiments of the invention, a slot machine reel game may employ special wild symbols in the base game play or the bonus game, these wild symbols having special properties and rules. Depicted in the base game result shown in matrix 1001 are two such special wild symbols

1004, stars marked WILD. In this embodiment, the special wild symbol is a star, but other graphic schemes and changing graphics may also be used. The special wild symbol preferably has the function of transforming adjacent symbols in a 2x2 field into wild symbols.

[0028] Some versions require an extra bet to buy the opportunity for a special wild symbol in the base game round. An option for these versions is to make this extra bet mandatory, that is, included in the minimum required bet for each payline level, so there is no game available where the special wild symbols act as single-position wilds or are not wild.

[0029] FIG. 1B shows one embodiment of a special wild symbol. In this embodiment the graphic display 1000 shows the game result of FIG. 1A with two instances of the special wild symbols. As shown, the special wild symbols 1102 have attached or associated with them a 2x2 transformation field, indicated by dotted lines labeled 1106, which is positioned to cover adjacent symbols and transform them to wild symbols. The depicted arrangement shows one possible way to position and apply the 2x2 transformation field, in a non-symmetric multidirectional fashion. Other non-symmetric and multidirectional applications of the transformation field are discussed below. In this embodiment, the wild symbol is always in the top left corner of the field. Here the field 1106 covers adjacent symbols 1104 and transforms their function to wild symbols, as shown by the WILD indication appearing on top of the symbols 1104 within each transformation field 1106. Other versions may apply other rules, including rules that change the direction in which the 2x2 field is applied, rather than simply using a static rule that the field is always positioned with the associated wild symbol in the upper left of the 2x2 field. Further, while a 2x2 field is used in preferred embodiments, this is not limiting and the same techniques may be applied with a 3x3 or 4x4 or rectangular-sized fields, especially if the array of symbol locations in the game is larger than the common 5x3 or 5x4 array.

[0030] FIG. 1C shows an example game result screen illustrating an undesirable consequence of using a static rule to position the transformation field 1106. In this example game result the matrix of symbol locations 1001 includes a wild symbol 1102 at the bottom of the second reel. The 2x2 transformation field 1102 is shown as it would be applied by a static rule placing the special wild symbol at the upper left of the field. Because there are no symbols under the wild symbol 1102 to fill the lower two spaces of field 1106, there is only one adjacent symbol 1104 that is made wild. While some embodiments may in fact employ a static rule such as this, other embodiments employ a dynamic or conditional rule to position the transformation field about the particular special wild symbol that activates it.

[0031] FIG. 1D shows an example game result screen illustrating a dynamic conditional rule for placing the transformation field. In this embodiment, the rule positions the transformation field downward from the special wild symbol if the special wild symbol 1104 is in the upper half of array 1001, but positions it upward from the special wild symbol if the symbol is in the lower half of the array 1001. One rule that accomplishes this goal is to always position the transformation field 1106 toward the center of the matrix of symbol locations 1001 from the special wild symbol associated with the transformation field. Such a rule is applied in the embodiment of FIG. 1D. Now, the transformation field encompasses three other adjacent symbols 1104. When the array 1001 has an odd number of rows or columns, and thereby provides the

possibility that the special wild symbol may appear in a center row or center column, the direction of placement for the transformation field may be chosen arbitrarily. For example, if in the center column, the field may always be placed to cover two symbol locations to the right of the special wild symbol, or always to the left as is shown in the example of FIG. 1F. If the special wild symbol appears in a center row, the transformation field may always be placed to provide two symbols in the row below the special wild symbol.

[0032] Another preferred embodiment similar to that shown in FIG. 1D includes a rule that always applies a 2×2 transformation field toward the center of the array in the vertical direction, but always applies the field toward the right in the horizontal direction. This rule has the advantage that it can avoid overlapping three transformation fields if desired in a particular game design. The rightmost reel, reel 5 in a typical version, is prevented from having special wild symbols. Another version may include the same feature but biased to the left instead of the right.

[0033] FIG. 1E shows an example game result including graphic display 1000 in which two transformation fields 1106 overlap. This possibility is allowed in preferred embodiments of the invention, because they allow more than one special wild symbol to appear in a particular game result or spin. Depicted are two wild symbols 1102, and their respective transformation fields 1106 overlap due to their close proximity. In this result, two labeled symbols 1401 are within two transformation fields, one associated with the left-hand depicted special wild symbol 1102, and the other field associated with the right-hand depicted special wild symbol 1102. In this instance, both symbols 1401 would receive an additional wild status indicator and property, making them “2× WILD” symbols, as indicated by the modified graphics showing 2× WILD applied to both symbols 1401. The 2× WILD status confers special properties on the symbols that have it. In this embodiment, the 2× Wild status increase any prizes awarded for pay lines formed using a 2× WILD symbol, preferably by applying a 2× multiplier. But this is not limiting and in other embodiments other properties or attributes may be conferred to 2× or 3× Wild symbols inside an overlap of transformation fields.

[0034] FIG. 1F shows an example game result in which three transformation fields 1106 overlap. This is caused by the reel spin results containing three special wild symbols 1102 that are close enough to each other that, when the transformation field position rule discussed above is applied, all three transformation fields overlap. The overlapping 2×2 fields 1106 are each outlined with a different type of dotted line so that they can be distinguished from one another on the diagram. There are symbols 1104 that are only in one transformation field 1106. These have been transformed into wild symbols as indicated by their symbol graphics. There are also symbols 1401 that are covered by two overlapping transformation fields 1106. These have been transformed into 2× Wild symbols, as indicated by their graphics. Finally, there is a symbol 1501 that is encompassed by all three transformation fields. In a preferred embodiment, symbol 1501 receives a triple wild status, 3× Wild. In certain versions, this gives the symbol 1501 special properties, such as forming a 3× multiplier for any pay lines in which it forms a winning pattern. Other special properties may also be assigned to symbols that are covered by multiple transformation fields. A preferred embodiment gives a better, more valuable, property or characteristic to the symbols that are covered by transformation

fields. Another version gives more special properties to those symbols that are covered by more transformation fields.

[0035] FIG. 1G shows an example game result in which a transformation field 1106 covers a bonus symbol such as a scatter bonus symbol. In this embodiment, the transformation field 1106 from the wild symbol 1102 encompasses two regular symbols 1104, and a bonus symbol 1601. In preferred versions of the game, the bonus value, characteristic, or functionality of the bonus symbol is not lost for the purposes of the game result merely because it also falls within the wild transformation field of special wild symbol 1102. Preferably, the bonus symbol 1601 receives wild status and also maintains its bonus status. This may be indicated by the graphics associated with the bonus, which may, for example, be shown as overlaid with a wild symbol or otherwise modified in some way with graphics associated with the wild symbol functionality. The same rule is preferably applied to bonus symbols of all kinds, and other special symbols having special functionality or significance within a particular symbol array game.

[0036] FIG. 2A is a flow chart showing the general process of play at a gaming machine that includes a special wild symbol according to one embodiment of the invention. The depicted process preferably takes place in the context of the base game, as described above, but may also be employed in the context of a bonus game round. In fact, one preferred embodiment includes a bonus round of multiple free spins in which every free spin is guaranteed to have at least one special wild symbol. In such a case, step 2001 which receives a wager from the player, is obviously skipped for the free spins. Otherwise, the process is very similar between bonus free spin rounds and the base game round depicted in FIG. 2A. The depicted process 2000 begins with receiving a wager from the game player at step 2001, which typically consists of some input from the player to set the amount to be wagered from their credit amount on the machine. This step may also be carried over from previous game rounds by simply starting the game with the previous wager amount set. Then, in step 2002, the process receives a play input from the player. This typically happens through a ‘Play’ button on the game cabinet or touchscreen display, and serves to place the wager and start a single round of game play in the base game. Next at step 2003 and 2004, the process begins conducting the activated game by rearranging the symbols in the matrix. In embodiments having reels, reels displays, or simulated reels, this is conducted by spinning the reels. Other embodiments may otherwise rearrange or randomize the symbols on the matrix in any suitable manner.

[0037] At step 2005, the process checks the resulting matrix of symbols for the presence of special wild symbols. In some embodiments, the software executing the process may, of course, already have available some indication that a special wild symbol is present in the game matrix, because some embodiments employ reverse-mapped outcomes generated from randomly selected prizes, or otherwise create outcomes from prizes and not directly based on an array of random symbols. For example, some embodiments reverse-map the outcome from Class II bingo game results which are operable with less regulatory requirements in certain gaming jurisdictions. Other embodiments may select outcomes from a bank of predetermined outcomes such as electronic lottery tickets. The particular method of generating a randomized outcome of the base game is not important; if the base game result matrix includes a special wild symbol, the process goes to step 2006. If not, the process skips to step 2008.

[0038] Referring to step 2006, if the appropriate special wild symbol was found, the process handles each special wild symbol in the display by applying the associated transformation field to adjacent symbol in the matrix according to the rules discussed above. Preferably, this step includes displaying some type of graphic sequence indicating that the transformations are taking place in order to build the excitement of playing the game. Preferably, at the end of this step, the transformed symbols are left with some visual indication that they have been turned wild, such as, for example, wild or some other special graphics added to the symbol. Next at step 2007, the process evaluates the matrix for winning patterns, preferably along a plurality of pay lines according to well-known slot machine game techniques; but this is not limiting and other versions may use other prize evaluation schemes or combination of schemes to determine the presence winning patterns. At step 2008, the process confers any resulting awards to the player, and in the game round at step 2009.

[0039] FIG. 2B is another flow chart showing the general process of play at a gaming machine that includes multiple special wild symbols according to one embodiment of the invention. The depicted process proceeds in the first six steps, 2101 through 2106, similarly to that in FIG. 2A. Next at step 2107, the matrix is evaluated to find overlapping transformation fields such as those described above with respect to FIG. 1E and FIG. 1F. At step 2108, the process confers this increased value on the relevant symbols. This step also preferably includes a graphic sequence indicating that a special transformation is occurring for any of the symbols that are determined to be 2× Wild symbols or 3× Wild symbols. Next, at step 2109, the process evaluates the matrix of symbols for winning patterns or other winning outcomes. During this evaluation, symbols that are 2× Wild or 3× Wild may be applied multiple times in different winning patterns according to the rules discussed above. In other embodiments, the special properties conferred on the symbol may be applied for other winning patterns or other winning outcomes that do not necessarily consist of a pattern. Finally, at step 2110, the process confers any awards determined to be due to the player, and ends the game round at step 2111.

[0040] FIG. 3A shows a gaming machine 100 that may be used to implement a variable special wild game according to the present invention. The block diagram of FIG. 3B shows further details of gaming machine 100. Referring to FIG. 3A, gaming machine 100 includes a cabinet 101 having a front side generally shown at reference numeral 102. A primary video display device 104 is mounted in a central portion of the front surface 102, with a ledge 106 positioned below the primary video display device and projecting forwardly from the plane of the primary video display device. In addition to primary video display device 104, the illustrated gaming machine 100 includes a secondary video display device 107 positioned above the primary video display device. Gaming machine 100 also includes two additional smaller auxiliary display devices, an upper auxiliary display device 108 and a lower auxiliary display device 109. It should also be noted that each display device referenced herein may include any suitable display device including a cathode ray tube, liquid crystal display, plasma display, LED display, or any other type of display device currently known or that may be developed in the future.

[0041] In preferred versions, the gaming machine 100 illustrated in FIG. 3A also includes a number of mechanical control buttons 110 mounted on ledge 106. These control

buttons 110 may allow a player to select a bet level, select pay lines, select a type of game or game feature, and actually start a play in a primary game. Other forms of gaming machines according to the invention may include switches, joysticks, or other mechanical input devices, and/or virtual buttons and other controls implemented on a suitable touch screen video display. For example, primary video display device 104 in gaming machine 100 provides a convenient display device for implementing touch screen controls.

[0042] It will be appreciated that gaming machines may also include a number of other player interface devices in addition to devices that are considered player controls for use in playing a particular game. Gaming machine 100 also includes a currency/voucher acceptor having an input ramp 112, a player card reader having a player card input 114, and a voucher/receipt printer having a voucher/receipt output 115. Audio speakers 116 generate an audio output to enhance the user's playing experience. Numerous other types of devices may be included in gaming machines that may be used according to the present invention.

[0043] FIG. 3B shows a logical and hardware block diagram 200 of gaming machine 100 which includes a central processing unit (CPU) 205 along with random access memory 206 and nonvolatile memory or storage device 207. All of these devices are connected on a system bus 208 with an audio interface device 209, a network controller 210, and a serial interface 211. A graphics processor 215 is also connected on bus 208 and is connected to drive primary video display device 104 and secondary video display device 107 (both mounted on cabinet 101 as shown in FIG. 3A). A second graphics processor 216 is also connected on bus 208 in this example to drive the auxiliary display devices 108 and 109 also shown in FIG. 3A. As shown in FIG. 3B, gaming machine 100 also includes a touch screen controller 217 connected to system bus 208. Touch screen controller 217 is also connected via signal path 218 to receive signals from a touch screen element associated with primary video display device 104. It will be appreciated that the touch screen element itself typically comprises a thin film that is secured over the display surface of primary video display device 104. The touch screen element itself is not illustrated or referenced separately in the figures.

[0044] Those familiar with data processing devices and systems will appreciate that other basic electronic components will be included in gaming machine 100 such as a power supply, cooling systems for the various system components, audio amplifiers, and other devices that are common in gaming machines. These additional devices are omitted from the drawings so as not to obscure the present invention in unnecessary detail.

[0045] All of the elements 205, 206, 207, 208, 209, 210, and 211 shown in FIG. 3B are elements commonly associated with a personal computer. These elements are preferably mounted on a standard personal computer chassis and housed in a standard personal computer housing which is itself mounted in cabinet 101 shown in FIG. 3A. Alternatively, the various electronic components may be mounted on one or more circuit boards housed within cabinet 101 without a separate enclosure such as those found in personal computers. Those familiar with data processing systems and the various data processing elements shown in FIG. 3B will appreciate that many variations on this illustrated structure may be used within the scope of the present invention. For example, since serial communications are commonly employed to commu-

nicate with a touch screen controller such as touch screen controller 217, the touch screen controller may not be connected on system bus 208, but instead include a serial communications line to serial interface 211, which may be a USB controller or a IEEE 1394 controller for example. It will also be appreciated that some of the devices shown in FIG. 3B as being connected directly on system bus 208 may in fact communicate with the other system components through a suitable expansion bus. Audio interface 209, for example, may be connected to the system via a PCI bus. System bus 208 is shown in FIG. 3B merely to indicate that the various components are connected in some fashion for communication with CPU 205 and is not intended to limit the invention to any particular bus architecture. Numerous other variations in the gaming machine internal structure and system may be used without departing from the principles of the present invention.

[0046] It will also be appreciated that graphics processors are also commonly a part of modern computer systems. Although separate graphics processor 215 is shown for controlling primary video display device 104 and secondary video display device 107, and graphics processor 216 is shown for controlling both auxiliary display devices 108 and 109, it will be appreciated that CPU 205 may control all of the display devices directly without any intermediate graphics processor. The invention is not limited to any particular arrangement of processing devices for controlling the video display devices included with gaming machine 100. Also, a gaming machine implementing the present invention is not limited to any particular number of video display device or other types of display devices.

[0047] In the illustrated gaming machine 100, CPU 205 executes software which ultimately controls the entire gaming machine including the receipt of player inputs and the presentation of the graphic symbols displayed according to the invention through the display devices 104, 107, 108, and 109 associated with the gaming machine. As will be discussed further below, CPU 205 either alone or in combination with graphics processor 215 may implement a presentation controller for performing functions associated with a primary game that may be available through the gaming machine and may also implement a game client for directing one or more display devices at the gaming machine to display portions of a special wild game according to the present invention. CPU 205 also executes software related to communications handled through network controller 210, and software related to various peripheral devices such as those connected to the system through audio interface 209, serial interface 211, and touch screen controller 217. CPU 205 may also execute software to perform accounting functions associated with game play. Random access memory 206 provides memory for use by CPU 205 in executing its various software programs while the nonvolatile memory or storage device 207 may comprise a hard drive or other mass storage device providing storage for programs not in use or for other data generated or used in the course of gaming machine operation. Network controller 210 provides an interface to other components of a gaming system in which gaming machine 100 is included. In particular, network controller 210 provides an interface to a game controller which controls certain aspects of the multiplayer, special wild game as will be discussed below in connection with FIG. 3.

[0048] It should be noted that the invention is not limited to gaming machines employing the personal computer-type

arrangement of processing devices and interfaces shown in example gaming machine 100. Other gaming machines through which a special wild game is implemented may include one or more special purpose processing devices to perform the various processing steps for implementing the present invention. Unlike general purpose processing devices such as CPU 205, these special purpose processing devices may not employ operational program code to direct the various processing steps.

[0049] It should also be noted that the invention is not limited to gaming machines including only video display devices for conveying results. It is possible to implement a special wild game within the scope of the present invention using an electro mechanical arrangement or even a purely mechanical arrangement for displaying the symbols needed to complete a special wild game as described herein. However, the most preferred forms of the invention utilize one or more video display devices for displaying the spinning reels, the accumulated symbols, and the special wild offer. For example, a gaming machine suitable for providing a special wild game may include a mechanical reel-type display rather than a video-type display device for displaying results in a primary game, and include a video display device for presenting the special wild game as a bonus game.

[0050] Still referring to the hardware and logical block diagram 200 showing an example design for a gaming machine 100, the depicted machine in operation is controlled generally by CPU 205 which stores operating programs and data in memory 207 with wagering game 204, user interface 220, network controller 210, audio/visual controllers, and reel assembly 213 (if mechanical reel configuration). CPU or game processor 205 may comprise a conventional microprocessor, such as an Intel Pentium microprocessor, mounted on a printed circuit board with supporting ports, drivers, memory, software, and firmware to communicate with and control gaming machine operations, such as through the execution of coding stored in memory 207 including one or more wagering games 204. Game processor 205 connects to user interface 220 such that a player may enter input information and game processor 205 may respond according to its programming, such as to apply a wager and initiate execution of a game.

[0051] Game processor 205 also may connect through network controller 210 to a gaming network, such as example casino server network 400 shown in FIG. 4B. Referring now to FIG. 4B, the casino server network 400 may be implemented over one or more site locations and include host server 401, remote game play server 403 (which may be configured to provide game processor functionality including determining game outcomes and providing audio/visual instructions to a remote gaming device), central determination server 405 (which may be configured to determine lottery, bingo, or other centrally determined game outcomes and provide the information to networked gaming machines 100 providing lottery and bingo-based wagering games to patrons), progressive server 407 (which may be configured to accumulate a progressive pool from a portion of wagering proceeds or operator marketing funds and to award progressive awards upon the occurrence of a progressive award winning event to one or more networked gaming machines 100), player account server 409 (which may be configured to collect and store player information and/or awards and to provide player information to gaming machines 100 after receiving player identification information such as from a player card), and

accounting server **411** (which may be configured to receive and store data from networked gaming machines **100** and to use the data to provide reports and analyses to an operator). Through its network connection, gaming machine **100** may be monitored by an operator through one or more servers such as to assure proper operation, and, data and information may be shared between gaming machine **100** and respective of the servers in the network such as to accumulate or provide player promotional value, to provide server-based games, or to pay server-based awards.

[0052] Referring now to FIG. 4A, a gaming system **300** according to another embodiment of the present invention is shown again in a network and system diagram format. System **300** includes a number of gaming machines, each comprising a gaming machine **100** in this example implementation. For purposes of describing system **300**, each gaming machine **100** in FIG. 4A is shown as including a video display device **107** and a player interface that may include buttons, switches, or other physical controls and/or touch screen controls as discussed above in connection with FIG. 4A. This player interface is labeled **301** in FIG. 4A. System **300** further includes a game server **302** and a respective game client **303** (abbreviated “GC” in FIG. 4A) included with each respective gaming machine **100**. In the form of the invention shown in FIG. 4A these two components, game server **302** and the game client components **303** combine to implement a game control arrangement which will be described in detail below. System **300** also includes an award controller **305**, which is shown in FIG. 4A as being associated with game server **302** to indicate that the two components may be implemented through a common data processing device/computer system. Gaming machines **100**, game server **302**, and award controller **305** are connected in a network communication arrangement including first and second network switches **306** and **307**, connected together through various wired or wireless signal paths, all shown as communications links **308** in FIG. 4A.

[0053] Each gaming machine **100**, and particularly player interface **301** associated with each gaming machine, allows a player to make any inputs that may be required to make the respective gaming machine eligible for a special wild game, and make selections of selectable objects displayed at the respective gaming machine in the course of a special wild game. Player interface **301** also allows a player at the gaming machine to initiate plays in a primary game available through the gaming machine in some implementations. The respective video display device **107** associated with each respective gaming machine **100** is used according to the invention to generate the graphic displays to show the various elements of a special wild game at the respective gaming machine.

[0054] The game control arrangement made up of game server **302** and the respective game client **303** at a given gaming machine functions to control the respective video display device **107** for that gaming machine to display a special wild graphic and a number of selectable objects. Award controller **305** is responsible for awarding prizes for a player’s participation in a special wild game, and maintaining progressive prize information where the special wild game offers one or more progressive prizes. The network arrangement made up of network switches **306** and **307**, and the various communication links **308** shown in FIG. 4A is illustrated merely as an example of a suitable communications arrangement. It should be noted that the game control arrangement, or as it is referred to generally the “game controller,” may be implemented in some embodiments entirely

on the gaming machine. This is especially true in jurisdictions that allow Class III gaming conducted with random number generators at each gaming machine. The present invention is not limited to any particular communications arrangement for facilitating communications between game server **302** and various gaming machines **100**. Any wired or wireless communication arrangement employing any suitable communications protocols (such as TCP/IP for example) may be used in an apparatus according to the invention.

[0055] FIG. 4A shows other server(s) **310** included in the network. This illustrated “other server(s)” element **310** may include one or more data processing devices for performing various functions related to games conducted through system **300** and any other games that may be available to players through gaming machines **100**. For example, apparatus **300** may be accounting servers providing support for cashless gaming or various forms of mixed cash/cashless gaming through the various gaming machines **100**. In this example, an additional one of the other servers **310** will be included in apparatus **300** for supporting these types of wagering and payout systems. As another example, the various gaming machines **100** included in system **300** may allow players to participate in a game (primary game) other than a special wild game, and this other game may rely on a result identified at or in cooperation with a device that is remote from the gaming machines. In this example, another server **310** may be included in the system for identifying results for the primary game and communicating those results to the various gaming machines **100** as necessary. Generally, the other server(s) **310** shown in FIG. 4A are shown only to indicate that numerous other components may be included along with the elements that participate in providing special wild games according to the present invention. Other server(s) **310** may provide record keeping, player tracking, accounting, result identifying services, or any other services that may be useful or necessary in a gaming system.

[0056] Referring to FIG. 4B, a block diagram of another example networked gaming system **400** associated with one or more gaming facilities is shown, including one or more networked gaming machines **100** in accordance with one or more embodiments. With reference to FIG. 4B, while a few servers have been shown separately, they may be combined or split into additional servers having additional capabilities.

[0057] As shown, networked gaming machines **100** (EGM1-EGM4) and one or more overhead displays **413** may be network connected and enable the content of one or more displays of gaming machines **100** to be mirrored or replayed on an overhead display. For example, the primary display content may be stored by the display controller or game processor **205** and transmitted through network controller **210** to the overhead display controller either substantially simultaneously or at a subsequent time according to either periodic programming executed by game processor **205** or a triggering event, such as a jackpot or large win, at a respective gaming machine **100**. In the event that gaming machines **100** have cameras installed, the respective players’ video images may be displayed on overhead display **413** along with the content of the player’s display **100** and any associated audio feed.

[0058] In one or more embodiments, game server **403** may provide server-based games and/or game services to network connected gaming devices, such as gaming machines **100** (which may be connected by network cable or wirelessly). Progressive server **407** may accumulate progressive awards

by receiving defined amounts (such as a percentage of the wagers from eligible gaming devices or by receiving funding from marketing or casino funds) and provide progressive awards to winning gaming devices upon a progressive event, such as a progressive jackpot game outcome or other triggering event such as a random or pseudo-random win determination at a networked gaming device or server (such as to provide a large potential award to players playing the community feature game). Accounting server **411** may receive gaming data from each of the networked gaming devices, perform audit functions, and provide data for analysis programs, such as the IGT Mariposa program bundle.

[0059] Player account server **409** may maintain player account records, and store persistent player data such as accumulated player points and/or player preferences (e.g. game personalizing selections or options). For example, the player tracking display may be programmed to display a player menu that may include a choice of personalized gaming selections that may be applied to a gaming machine **100** being played by the player.

[0060] In one or more embodiments, the player menu may be programmed to display after a player inserts a player card into the card reader. When the card reader is inserted, an identification may be read from the card and transmitted to player account server **409**. Player account server **409** transmits player information through network controller **210** to user interface **220** for display on the player tracking display. The player tracking display may provide a personalized welcome to the player, the player's current player points, and any additional personalized data. If the player has not previously made a selection, then this information may or may not be displayed. Once the player makes a personalizing selection, the information may be transmitted to game processor **205** for storing and use during the player's game play. Also, the player's selection may be transmitted to player account server **409** where it may be stored in association with the player's account for transmission to the player in future gaming sessions. The player may change selections at any time using the player tracking display (which may be touch sensitive or have player-selectable buttons associated with the various display selections).

[0061] In one or more embodiments, a gaming website may be accessible by players, e.g. gaming website **421**, whereon one or more games may be displayed as described herein and played by a player such as through the use of personal computer **423** or handheld wireless device **425** (e.g. Blackberry cell phone, Apple iPhone, personal data assistant (PDA), iPad, etc.). To enter the website, a player may log in with a username (that may be associated with the player's account information stored on player account server **409** or be accessible by a casino operator to obtain player data and provide promotional offers), play various games on the website, make various personalizing selections, and save the information, so that during a next gaming session at a casino establishment, the player's playing data and personalized information may be associated with the player's account and accessible at the player's selected gaming machine **100**.

[0062] Any use of ordinal terms such as "first," "second," "third," etc., to refer to an element does not by itself connote any priority, precedence, or order of one element over another, or the temporal order in which acts of a method are performed. Rather, unless specifically stated otherwise, such ordinal terms are used merely as labels to distinguish one

element having a certain name from another element having a same name (but for use of the ordinal term).

[0063] Further, as described herein, the various features have been provided in the context of various described embodiments, but may be used in other embodiments. The combinations of features described herein should not be interpreted to be limiting, and the features herein may be used in any working combination or sub-combination according to the invention. This description should therefore be interpreted as providing written support, under U.S. patent law and any relevant foreign patent laws, for any working combination or some sub-combination of the features herein.

[0064] The above described preferred embodiments are intended to illustrate the principles of the invention, but not to limit the scope of the invention. Various other embodiments and modifications to these preferred embodiments may be made by those skilled in the art without departing from the scope of the present invention.

1. A method of providing a wagering game for a player on an electronic gaming machine controlled by a processor and having an electronic display, the method comprising the following performed under control of the processor:

- (a) receiving a wager input from the player;
- (b) receiving a play input from the player;
- (c) displaying a matrix of symbol locations on the electronic display including a plurality of symbol locations;
- (d) displaying a number of symbols at selected symbol locations in the matrix, the symbol type indicative of elements in the matrix that are made available to be used in forming patterns according to rules of the wagering game;
- (e) the symbol elements including a special wild symbol having a fixed-size transformation field associated with it;
- (f) the special wild symbol causing symbols in the fixed-size transformation field adjacent to the special wild symbol to receive a wild status according to a dynamic conditional rule for determining the placement of the fixed-size transformation field;
- (g) the transformation field being applied in a non-symmetric multidirectional fashion;
- (h) after performing (f), evaluating the matrix for presence of one or more winning patterns formed by the symbols; and
- (i) in response to finding a winning pattern, awarding a wager win result to the player.

2. The method of claim **1**, wherein multiple transformation fields of multiple special wild symbols overlap one or more symbol locations in the matrix causing symbols in the one or more locations to have additional wild values.

3. The method of claim **1**, wherein any bonus symbols located in the transformation field of the special wild symbol retains its bonus value in addition to the wild status.

4. A system for providing a wagering game for a player, the system comprising an electronic gaming machine interacting with at least one server, the system programmed for:

- (a) receiving a wager input from the player;
- (b) receiving a play input from the player;
- (c) displaying a matrix of symbol locations including a plurality of symbol locations;
- (d) displaying a number of symbols at selected symbol locations in the matrix, the symbol type indicative of

elements in the matrix that are made available to be used in forming patterns according to rules of the wagering game;

- (e) the symbol elements including a special wild symbol having a fixed-size transformation field associated with it;
- (f) the special wild symbol causing symbols in the fixed-size transformation field adjacent to the special wild symbol to receive a wild status according to a dynamic conditional rule for determining the placement of the fixed-size transformation field;
- (g) the transformation field being applied in a non-symmetric multidirectional fashion;
- (h) after performing (f), evaluating the matrix for presence of one or more winning patterns formed by the symbols; and
- (i) in response to finding a winning pattern, awarding a wager win result to the player.

5. The system of claim 4, wherein multiple transformation fields of multiple special wild symbols overlap one or more symbol locations in the matrix causing symbols in the one or more locations to have additional wild values.

6. The system of claim 4, wherein any bonus symbols located in the transformation field of the special wild symbol retains its bonus value in addition to the wild status.

7. A program product embodied in one or more tangible non-transitory computer readable media, the program product including code executable by a gaming machine and at least one gaming server for:

- (a) receiving a wager input from the player;
- (b) receiving a play input from the player;
- (c) displaying a matrix of symbol locations including a plurality of symbol locations;
- (d) displaying a number of symbols at selected symbol locations in the matrix, the symbol type indicative of elements in the matrix that are made available to be used in forming patterns according to rules of the wagering game;
- (e) the symbol elements including a special wild symbol having a fixed-size transformation field associated with it;

- (f) the special wild symbol causing symbols in the fixed-size transformation field adjacent to the special wild symbol to receive a wild status according to a dynamic conditional rule for determining the placement of the fixed-size transformation field;
- (g) the transformation field being applied in a non-symmetric multidirectional fashion;
- (h) after performing (f), evaluating the matrix for presence of one or more winning patterns formed by the symbols; and
- (i) in response to finding a winning pattern, awarding a wager win result to the player.

8. The program product of claim 7, wherein multiple transformation fields of multiple special wild symbols overlap one or more symbol locations in the matrix causing symbols in the one or more locations to have additional wild values.

9. The program product of claim 7, wherein any bonus symbols located in the transformation field of the special wild symbol retains its bonus value in addition to the wild status.

10. The method of claim 1 in which the dynamic conditional rule positions the fixed-size transformation field downward from the special wild symbol if the special wild symbol is in the upper half of the array, but positions the fixed-size transformation field upward from the special wild symbol if the symbol is in the lower half of the array.

11. The system of claim 4 in which the dynamic conditional rule positions the fixed-size transformation field downward from the special wild symbol if the special wild symbol is in the upper half of the array, but positions the fixed-size transformation field upward from the special wild symbol if the symbol is in the lower half of the array.

12. The program product of claim 7 in which the dynamic conditional rule positions the fixed-size transformation field downward from the special wild symbol if the special wild symbol is in the upper half of the array, but positions the fixed-size transformation field upward from the special wild symbol if the symbol is in the lower half of the array.

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