

METHOD AND APPARATUS FOR SELECTING VIRTUAL OBJECT INTERACTION MODE, DEVICE, MEDIUM, AND PRODUCT

[0001] This application claims priority to Chinese Patent Application No. 202011612418.X, filed on December 30, 2020 and entitled "METHOD AND APPARATUS FOR SELECTING VIRTUAL OBJECT INTERACTION MODE, DEVICE, AND STORAGE MEDIUM", which is incorporated herein by reference in its entirety.

FIELD OF THE TECHNOLOGY

[0002] The present disclosure relates to the field of virtual environments, and in particular, to a method and an apparatus for selecting a virtual object interaction mode, a device, a medium, and a product.

BACKGROUND OF THE DISCLOSURE

[0003] Terminals such as a smartphone and a tablet computer are provided with many application programs based on virtual environments, such as a virtual reality application program, a three-dimensional map program, a military simulation program, a third-person shooting (TPS) game, a first-person shooting (FPS) game, and a multiplayer online battle arena (MOBA) game. In the foregoing application programs, a user-controlled master virtual object can perform a virtual battle and interact with other virtual objects in the virtual battle.

[0004] In the related art, an interaction between a master virtual object and other virtual objects is performed in a pre-selected interaction form. Based on the interaction form, the master virtual object determines an interaction priority of interacting with the other virtual objects, and preferentially interacts with a virtual object with a highest interaction priority.

[0005] However, the master virtual object's requirement for the interaction form may change in a process of a virtual battle. In this case, a user cannot change the interaction form in time, resulting in low efficiency of human-computer interaction in the process of determining and selecting an interaction mode for the virtual objects.

SUMMARY

[0006] Embodiments in the present disclosure provide a method and an apparatus for selecting a virtual object interaction mode, a device, a medium, and a product, which can improve

the efficiency of human-computer interaction in a process of determining and selecting an interaction mode for virtual objects. The technical solutions are as follows.

[0007] According to an aspect, a method for selecting a virtual object interaction mode is provided, including:

[0008] displaying a target interaction control, the target interaction control being a control used to control a target virtual object to select an interactive object in a first interaction mode in a virtual battle and interact with the interactive object;

[0009] displaying a candidate mode option in response to an interaction mode display operation performed on the target interaction control, the candidate mode option including a target mode option, and the target mode option corresponding to a second interaction mode;

[0010] switching from the first interaction mode to the second interaction mode in response to an interaction mode selection operation selecting the target mode option; and

[0011] displaying an interactive effect between the target virtual object and a target interactive object in response to an interactive effect display operation performed on the target interaction control, the target interactive object being an interactive object determined according to the second interaction mode.

[0012] According to another aspect, an apparatus for selecting a virtual object interaction mode is provided, including:

[0013] a display module, configured to display a target interaction control, the target interaction control being a control used to control a target virtual object to select an interactive object in a first interaction mode in a virtual battle and interact with the interactive object;

[0014] the display module being further configured to display a candidate mode option in response to an interaction mode display operation performed on the target interaction control, the candidate mode option including a target mode option, and the target mode option corresponding to a second interaction mode;

[0015] a switching module, configured to switch from the first interaction mode to the second interaction mode in response to an interaction mode selection operation selecting the target mode option; and

[0016] the display module being further configured to display an interactive effect between the target virtual object and a target interactive object in response to an interactive effect display operation performed on the target interaction control, the target interactive object being an

interactive object determined according to the second interaction mode.

[0017] According to another aspect, a computer device is provided, including a processor and a memory, the memory storing at least one instruction, at least one program, a code set, or an instruction set, where the at least one instruction, the at least one program, the code set, or the instruction set is used to be loaded and executed by the processor to implement the method for selecting a virtual object interaction mode provided in the foregoing embodiments.

[0018] According to another aspect, a computer-readable storage medium is provided, storing at least one instruction, at least one program, a code set, or an instruction set, where the at least one instruction, the at least one program, the code set, or the instruction set is used to be loaded and executed by a processor to implement the method for selecting a virtual object interaction mode provided in the foregoing embodiments.

[0019] According to another aspect, a computer program product or a computer program is provided, the computer program product or the computer program including computer instructions, the computer instructions being stored in a computer-readable storage medium. When a processor of a computer device reads the computer instructions from the computer-readable storage medium, and executes the computer instructions, the computer device performs the method for selecting a virtual object interaction mode according to any one of the foregoing embodiments.

[0020] The technical solutions provided in the embodiments in the present disclosure produce at least the following beneficial effects.

[0021] During a virtual battle, while a target interaction form of a virtual object is to select an interactive object according to a first interaction mode to implement interaction with the interactive object, a candidate mode option is displayed in response to receiving an interaction mode display operation performed on a target interaction control, a finally selected interaction mode is determined according to the interaction mode selection operation, and subsequently, a target interactive object is determined according to the selected interaction mode in response to receiving an interactive effect display operation performed on the target interaction control. In the virtual battle, by means of operations on a target interaction control on a virtual battle interface, a user can flexibly switch an interaction mode corresponding to a target interaction form according to a situation in the virtual battle, which improves the efficiency of human-computer interaction.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] To describe the technical solutions of the embodiments in the present disclosure more clearly, the following briefly introduces the accompanying drawings required for describing

the embodiments. Apparently, the accompanying drawings in the following description show only some embodiments in the present disclosure, and a person of ordinary skill in the art may still derive other accompanying drawings from these accompanying drawings without creative efforts.

[0023] FIG. 1 is a schematic diagram of a method for selecting a virtual object interaction mode in the related art.

[0024] FIG. 2 is a schematic diagram of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure.

[0025] FIG. 3 is a structural block diagram of a computer system according to an exemplary embodiment in the present disclosure.

[0026] FIG. 4 is a flowchart of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure.

[0027] FIG. 5 is a schematic diagram of a virtual battle interface according to an exemplary embodiment in the present disclosure.

[0028] FIG. 6 is a schematic diagram of another virtual battle interface according to an exemplary embodiment in the present disclosure.

[0029] FIG. 7 is a flowchart of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure.

[0030] FIG. 8 is a schematic diagram of another virtual battle interface according to an exemplary embodiment in the present disclosure.

[0031] FIG. 9 is a schematic diagram of another virtual battle interface according to an exemplary embodiment in the present disclosure.

[0032] FIG. 10 is a schematic diagram of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure.

[0033] FIG. 11 is a schematic diagram of another virtual battle interface according to an exemplary embodiment in the present disclosure.

[0034] FIG. 12 is a schematic diagram of another virtual battle interface according to an exemplary embodiment in the present disclosure.

[0035] FIG. 13 is a schematic diagram of a process of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure.

[0036] FIG. 14 is a structural block diagram of an apparatus for selecting a virtual object

interaction mode according to an exemplary embodiment in the present disclosure.

[0037] FIG. 15 is a structural block diagram of an apparatus for selecting a virtual object interaction mode according to another exemplary embodiment in the present disclosure.

[0038] FIG. 16 is a structural block diagram of a terminal according to an exemplary embodiment in the present disclosure.

DESCRIPTION OF EMBODIMENTS

[0039] To make the objectives, technical solutions, and advantages in the present disclosure clearer, the following further describes embodiments in the present disclosure in detail with reference to the accompanying drawings.

[0040] First, terms involved in the embodiments in the present disclosure are briefly introduced.

[0041] Virtual environment: a virtual environment displayed (or provided) when an application program runs on a terminal.

[0042] Virtual object: a movable object in the virtual environment. The movable object may be a virtual character, a virtual animal, or a cartoon character. The embodiments in the present disclosure are described by using an example in which the virtual object is a master virtual object, and the master virtual object generally refers to one or more master virtual objects in the virtual environment.

[0043] In the present disclosure, the virtual object is a virtual object that performs a virtual battle. The virtual battle is a battle that is generated in an application program and has virtual objects. Optionally, in an example, a virtual battle has a battle goal. The virtual battle includes at least one user-controlled virtual object.

[0044] In an example, a virtual battle includes at least one user-controlled virtual object, and the virtual object is a master virtual object of a user. By controlling the master virtual object, the user can fight against opposing virtual objects in a virtual environment to perform the virtual battle. Optionally, the virtual battle includes a player versus environment (PVE) battle and a player versus player (PVP) battle.

[0045] A MOBA game is an arena game in which different virtual teams of at least two opposing camps occupy respective map regions in a virtual environment, and compete against each other to reach the goal of meeting a specific victory condition. The victory condition includes, but are not limited to at least one of occupying forts or destroying forts of the opposing camps, killing

virtual objects in the opposing camps, ensuring own survivals in a specified scenario and time, seizing a specific resource, and outscoring the opponent within a specified time. The battle arena game may take place in rounds. The same map or different maps may be used in different rounds of the battle arena game. Each virtual team includes one or more virtual objects. A duration of a round of the MOBA game is from a time point at which the game starts to a time point at which the victory condition is met.

[0046] In the MOBA game, a user's master virtual object interacts with other virtual objects. Optionally, according to a relationship between camps of the other virtual objects and the master virtual object, different types of interaction occur between the master virtual object and the other virtual objects. In an example, an interaction between the master virtual object and the other virtual objects is to attack, in a case that the master virtual object and the other virtual objects are in two opposing camps, that is, there is an opposing relationship between the master virtual object and the other virtual objects. In another example, an interaction between the master virtual object and the other virtual objects is to provide a gain, in a case that the master virtual object and the other virtual objects are in the same camp, that is, there is a cooperative relationship between the master virtual object and the other virtual objects. The type of relationships between the master virtual object and the other virtual objects is not limited in the present disclosure.

[0047] In a virtual battle, there are at least two virtual objects. When there are at least two virtual objects, and an interaction occurs between the virtual objects, a virtual object usually determines an interactive object according to an interaction mode pre-stored in a client. For different situations in a virtual battle, a user selects an interaction mode matching a current situation for the virtual object, so that the virtual object interacts with other virtual objects in the corresponding interaction mode in the virtual battle. FIG. 1 is a schematic diagram of a method for selecting a virtual object interaction mode in the related art. Referring to FIG. 1, a setting interface 110 is displayed on a virtual battle interface 100, the setting interface 110 includes an operation setting region 120, and the operation setting region 120 includes a targeting priority mode 130. The targeting priority mode includes a total of three optional virtual object interaction modes, represented by an interaction mode identifier 131 for preferentially attacking an opposing virtual object with a lowest health bar, an interaction mode identifier 132 for preferentially attacking an opposing virtual object with smallest health point absolute value, and an interaction mode identifier 133 for preferentially attacking an opposing virtual object closest to the virtual object. As shown in FIG. 1, the interaction mode identifier 133 is selected. In this case, in a virtual battle, the virtual object preferentially attacks an opposing virtual object closest to the virtual object according to a

relationship between the virtual object and other opposing virtual objects and using an interaction mode corresponding to the interaction mode identifier 133.

[0048] In the method for selecting a virtual object interaction mode provided in some embodiments in the present disclosure, as shown in FIG. 2, an interaction mode display region 210 is directly displayed on a virtual battle interface 200, and the interaction mode display region 210 includes at least two mode options 211. By selecting the mode options 211, the interaction mode used by the virtual object in the virtual battle can be determined.

[0049] FIG. 3 is a structural block diagram of a computer system according to an exemplary embodiment in the present disclosure. The computer system 300 includes a first terminal 320, a server 340, and a second terminal 360.

[0050] An application program supporting a virtual environment is installed and run on the first terminal 320. The application program may be any one of a virtual reality application program, a three-dimensional map program, a military simulation program, an FPS game, a MOBA game, a multiplayer shooting survival game, and a battle escape shooting game. The first terminal 320 is a terminal used by a first user, and the first user uses the first terminal 320 to control a first master virtual object in the virtual environment to perform an action. The action includes, but is not limited to, at least one of body posture adjustment, walking, running, jumping, casting an ability, picking-up, attacking, and dodging attacks from other virtual objects. For example, the first master virtual object is a first virtual person, such as a simulated person role or a cartoon person role. For example, the first master virtual object casts a regional ability in the virtual environment, and the virtual environment interface moves from a location at which the master virtual object is located to a target region selected by a regional ability indicator. The regional ability indicator is configured to select a cast region when the master virtual object casts an ability.

[0051] The first terminal 320 is connected to the server 340 by using a wireless network or a wired network.

[0052] The server 340 includes at least one of one server, a plurality of servers, a cloud computing platform, and a virtualization center. For example, the server 340 includes a processor 344 and a memory 342. The memory 342 further includes a receiving module 3421, a control module 3422, and a transmitting module 3423. The receiving module 3421 is configured to receive a request transmitted by a client, such as a team forming request; the control module 3422 is configured to control rendering of the virtual environment interface; and the transmitting module 3423 is configured to transmit a message notification to the client, such as a notification of successful team formation. The server 340 is configured to provide a backend service for an

application program supporting a three-dimensional virtual environment. Optionally, the server 340 is responsible for primary computing work, and the first terminal 320 and the second terminal 360 are responsible for secondary computing work. Alternatively, the server 340 is responsible for secondary computing work, and the first terminal 320 and the second terminal 360 are responsible for primary computing work. Alternatively, the server 340, the first terminal 320, and the second terminal 360 perform collaborative computing by using a distributed computing architecture.

[0053] The second terminal 360 is connected to the server 340 by using a wireless network or a wired network.

[0054] An application program supporting a virtual environment is installed and run on the second terminal 360. The second terminal 360 is a terminal used by a second user, and the second user uses the second terminal 360 to control a second master virtual object located in the virtual environment to perform an action. For example, the second master virtual object is a second virtual person, such as a simulated person role or a cartoon person role.

[0055] Optionally, the first virtual person role and the second virtual person role are located in the same virtual environment. Optionally, the first virtual person role and the second virtual person role may belong to the same team or the same organization, have a friend relationship, or have a temporary communication permission.

[0056] Optionally, the application programs installed on the first terminal 320 and the second terminal 360 are the same, or the application programs installed on the two terminals are the same type of application programs in different control system platforms. The first terminal 320 may be generally one of a plurality of terminals, and the second terminal 360 may be generally one of a plurality of terminals. In some embodiments, only the first terminal 320 and the second terminal 360 are used as an example for description. The first terminal 320 and the second terminal 360 are of the same or different device types. The device type includes at least one of a smartphone, a tablet computer, an e-book reader, a moving picture experts group audio layer III (MP3) player, a moving picture experts group audio layer IV (MP4) player, a laptop, and a desktop computer. The following embodiment is described by using an example that the terminal includes a smartphone.

[0057] A person skilled in the art may learn that there may be more or fewer terminals. For example, there may be only one terminal, or there may be dozens of or hundreds of terminals or more. The quantity and the device type of the terminals are not limited in the embodiments in the present disclosure.

[0058] With reference to the foregoing explanation of terms and the description of the implementation environment, FIG. 4 is a flowchart of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure. The method being applied to the first terminal 320, the second terminal 360, or another terminal in the computer system 300 shown in FIG. 3 is used as an example for description. As shown in FIG. 4, the method includes the following steps:

[0059] Step 401: Display a target interaction control, the target interaction control being a control used to control a target virtual object to select an interactive object in a first interaction mode in a virtual battle and interact with the interactive object.

[0060] In some embodiments in the present disclosure, a virtual battle interface is displayed on a display interface of the terminal, and a virtual battle screen including a master virtual object is displayed on the virtual battle interface.

[0061] For example, in the virtual battle, a user can control the target virtual object to interact with the interactive object in the virtual battle by using the target interaction control. Optionally, the interactive object may be a heroic virtual object controlled by the user or artificial intelligence (AI). Alternatively, the interactive object may be a scene object in the virtual environment, such as a defense tower or an AI minion.

[0062] In some embodiments in the present disclosure, the interaction mode indicates a selection priority for the target virtual object interacting with other virtual objects in the virtual battle. In an example, the interaction mode determines the selection priority according to a distance between the virtual objects. In the virtual environment, when there is one opposing virtual object at a distance of 50 meters from the target virtual object, and another opposing virtual object at a distance of 100 meters from the virtual object, and currently, the first interaction mode indicates that the target virtual object attacks a virtual object closer to the target virtual object first, the target virtual object attacks the virtual object at a distance of 50 meters when attacking according to an interactive effect display operation.

[0063] In some embodiments in the present disclosure, each ability corresponds to an interaction form of the virtual object in the virtual battle, and each interaction form follows an interaction mode. Optionally, in the same virtual battle, the respective interaction modes corresponding to the abilities may be the same, that is, the interaction modes of all the abilities are uniformly configured. Alternatively, the respective interaction modes corresponding to the abilities may be different, that is, the interaction modes of the abilities may be configured individually. For example, an ability 1 indicates that after an opposing virtual object is hit, the lower the health points

of the opposing virtual object, the higher the damage caused. An ability 2 indicates that after an opposing virtual object is hit, the lower the health bar of the opposing virtual object, the higher the damage caused. An interaction mode 1 may be configured for the ability 1, and an interaction mode 2 may be configured for the ability 2, where the interaction mode 1 indicates that the ability 1 preferentially attacks an opposing virtual object with the lowest health points within a preset range, and the interaction mode 2 indicates that the ability 2 preferentially attacks an opposing virtual object with the lowest health bar within a preset range.

[0064] Step 402: Display a candidate mode option in response to an interaction mode display operation performed on the target interaction control.

[0065] The candidate mode option includes a target mode option corresponding to a second interaction mode.

[0066] For example, the candidate mode option includes a history mode option. Optionally, the history mode option is a mode option corresponding to the first interaction mode. That is, the history mode option indicates an interaction mode corresponding to the virtual battle before the foregoing interaction mode display operation is received by the target interaction control. Alternatively, the history mode option is a mode option with a highest historical setting frequency, which is determined according to a user's historical setting information.

[0067] Optionally, the interaction mode display operation performed on the target interaction control can be received by a touch module corresponding to the target interaction control on the screen interface, or can be received by a physical button having a mapping relationship with the target interaction control. The physical button includes a shortcut key in a keyboard, a physical button on a terminal device, a physical button in a handle, and the like.

[0068] Optionally, the foregoing interaction mode display operation may be implemented by a click operation, a long-press operation, a double-click operation (including at least one of a single-finger double-click operation or a double-finger double-click operation), a hover operation, a drag operation, and a combination thereof, which is not limited herein.

[0069] In some embodiments in the present disclosure, the target interaction control is a control used to control the target virtual object to interact with the interactive object in a corresponding attack form in the virtual battle. For example, referring to FIG. 5, a virtual battle interface 500 has at least one interaction control. In some embodiments in the present disclosure, there are five interaction controls: a normal attack control 511, a first ability control 512, a second ability control 513, a third ability control 514, and a fourth ability control 515. The normal attack

control 511 is used to control a virtual object to perform a normal attack on another object in a virtual environment; the first ability control 512 is used to control the virtual object to cast a first ability to another object in the virtual environment; the second ability control 513 is used to control the virtual object to cast a second ability to another object in the virtual environment; the third ability control 514 is used to control the virtual object to cast a third ability to another object in the virtual environment; and the fourth ability control 515 is used to control the virtual object to cast a fourth ability to another object in the virtual environment. Optionally, in some embodiments in the present disclosure, the normal attack, the first ability, the third ability, and the fourth ability are all abilities for interacting with opposing virtual objects, and the second ability is an ability for interacting with friendly virtual objects.

[0070] In some embodiments, the virtual battle interface includes a plurality of target interaction controls, each target interaction control corresponds to a display location, and the candidate mode option is displayed at a display location corresponding to the target interaction control. Optionally, a fan-shaped panel is displayed on a peripheral side of the target interaction control with the target interaction control as a center, and the candidate mode option is displayed in the fan-shaped panel. Specifically, the center is a location of a center of a circle of the fan-shaped panel. Alternatively, a switching path is displayed with the target interaction control as a path starting point, and an end point of the switching path is the candidate mode option. Alternatively, the candidate mode option is displayed as being superimposed on the target interaction control. By directly displaying the candidate mode option on the side of the target interaction control, the user can directly switch the interaction modes in the battle interface, which improves the switching efficiency of the interaction mode.

[0071] In some embodiments in the present disclosure, at least two sets of interaction modes are pre-stored in the terminal, and the at least two sets of interaction modes include the first interaction mode corresponding to the current virtual battle.

[0072] For example, the candidate interaction modes are determined from the at least two sets of interaction modes, and candidate interaction options corresponding to the candidate interaction modes are displayed in the interaction mode display region for a player to select.

[0073] Optionally, when the interaction mode display operation is received, the at least two sets of interaction modes are displayed with different mode options in the interaction mode display region, that is, all the pre-stored interaction modes are displayed. Optionally, there is a priority relationship between the at least two sets of interaction modes. When the interaction mode display operation is received, mode options corresponding to a target quantity of candidate interaction

modes with relatively high priorities are displayed. Optionally, when the interaction mode display operation is received, the terminal displays mode options corresponding to a target quantity of candidate interaction modes with relatively high historical selection times, based on historical data of mode selection, where the historical data of mode selection includes the number of historical selection times corresponding to each mode. A relationship between the quantity of displayed interaction modes and the quantity of interaction modes pre-stored in the terminal is not limited in the embodiments in the present disclosure.

[0074] Optionally, the candidate interaction mode does not include the history mode option corresponding to the first interaction mode. Alternatively, the candidate interaction mode includes the history mode option corresponding to the first interaction mode.

[0075] In some embodiments in the present disclosure, the interaction mode display region including the history mode option and the target mode option is used as an example. The history mode option is a display region for displaying the first interaction mode as described above, and the target mode option is a display region for displaying the candidate modes in the terminal.

[0076] Referring to FIG. 6, in a virtual battle interface 600, a display location 610 is on a peripheral side of a normal attack control 601, and a history mode option 611 and a target mode option 612 are included in the display location 610. An interaction mode corresponding to the history mode option 611 is the interaction mode used by a current virtual object, which is the mode of "preferentially attacking a nearest opponent". There are two target mode options 612, in one target mode option 612, the displayed interaction mode is "preferentially attacking an opponent with a smallest health point absolute value", and in the other target mode option 612, the displayed interaction mode is "preferentially attacking an opponent with lowest combat effectiveness".

[0077] Step 403: Switch the first interaction mode to a second interaction mode in response to an interaction mode selection operation selecting the target mode option.

[0078] In some embodiments in the present disclosure, when the target mode option is selected, it indicates that the first interaction mode is to be switched to the second interaction mode. After the first interaction mode is switched to the second interaction mode, the virtual object determines an interactive object according to the second interaction mode and interacts with the interactive object within the remaining virtual battle time.

[0079] The number of times of switching the interaction mode in a virtual battle is not limited in the embodiments in the present disclosure.

[0080] Step 404: Display an interactive effect between the target virtual object and a target interactive object in response to an interactive effect display operation performed on the target interaction control.

[0081] The target interactive object is the interactive object determined according to the second interaction model.

[0082] In some embodiments in the present disclosure, the interaction mode display operation is an operation performed on the target interaction control. Optionally, the interaction mode display operation is different from the interactive effect display operation, and the interactive effect display operation is used for controlling the virtual object to interact in the attack form corresponding to the target interaction control. For example, the interactive effect display operation and the interaction mode display operation are different trigger operations for triggering different functions of the same control, namely, it is determined that the interaction mode display operation is received in response to receiving a first trigger signal from the target interaction control, so that a candidate mode option is displayed at a display location corresponding to the target interaction control; and it is determined that the interactive effect display operation is received by the target interaction control in response to receiving a second trigger signal from the target interaction control, so that an interactive effect between the target virtual object and the target interactive object is displayed. That is, by means of the different triggering signals from the same control, the interaction mode can be adjusted or the interaction effect can be displayed, which increases the number of functions of a single control in the interface, and improves the utilization of the control, so that the interface does not need to display too many controls, avoiding the situation that the virtual environment screen is blocked too much by too many controls.

[0083] The first trigger signal and the second trigger signal are generated by different operations. In an example, the interactive effect display operation is implemented as a slide operation on the target interaction control, and the interaction mode display operation is implemented as a press operation on the target interaction control. In another example, the interactive effect display operation is a long-press operation performed on the target interaction control, and the long-press time is less than a time length threshold set in the terminal. The interaction mode display operation is a long-press operation performed on the target interaction control, and the long-press time is greater than a time length threshold set in the terminal.

[0084] In conclusion, according to the methods provided in the embodiments in the present disclosure, during a virtual battle, while a target interaction form of a virtual object is to select an interactive object according to a first interaction mode to implement interaction with the interactive

object, a candidate mode option is displayed in response to receiving an interaction mode display operation, a selected interaction mode is determined according to the interaction mode selection operation, and subsequently, a corresponding target interactive object is determined according to the selected interaction mode in a case that an interactive effect display operation is received by the target interaction control. In the virtual battle, by means of operations on the target interaction control on a virtual battle interface, a user can flexibly switch an interaction mode corresponding to a target interaction form according to a situation in the virtual battle, which improves the efficiency of human-computer interaction.

[0085] In some embodiments in the present disclosure, to help the user understand meaning of the interaction modes when switching among interaction modes, another method is provided. FIG. 7 is a flowchart of a method for selecting a virtual object interaction mode provided in an exemplary embodiment in the present disclosure. Steps corresponding to the method embodiment can be performed between step 402 and step 403. The method being applied in a terminal is used as an example for description. As shown in FIG. 7, the method includes the following steps.

[0086] Step 701: Receive an option viewing operation performed on the target mode option.

[0087] In some embodiments in the present disclosure, after the interaction mode display region is displayed in the terminal, the interaction display region includes a plurality of candidate mode options, and the user needs to learn meaning of the second interaction mode corresponding to the target mode option. Therefore, a region viewing operation is used for providing the user with the meaning of a selected mode. That is, by means of the option viewing operation, the amount of information obtained by the user from the battle interface can be increased, and user experience can be improved.

[0088] The region viewing operation may be implemented by a click operation, a long-press operation, a double-click operation (including at least one of a single-finger double-click operation or a double-finger double-click operation), a hover operation, a drag operation, and a combination thereof, which is not limited herein.

[0089] In some embodiments in the present disclosure, as described in the foregoing embodiments in the present disclosure, the interaction mode display operation is a long-press operation performed on the target interaction control. Referring to FIG. 8, in a virtual battle interface 800, when a long-press operation 801 is received and a time length of the long-press operation 801 is greater than a preset time length threshold, an interaction mode display region 820 can be displayed at a preset display location corresponding to a target interaction control 810, and the interaction mode display region includes a history mode option 821 and a target mode option

822. Optionally, in some embodiments in the present disclosure, the display location is on the peripheral side of the target interaction control, and in the interaction mode display region 820, the history mode option 821 and the target mode option 822 are each displayed in the form of a fan-shaped display panel in the virtual battle interface 800.

[0090] In some embodiments in the present disclosure, the option viewing operation is an operation that directly follows the interaction mode display operation. In an example, the interaction mode display operation is a long-press operation performed on the target interaction control. In this case, the option viewing operation follows immediately the long-press operation. For example, the option viewing operation is a drag operation in the interaction mode display region. In this case, a starting point of the drag operation is the location of the target interaction control, and an end point of the drag operation is the location of the target mode option.

[0091] Step 702: Display the target mode option in a target display mode in response to the option viewing operation.

[0092] In some embodiments in the present disclosure, in response to the option viewing operation, the corresponding target mode option is displayed in a highly visual-recognizable form. Optionally, the target display mode includes increasing display brightness of the target mode option. Alternatively, the target display mode includes displaying a graphic mark for the target mode option. Alternatively, the target display mode includes displaying the target mode option in a stroked manner.

[0093] Optionally, the increasing display brightness of the target mode option includes increasing brightness of edges the target mode option, and/or increasing brightness of the center of the target mode option.

[0094] Step 703: Enlarge a display area of the target mode option.

[0095] In some embodiments in the present disclosure, highlighting of the target mode option further includes enlarging a display area of the target mode option. After the display area of the target mode option is enlarged, the target mode option occupies a larger space in the virtual battle interface. That is, by enlarging the display area of the target mode option, the visibility of the target mode option is improved, and the user can easily perform subsequent operations, which improves the user experience.

[0096] Step 704: Display, in an enlarged target mode option, an interaction mode introduction corresponding to the second interaction mode.

[0097] Referring to FIG. 9, in a virtual battle interface 900, a history mode option 901 and a target mode option 902 are displayed according to an interaction mode display operation. Because the region viewing operation is an operation performed on the target mode option 902, the target mode option 902 is highlighted, and after the highlighting, an interaction mode introduction 910 is correspondingly displayed in the target mode option 902. In this example, the target mode option 902 is an interaction mode which indicates preferentially attacking an opposing virtual object with lowest health points. Meanwhile, in the virtual environment, when an opposing virtual object is too close to the master virtual object, the opposing virtual object is still attacked. Therefore, the foregoing mode is introduced in the interaction mode introduction 910.

[0098] In conclusion, according to the method provided in the embodiments in the present disclosure, during a virtual battle, while a target interaction form of a virtual object is to select an interactive object according to a first interaction mode to implement interaction with the interactive object, a candidate mode option is displayed in response to receiving an interaction mode display operation performed on a target interaction control, a finally selected interaction mode is determined according to the interaction mode selection operation, and subsequently, a target interactive object is determined according to the selected interaction mode in response to receiving an interactive effect display operation performed on the target interaction control. In the virtual battle, by means of operations on the target interaction control on a virtual battle interface, a user can flexibly switch an interaction mode corresponding to a target interaction form according to a situation in the virtual battle, which improves the efficiency of human-computer interaction.

[0099] In the method provided in some embodiments in the present disclosure, in a process of selecting an interaction mode by the user, a mode switching intention of the user is determined according to an action of the user before a switched mode is selected, a corresponding mode option is highlighted according to the switching intention, and meaning of the corresponding interaction mode is displayed in the form of an introduction. Therefore, the user learns more about the interaction mode to be used by the virtual object, which further improves the efficiency of human-computer interaction.

[0100] In some embodiments, the process of switching the interaction mode is displayed at the interaction mode option, so as to show the interaction mode currently used by the interaction form. FIG. 10 is a schematic diagram of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure. The method applied to a terminal is used as an example for description. The method includes:

[0101] Step 1001: Display a target interaction control, the target interaction control being used to control a target virtual object to select an interactive object in a first interaction mode in a virtual battle and interact with the interactive object.

[0102] The target virtual object determines a priority of each candidate interactive object in the virtual battle according to an interaction mode, and the candidate interactive object is a virtual object that satisfies a condition for interacting with the target virtual object. In some embodiments, the interaction mode includes at least one of a distance priority mode, a numerical value priority mode, a percentage priority mode, or a level priority mode. In the distance priority mode, a priority of each candidate interactive object is determined according to a distance between the target virtual object and each candidate interactive object. For example, the distance between the target virtual object and each candidate interactive object is negatively correlated with the priority, that is, the closer the distance between each candidate interactive object and the target virtual object, the higher the corresponding priority. In the numerical value priority mode, a priority of each candidate interactive object is determined according to a numerical value of an attribute value of each candidate interactive object. The attribute value includes, but is not limited to, a health point or a magic point. For example, the numerical value of the attribute value of each candidate interactive object is negatively correlated with the priority, that is, the lower the numerical value of the attribute value of each candidate interactive object, the higher the corresponding priority. In the percentage priority mode, a priority of each candidate interactive object is determined according to a percentage of an attribute value of each candidate interactive object. For example, the percentage of the attribute value of each candidate interactive object is negatively correlated with the priority, that is, the lower the percentage of the attribute value of each candidate interactive object, the higher the corresponding priority. In the level priority mode, a priority of each candidate interactive object is determined according to a level of each candidate interactive object. For example, the level of each candidate interactive object is negatively correlated with the priority, that is, the lower the level of each candidate interactive object, the higher the corresponding priority. The user can select a corresponding interaction mode according to his/her needs from the plurality of interaction modes provided above, so that the accuracy of determining of an interactive object can be improved when interaction is performed through the target interaction control.

[0103] Optionally, for opposing virtual objects and friendly virtual objects that appear in the virtual battle, different interaction modes are set in the terminal. In an example, for the opposing virtual objects, the provided interaction modes are "preferentially attacking a target with a smallest health point absolute value", "preferentially attacking a target with a lowest health bar" and "preferentially attacking a target closest to the virtual object". Meanwhile, for the friendly virtual

objects, the provided interaction modes are "preferentially healing a target with a smallest health point absolute value", "preferentially healing a target with a lowest health bar", and "preferentially giving a prop to a target closest to the virtual object". When the virtual object interacts with different targets, the interaction modes used by the virtual object are also different. That is, the interaction mode includes at least one of a player-to-enemy interaction mode or a player-to-friend interaction mode, where the player-to-enemy interaction mode includes a priority of the virtual object attacking opposing virtual objects of a different camp from the virtual object in the virtual battle; and the player-to-friend interaction mode includes a priority of the virtual object interacting with friendly virtual objects of a same camp as the virtual object in the virtual battle. That is, by providing the player-to-enemy interaction mode and the player-to-friend interaction mode, the accuracy of the target interaction in determining an interactive object can be further improved. In some embodiments in the present disclosure, a manner in which the virtual object interacts with another virtual object in the virtual battle includes casting, by the virtual object, an ability to the another virtual object in the virtual battle. Correspondingly, the target interaction control is a control for controlling the target virtual object to cast an ability. In other embodiments in the present disclosure, a manner in which the virtual object interacts with another virtual object in the virtual battle is performing a normal attack. Correspondingly, the target interaction control is a normal attack control.

[0104] In some embodiments in the present disclosure, the interaction forms corresponding to different target interaction controls of the virtual object may follow different interaction modes.

[0105] Step 1002: Display, in response to a long-press operation performed on the target interaction control, an interaction mode display region at a display location corresponding to the target interaction control in a case that a time length of the long-press operation is greater than a preset time length threshold, the interaction mode display region including a candidate mode option.

[0106] In some embodiments in the present disclosure, the interaction mode display operation is a long-press operation, and the time length of the long-press operation is greater than the preset time length threshold. After the long-press operation, referring to FIG. 11, an interaction mode display region is displayed on a peripheral side of a target interaction control 1110 in a virtual environment interface 1100, the interaction mode display region includes at least two fan-shaped mode options 1120, and each mode option 1120 has an interaction mode identifier 1130 corresponding to an interaction mode. Optionally, the interaction mode identifier 1130 is a text identifier.

[0107] Step 1003: Receive an option viewing operation performed on the target mode option.

[0108] In some embodiments in the present disclosure, the option viewing operation only affects content in the interaction mode display region. Optionally, by means of the option viewing operation, the content in the interaction mode display region that corresponds to the target mode option is displayed with brightness higher than normal display brightness.

[0109] Step 1004: Enlarge a display area of the target mode option.

[0110] After the brightness of the target mode option is increased, in some embodiments in the present disclosure, the display area of the target mode option is further enlarged.

[0111] In some embodiments in the present disclosure, to display the corresponding target mode option larger and brighter, the user performs a continuous press operation on the target mode option, and the continuous press operation is a continuation of a drag operation.

[0112] Step 1005: Display, in an enlarged target mode option, an interaction mode introduction corresponding to a second interaction identifier.

[0113] In some embodiments in the present disclosure, the enlarging a display area of the target mode option in step 1004 is performed to adapt to display of the interaction mode introduction. In the enlarged target mode option, the user can obtain introduction content of the interaction mode.

[0114] The interaction model introduction is not a complete introduction for all mechanisms of the interaction model.

[0115] Step 1006: Clear a target interaction mark in a history mode option and display the target interaction mark in the target mode option in response to an interaction mode selection operation selecting the target mode option.

[0116] In some embodiments in the present disclosure, the target interaction control corresponds to a target interaction mark, and the target interaction mark is displayed on the target interaction control. In addition, in some embodiments in the present disclosure, the interaction mode display region includes a history mode option corresponding to a first interaction mode, that is, in response to receiving the interaction mode display operation, the interaction mode display region is displayed at a display location corresponding to the target interaction control, where the interaction mode display region includes the history mode option corresponding to the first interaction mode, and a target interaction mode option corresponding to a candidate second interaction mode. The history mode option includes the foregoing target interaction mark, and the target interaction mark

displayed in the history mode option indicates that a current target virtual object determines an interactive object in an interaction mode marked by the target interaction mark. The history mode option is only logically distinguished from the target mode option. In a displayed virtual battle screen, the user cannot clearly distinguish the history mode option from the target mode option. Therefore, by marking the history mode option by the target interaction mark, the user can quickly identify the currently used interaction mode and perform mode selection, which improves the efficiency of interaction mode switching. In addition, after the mode is switched, the target interaction mark is cleared from the history mode option and displayed on the target mode option, so that the user can learn that the mode switching has been completed.

[0117] In some embodiments in the present disclosure, before the interaction mode is switched, as shown in FIG. 12, the target interaction mark corresponding to the target interaction control is displayed on the history mode option. Referring to FIG. 12, there are a total of five target interaction controls in a virtual battle interface 1200. The five target interaction controls each include a target interaction mark 1201, a target interaction mark 1202, a target interaction mark 1203, a target interaction mark 1204, and a target interaction mark 1205. In response to an interaction mode display operation performed on a target interaction control corresponding to the target interaction mark 1201, a history mode option 1211 and a target mode option 1212 are displayed in a corresponding region of the target interaction control. In this case, the target interaction mark 1201, the target interaction mark 1202, and the target interaction mark 1203 are displayed on the history mode option 1211, and the target interaction mark 1204 and the target interaction mark 1205 are displayed on the target mode option 1212. This display manner indicates that the target interaction mark 1201, the target interaction mark 1202, and the target interaction mark 1203 follow the first interaction mode, and the target interaction mark 1204 and the target interaction mark 1205 follow the second interaction mode. In this case, in response to a selection operation selecting the target mode option 1212, the first interaction mode display region 1211 includes the target interaction mark 1202 and the target interaction mark 1203, and the second interaction mode display region includes the target interaction mark 1201, the target interaction mark 1204, and the target interaction mark 1205.

[0118] In some embodiments in the present disclosure, the interaction mode selection operation is a continuation of the corresponding option viewing operation. After the option viewing operation, it is determined that the interaction mode selection operation is received in a case that a signal of releasing pressing is received by the terminal.

[0119] In conclusion, according to the method provided in the embodiments in the present disclosure, during a virtual battle, while a target interaction form of a virtual object is to select an interactive object according to a first interaction mode to implement interaction with the interactive object, a candidate mode option is displayed in response to receiving an interaction mode display operation performed on a target interaction control, a finally selected interaction mode is determined according to the interaction mode selection operation, and subsequently, a target interactive object is determined according to the selected interaction mode in response to receiving an interactive effect display operation performed on the target interaction control. In the virtual battle, by means of operations on the target interaction control on a virtual battle interface, a user can flexibly switch an interaction mode corresponding to a target interaction form according to a situation in the virtual battle, which improves the efficiency of human-computer interaction.

[0120] In the method provided in some embodiments in the present disclosure, in a process of selecting an interaction mode by the user, a mode switching intention of the user is determined according to an action of the user before a switched mode is selected, a corresponding mode option is highlighted according to the switching intention, and meaning of a corresponding interaction mode is displayed in the form of an introduction. Therefore, the user learns more about the interaction mode to be used by the virtual object, which further improves the efficiency of human-computer interaction.

[0121] In the method provided in some embodiments in the present disclosure, by displaying, in the mode option, the virtual mode to be used by the interaction form corresponding to the virtual object in detail, the user can learn the current interaction mode among various interaction forms in the process of interaction mode switching, which further improves the efficiency of human-computer interaction.

[0122] FIG. 13 is a schematic diagram of a process of a method for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure. The method being applied to the terminal is used as an example for description. The process includes the following steps.

[0123] Step 1301: Detect a pressed state of a finger in a normal attack button region.

[0124] In this process, the normal attack button is a button for performing a normal attack, and is also a target interaction control in the virtual battle interface. This process is a process of detecting an operation on the target interaction control.

[0125] Optionally, in the virtual battle, the target interaction control is always displayed in the virtual battle screen.

[0126] Step 1302: Call out a targeting priority wheel.

[0127] This process is a process in which the terminal detects the interaction mode display operation, and displays the interaction mode display region at a display location corresponding to the target interaction control.

[0128] Step 1303: Detect that the finger slides to a corresponding option region.

[0129] In some embodiments in the present disclosure, the corresponding option includes the history mode option and the target mode option. The user's finger is always pressed on the screen in the sliding process, that is, this process is a continuation of the interaction mode display operation.

[0130] When it is detected that the finger slides to the corresponding option region, step 1304 is performed.

[0131] Step 1304: Highlight an option region.

[0132] This process is a process of highlighting the target mode option after the option viewing operation is received by the target mode option.

[0133] Step 1305: Detect a hand-off operation.

[0134] This process is a process in which the terminal receives the interaction mode selection operation and switches between the interaction modes. In some embodiments in the present disclosure, the interaction mode selection operation is a hands-off operation performed after the option viewing operation. After the user performs the hand-off operation, the terminal switches between the interaction modes according to the interaction mode selection operation.

[0135] Step 1306: Stop displaying the targeting priority wheel.

[0136] This process is a process of canceling the interaction mode display region after the switching between the interaction modes is performed.

[0137] Step 1307: Complete switching of the targeting priority.

[0138] When it is detected that the finger does not slide to the corresponding option region, step 1308 is performed.

[0139] Step 1308: Detect a hand-off operation.

[0140] This process is a process in which the region selection is not received. In this process, the display of the interaction mode display region is directly canceled, and the user can control the virtual object to continue the virtual battle.

[0141] Step 1309: Stop displaying the targeting priority wheel.

[0142] In conclusion, according to the method provided in the embodiments in the present disclosure, during a virtual battle, while a target interaction form of a virtual object is to select an interactive object according to a first interaction mode to implement interaction with the interactive object, a candidate mode option is displayed in response to receiving an interaction mode display operation performed on a target interaction control, a finally selected interaction mode is determined according to the interaction mode selection operation, and subsequently, a target interactive object is determined according to the selected interaction mode in response to receiving an interactive effect display operation performed on the target interaction control. In the virtual battle, by means of operations on the target interaction control on a virtual battle interface, a user can flexibly switch an interaction mode corresponding to a target interaction form according to a situation in the virtual battle, which improves the efficiency of human-computer interaction.

[0143] FIG. 14 is a structural block diagram of an apparatus for selecting a virtual object interaction mode according to an exemplary embodiment in the present disclosure. As shown in FIG. 14, the apparatus includes:

[0144] a display module 1401, configured to display a target interaction control, the target interaction control being used to control a target virtual object to select an interactive object in a first interaction mode in a virtual battle and interact with the interactive object;

[0145] the display module 1401 being further configured to display a candidate mode option in response to an interaction mode display operation performed on the target interaction control, the candidate mode option including a target mode option, and the target mode option corresponding to a second interaction mode;

[0146] a switching module 1402, configured to switch from the first interaction mode to the second interaction mode in response to an interaction mode selection operation selecting the target mode option; and

[0147] the display module 1401 being further configured to display an interactive effect between the target virtual object and a target interactive object in response to an interactive effect display operation performed on the target interaction control, the target interactive object being an interactive object determined according to the second interaction mode.

[0148] In an optional embodiment, referring to FIG. 15, the apparatus further includes a receiving module 1403, configured to determine, in response to a first trigger signal from the target interaction control, that the interaction mode display operation is received; and

[0149] the display module 1401 being further configured to display the candidate mode option at a display location corresponding to the target interaction control.

[0150] In an optional embodiment, the display module 1401 is further configured to display a fan-shaped panel, which includes the candidate mode option, on a peripheral side of the target interaction control with the target interaction control as a center. Alternatively, the display module 1401 is further configured to display a switching path with the target interaction control as a path starting point, an end point of the switching path being the candidate mode option. Alternatively, the display module 1401 is further configured to display the candidate mode option as being superimposed on the target interaction control.

[0151] In an optional embodiment, the receiving module 1403 is further configured to receive an option viewing operation performed on the target mode option.

[0152] The display module 1401 displays the target mode option in a target display mode in response to the option viewing operation, where the target display mode includes increasing brightness of the target mode option; or, the target display mode includes displaying a graphic mark for the target mode option; or, the target display mode includes displaying the target mode option in a stroked manner.

[0153] In an optional embodiment, each interaction mode corresponds to an interaction mode introduction.

[0154] The apparatus further includes an enlarging module 1404, configured to enlarge a display area of the target mode option; and

[0155] the display module 1401 being further configured to display, in the enlarged target mode option, an interaction mode introduction corresponding to the second interaction mode.

[0156] In an optional embodiment, the target interaction control corresponds to a target interaction mark displayed therein, the candidate mode option further includes a history mode option corresponding to the first interaction mode, and the history mode option includes a target interaction mark, where the target virtual object determines an interactive object in an interaction mode marked by the target interaction mark.

[0157] In an optional embodiment, the apparatus further includes a clearing module 1405, configured to clear the target interaction mark on the history mode option and display the target interaction mark on the target mode option.

[0158] In an optional embodiment, the receiving module 1403 is further configured to determine, in response to a second trigger signal from the target interaction control, that the interactive effect display operation is received by the target interaction control; and

[0159] the display module 1401 is further configured to display an interactive effect between the target virtual object and the target interactive object.

[0160] In an optional embodiment, an interaction mode includes at least one of a player-to-enemy interaction mode or a player-to-friend interaction mode, where

[0161] the player-to-enemy interaction mode includes a priority of the virtual object attacking opposing virtual objects of a different camp from the virtual object in the virtual battle; and

[0162] the player-to-friend interaction mode includes a priority of the virtual object interacting with friendly virtual objects of a same camp as the virtual object in the virtual battle.

[0163] In an optional embodiment, the target virtual object determines a priority of each candidate interactive object in the virtual battle according to an interaction mode, each candidate interactive object is a virtual object that satisfies a condition for interacting with the target virtual object, and the interaction mode includes at least one of a distance priority mode, a numerical value priority mode, a percentage priority mode, or a level priority mode, where

[0164] the distance priority mode includes determining a priority of each candidate interactive object according to a distance between the target virtual object and each candidate interactive object;

[0165] the numerical value priority mode includes determining a priority of each candidate interactive object according to a numerical value of an attribute value of each candidate interactive object;

[0166] the percentage priority mode includes determining a priority of each candidate interactive object according to a percentage of an attribute value of each candidate interactive object; and

[0167] the level priority mode includes determining a priority of each candidate interactive object according to a level of each candidate interactive object.

[0168] In conclusion, according to the apparatus provided in the embodiments in the present disclosure, during a virtual battle, while a target interaction form of a virtual object is to select an interactive object according to a first interaction mode to implement interaction with the interactive object, a candidate mode option is displayed in response to receiving an interaction mode display operation performed on a target interaction control, a finally selected interaction mode is determined according to the interaction mode selection operation, and subsequently, a target interactive object is determined according to the selected interaction mode in response to receiving an interactive effect display operation performed on the target interaction control. In the virtual battle, by means of operations on the target interaction control on a virtual battle interface, a user can flexibly switch an interaction mode corresponding to a target interaction form according to a situation in the virtual battle, which improves the efficiency of human-computer interaction.

[0169] The apparatus for selecting a virtual object interaction mode provided in the foregoing embodiments is illustrated with an example of foregoing division of the functional modules. In actual application, the functions may be allocated to and completed by different functional modules according to requirements, that is, the internal structure of the device is divided into different functional modules, to implement all or some of the functions described above.

[0170] The present disclosure further provides a terminal, the terminal includes a processor and a memory, the memory stores at least one instruction, and the at least one instruction is loaded and executed by the processor to implement steps of the method for selecting a virtual object interaction mode performed by the first terminal or by the second terminal. The terminal may be a terminal provided in FIG. 16 below.

[0171] FIG. 16 is a structural block diagram of a terminal 1600 according to an exemplary embodiment in the present disclosure. The terminal 1600 may be a smartphone, a tablet computer, an MP3 player, an MP4 player, a notebook computer, or a desktop computer.

[0172] Generally, the terminal 1600 includes a processor 1601 and a memory 1602.

[0173] The processor 1601 may include one or more processing cores, for example, a 4-core processor or an 8-core processor.

[0174] The memory 1602 may include one or more computer-readable storage media. The computer-readable storage medium may be non-transient. In some embodiments, a non-transitory computer-readable storage medium in the memory 1602 is configured to store at least one instruction, the at least one instruction being used to be executed by the processor 1601 to

implement the method for selecting a virtual object interaction mode provided in the method embodiments in the present disclosure.

[0175] In some embodiments, the terminal 1600 may optionally include: a peripheral device interface 1603 and at least one peripheral device. The processor 1601, the memory 1602, and the peripheral device interface 1603 may be connected by using a bus or a signal cable. Each peripheral device may be connected to the peripheral device interface 1603 by using a bus, a signal cable, or a circuit board. Specifically, the peripheral device includes at least one of a radio frequency (RF) circuit 1604, a touch display screen 1605, a camera component 1606, an audio circuit 1607, a positioning component 1608, and a power supply 1609.

[0176] The peripheral device interface 1603 may be configured to connect the at least one peripheral device related to input/output (I/O) to the processor 1601 and the memory 1602.

[0177] The RF circuit 1604 is configured to receive and transmit an RF signal, also referred to as an electromagnetic signal. The RF circuit 1604 communicates with a communication network and other communication devices through the electromagnetic signal.

[0178] The display screen 1605 is configured to display a user interface (UI). The UI may include a graph, text, an icon, a video, and any combination thereof.

[0179] The camera component 1606 is configured to capture images or videos.

[0180] The audio circuit 1607 may include a microphone and a speaker.

[0181] The positioning component 1608 is configured to determine a current geographic location of the terminal 1600, to implement navigation or a location based service (LBS).

[0182] The power supply 1609 is configured to supply power to components in the terminal 1600.

[0183] In some embodiments, the terminal 1600 may also include one or more sensors 1610. The one or more sensors 1610 include, but are not limited to: an acceleration sensor 1611, a gyroscope sensor 1612, a pressure sensor 1613, a fingerprint sensor 1614, an optical sensor 1615, and a proximity sensor 1616.

[0184] A person skilled in the art may understand that a structure shown in FIG. 16 constitutes no limitation on the terminal 1600, and the terminal may include more or fewer components than those shown in the figure, or some components may be combined, or a different component deployment may be used.

[0185] The memory further includes one or more programs. The one or more programs are stored in the memory. The one or more programs include a program for performing the method for selecting a virtual object interaction mode provided in the embodiments in the present disclosure.

[0186] The present disclosure provides a computer-readable storage medium. The storage medium stores at least one instruction, and the at least one instruction is used to be loaded and executed by a processor, to implement the method for selecting a virtual object interaction mode according to the foregoing method embodiments.

[0187] The present disclosure further provides a computer program product or a computer program. The computer program product or the computer program includes computer instructions, and the computer instructions are stored in a computer-readable storage medium. When a processor of a computer device reads the computer instructions from the computer-readable storage medium and executes the computer instructions, the computer device performs the method for selecting a virtual object interaction mode according to any one of the foregoing method embodiments.

[0188] The sequence numbers of the foregoing embodiments in the present disclosure are merely for description purpose but do not imply the preference among the embodiments.

[0189] A person of ordinary skill in the art may understand that all or some of the steps of the foregoing embodiments may be implemented by hardware, or may be implemented by a program instructing relevant hardware. The program may be stored in a computer-readable storage medium. The storage medium may be a read-only memory, a magnetic disk, an optical disc, or the like.

[0190] The foregoing descriptions are merely optional embodiments in the present disclosure, but are not intended to limit the technical solutions in the present disclosure. Any modification, equivalent replacement, or improvement made within the spirit and principle in the present disclosure shall fall within the protection scope in the present disclosure.

CLAIMS

What is claimed is:

1. A method for selecting a virtual object interaction mode, executable by a computer device, the method comprising:

displaying a target interaction control, the target interaction control being a control used to control a target virtual object to select an interactive object in a first interaction mode in a virtual battle and interact with the interactive object;

displaying a candidate mode option in response to an interaction mode display operation performed on the target interaction control, the candidate mode option comprising a target mode option, and the target mode option corresponding to a second interaction mode;

switching from the first interaction mode to the second interaction mode in response to an interaction mode selection operation selecting the target mode option; and

displaying an interactive effect between the target virtual object and a target interactive object in response to an interactive effect display operation performed on the target interaction control, the target interactive object being an interactive object determined according to the second interaction mode.

2. The method according to claim 1, wherein the displaying a candidate mode option in response to an interaction mode display operation performed on the target interaction control comprises:

determining that the interaction mode display operation is received in response to a first trigger signal from the target interaction control; and

displaying the candidate mode option at a display location corresponding to the target interaction control.

3. The method according to claim 2, wherein the displaying the candidate mode option at a display location corresponding to the target interaction control comprises:

displaying a fan-shaped panel on a peripheral side of the target interaction control with the target interaction control as a center, the fan-shaped panel comprising the candidate mode option;

or,

displaying a switching path with the target interaction control as a path starting point, an end point of the switching path being the candidate mode option;

or,

displaying the candidate mode option as being superimposed on the target interaction control.

4. The method according to any one of claims 1 to 3, wherein after the displaying a candidate mode option in response to an interaction mode display operation performed on the target interaction control, the method further comprises:

receiving an option viewing operation performed on the target mode option; and

displaying the target mode option in a target display mode in response to the option viewing operation, wherein

the target display mode comprises increasing brightness of the target mode option; or, the target display mode comprises displaying a graphic mark for the target mode option; or, the target display mode comprises displaying the target mode option in a stroked manner.

5. The method according to claim 4, wherein each interaction mode corresponds to an interaction mode introduction; and

after the displaying the target mode option in a target display mode in response to the option viewing operation, the method further comprises:

enlarging a display area of the target mode option; and

displaying, in the enlarged target mode option, an interaction mode introduction corresponding to the second interaction mode.

6. The method according to claim 1, wherein the target interaction control corresponds to a target interaction mark, the candidate mode option further comprises a history mode option corresponding to the first interaction mode, and the history mode option comprises the target interaction mark, wherein the target virtual object determines an interactive object in an interaction mode marked by the target interaction mark.

7. The method according to claim 6, wherein after the switching from the first interaction mode to the second interaction mode in response to an interaction mode selection operation selecting the target mode option, the method further comprises:

clearing the target interaction mark on the history mode option and displaying the target interaction mark on the target mode option.

8. The method according to any one of claims 1 to 3, wherein the displaying an interactive effect between the target virtual object and a target interactive object in response to an interactive

effect display operation performed on the target interaction control comprises:

determining, in response to a second trigger signal from the target interaction control, that the interactive effect display operation is received by the target interaction control; and

displaying the interactive effect between the target virtual object and the target interactive object.

9. The method according to any one of claims 1 to 3, wherein the interaction mode comprises at least one of a player-to-enemy interaction mode or a player-to-friend interaction mode, wherein

the player-to-enemy interaction mode comprises a priority of the virtual object attacking opposing virtual objects of a different camp from the virtual object in the virtual battle; and

the player-to-friend interaction mode comprises a priority of the virtual object interacting with friendly virtual objects of a same camp as the virtual object in the virtual battle.

10. The method according to any one of claims 1 to 3, wherein the target virtual object determines a priority of each candidate interactive object in the virtual battle according to an interaction mode, each candidate interactive object is a virtual object that satisfies a condition for interacting with the target virtual object, and the interaction mode comprises at least one of a distance priority mode, a numerical value priority mode, a percentage priority mode, or a level priority mode, wherein

the distance priority mode comprises determining a priority of each candidate interactive object according to a distance between the target virtual object and each candidate interactive object;

the numerical value priority mode comprises determining a priority of each candidate interactive object according to a numerical value of an attribute value of each candidate interactive object;

the percentage priority mode comprises determining a priority of each candidate interactive object according to a percentage of an attribute value of each candidate interactive object; and

the level priority mode comprises determining a priority of each candidate interactive object according to a level of each candidate interactive object.

11. An apparatus for selecting a virtual object interaction mode, comprising:

a display module, configured to display a target interaction control, the target interaction control being a control used to control a target virtual object to select an interactive object in a first interaction mode in a virtual battle and interact with the interactive object;

the display module being further configured to display a candidate mode option in response to an interaction mode display operation performed on the target interaction control, the candidate mode option comprising a target mode option, and the target mode option corresponding to a second interaction mode;

a switching module, configured to switch from the first interaction mode to the second interaction mode in response to an interaction mode selection operation selecting the target mode option; and

the display module being further configured to display an interactive effect between the target virtual object and a target interactive object in response to an interactive effect display operation performed on the target interaction control, the target interactive object being an interactive object determined according to the second interaction mode.

12. A computer device, comprising a processor and a memory, the memory storing at least one instruction, at least one program, a code set, or an instruction set, wherein the at least one instruction, the at least one program, the code set, or the instruction set is used to be loaded and executed by the processor to implement the method for selecting a virtual object interaction mode according to any one of claims 1 to 10.

13. A computer-readable storage medium, storing at least one instruction, at least one program, a code set, or an instruction set, wherein the at least one instruction, the at least one program, the code set, or the instruction set is used to be loaded and executed by a processor to implement the method for selecting a virtual object interaction mode according to any one of claims 1 to 10.

14. A computer program product, comprising a computer program, the computer program being stored in a computer-readable storage medium, wherein when a processor of a computer device reads the computer program from the computer-readable storage medium and executes the computer program, the computer device implements the method for selecting a virtual object interaction mode according to any one of claims 1 to 10.