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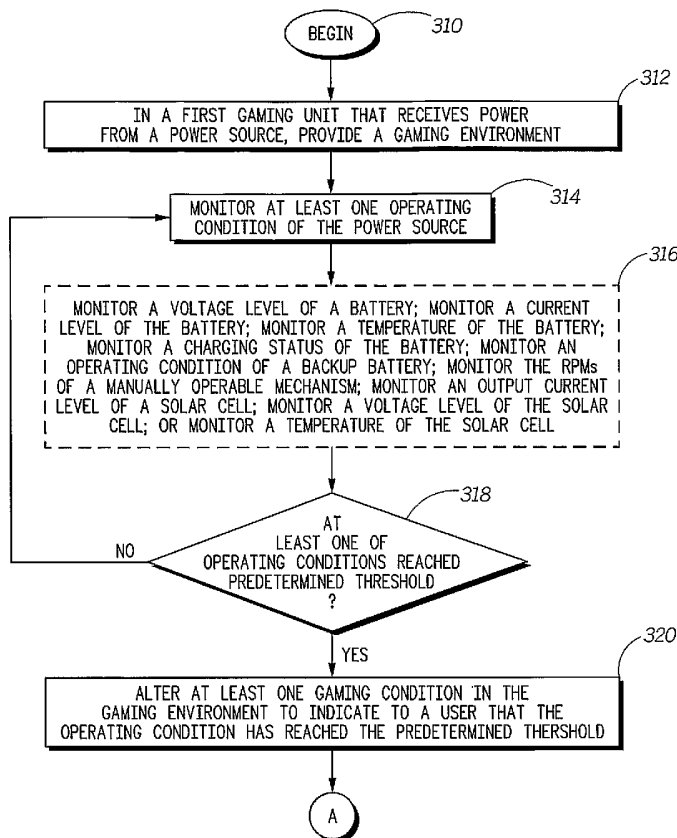
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(54) Title: METHOD AND SYSTEM FOR AFFECTING GAMING CONDITIONS



(57) Abstract: The invention concerns a method (300) and system (100) for affecting gaming conditions based on operating conditions of a power source (126). The method includes the steps of - in a first gaming unit (110) that receives power from the power source - providing (312) a gaming environment and monitoring (314) at least one operating condition of the power source. When at least one of the operating conditions reaches a predetermined threshold, the method further includes the step of altering (320) at least one gaming condition in the gaming environment to indicate to a user that the operating condition has reached the predetermined threshold.



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METHOD AND SYSTEM FOR AFFECTING GAMING CONDITIONS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates in general to gaming and more particularly, to games that are played on an electronic device having a portable power source.

2. Description of the Related Art

In recent years, portable electronic devices, such as cellular telephones, personal digital assistants and gaming devices, have become commonplace. Adding to their popularity, cellular telephones now have the ability to receive numerous types of gaming applications, such as through over-the-air downloads. In addition, portable gaming devices can receive many different types of gaming cartridges, which can be used to create a gaming experience on the portable gaming device.

In view of the many different types of multimedia games and the number of devices on which they can be played, there is intense competition between manufacturers of the cellular telephones, the gaming devices and the gaming applications themselves to capture customers. As a result, the entities that provide these devices and applications are constantly seeking ways to attract customers to their products.

SUMMARY OF THE INVENTION

The present invention concerns a method for affecting gaming conditions based on operating conditions of a power source. The method includes the steps of - in a first gaming unit that receives power from the power source - providing a gaming environment, monitoring at least one operating condition of the power

source and when at least one of the operating conditions reaches a predetermined threshold, altering at least one gaming condition in the gaming environment. This alteration can be used to indicate to a user that the operating condition has reached the predetermined threshold.

5 In one arrangement, the gaming condition can be selected from at least one of the following: the availability of gaming elements, the display size of gaming elements, the strength of gaming elements in the gaming environment, the ability of gaming elements to mutate in the gaming environment, the stealthing ability of gaming elements in the gaming environment, the display color of gaming elements
10 and the speed at which gaming elements operate in the gaming environment.

 As an example, the altering step can include at least one of the following steps: reducing or increasing the availability of gaming elements; decreasing or increasing the display size of gaming elements; decreasing or increasing the strength of gaming elements in the gaming environment; decreasing or increasing
15 the ability of gaming elements to mutate in the gaming environment; decreasing or increasing the stealthing ability of gaming elements in the gaming environment; and reducing or increasing the speed at which gaming elements operate in the gaming environment.

 In one arrangement, the power source can be a battery. As an example, the
20 monitoring the operating condition of the power source can include at least one of the following steps: monitoring a voltage level of the battery; monitoring a current level of the battery; monitoring a temperature of the battery; monitoring a charging status of the battery; and monitoring an operating condition of a backup battery.

 Additionally, the power source can be a manually operable mechanism. The
25 monitoring the operating condition of the power source can include the step of

monitoring the revolutions per minute of the manually operable mechanism. In another arrangement, the power source can be a solar cell. The monitoring the operating condition of the power source can include at least one of the following steps: monitoring an output current level of the solar cell; monitoring a voltage level
5 of the solar cell; and monitoring a temperature of the solar cell.

In one embodiment, the gaming unit can be a wireless communications device. The method can also include the step of communicating to a second gaming unit at least one of a status of the operating condition of the power source of the first gaming unit and an altered gaming condition. The first gaming unit and the
10 second gaming unit can be part of a multi-player gaming environment.

In yet another arrangement, the gaming unit can be a wireless communication device, and the method can further include the step of altering the operation of at least one operating feature of the wireless communication device. As another example, the wireless communication device can include a ringtone and a navigation
15 key for permitting a user to navigate through menus. The altering the operation of at least one operating feature step can include at least one of the following steps: decreasing a pitch or speed of the ringtone; increasing a response time of the navigation key; and modifying an image on a display of the wireless communication device.

20 The present invention also concerns a method for affecting operations of a wireless communications device having a ringtone and a navigation key for permitting users to navigate through menus. The method includes the steps of - in the wireless communications device - monitoring at least one operating condition of a power source that provides power to the wireless communication device, when at
25 least one of the operating conditions reaches a predetermined threshold, performing

at least one of decreasing a pitch or speed of the ringtone, increasing a response time of the navigation key and modifying an image on a display of the wireless communication device.

The present invention also concerns a system for affecting gaming conditions.

5 The system includes a user interface section that provides a gaming environment, a power source that has at least one operating condition and that provides power to the user interface section and a processor. The power source also provides power to the processor, and the processor is programmed to monitor at least one of the operating conditions of the power source and when the processor determines that at
10 least one of the operating conditions has reached a predetermined threshold, alter at least one gaming condition in the gaming environment to indicate to a user that the operating condition has reached the predetermined threshold. The system can also include suitable software and/or circuitry to carry out the processes described above.

The present invention also concerns a system to alter the operation of at least
15 one operating feature of a wireless communication device. The system includes a user interface section having a display, ringtone and a navigation key for permitting users to navigate through menus, a power source that has at least one operating condition and that provides power to the user interface section and a processor. The power source also provides power to the processor, and the processor is
20 programmed to monitor at least one operating condition of the power source and when at least one of the operating conditions reaches a predetermined threshold, perform at least one of decreasing a pitch or speed of the ringtone, increasing a response time of the navigation key and modifying an image on the display of the user interface section. The system can also include suitable software and/or
25 circuitry to carry out the processes described above.

The present invention also concerns a machine readable storage having stored thereon a computer program having a plurality of code sections executable by a gaming unit. The code section can cause the gaming unit to perform the steps of providing a gaming environment, monitoring at least one operating condition of a power source that provides power to the gaming unit and when at least one of the operating conditions reaches a predetermined threshold, altering at least one gaming condition in the gaming environment to indicate to a user that the operating condition has reached the predetermined threshold. The code sections can also cause the gaming unit to perform the processes described above.

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BRIEF DESCRIPTION OF THE DRAWINGS

The features of the present invention, which are believed to be novel, are set forth with particularity in the appended claims. The invention, together with further objects and advantages thereof, may best be understood by reference to the following description, taken in conjunction with the accompanying drawings, in the several figures of which like reference numerals identify like elements, and in which:

15

FIG. 1 illustrates a system for affecting gaming conditions in accordance with an embodiment of the inventive arrangements;

FIG. 2 illustrates an example of a block diagram of a gaming unit in accordance with an embodiment of the inventive arrangements;

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FIG. 3 illustrates a portion of a method for affecting gaming conditions in accordance with an embodiment of the inventive arrangements; and

FIG. 4 illustrates another portion of the method for affecting gaming conditions of FIG. 3 in accordance with an embodiment of the inventive arrangements.

25

DETAILED DESCRIPTION

While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the following description in conjunction with the drawing figures, in which like reference numerals are carried forward.

As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention, which can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the present invention in virtually any appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting but rather to provide an understandable description of the invention.

The terms a or an, as used herein, are defined as one or more than one. The term plurality, as used herein, is defined as two or more than two. The term another, as used herein, is defined as at least a second or more. The terms including and/or having, as used herein, are defined as comprising (i.e., open language). The term coupled, as used herein, is defined as connected, although not necessarily directly, and not necessarily mechanically. The terms program, software application, and the like as used herein, are defined as a sequence of instructions designed for execution on a computer system. A program, computer program, or software application may include a subroutine, a function, a procedure, an object method, an object implementation, an executable application, an applet, a servlet, a source

code, an object code, a shared library/dynamic load library and/or other sequence of instructions designed for execution on a computer system.

This invention presents a method for affecting gaming conditions based on operating conditions of a power source. In one arrangement, the method can be practiced in a first gaming unit that receives power from the power source. The first gaming unit can provide a gaming environment. The method can include the steps of monitoring at least one operating condition of the power source and - when at least one of the operating conditions reaches a predetermined threshold - altering at least one gaming condition in the gaming environment. This alteration can include various actions and can be used to indicate to a user that the operating condition has reached the predetermined threshold.

Referring to FIG. 1, a system 100 for affecting gaming conditions is shown. Although not limited to this particular configuration, the system 100 will be useful for describing the operation of the invention. In one arrangement, the system 100 can include a first gaming unit 110 and a second gaming unit 112. The system 100, however, can include any suitable number of gaming units. Both the first gaming unit 110 and the second gaming unit 112 can include suitable software and circuitry for permitting a user to play gaming applications that are received by them. Thus, a gaming unit can be any electronic device that is capable of receiving a gaming application and that can allow a user to play the received gaming application. A gaming application can be any computer program that, when loaded and executed, can create a gaming environment on a gaming unit and that can cause various gaming actions to occur in response to a user's input. In addition, a gaming environment can be one or more elements that are capable of being sensed in some

way by a human participating in the gaming environment that can create a setting to permit a user to participate in a gaming activity.

As an example, the first gaming unit 110 and the second gaming unit 112 can be wireless communication devices, such as cellular telephones, two-way radios,
5 personal digital assistants and the like. As such, the system 100 can also include a communications network 114, which can transmit wireless signals to and receive wireless signals from the first gaming unit 110 and the second gaming unit 112. Of course, the first gaming unit 110 and the second gaming unit 112 can be designed to communicate with one another without the assistance of a communications
10 network. Moreover, the first gaming unit 110 and the second gaming unit 112 can be connected to the communications network 114 through a hard-wired connection, if such an arrangement is desired.

In view of the ability of the first gaming unit 110 and the second gaming unit 112 to communicate with one another, the units 110, 112 can be part of a multi-
15 player gaming environment. For example, users of the first gaming unit 110 and the second gaming unit 112 can participate in a single gaming session in which inputs by both users may affect the operation and outcome of the gaming session.

The gaming applications can be loaded into the first gaming unit 110 and the second gaming unit 122 during assembly, for example, or can be downloaded from
20 another computing system. Moreover, the first gaming unit 110 and the second gaming unit 112 can receive gaming cartridges (not shown) that can be programmed with one or more gaming applications. To facilitate the downloading of gaming applications, the system 100 can include a database 116 or some other machine readable storage that can be used to store gaming applications. The database 116
25 can be coupled to the communication network 114 through, for example, the

Internet. Gaming applications can be transferred from the database 116 to the communication network 114 through the Internet. From there, the gaming application can be downloaded to the first gaming unit 110 and/or the second gaming unit 112.

5 Referring to FIG. 2, an example of a block diagram of the first gaming unit 110 is shown. Here, the first gaming unit 110 can include a processor 118, a user interface section 120, a transceiver section 122, a memory 124 and a power source 126. The user interface section 120, the transceiver section 122, the memory 124 and the power source 126 can be coupled to the processor 118. In addition, the
10 power source 126 can provide power to the components of the first gaming unit 110.

In one arrangement, the user interface section 120 can include a keypad 128, a keypad interface 130, a display 132, a display driver 134, a speaker 136, an audio driver 138, a microphone 140 and a vibrator 141. The keypad 128 can accept input from a user, and the keypad interface 130 can be coupled to the keypad 128 and
15 the processor 118. In one particular arrangement, the keypad 128 can include a navigation key 129, which can permit a user to navigate through menus displayed on the display 132, for example.

The display 132 can display to a user any suitable type of imagery, and the display driver 134 can be coupled to the display 132 and the processor 118. In one
20 embodiment, the display 132 can be a touch-screen display for accepting user input, if the display 132 has suitable software and circuitry for doing so. The speaker 136 can broadcast audio, and the audio driver 138 can be coupled to the speaker 136 and the processor 118. Additionally, the microphone 140 can receive audio signals and can transfer them to the processor 118 for further processing. The vibrator 141,
25 when signaled by the processor 118, can generate vibrations intended to be felt by a

user of the gaming unit 110. The user interface section 120 may also include colored lights (not shown) for generating unique lighting sequences.

In another arrangement, the transceiving section 122 can include a transmitter 142, a receiver 144, a transmitter/receiver (TX/RX) switch 146 and an antenna 148. The transmitter 142 and the receiver 144 can both be coupled to the processor 118 and the TX/RX switch 146. The TX/RX switch 146 can be coupled to the processor 118, and the antenna 148 can be coupled to the TX/RX switch 146.

Through the transmitter 142, the receiver 144, the TX/RX switch 146 and the antenna 148, the gaming unit 110 can transmit and receive wireless communications signals – such as voice and/or data signals - in a manner well known to those of skill in the art. For example, when receiving signals, the processor 118 can control the TX/RX switch 146, which can permit signals being received by the antenna 148 to pass to the receiver 144. As is known in the art, the receiver 144 can convert and demodulate these signals for further processing. When the gaming unit 110 is transmitting signals, the processor 118 can set the TX/RX switch 146 to permit the transmitter 142 to transmit communications signals through the antenna 148. Of course, the transceiving section 122 can be configured in any other suitable fashion.

The memory 124 can be used to store virtually any type of data, which the processor 118 can retrieve. As an example, the memory 124 can be used to store gaming applications, which can be, for example, loaded in the memory 124 when the gaming unit 110 is manufactured or downloaded from a suitable communication network. The memory 124 can also be used to store one or more ringtones, which can signal a user of an incoming call, for example.

The power source 126, as noted earlier, can provide power to the gaming unit 110. As an example, the power source 126 can be one or more batteries 150. In

one arrangement, the batteries 150 can be one or more rechargeable batteries. The power source 126 can also be a backup battery 152, which can provide power if the battery 150 fails or is drained of its charge. As another example, the power source 126 can be one or more solar cells 154 or one or more manually operable mechanisms 156, such as a handcrank. Alternatively, the solar cells 154 and the manually operable mechanism 156 can supplement the battery 150 in providing power to the gaming unit 110. The power source 126 may also be a fuel cell.

Referring to FIG. 3, a method 300 for affecting gaming conditions is shown. To describe the method 300, reference may be made to FIGs. 1 and 2, although the method 300 can be practiced in other situations using any other suitable devices or systems. Moreover, the method 300 is not limited to the particular steps that are shown in FIG. 3 or to the order in which they are depicted. The inventive method 300 may also include a fewer number of steps as compared to what is shown in FIG. 3.

At step 310, the method 300 can begin. At step 312, in a first gaming unit that receives power from a power source, a gaming environment can be provided. In addition, at step 314, at least one operating condition of the power source can be monitored. Examples of operating conditions that can be monitored are presented in option step 316. Specifically, a voltage level, a current level, a temperature and a charging status of a battery can be monitored. An operating condition of a backup battery can also be monitored. Further, the revolutions per minute (RPM) of a manually operable mechanism can be monitored. An output current level, a voltage level or a temperature of a solar cell can also be monitored.

For example, referring to FIG. 2 and as noted earlier, the gaming unit 110 can receive its power from the power source 126. Through the user interface section

120, the gaming unit 110 can provide a gaming environment. That is, the visual aspect of a game can be displayed on the display 132, and the audio aspect can be broadcast over the speaker 136. Additionally, the vibrator 141 can generate any vibrational effects that are associated with the game. A user can use the keypad
5 128, for example, to cause certain elements of the gaming environment to change. For example, a user can cause a game character to move in a certain direction at a particular speed. The gaming environment can be based on any suitable game that can be played on the gaming unit 110.

As explained earlier in reference to FIG. 1, the first gaming unit 110 and the
10 second gaming unit 112 can be part of a multi-player gaming environment. Thus, a gaming environment can also be provided at the second gaming unit 112, if so desired. As is known in the art, user inputs received at the first gaming unit 110 can affect the gaming environment of the second gaming unit 112, and vice-versa, if these units 110, 112 are in a multi-player gaming environment. Such a scenario is
15 common where two opponents are pitted against one another in a multi-player gaming environment.

As the user plays the game on the gaming unit 110, the processor 118 can monitor one or more operating conditions of the power source 126. As an example, if the power source 126 is the battery 150, the processor 118 can monitor the
20 voltage level, the current level, the temperature or the charging status of the battery 150. The charging status can be whether the battery 150 is receiving charging current from an external power source (not shown). Each of these monitoring processes is well known in the art, and a detailed explanation is not warranted here. As another example, the processor 118 can monitor one or more operating

conditions of the backup battery 152. These operating conditions can be the same as those described with respect to the battery 150.

In yet another example, if the power source 126 is the solar cell 154, the processor 118 can monitor the voltage level, the current output level and the temperature of the solar cell 154. Alternatively, if the power source 126 is the manually operable mechanism 156, the processor 118 can monitor the RPMs of the manually operable mechanism 156. In one embodiment, the manually operable mechanism 156 can be a handcrank that, when turned, can provide power to the gaming unit 110. Again, those of skill in the art will appreciate that these processes are in accordance with well known principles in the monitoring of power supplies. By monitoring one or more of the above-referenced operating conditions, the processor 118 can determine that the availability of power from the power source 126 may be decreasing. It is understood, however, that the invention is in no way limited to the examples listed above, as the processor 118 may monitor any other suitable operating condition of the power source 126.

Referring back to the method 300 of FIG. 3, at decision block 318, it can be determined whether at least one of the operating conditions has reached a predetermined threshold. If it has not, the method 300 can resume at step 314. Conversely, if it has, the method 300 can continue to step 320, where at least one gaming condition in the gaming environment can be altered. This altering process can indicate to a user that the operating condition has reached the predetermined threshold.

Referring to FIG. 4 (through jump circle A), at option step 322, there are several ways to alter the gaming environment: by reducing or increasing the availability of gaming elements; by decreasing or increasing the display size of

gaming elements; by decreasing or increasing the strength of gaming elements in the gaming environment; by decreasing or increasing the ability of gaming elements to mutate in the gaming environment; by decreasing or increasing the stealthing ability of gaming elements in the gaming environment; or by reducing or increasing
5 the speed at which gaming elements operate in the gaming environment.

Referring to FIG. 2, the processor 118 can determine that at least one of the operating conditions has reached a predetermined threshold. For example, the processor 118 can determine that the voltage level or the current level of the battery 150, the backup battery 152 or the solar cell 154 has decreased to an amount or
10 value that indicates that the remaining power from these components has diminished to a point to where it may soon be no longer available. Similarly, the processor 118 can determine that the temperature of the battery 150, the backup battery 152 or the solar cell 154 has reached a point that may cause damage to these or other components. Another example of an operating condition
15 reaching a predetermined threshold is when the RPMs of the manually operable mechanism 156 reach a level that is insufficient for operation of one or more components of the gaming unit 110. The charging status of the battery 150 or the backup battery 152 may also be an operating condition. For example, if the battery 150 or the backup battery 152 is being charged from an external power source, the
20 processor 118 may override any actions taken in view of the operating conditions reaching the predetermined thresholds, as described above. In another arrangement, the processor 118 may consider the removal of the external power source as an operating condition reaching a predetermined threshold. Any suitable value can be used as a predetermined threshold for the voltage level, the current
25 level, the temperature or the RPMS of any of the components that may be the power

source 126. Those of skill in the art will appreciate, however, that the invention is not limited to these particular operating conditions.

When the processor 118 determines that the operating condition(s) has reached a predetermined threshold, the processor 118 can execute various steps to alter one or more gaming conditions in the gaming environment. For example, the processor 118 can execute code that may cause the availability or display size of gaming elements to be reduced or increased. For purposes of the invention, a gaming element can be any character, symbol, noise or vibration in the gaming environment that can be perceived by the user.

As a more specific example, if the user is involved in a game that involves a soldier shooting at enemy targets, the processor 118 may signal the display driver 134 to cause the display 132 to decrease the number of enemy targets available for destruction and their size as seen on the display 132. The availability of a gaming element can also include access to a certain level, setting or a rate at which points are awarded in the gaming environment. The availability of a gaming element can even include the behavior or physical or mental capabilities of a gaming element.

As another example, the processor 118 can execute code that can cause – in the gaming environment - the strength of a gaming element, the mutating ability of the gaming element or the stealthing ability of the gaming element to increase or decrease. For instance, if the gaming element is a superhero, the processor 118 may cause to be decreased the strength of the superhero or the superhero's ability to be invisible to opponents as perceived by the user in the gaming environment. The term stealthing ability can refer to the ability to effect any change that may modify the visibility of a gaming element. The processor 118 can also cause to be decreased the ability of the superhero to transform himself into another character in

the gaming environment. The processor 118 can also execute code that can cause the speed at which the gaming element operates to increase or decrease. For example, referring back to the superhero, the processor 118 can cause the speed at which the superhero flies to be decreased.

5 The above examples are meant to explain the invention and are not intended to limit the invention in any way. In fact, altering a game condition can include any action that generates a difference that may be detected by a user and that may provide the user with an indication that an operating condition of the power source 126 has reached a predetermined threshold. Again, these game conditions are not
10 necessarily limited to visual or audio aspects.

Referring back to the method 300 of FIG. 4, at step 324, the gaming unit can be a wireless communication device, and the operation of at least one operating feature of the wireless communication device can be altered. Option step 326 presents several ways that an operating feature can be altered: (1) the pitch or
15 speed of a ringtone of the wireless communication device may be decreased; (2) the response time of a navigation key of the wireless communication device may be increased; and (3) an image on a display of the wireless communication device can be modified.

Referring back to FIG. 2, as noted earlier, the first gaming unit 110 can be a
20 wireless communication device, such as a cellular telephone or two-way radio. As also mentioned above, the gaming unit 110 can include a display 132, one or more ringtones stored in the memory and a navigation key 129 on the keypad 128. If the processor 118 determines that an operating condition has reached a predetermined threshold, the processor 118 can signal the audio driver 138 to gradually decrease
25 (or even increase) the frequency and/or the speed of the ringtone signal. Once

broadcast from the speaker 136, the user can detect the change in the pitch or speed of the ringtone.

Additionally, the processor 118 can add a delay to the response time of the navigation key 129. Thus, as a user is scrolling through a menu, the user may
5 notice that it takes longer for the navigation key 129 to apply or to respond to the user's input. This change in the response time of the navigation key 129 can also involve a decrease in the response time. In another embodiment, the processor 118 can signal the display driver 134 to cause one or more images being shown on the display 132 to be modified. For example, the processor 118 can signal the display
10 driver 134 to cause one or more colors in the background of an image being shown on the display 132 to change.

As another example, the processor 118 can signal the display driver 134 to cause the speed of an animated icon to increase or decrease. Colored lights on the gaming unit 110 can also be displayed in accordance with some unique sequence
15 that indicates that the operating condition has reached the predetermined threshold. Those of skill in the art will appreciate, however, that the invention is not limited to these examples, as other features of a wireless communication device may be altered in response to the power source 126 reaching a predetermined threshold.

Referring once again to the method 300 of FIG. 4, at step 328, a status of the
20 operating condition of the power source of the first gaming unit or how a gaming condition has been altered can be communicated to a second gaming environment. In this arrangement, the first gaming environment and the second gaming environment can be part of a multi-player gaming environment.

For example, referring to FIGs. 1 and 2 and as explained earlier, users of the
25 first gaming unit 110 and the second gaming unit 112 can compete against one

another in a gaming environment. As an example, the processor 118 of the first gaming unit 110 can detect that an operating condition of the power source 126 has reached a predetermined threshold. The processor 118 can alter one or more gaming conditions of the gaming environment for the user of the first gaming unit 110, such as weakening the character assigned to this user in the multi-player gaming environment.

The processor 118 can then signal the transmitter 142 to transmit to the second gaming unit 112 data that will inform a user of the second gaming unit 112 that the monitored operating condition of the power source 126 of the first gaming unit 110 has reached the predetermined threshold. The processor 118 can also signal the transmitter 142 to transmit data that will inform the user of the second gaming unit 112 as to how the gaming conditions for the user of the first gaming unit 110 have been changed. For example, the user of the second gaming unit 112 can learn, in this case, that the strength of his opponent's gaming character has been reduced. This knowledge can then be used strategically.

It is understood that this same principle, communicating information about operating conditions of a power source and altered gaming condition, can be transmitted from the second gaming unit 112 to the first gaming unit 110, too. Those of skill in the art will also appreciate that more than two players can participate in such a setting and that any other suitable type of information can be communicated between their gaming units.

The present invention can be realized in hardware, software or a combination of hardware and software. Any kind of computer system or other apparatus adapted for carrying out the methods described herein are suitable. A typical combination of hardware and software can be a mobile communication device with a computer

program that, when being loaded and executed, can control the mobile communication device such that it carries out the methods described herein. The present invention can also be embedded in a computer program product, which comprises all the features enabling the implementation of the methods described
5 herein and which when loaded in a computer system, is able to carry out these methods.

While the preferred embodiments of the invention have been illustrated and described, it will be clear that the invention is not so limited. Numerous modifications, changes, variations, substitutions and equivalents will occur to those
10 skilled in the art without departing from the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

CLAIMS

1. A method for affecting gaming conditions based on operating conditions of a power source, comprising the steps of:

5 in a first gaming unit that receives power from the power source, providing a gaming environment;
 monitoring at least one operating condition of the power source; and
 when at least one of the operating conditions reaches a predetermined threshold, altering at least one gaming condition in the gaming environment to
10 indicate to a user that the operating condition has reached the predetermined threshold.

2. The method according to claim 1, wherein the gaming condition is selected from the availability of gaming elements, the display size of gaming
15 elements, the strength of gaming elements in the gaming environment, the ability of gaming elements to mutate in the gaming environment, the stealthing ability of gaming elements in the gaming environment, the display color of gaming elements or the speed at which gaming elements operate in the gaming environment.

3. The method according to claim 2, wherein the altering step comprises the steps of:

reducing the availability of gaming elements;

decreasing the display size of gaming elements;

5 decreasing the strength of gaming elements in the gaming environment;

decreasing the ability of gaming elements to mutate in the gaming environment;

10 decreasing the stealthing ability of gaming elements in the gaming environment; or

reducing the speed at which gaming elements operate in the gaming environment.

4. The method according to claim 2, wherein the altering step comprises the steps of:

increasing the availability of gaming elements;

increasing the display size of gaming elements;

5 increasing the strength of gaming elements in the gaming environment;

increasing the ability of gaming elements to mutate in the gaming environment;

increasing the stealthing ability of gaming elements in the gaming environment; or

10 increasing the speed at which gaming elements operate in the gaming environment.

5. The method according to claim 1, wherein the power source is a battery and the monitoring the operating condition of the power source comprises

15 the steps of:

monitoring a voltage level of the battery;

monitoring a current level of the battery;

monitoring a temperature of the battery;

monitoring a charging status of the battery; or

20 monitoring an operating condition of a backup battery.

6. The method according to claim 1, further comprising the steps of:
communicating to a second gaming unit at least one of a status of the
operating condition of the power source of the first gaming unit and an altered
gaming condition, wherein the first gaming unit and the second gaming unit are part
5 of a multi-player gaming environment.

7. A system for affecting gaming conditions, comprising:
a user interface section that provides a gaming environment;
a power source that has at least one operating condition and that
10 provides power to the user interface section; and
a processor, wherein the power source also provides power to the
processor and the processor is programmed to:
monitor at least one of the operating conditions of the power
source; and
15 when the processor determines that at least one of the
operating conditions has reached a predetermined threshold, alter at least one
gaming condition in the gaming environment to indicate to a user that the operating
condition has reached the predetermined threshold.

8. The system according to claim 7, wherein the user interface section comprises a display and wherein the gaming condition is selected from the availability of gaming elements, the display size of gaming elements, the strength of gaming elements in the gaming environment, the ability of gaming elements to
5 mutate in the gaming environment, the stealthing ability of gaming elements in the gaming environment, the display color of gaming elements or the speed at which gaming elements operate in the gaming environment.

9. The system according to claim 8, wherein the processor is further
10 programmed to perform:

reducing the availability of gaming elements;

decreasing the display size of gaming elements;

decreasing the strength of gaming elements in the gaming
environment;

15 decreasing the ability of gaming elements to mutate in the gaming
environment;

decreasing the stealthing ability of gaming elements in the gaming
environment; or

reducing the speed at which gaming elements operate in the gaming
20 environment.

10. The system according to claim 8, wherein the processor is further programmed to perform:

increasing the availability of gaming elements;

increasing the display size of gaming elements;

5 increasing the strength of gaming elements in the gaming environment;

increasing the ability of gaming elements to mutate in the gaming environment;

increasing the stealthing ability of gaming elements in the gaming environment; or

10 increasing the speed at which gaming elements operate in the gaming environment.

11. The system according to claim 7, wherein the system further includes a backup battery and the power source is a battery and the processor is further
15 programmed to monitor the operating condition of the power source by:

monitoring a voltage level of the battery;

monitoring a current level of the battery;

monitoring a temperature of the battery;

monitoring a charging status of the battery; or

20 monitoring an operating condition of the backup battery.

12. The system according to claim 7, wherein the system is contained within a wireless communication device having gaming capability.

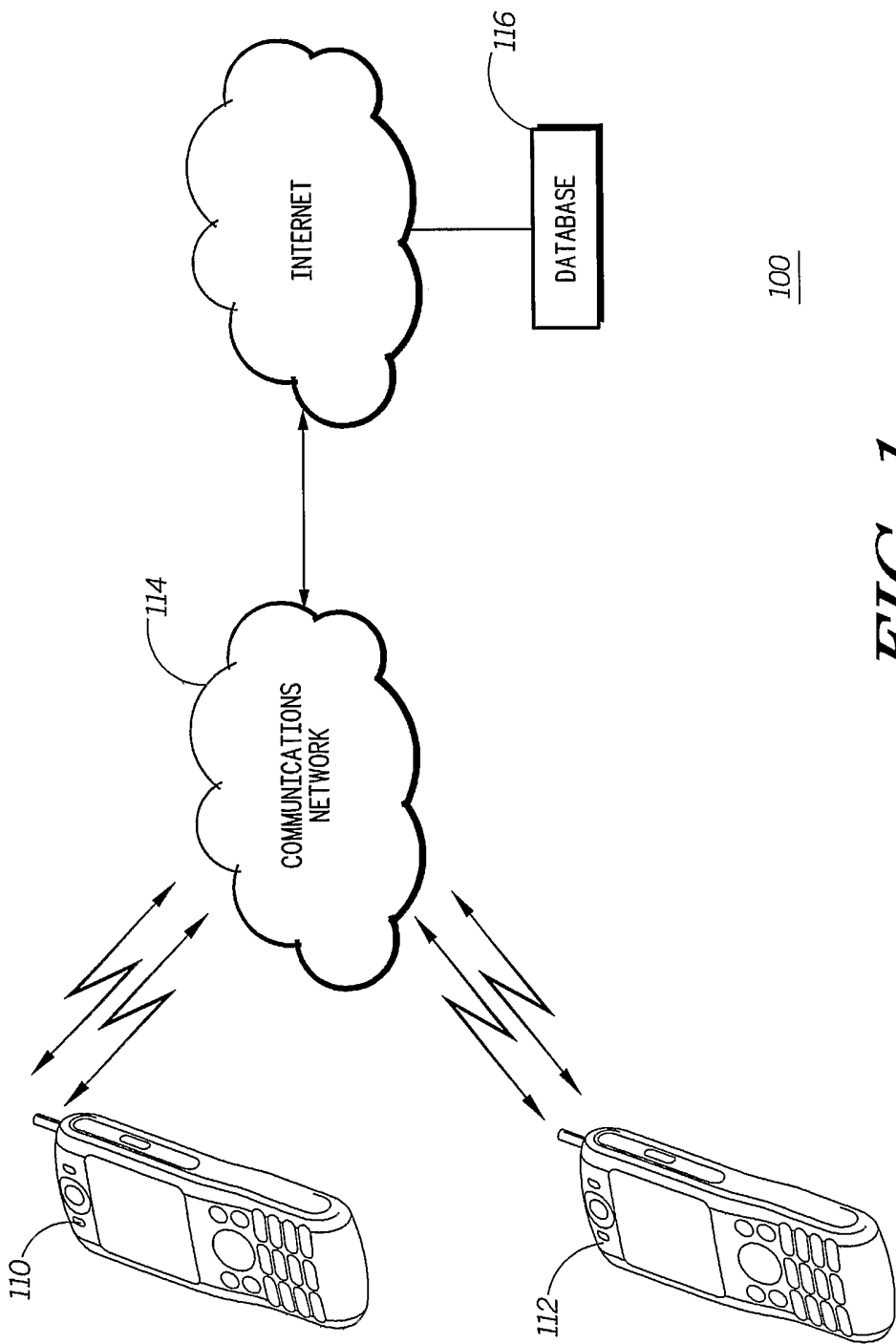


FIG. 1

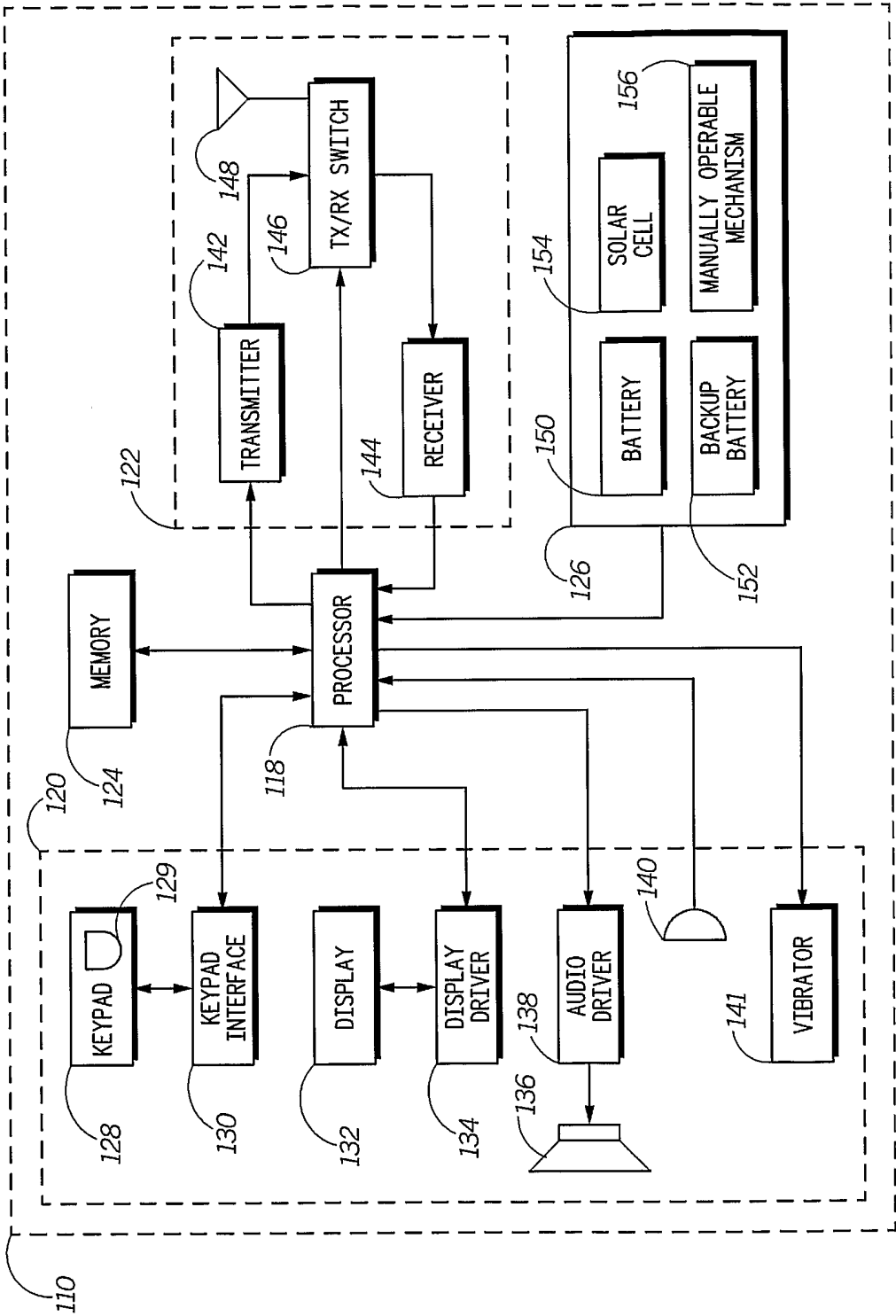
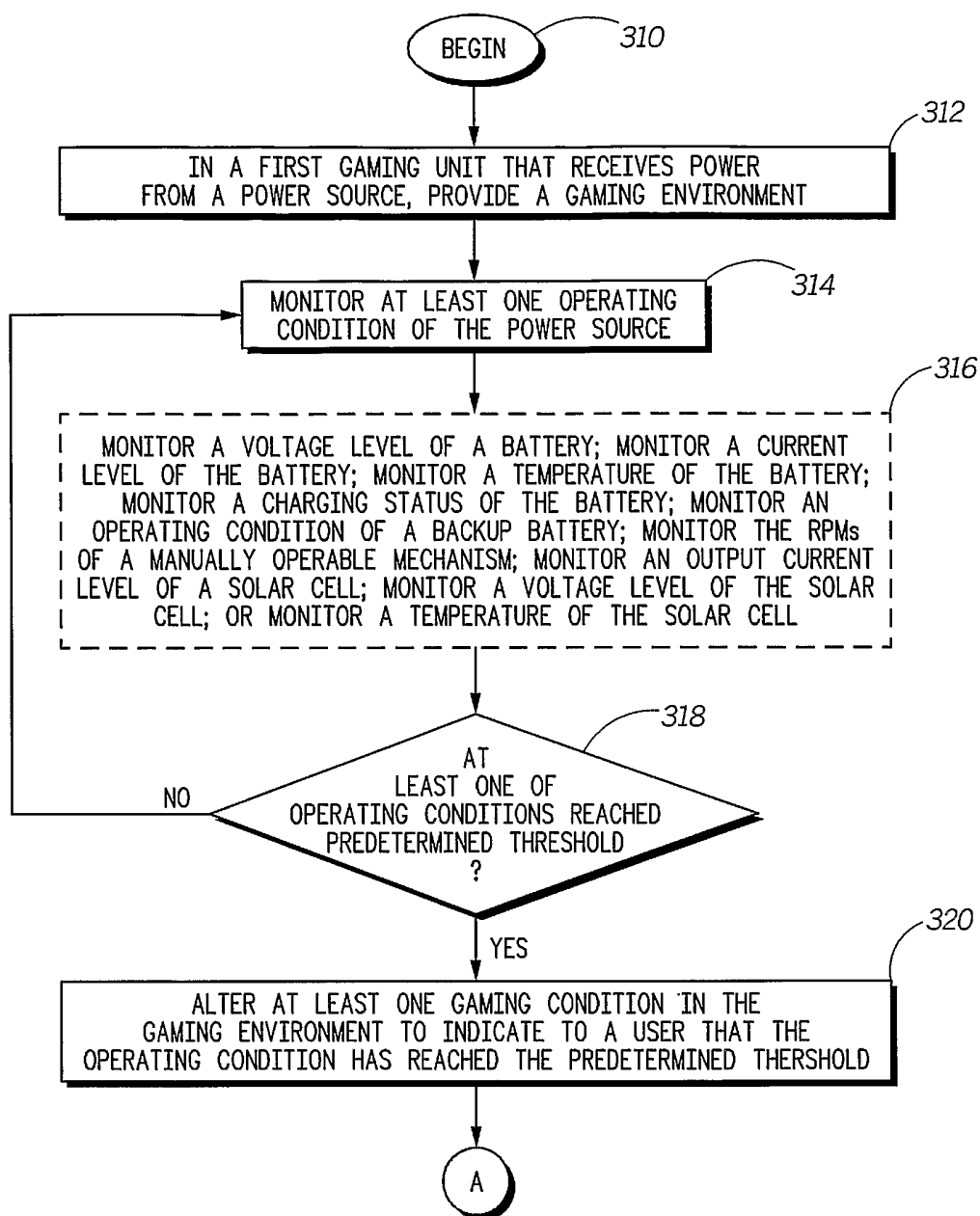
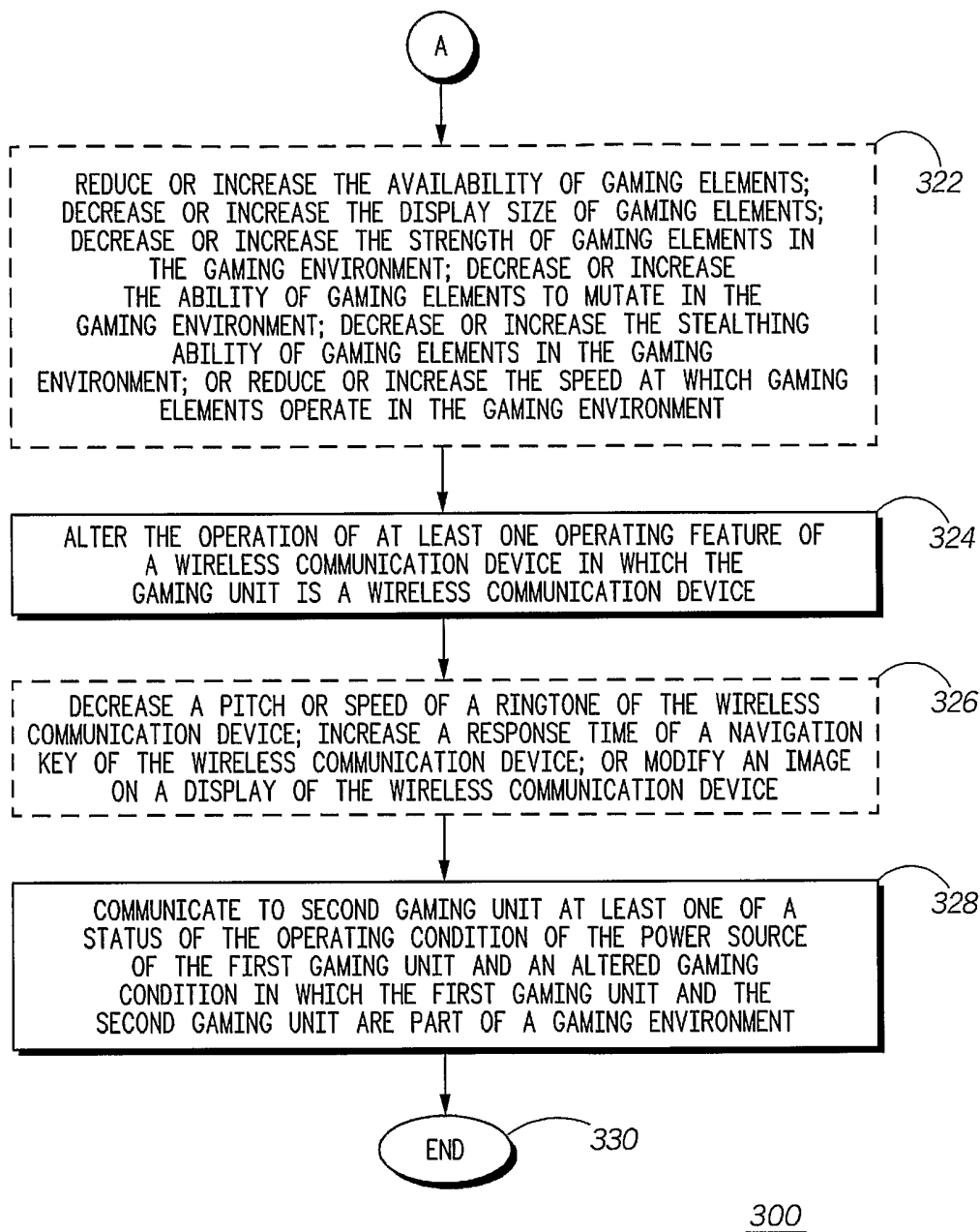


FIG. 2

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300**FIG. 3**

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**FIG. 4**

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/29774

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A63F 13/00; H02J 7/00

US CL : 463/39-42, 1; 320/127, 133

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 463/39-42, 1; 320/127, 133

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,710,578 B1 (Sklovsky) 23 March 2004 (23.03.2004), Full text and drawings.	1-12



Further documents are listed in the continuation of Box C.



See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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11 December 2005 (11.12.2005)

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