

ACQUISITION METHOD AND APPARATUS FOR VIRTUAL OBJECT, AND ELECTRONIC DEVICE, COMPUTER-READABLE STORAGE MEDIUM AND COMPUTER PROGRAM PRODUCT

RELATED APPLICATIONS

[0001] This application is based on and claims priority to Chinese Patent Application No. 2023118695019, filed on December 29, 2023, which is incorporated by reference in its entirety.

FIELD OF THE TECHNOLOGY

[0002] The present disclosure relates to computer technologies, and in particular, to an acquisition method and apparatus for a virtual object, an electronic device, a computer-readable storage medium, and a computer program product.

BACKGROUND OF THE DISCLOSURE

[0003] At present, in various competitive game applications, a mode of acquiring virtual objects for performing game interaction is generally to acquire a plurality of candidate virtual objects by random refreshing, and then to acquire at least one virtual object from the plurality of candidate virtual objects by consuming virtual resources.

[0004] In some strategic game applications, combinations of different virtual objects may produce different effects, and a user may consider a strategy of combining virtual objects in a game process. However, the refreshing mode of the candidate virtual objects in the related art is too random, and it is difficult to acquire corresponding virtual objects according to a combination strategy considered by the user. That is, the user needs to perform repeated attempts to acquire combinations of particular virtual objects; it is difficult to acquire the combinations of the particular virtual objects in a game; and a server needs to continuously respond to switching instructions to load and release corresponding virtual objects, thereby consuming a large amount of time and server resources.

[0005] With regard to the above problems, no effective solution has been provided currently.

SUMMARY

[0006] Embodiments of the present disclosure provide an acquisition method and apparatus for a virtual object, an electronic device, a computer-readable storage medium, and a computer program product, which can efficiently acquire combinations of particular virtual objects.

[0007] According to one aspect of an embodiment of the present disclosure, an acquisition method for a virtual object is provided, performed by an electronic device, and including: acquiring, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account description information being configured for indicating task progress of the target account in the turn-based virtual task; displaying at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which includes at least one virtual object having the common object attribute; displaying, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and displaying, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

[0008] According to another aspect of an embodiment of the present disclosure, an acquisition apparatus for a virtual object is further provided, including: an acquisition unit, configured to acquire, in a target turn that matches the target account in a turn-based virtual task, account description information of a target account, the account description information being configured for indicating task progress of the target account in the turn-based virtual task; a first display unit, configured to display at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which includes at least one virtual object having the common object attribute; a second display unit, configured to display, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and a third display unit, configured to display, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

[0009] According to another aspect of an embodiment of the present disclosure, a computer-readable storage medium is further provided, having a computer program stored therein, the computer program being configured for implementing the acquisition method for the virtual object when running.

[0010] According to another aspect of an embodiment of the present disclosure, a computer program product is provided, including computer programs/instructions, the computer programs/instructions being stored in the computer-readable storage medium. A processor of a computer device reads the computer programs/instructions from the computer-readable storage medium and executes the computer programs/instructions, to cause the computer device to perform the acquisition method for the virtual object.

[0011] According to another aspect of an embodiment of the present disclosure, an electronic device is further provided, including a memory and a processor, the memory having computer programs stored therein, and the processor being configured to implement the acquisition method for the virtual object through the computer programs.

[0012] In this embodiment of the present disclosure, the account description information of the target account is acquired in the target turn that matches the target account in the turn-based virtual task, where the account description information is configured for indicating the task progress of the target account in the turn-based virtual task; at least one object acquisition control that matches the account description information is displayed, where the object acquisition control is configured to acquire a virtual object set which includes at least one virtual object having the common object attribute; a target object set acquired according to a target object acquisition control is displayed in response to a trigger operation on the target object acquisition control in the at least one object acquisition control; and a target virtual object is displayed in a target region in response to a selection operation on the target virtual object in the target object set, where the target region is configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set are configured for performing an interaction operation in a virtual scene, thereby acquiring the interaction virtual objects configured for performing interaction tasks.

[0013] In the embodiments of the present disclosure, at least one object acquisition control that matches the account description information is determined according to the account description information configured for indicating the task progress of the target account in the virtual task; and each object acquisition control may be configured to acquire a plurality of virtual objects having the common object attribute. Thus, in a case that the target object acquisition control is determined from a plurality of object acquisition controls, the target object set acquired according to the target object acquisition control is displayed. Thus, a probability of acquiring particular virtual objects may be increased through a corresponding association relationship between the object attributes and the object acquisition controls. Thus, the combinations of the particular virtual objects are acquired

in a plurality of object acquisition operations in the turn-based virtual task, so as to efficiently acquire the combinations of the particular virtual objects and reduce the difficulty in acquiring the combinations of the particular virtual objects. Because a user may be quickly helped to determine the combinations of the particular virtual objects, a process of repeated switching to acquire the particular virtual objects is saved, and resources consumed by a server in repeatedly responding to the switching are saved.

[0014] In addition, in the embodiments of the present disclosure, the displayed object acquisition control may be determined according to the account description information configured for indicating the task progress of the target account in the virtual task, so that different object acquisition controls may be displayed in different stages of the target account, for the user to choose to acquire the virtual objects having different object attributes in different stages, thereby improving the flexibility of combining the virtual objects.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Drawings described herein are configured for providing further understanding of the present disclosure and forming a part of the present disclosure. Exemplary embodiments of the present disclosure and the description thereof are configured for explaining the present disclosure, but do not constitute an improper limitation to the present disclosure. In the drawings:

[0016] FIG. 1 is a schematic diagram of a hardware environment of an exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0017] FIG. 2 is a flowchart of an exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0018] FIG. 3 is a schematic diagram of an exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0019] FIG. 4 is a schematic diagram of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0020] FIG. 5 is a schematic diagram of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0021] FIG. 6 is a schematic diagram of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0022] FIG. 7 is a schematic diagram of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0023] FIG. 8 is a schematic diagram of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0024] FIG. 9 is a schematic diagram of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0025] FIG. 10 is a schematic diagram of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0026] FIG. 11 is a flowchart of another exemplary acquisition method for a virtual object according to an embodiment of the present disclosure.

[0027] FIG. 12 is a schematic structural diagram of an exemplary acquisition apparatus for a virtual object according to an embodiment of the present disclosure.

[0028] FIG. 13 is a schematic structural diagram of an exemplary electronic device according to an embodiment of the present disclosure.

DESCRIPTION OF EMBODIMENTS

[0029] To make a person skilled in the art better understand the solutions in the present disclosure, the technical solutions in embodiments of the present disclosure will be clearly and fully described below in combination with the drawings in the embodiments of the present disclosure. Apparently, the described embodiments are merely part of the embodiments of the present disclosure, not all of the embodiments. Based on the embodiments in the present disclosure, all other embodiments obtained by an ordinary person skilled in the art without contributing creative labor are to belong to the protection scope of the present disclosure.

[0030] The terms such as "first" and "second" in the description and claims as well as the drawings in the present disclosure are configured for distinguishing the analogous objects rather than configured for describing a special order or precedence order. Such data may be exchanged under appropriate circumstances so that the embodiments of the present disclosure described herein may be implemented in the order other than those illustrated or described herein. In addition, terms of "include" and "have" as well as any other variant thereof are intended to cover non-exclusive inclusion. For example, processes, methods, systems, products or devices including a series of steps or units are not limited to those steps or units clearly listed, but may include other steps or units that are not listed clearly or are inherent to these processes, methods, products or devices.

[0031] During exemplary application of the related data acquisition processing in the embodiments of the present disclosure, informed consent or independent consent of the subject of

personal information is to be obtained strictly according to requirements of relevant laws and regulations, and subsequent data use and processing are performed within the laws and regulations and the authorization scope of the subject of the personal information.

[0032] In the embodiments of the present disclosure, a term "module" or "unit" refers to a computer program having predetermined functions or a part of the computer program, which operates with other relevant portions to achieve a predetermined objective, and may be fully or partially implemented by using software, hardware (such as a processing circuit or a memory), or a combination thereof. Similarly, one processor (or a plurality of processors or memories) may be configured to implement one or more modules or units. In addition, each module or unit may be a part of an overall module or unit including functions of the module or unit.

[0033] Before the embodiments of the present disclosure are further described in detail, nouns and terms involved in the embodiments of the present disclosure are described, and applicable to the following explanation.

[0034] 1) The virtual scene is a scene, different from the real world, displayed (or provided) when an application program runs on a terminal device. The virtual scene may be a simulation environment for the real world, or may be a semi-simulation and semi-fictional virtual environment, or may be a completely fictional virtual environment. The virtual scene may be any one of a two-dimensional virtual scene, a 2.5-dimensional virtual scene, or a three-dimensional virtual scene. A dimension of the virtual scene is not limited in the embodiments of the present disclosure. For example, the virtual scene may include the sky, the land, the ocean, and the like. The land may include an environment element such as a desert and a city, and a user may control a virtual object to move in the virtual scene.

[0035] 2) The virtual object is a movable object in a virtual scene. The movable object may be a virtual person, a virtual animal, an animated person, or the like. The virtual object may be a virtual image representing a user in the virtual scene, or may be a user character controlled through an operation on a client. The virtual scene may include a plurality of virtual objects. Each virtual object has a shape and a volume in the virtual scene, and occupies a part of space in the virtual scene.

[0036] 3) The turn-based virtual task is a game mechanism designed in the virtual scene to allow a player to perform actions and decision-making according to a particular sequence and rule. Such a mechanism is commonly found in a strategic game, a role-playing game (RPG), and some types of simulation games.

[0037] 4) The account description information refers to information configured for describing various data and states of the target account in the turn-based virtual task. The account description information includes, but is not limited to, at least one of the following: basic information, task progress, a resource status, a skill state, and an achievement record of an account, and is intended to provide a mode for a player to comprehensively understand a game state of the player.

[0038] 5) Object attributes refer to features and parameters that a virtual object has in a virtual scene, and define an appearance, a behavior, and an interaction mode of the virtual object. In the turn-based virtual task, the object attributes are key factors for distinguishing different virtual objects, and are also important bases for determining a role and a character of an object in a game. The object attributes are a series of eigenvalues of the virtual object, and these eigenvalues determine a type, functions, capabilities, and an interaction mode of the virtual object. The object attribute may include static attributes (such as names, appearances, or fixed capabilities) and dynamic attributes (such as current states, positions, or health values).

[0039] 6) Resource indication information is information that is presented on an object acquisition control and configured for notifying a quantity of virtual resources needed for acquiring a particular virtual object set. The resource indication information helps a player to know whether the player has sufficient resources to acquire needed virtual objects, and how the acquired objects affect resource reserve. The resource indication information includes a type and a quantity of needed resources, and a quantity of this type of resources currently possessed by the player.

[0040] 7) A target account refers to a player account that has a specific virtual object set and that can participate in game interaction in a virtual game or a turn-based virtual task. The target account is generally associated with personal data of a player, and is configured for recording a game progress of the player, a virtual object possession situation, and an interaction record in the game.

[0041] 8) A reference account is a virtual account configured for interacting with the target account in a turn-based virtual task. The reference account may be another player account, a non-player character (NPC) account controlled by a game system, or an account specially configured for testing and simulation. The reference account may be configured in a card interaction scene.

[0042] 9) Cloud gaming: also known as gaming on demand, refers to an example that a game program is deployed in a server and run (referred to as a game example). The game example transmits game data outputted in a running process to a browser page of a user terminal, and the page calls a media assembly of a browser to decode the game data, and renders a real-time game

picture in a game process according to a decoding result. When the page monitors an operation performed by the user in the game picture, the page reports the operation to the game example run in the server. When the game data generated in the game example in response to the operation is received, the decoding and rendering process is repeated, so that the change in the game picture according to the operation of the user is presented on the page.

[0043] That is, the cloud gaming is an online gaming technology based on a cloud computing technology. The cloud gaming technology enables a thin client with relatively limited graphics processing and data computing capabilities to run high-quality games. In a cloud gaming scene, the game is not run in a user terminal (such as a player game terminal), but in a cloud server, and the cloud server renders the game scene into audio and video streams and transmits the audio and video streams to the user terminal through a network. In this way, the user terminal does not need to have strong graphics operation and data processing capabilities, and only needs to have a basic streaming media playing capability and the capabilities to acquire instructions inputted by the player and transmit the instructions to the cloud server.

[0044] According to one aspect of an embodiment of the present disclosure, an acquisition method for a virtual object is provided. As an exemplary embodiment, the acquisition method for the virtual object may be, but is not limited to, applied to an acquisition system for a virtual object in a hardware environment shown in FIG. 1, where the acquisition system for the virtual object may include, but is not limited to, a terminal device 102, a network 104, a server 106, a database 108, and a terminal device 110. Corresponding clients (as shown in FIG. 1, with an example in which a client is a game application client) run in the terminal device 102 and the terminal device 110, respectively. The terminal device 102 and the terminal device 110 include a human-computer interaction screen, a processor, and a memory, respectively. The human-computer interaction screen is configured to display a virtual game scene (a virtual game scene shown in FIG. 1), and is further configured to provide a human-computer interaction interface to receive a human-computer interaction operation for controlling a virtual object controlled in a virtual scene, and the virtual object will complete a game task set in the virtual scene. The processor is configured to generate an interaction instruction in response to the human-computer interaction operation, and transmit the interaction instruction to the server. The memory is configured to store related attribute data, such as object attribute information of the controlled virtual object and attribute information of a possessed virtual prop. The attribute information herein may include, but is not limited to, information configured for identifying an identity and a current position of the virtual prop. Where a client that controls a first virtual object through a first object account runs in the terminal device 102. Correspondingly, a client that controls a second virtual object through a second object account

runs in the terminal device 110. The second virtual object and the first virtual object herein may be controlled in a game to perform particular interaction events, such as attack events, defense events, and skill casting events. In a case that the first object account and the second object account are object accounts having a friend relationship, the first virtual object and the second virtual object may also execute cooperative adversarial events.

[0045] In addition, the server 106 includes a processing engine. The processing engine is configured to perform a storage or read operation on the database 108. Specifically, the processing engine reads, from the database 108, respective virtual scene information of the virtual objects, object information of the possessed virtual objects, and operation information performed by the object accounts.

[0046] Assuming that the terminal device 102 in FIG. 1 is logged in with a target account, and the terminal device 110 is logged in with a reference account having an adversarial relationship with the target account, in a turn-based virtual task, the target account and the reference account sequentially perform operations of virtual object acquisition and virtual object arrangement in respective turns. In addition, the arranged virtual objects may spontaneously perform adversarial operations in a virtual game scene according to object positions and attributes of object properties.

[0047] This embodiment of the present disclosure may be applied to an object acquisition stage in a target turn of the target account, and a specific process includes the following operations: first, through the terminal device 102 logged in with a first account, performing operation S102 to operation S106: Acquire, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account description information being configured for indicating the task progress of the target account in the turn-based virtual task; display at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which includes at least one virtual object having the common object attribute; and determine to trigger a target object acquisition control.

[0048] Next, the terminal device 102 performs S108: Transmit an object information acquisition request to the server 106 through the network 104. The server 106 performs operation S110: Determine a target object set according to the object acquisition request, and performs S112: Transmit the target object set to the terminal device 102 through the network 104.

[0049] The terminal device 102 performs S114 to S116: Display, in response to a trigger operation on the target object acquisition control in the at least one object acquisition control, a target object set acquired according to a target object acquisition control, and display, in response to

a selection operation on a target virtual object in the target object set, the target virtual object in a target region, where the target region is configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set are configured for performing an interaction operation in a virtual scene.

[0050] In some embodiments, when a terminal device having the same type as the terminal device 102 has a strong computing processing capability, operation S110 may alternatively be completed by other terminal devices. Here is an example, which is not limited in this embodiment of the present disclosure.

[0051] In some embodiments, in this embodiment of the present disclosure, the terminal device may be a terminal device configured with a target client and may include, but not limited to, at least one of the following: a mobile phone (such as Android phones, and iOS phones), a laptop, a tablet computer, PDAs, a mobile Internet device (MID), a portable apple device (PAD), a desktop computer, and a smart television. The target client may be a client that supports provision of a shooting game task, such as a video client, an instant messaging client, a browser client, or an education client. The network may include, but is not limited to, a wired network and a wireless network, where the wired network includes: a local area network, a metropolitan area network, and a wide area network. The wireless network includes: Bluetooth, a wireless fidelity (WIFI), and other networks implementing wireless communication. The server may be one server, a server cluster composed of a plurality of servers, or a cloud server. The above is merely an example, which is not limited in this embodiment of the present disclosure.

[0052] In some embodiments, in this embodiment of the present disclosure, the acquisition method for the virtual object may be, but is not limited to, applied to a game terminal application (referred to as APP) that completes a given adversarial game task in a virtual scene, such as a virtual adversarial game application in a multiplayer online battle competitive (referred to as MOBA) application. The adversarial game task may be, but is not limited to, a game task completed by a current player through a virtual object acquired in a virtual scene by a human-computer interaction virtual object, and a virtual object controlled by another player through adversarial interaction. The acquisition method for the virtual object may further be applied to a large multiplayer online role-playing game (MMORPG) type terminal application. In this type of game, a current player may complete a social game task in a game at a first viewing angle of a virtual object in a role-playing mode, and for example, completes a game task together with another virtual object. The acquisition method for the virtual object may further be applied to an auto battler (also known as auto chess) type game. The auto battler type game is a type of a tactical strategic electronic game. A player

places characters on a battle field of a mesh shape in a preparation stage, and then the characters automatically battle against each other. Generally, the player does not need to input an operation further. This embodiment of the present disclosure may further be, but not limited to, applied to an open world game. The open world means that a battle scene in a game is completely free and open, and a player may freely move forward to explore in any direction. A distance between boundaries of various orientations is very large. Meanwhile, simulation articles of various shapes and sizes are provided in the scene, and may generate various physical collisions or interactions with entities such as players and artificial intelligence (AI). In the open world game, the player may control a game task completed by a virtual object through adversarial interaction.

[0053] Game tasks in the above types of games may, but are not limited to, run in applications (such as non-standalone game APPs) in the form of plugins and applets, or run in applications (such as standalone game APPs) in game engines. The types of the above game applications may include, but are not limited to, at least one of the following: two dimension (abbreviated as 2D) game applications, three dimension (abbreviated as 3D) game applications, virtual reality (abbreviated as VR) game applications, augmented reality (abbreviated as AR) game applications, and mixed reality (abbreviated as MR) game applications. The above is merely an example, which is not limited in this embodiment of the present disclosure.

[0054] A solution for collaborative implementation of the terminal device and the server mainly involves two game modes, i.e., a local game mode and a cloud gaming mode respectively, where the local game mode means that the terminal device and the server cooperatively run the game processing logic. Operation instructions inputted into the terminal device by a player are partly processed by the game logic run by the terminal device and partly processed by the game logic run by the server. Moreover, the game logic processing run by the server is often more complex and requires more computing power to be consumed. The cloud gaming mode means that game logic processing is completely run by the server (such as a cloud server), and the cloud server renders game scene data into audio and video streams and then transmits the audio and video streams to the terminal device through a network for display. That is, the terminal device only needs to have the basic streaming media playing capability and the capabilities to acquire the operation instructions inputted by the player and transmit the instructions to the server.

[0055] In the embodiments of the present disclosure, at least one object acquisition control that matches the account description information is determined according to the account description information configured for indicating the task progress of the target account in the virtual task; and each object acquisition control may be configured to acquire a plurality of virtual objects having the

common object attribute. Thus, in a case that the target object acquisition control is determined from a plurality of object acquisition controls, the target object set acquired according to the target object acquisition control is displayed. Thus, a probability of acquiring particular virtual objects may be increased through a corresponding association relationship between the object attributes and the object acquisition controls. Thus, the combinations of the particular virtual objects are acquired in a plurality of object acquisition operations in the turn-based virtual task, so as to efficiently acquire the combinations of the particular virtual objects and reduce the difficulty in acquiring the combinations of the particular virtual objects.

[0056] In addition, in the embodiments of the present disclosure, the displayed object acquisition control may be determined according to the account description information configured for indicating the task progress of the target account in the virtual task, so that different object acquisition controls may be displayed in different stages of the target account, for the user to choose to acquire the virtual objects having different object attributes in different stages, thereby improving the flexibility of combining the virtual objects.

[0057] In some embodiments, as shown in FIG. 2, the acquisition method for the virtual object includes the following operations:

[0058] S202: Acquire, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account description information being configured for indicating task progress of the target account in the turn-based virtual task;

[0059] S204: Display at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which includes at least one virtual object having the common object attribute;

[0060] S206: Display, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and

[0061] S208: Display, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

[0062] The acquisition method for the virtual object provided in this embodiment of the present disclosure may be applied to, including but not limited to, a game application that may

provide a selectable virtual object for an object account. A game type of the game application may include, but is not limited to, an MOBA game application, an MMORPG game application, and an auto battler type game application. An application scene for acquiring the virtual object is not limited in this embodiment of the present disclosure. The game application of the above type may include a plurality of interaction turns; and object accounts for performing an interaction task may acquire respective virtual objects in respective turns through operation S202 to operation S208, and perform an interaction operation through the acquired virtual objects. An attack operation may be performed between the virtual objects respectively possessed by the object accounts having an adversarial relationship. A mutual assistance operation may be performed between the virtual objects respectively possessed by the object accounts having a teammate relationship.

[0063] The content of the task of the auto battler game is described below. In the auto battler type game application, the game task may be an in-game collectible hero card multiplayer turn-based competitive task. N players participate in the game, and perform battles in pairs in sequence. The players in the game occupy one virtual battle site respectively, and the sites of two players performing the battle are spliced in a battle stage, to perform the battle on the virtual battle site obtained through splicing. Each game task includes a plurality of turns. Each turn includes two stages, i.e., a preparation stage and a battle stage: In the preparation stage, a player purchases game pieces (i.e., virtual objects) in a shop and arranges formations on a chessboard. In the battle stage, the lineups of both opposing parties are locked, and the game pieces automatically engage in battle until all the game pieces of one party are dead. The party having all the game pieces in death is a loser in this turn, and a health value (a battle resource) is deducted from the loser. After the virtual task of current two object accounts is ended, new opponents are matched for each player again, and the player is discarded for outstanding when the health value is greater than or equal to 0. The last remaining player will win the game (the first place).

[0064] In operation S202, the target turn that matches the target account may be a stage in which the target account is allowed to perform operations of acquiring the virtual object and deploying the virtual object in the virtual site. Specifically, operation S202 to operation S208 may be applied to a virtual object acquisition stage.

[0065] The account description information of the target account in operation S202 may be parameter information configured for indicating the task progress of the target account in the turn-based virtual task. For example, the account description information may specifically include, but is not limited to, an account level of the target account, a quantity of virtual resources possessed by the target account, a virtual experience value accumulated by the target account through the

interaction operation in the virtual task, a turn sequence number of a target turn of the target account, and the like. The specific content of the account description information is not limited in this embodiment of the present disclosure.

[0066] In some embodiments, after the account description information is acquired through operation S202, an object acquisition control that matches the account description information may be displayed through operation S204. The object acquisition control in operation S204 may be one or more. A matching relationship between the account description information and the object acquisition control may include, but is not limited to, matching the account description information with a specific type of object acquisition control, or matching the account description information with a specific quantity of object acquisition controls. In some embodiments, the matching relationship between the account description information and the object acquisition controls may correspond to different account description information, and control types and control quantities of the displayed object acquisition controls are different.

[0067] In addition, the object acquisition control may be configured to acquire a virtual object set composed of at least one virtual object having the common object attribute. The object attribute of the virtual object may be configured for indicating an object characteristic in at least one aspect of the virtual object. For example, the object attribute may be specifically an object level, configured for indicating strength of an object virtual capability of the virtual object in a process of the interaction operation. The object attribute may further be specifically an object type, and for example, may be a virtual object type such as a warrior type or a shooter type, configured for indicating an operation characteristic of the virtual object in a process of the virtual interaction operation. For example, a warrior type of the virtual object may be configured with a high defense capability, and a shooter type of the virtual object may be configured with a long attack distance. In this embodiment, the specific content of the object attribute is not limited.

[0068] With reference to operation S202 and operation S204, through a combination between operation S202 and operation S204, in a case that the target account is in different task progresses, different object acquisition controls may be correspondingly displayed, so that the target account acquires virtual objects having different characteristics, to obtain a particular virtual object combination.

[0069] Several exemplary combination modes of the account description information and the object attributes are described below.

[0070] In a case that the account description information is specifically the account level of the target account, and the object attribute is specifically the object level of the virtual object, the

account level may accumulate an operation experience value according to a task operation of the target account in the turn-based virtual task, and is updated according to the accumulated operation experience value. The object level may be configured for indicating the operation strength of the virtual object in the interaction operation. The operation strength may be one or more of an attribute value, an attack force value, and a defense force value. Further, in a case that the account description information is specifically the account level of the target account, and the object attribute is specifically the object level of the virtual object, the target account may select to acquire a large quantity of low-level virtual objects at an early stage of the task progress, and form a particular virtual object combination through the large quantity of low-level virtual objects, so as to further win the game through the quickly formed particular virtual object combination. In addition, the target account may alternatively choose to first reserve a chance of acquiring the virtual objects in the early stage of the task progress, and start to acquire high-level virtual objects in a late stage. In this case, the target account may have an adversarial disadvantage in the early stage due to lack of the virtual object combination, but may acquire the high-level virtual objects in the late stage through resources accumulated in the late stage, and win the game through an object combination of the high-level virtual objects formed in the late stage.

[0071] In a case that the account description information is specifically the account level of the target account, and the object attribute is specifically the object type of the virtual object, the object level may be configured for indicating an operation characteristic of the virtual object in the interaction operation. For example, a virtual object corresponding to a "water" attribute may restrain a virtual object having a "fire" attribute.

[0072] In some embodiments, in a case that the account description information is the account level of the target account, and the object attribute of the virtual object is the object type, if an opponent account possesses a first-type virtual object in a first stage, a plurality of second-type virtual objects are acquired in the first stage and the plurality of second-type virtual objects are combined into a second-type virtual object set, where the second-type virtual objects are configured for restraining the first-type virtual object; and if a to-be-interacted virtual object set possessed by the opponent account in a second stage includes a third-type virtual object, a fourth-type virtual object configured for restraining the third-type virtual object is acquired to form a virtual object set.

[0073] Further, in a case that the account description information is specifically the account level of the target account, and the object attribute is specifically the object type of the virtual object, the target account may choose to acquire, in the early stage of the task progress (i.e., the first stage), in response to a virtual object having a "fire" attribute (i.e., the first type) possessed by the

opponent account, a large quantity of virtual objects having a "water" attribute (i.e., the second type), and form a particular object combination having the "water" attribute through the large quantity of virtual objects having the "water" attribute, so as to restrain the virtual objects possessed by the opponent account through the quickly formed particular virtual object combination. In addition, the target account may alternatively choose to determine, in the late stage of the task progress (i.e., the second stage), a target object set having a particular object attribute that currently needs to be acquired according to the combination of the virtual objects possessed by the opponent in a case that a quantity of exemplary object acquisition controls is increased, so as to confront the virtual objects possessed by the opponent account.

[0074] The above combination mode is merely an example and is not intended to limit an actual combination mode.

[0075] In some embodiments, in a case that the exemplary object acquisition controls are displayed through operation S202 and operation S204, the target account may display, through operation S206 and operation S208, the virtual objects in the target object set corresponding to the selected target object acquisition controls, and configure, in response to a selection operation, the selected target virtual objects in an interaction object set possessed by the target account, so that the target account arranges and controls the target virtual objects to perform a subsequent interaction operation.

[0076] The trigger operation on the target object acquisition control may include, but is not limited to, a click operation, a double-click operation, a long press operation, and the like performed on a control identifier of the target object acquisition control. In some embodiments, the selection operation on the target virtual object may include, but is not limited to, a click operation, a double-click operation, a long press operation, and the like performed on an object identifier of the target virtual object. The specific operation types of the selection operation and the trigger operation are not limited in this embodiment of the present disclosure.

[0077] The mode of interaction of the target virtual objects in the target region in a plurality of games is described below.

[0078] For example, in a case that the game application is an MOBA type game application, a plurality of object acquisition controls may be correspondingly displayed in a particular stage of the game according to a character level of a current virtual character controlled by the target account; and in a case that the target virtual objects (in this embodiment of the present disclosure, the virtual objects may be virtual prop objects) are selected from the target object set corresponding to the selected target object acquisition control, the acquired target virtual objects are configured for

the virtual characters, to control the virtual characters to perform competitive interaction in a virtual scene. Correspondingly, the target region may be a virtual prop bar configured for displaying the virtual characters controlled by the target account.

[0079] For another example, in a case that the game application is an MMORPG type game application, each object account will control one virtual character to perform the competitive interaction in a virtual scene. In a particular stage in the game, a plurality of object acquisition controls may be correspondingly displayed according to the character level of the current virtual character controlled by the target account; and in a case that the target virtual objects (in this embodiment of the present disclosure, the virtual objects may be virtual prop objects) are selected from the target object set corresponding to the selected target object acquisition control, the acquired target virtual objects are configured on the virtual characters, to control the virtual characters to perform the competitive interaction in a virtual scene. Correspondingly, the target region may be a virtual backpack configured for displaying the virtual character controlled by the target account. The virtual backpack may be configured for displaying a virtual prop currently possessed by the virtual character, such as a virtual attack prop, a virtual helmet, and a virtual armor.

[0080] For another example, in a case that the game application is an auto battler type game application, the object accounts may obtain at least one virtual object (which may be specifically a virtual game piece) through operation S202 to operation S208. Correspondingly, the target region may be specifically a battle preparation region, and is configured for displaying the virtual objects possessed by the target account in a waiting state. Further, the virtual scene of the auto battler type game application may further include a battle region. The virtual objects in the battle region may perform the virtual interaction operation without being interfered by the target account. The virtual interaction operation may include, but is not limited to, a virtual attack operation, a virtual defense operation, a virtual skill casting operation, and the like.

[0081] In the embodiments of the present disclosure, at least one object acquisition control that matches the account description information is determined according to the account description information configured for indicating the task progress of the target account in the virtual task; and each object acquisition control may be configured to acquire a plurality of virtual objects having the common object attribute. Thus, in a case that the target object acquisition control is determined from a plurality of object acquisition controls, the target object set acquired according to the target object acquisition control is displayed. Thus, a probability of acquiring particular virtual objects may be increased through a corresponding association relationship between the object attributes and

the object acquisition controls. Thus, the combinations of the particular virtual objects are acquired in a plurality of object acquisition operations in the turn-based virtual task, so as to efficiently acquire the combinations of the particular virtual objects and reduce the difficulty in acquiring the combinations of the particular virtual objects.

[0082] In addition, in the embodiments of the present disclosure, the displayed object acquisition control may be determined according to the account description information configured for indicating the task progress of the target account in the virtual task, so that different object acquisition controls may be displayed in different stages of the target account, for the user to choose to acquire the virtual objects having different object attributes in different stages, thereby improving the flexibility of combining the virtual objects.

[0083] The game task in the auto battler type game application is described below with reference to FIG. 3. As shown in FIG. 3, a current interaction interface on a current client to which a target account logs in is displayed. A battle preparation region 301 in FIG. 3 is a specific target region, and a "little monster 7" shown therein is a virtual object currently possessed by the target account and in a waiting state. A "little monster 1", a "little monster 2", a "little monster 3" and a "little monster 4" shown in the battle preparation region 302 are virtual objects currently possessed by the target account and selected to participate in a virtual adversarial interaction. Correspondingly, a "little monster 5" and a "little monster 6" shown in FIG. 3 are virtual objects selected by an opponent account to participate in a virtual object interaction. In a preparation stage in a battle turn in the auto battler type game application, the target account and the opponent account may acquire the virtual objects through the methods in operation S202 to operation S208, select the virtual objects participating in a battle, increase levels of the virtual objects participating in the battle, and arrange positions of the virtual objects. In a battle stage, the virtual objects located on a chessboard shown in FIG. 3 automatically engage in battle. After a plurality of turns, in a case that all the virtual objects of one party are "killed", a match result of a current turn is determined.

[0084] In some embodiments, the displaying, in an object acquisition stage, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control includes:

[0085] S1: Consume, in response to the trigger operation on the target object acquisition control, a target quantity of virtual resources from a virtual resource set currently possessed by the target account, in a case that target resource indication information is displayed on the target object acquisition control, the at least one object acquisition control displaying one piece of resource indication information respectively, and the resource indication information being configured for

indicating virtual resources to be consumed for acquiring a corresponding virtual object set according to the object acquisition control;

[0086] S2: Acquire the target object set corresponding to the target object acquisition control, the virtual objects in the virtual object set corresponding to one object acquisition control having the same object level, an object level of candidate virtual objects in the target object set being a target level, and an object attribute including the object level; and

[0087] S3: Display the candidate virtual objects included in the target object set.

[0088] In this embodiment of the present disclosure, the resource indication information may be further displayed on the at least one object acquisition control displayed in operation S204, to indicate a virtual resource to be consumed by acquiring the virtual object set through a corresponding object acquisition control. The virtual resource may be a resource acquired by the target account by performing an interaction task in the turn-based virtual task, and may be, for example, a virtual empirical value or a virtual gold coin, where the virtual resource may not be exchanged for a currency. The specific resource type of the virtual resource is not limited in this embodiment of the present disclosure.

[0089] In this embodiment of the present disclosure, the object attribute in operation S204 may be specifically an object level. In this embodiment of the present disclosure, different resource indication information may be configured and displayed for different object acquisition controls. Thus, in a case that different object acquisition controls may be configured to acquire candidate virtual objects having different object levels, the resource indication information displayed on the object acquisition controls may be configured for indicating that a plurality of candidate virtual objects having different object levels are displayed by consuming different quantities of virtual resources.

[0090] The above implementation is specifically described below with reference to FIG. 4, FIG. 5, and FIG. 6. As shown in FIG. 4, in an object acquisition stage in a current turn of a target account, an application interface may be displayed as shown in FIG. 4. In FIG. 4, an account level identifier 401 configured for indicating a current account level of the target account is displayed, where the account level identifier 401 is configured for indicating that the current account level of the target account is "7". In this embodiment of the present disclosure, the level of the account may be increased by consuming the virtual resources.

[0091] In some embodiments, a display region 402 configured for indicating an interaction virtual object currently possessed by the target account is further displayed on the interface, and a plurality of virtual objects waiting to perform a virtual interaction operation are displayed therein.

[0092] The interface further displays a resource prompt identifier 403 configured for indicating a virtual resource currently possessed by the target account, where the resource prompt identifier 403 indicates that the virtual resource (virtual gold coin) currently possessed by the target account is "20".

[0093] In addition, the interface further displays an object acquisition region 404 and a plurality of object acquisition controls that are in the object acquisition region and that are configured to acquire a virtual object set. The plurality of object acquisition controls include an object acquisition control 405. For example, a plurality of object display regions are displayed in the object acquisition region 404, and the object display regions may be displayed in an empty state (a legend shown as a line and blank in FIG. 4), to indicate that the virtual object set has not been currently acquired by refresh.

[0094] The plurality of object acquisition controls displayed in the object acquisition region 404 display corresponding resource indication information. For example, "1 cost; consume 1 gold coin" displayed in the object acquisition control 405 indicates that a virtual object set having an object level of "1 cost" may be acquired by consuming 1 gold coin; correspondingly, the resource indication information displayed on other object acquisition controls displayed in the object acquisition region 404 indicates the following object acquisition information, respectively: a virtual object set having an object level of "2 cost" may be acquired by consuming 2 gold coins; a virtual object set having an object level of "3 cost" may be acquired by consuming 3 gold coins; and a virtual object set having an object level of "4 cost" may be acquired by consuming 4 gold coins.

[0095] As shown in FIG. 4, in response to that the currently triggered target object acquisition control is an object acquisition control 405, interface switching display is shown in FIG. 5. In FIG. 5, an object acquisition region 504, an object acquisition control 505, and a resource prompt identifier 503 are updated and displayed, respectively. First, a target object set is acquired according to the object acquisition control 505, and five candidate virtual objects (displayed as a grayscale legend in the object acquisition region 504) included in the target object set are displayed in the object acquisition region 504, including a "little monster a", a "little monster b", a "little monster c", a "little monster d", and a "little monster e". Meanwhile, the object acquisition control 505 may be highlighted, to indicate that the object level of the currently acquired virtual object in the object set is "1 cost", and 1 gold coin has been consumed. Correspondingly, the resource prompt

identifier 503 updates and displays the quantity of the virtual gold coins currently possessed by the target account as "19".

[0096] In some embodiments, in response to a selection operation on the "little monster e", interface switching display is shown in FIG. 6. In FIG. 6, an object display region corresponding to the "little monster e" is displayed in grayscale in the object acquisition region to indicate that a target virtual object "little monster e" has been currently acquired. Meanwhile, an object identifier 601 corresponding to the "little monster e" is displayed in a display region 602 to indicate that the current target account possesses the target virtual object "little monster e".

[0097] In the above implementation, the virtual object set may be acquired by consuming the virtual resource, to display a candidate virtual object, and in a case that the target virtual object is selected and acquired, the virtual resource does not need to be consumed. In some other embodiments, in response to a selection operation on the "little monster e" in FIG. 5, the virtual resources currently possessed by the target account may be further consumed, to acquire the target virtual object "little monster e".

[0098] Through this embodiment of the present disclosure, in a case that the target resource indication information is displayed on the target object acquisition control, in response to a trigger operation on the target object acquisition control, a target quantity of virtual resources are consumed from the virtual resource set currently possessed by the target account. A target object set corresponding to the target object acquisition control is acquired, so that a plurality of object acquisition controls indicating that different virtual resources need to be consumed may be displayed; and virtual objects having different levels are acquired by consuming corresponding virtual resources through a selection operation on the target account, so that a user may determine resource consumption and acquired virtual objects through a corresponding association relationship between the object levels and the object acquisition controls, so as to increase a probability of acquiring particular virtual objects. Thus, the combinations of the particular virtual objects are acquired in a plurality of object acquisition operations in the turn-based virtual task, so as to efficiently acquire the combinations of the particular virtual objects and reduce the difficulty in acquiring the combinations of the particular virtual objects.

[0099] In some embodiments, the displaying at least one object acquisition control that matches the account description information includes:

[00100] S1: Display a first object acquisition control according to a target style in a case that a resource quantity of the virtual resources currently possessed by the target account is less than a

first quantity indicated by first resource indication information, the first resource indication information being displayed on the first object acquisition control; and

[00101] S2: Display operation prompt information in response to a trigger operation on the first object acquisition control, the operation prompt information being configured for indicating that a virtual object set corresponding to the first object acquisition control may not be acquired currently.

[00102] In this embodiment of the present disclosure, in a case that the resource quantity of the virtual resources currently possessed by the target account is less than or equal to the resource quantity corresponding to the first object acquisition control in the plurality of object acquisition controls, the first object acquisition control may be displayed in a preset style to indicate that the first object acquisition control may not be triggered currently. The preset style includes at least one of the following: a preset control color, a preset control shape, and a preset control size. For example, the first object acquisition control may be displayed in grayscale to indicate that the first object acquisition control may not be triggered.

[00103] In the above implementation, in a case that the first object acquisition control is displayed in grayscale, in response to a click operation on the first object acquisition control, the operation prompt information may be displayed to indicate that the virtual object set may not be acquired currently through the first object acquisition control.

[00104] For example, in FIG. 7, assuming that a quantity of virtual gold coins currently possessed by the target account is 2, object acquisition controls that may be currently triggered by the target account are "1 cost" and "2 cost" object acquisition controls, and object acquisition controls that may not be triggered are "3 cost" and "4 cost" object acquisition controls. Thus, the "3 cost" and "4 cost" object acquisition controls are displayed in grayscale to indicate that a virtual object set of "3 cost" or "4 cost" may not be acquired through the "3 cost" or "4 cost" object acquisition control.

[00105] In this embodiment of the present disclosure, in a case that the resource quantity of the virtual resources currently possessed by the target account is less than the first quantity indicated by the first resource indication information, the first object acquisition control is displayed according to the target style; and in response to the trigger operation on the first object acquisition control, the operation prompt information is displayed, so as to efficiently prompt a triggerable state of the object acquisition controls, thereby improving display efficiency of the object acquisition controls.

[00106] In some embodiments, after the displaying, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control, the method further includes:

[00107] S1: Consume, in response to a trigger operation on a reference object acquisition control, a reference quantity of virtual resources from the virtual resource set currently possessed by the target account;

[00108] S2: Acquire a reference object set corresponding to the reference object acquisition control, an object level of candidate virtual objects in the reference object set being a reference level;

[00109] S3: Update the target object set according to the reference object set; and

[00110] S4: Display the candidate virtual objects included in an updated target object set.

[00111] In some embodiments, for each account, a virtual resource set possessed by the account is recorded.

[00112] In this embodiment of the present disclosure, after the target object set is acquired and displayed, in response to the trigger operation on the reference object acquisition control, a corresponding virtual resource is consumed, and the displayed target object set is updated according to the reference object set acquired based on the reference object acquisition control.

[00113] In some embodiments, the reference object acquisition control and the target object acquisition control may be the same control or may be different controls. In a case that the reference object acquisition control is an object acquisition control different from the target object acquisition control, correspondingly, a reference quantity of virtual resources consumed by triggering the reference object acquisition control may be different from a target quantity of virtual resources consumed by triggering the target object acquisition control. Correspondingly, an object level of the virtual object in the reference object set acquired through the reference object acquisition control may be different from an object level of the virtual object in the target object set acquired through the target object acquisition control.

[00114] In this embodiment of the present disclosure, in response to the trigger operation on the reference object acquisition control, the reference quantity of virtual resources are consumed from the virtual resource set currently possessed by the target account; the reference object set corresponding to the reference object acquisition control is acquired; the target object set is updated according to the reference object set; and the candidate virtual objects included in an updated target object set are displayed. Thus, after the target object set is acquired by the target account based on

the target object acquisition control, a corresponding quantity of virtual resources may further be consumed according to the reference object acquisition control, and the acquired target object set is updated, so as to increase a probability that the target account acquires particular virtual objects.

[00115] In some embodiments, the updating the target object set according to the reference object set includes one of the following:

[00116] First mode: replacing the candidate virtual objects in the target object set with the candidate virtual objects in the reference object set; and

[00117] Second mode: adding the candidate virtual objects included in the reference object set into the target object set.

[00118] Two methods for updating the target object set may be provided in this embodiment of the present disclosure. In the first mode, the target object set may be directly replaced according to the acquired reference object set. In the second mode, the candidate virtual objects in the reference object set may be further added based on the target object set.

[00119] The above two update modes are specifically described below: Assuming that the object level of the candidate virtual objects in the target object set acquired through the target object acquisition control is "1 cost", correspondingly, 1 gold coin needs to be consumed and the object quantity of the candidate virtual objects in the target object set is 5; and assuming that the object level of the candidate virtual objects in the reference object set acquired through the reference object acquisition control is "4 cost", correspondingly, 4 gold coins need to be consumed and the object quantity of the candidate virtual objects in the reference object set is 2.

[00120] Further, in the first update mode, assuming that the target account first triggers the target object acquisition control for the first time, then five candidate virtual objects having an object level of "1 cost" may be acquired by consuming 1 virtual gold coin of the target account. In a case that the five candidate virtual objects having the object level of "1 cost" are displayed, assuming that the target account triggers the reference object acquisition control for the second time, then the target account may further consume 4 virtual gold coins possessed by the target account to acquire the reference object set, as shown in FIG. 8. The five candidate virtual objects having the object level of "1 cost" are simultaneously undisplayed, and instead, two candidate virtual objects having an object level of "4 cost" included in the reference object set are displayed.

[00121] In the second update mode, assuming that the target account first triggers the target object acquisition control for the first time, then five candidate virtual objects having an object level of "1 cost" may be acquired by consuming 1 virtual gold coin of the target account. In a case that

the five candidate virtual objects having the object level of "1 cost" are displayed, assuming that the target account triggers the reference object acquisition control for the second time, then the target account may further consume 4 virtual gold coins possessed by the target account to acquire the reference object set, as shown in FIG. 9. In a case that the five candidate virtual objects having the object level of "1 cost" are simultaneously displayed, two virtual objects having an object level of "4 cost" included in the reference object set are further displayed, i.e., the five candidate virtual objects having the object level of "1 cost" and the two candidate virtual objects having the object level of "4 cost" are synchronously displayed.

[00122] In some embodiments, a mode of displaying the candidate virtual objects in the updated target object set in the display region in the display interface may be adjusted according to a quantity of the candidate virtual objects. For example, in a case that the quantity is large (for example, the quantity is greater than a quantity threshold), object identifiers of the candidate virtual objects may be zoomed out according to a zooming-out proportion, where the zooming-out proportion is negatively correlated with the quantity. Alternatively, in a case that a quantity of the candidate virtual objects is large, part of the candidate virtual objects may be displayed, and a slide control may be displayed, so that another remaining part of the candidate virtual objects is displayed in response to a slide operation performed on the slide control. In this embodiment of the present disclosure, a specific display mode of the candidate virtual objects is not limited.

[00123] In this embodiment of the present disclosure, the candidate virtual object in the target object set is replaced with the candidate virtual object in the reference object set. Alternatively, the candidate virtual object included in the reference object set is added into the target object set, thereby providing a mode of updating the acquired target object set, to increase an acquisition probability of acquiring a particular virtual object needed by the target account, and further increase a probability of acquiring a particular virtual object combination needed by the target account. By adding the candidate virtual object included in the reference object set into the target object set, only the newly added candidate virtual object needs to be processed, which reduces resource occupation and saves network communication overheads in a data transmission process.

[00124] In some embodiments, the acquiring a reference object set corresponding to the reference object acquisition control includes:

[00125] First case: acquiring a second quantity of candidate virtual objects as the reference object set in a case that the reference level is higher than the target level, the second quantity being less than a third quantity of the candidate virtual objects included in the target object set before update; and

[00126] Second case: acquiring a fourth quantity of candidate virtual objects as the reference object set in a case that the reference level is less than or equal to the target level, the fourth quantity being greater than or equal to a fifth quantity of the candidate virtual objects included in the target object set before update.

[00127] In this embodiment of the present disclosure, corresponding to object acquisition controls configured to acquire virtual objects having different object levels, object quantities of the candidate virtual objects included in the acquired virtual object set may be different. Specifically, the object levels of the virtual objects which may be acquired may be negatively correlated with the object quantities.

[00128] As shown in FIG. 6 and FIG. 8, in FIG. 6, an object level of a virtual object that may be acquired by triggering a target object acquisition control is "1 cost" and the object quantity is 5. In a case that the reference object acquisition control that is further triggered is "4 cost; consume 4 gold coins", virtual resources currently possessed by the target account may be further consumed, i.e., 19 virtual gold coins originally possessed by the target account are updated and displayed as 15 virtual gold coins, and at the same time, two candidate virtual objects "little monster f" and "little monster g" acquired according to the reference object acquisition control are updated and displayed.

[00129] In some other embodiments, all virtual objects included in two virtual object sets acquired by sequentially triggering the target object acquisition control and the reference object acquisition control may be collectively displayed, so that the target accounts select to-be-acquired target virtual objects therefrom.

[00130] In some embodiments, in a virtual object acquisition stage of a target turn, an object quantity of virtual objects that may be acquired by each object acquisition control is fixed, and negatively correlated with object levels of the virtual objects acquired by the object acquisition controls.

[00131] In some other embodiments, in the virtual object acquisition stage of the target turn, in a case that the object acquisition control is triggered for the first time, the object quantities of the acquired virtual objects are all fixed values (for example, are all 5), and in a case that the target account further triggers the reference object acquisition control subsequently, the object quantities of the virtual objects that may be acquired by the object acquisition controls are negatively correlated with the object levels of the virtual objects.

[00132] In this embodiment of the present disclosure, in a case that virtual objects having different levels are acquired through the object acquisition controls, the higher the object levels are,

the smaller the object quantity of the acquired virtual objects is. Thus, in a case that the target account accumulates a large quantity of virtual resources, the target account is prevented from easily acquiring an object combination composed of high-level virtual objects, thereby improving task balance in a turn-based virtual task. The quantity of the virtual objects is automatically adjusted according to the object levels of the virtual objects, thereby improving virtual object processing efficiency.

[00133] In some embodiments, the acquiring the target object set corresponding to the target object acquisition control includes one of the following:

[00134] First mode: acquiring, from a preset first virtual object set and according to the first quantity, the candidate virtual objects having the object level being the target level as the target object set, the first virtual object set including a plurality of virtual objects having different object levels, and the first virtual object set being configured for providing the virtual objects for different object accounts in the turn-based virtual task;

[00135] Second mode: acquiring, from a second virtual object set possessed by the target account and according to the first quantity, the candidate virtual objects having the object level being the target level as the target object set, the second virtual object set including a plurality of virtual objects configured for the target account before the turn-based virtual task starts; and

[00136] Third mode: acquiring, from the interaction object set possessed by the reference account and according to the first quantity, the candidate virtual objects having the object level being the target level, and taking the candidate virtual objects having the target level as the target object set, the reference account being configured for performing a card interaction operation with the target account in the turn-based virtual task.

[00137] Where the first quantity is an object quantity corresponding to the target object acquisition control.

[00138] This embodiment of the present disclosure provides a plurality of exemplary virtual object acquisition scenes. In an object acquisition scene in the first mode, the target account and other object accounts that perform the interaction operation may share the first virtual object set; and in a case that the target object acquisition control is triggered, a target quantity corresponding to the target object acquisition control, and a virtual object having a corresponding target object level are acquired and displayed.

[00139] In an object acquisition scene in the second mode, the second virtual object set may be preconfigured based on the target account. For example, the second virtual object set may be an

object set composed of a plurality of virtual objects pre-acquired by the target account. In a card game, cards preconfigured by the target account are used as the second virtual objects, and the second virtual object set may be a set of the cards preconfigured by the target account. Further, in a case that the target object acquisition control is triggered, a target quantity corresponding to the target object acquisition control, and a virtual object having a corresponding target object level are acquired and displayed.

[00140] In an object acquisition scene in the third mode, a new interaction mode may be used. In the interaction mode, the target object set may be acquired based on virtual objects possessed by an opponent account and/or a teammate account. Further, in a case that the target object acquisition control is triggered, a target quantity corresponding to the target object acquisition control, and a virtual object having a target object level corresponding to the target object acquisition control are acquired and displayed from the virtual object set currently possessed by the teammate account. Alternatively, a target quantity corresponding to the target object acquisition control, and a virtual object having a corresponding target object level are acquired and displayed from the virtual object set currently possessed by the opponent account. Alternatively, a first quantity of virtual objects are acquired from a virtual object set currently possessed by the teammate account, a second quantity of virtual objects are acquired from a virtual object set currently possessed by the opponent account, and the target quantity and the virtual object having a target object level are displayed, where a sum of the first quantity and the second quantity is equal to the target quantity.

[00141] In this embodiment of the present disclosure, the object acquisition method may be used in a plurality of exemplary scenes. Candidate virtual objects having a target level may be acquired from the preset first virtual object set, the second virtual object set possessed by the target account, or the interaction object set possessed by the reference account as the target object set. Approaches for acquiring the candidate virtual object are diversified, thereby improving flexibility of acquiring the virtual objects from the turn-based virtual task.

[00142] In some embodiments, the displaying at least one object acquisition control that matches the account description information includes:

[00143] S1: Determine, from a plurality of level intervals and according to an account level of the target account, a target level interval to which the account level belongs, the account description information including the account level, and the account level being updated according to an account operation of the target account in the turn-based virtual task;

[00144] S2: Determine the at least one object acquisition control according to the target level interval, a control quantity of the object acquisition control being positively correlated with the account level indicated by the level interval; and

[00145] S3: Display the at least one object acquisition control, the at least one object acquisition control including the target object acquisition control.

[00146] In this embodiment of the present disclosure, the account description information may be specifically the account level. Further, the quantity and the types of the displayed object acquisition controls are related to the account level.

[00147] In some embodiments, after the displaying, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the method further includes:

[00148] S1: Determine, from the plurality of level intervals, a reference level interval to which the account level belongs, in a case that the account level of the target account increases from the target level to the reference level in a reference turn that matches the target account in the turn-based virtual task; and

[00149] S2: Acquire a reference object acquisition control that matches the reference level interval, and updating and displaying the at least one object acquisition control according to the reference object acquisition control, an object level of the virtual objects acquired by the reference object acquisition control being higher than an object level of the virtual objects in the target object set.

[00150] In this embodiment of the present disclosure, the account level of the target account may be positively correlated with the control quantity of the displayed object acquisition controls, and the account level of the target account may also be positively correlated with the object level of the virtual object that may be acquired by the object acquisition control.

[00151] As shown in FIG. 10, according to the indication information of an account level identifier 1001, in a case that the account level of the target account is level 1, the quantity of a correspondingly displayed object acquisition control is 1, and the displayed object acquisition control 1002 may acquire a virtual object having an object level of "1 cost". Compared with FIG. 4, in a case that the account level of the target account is level 7, the quantity of correspondingly displayed object acquisition controls is 4, and the displayed object acquisition controls include a virtual object, which may be acquired, having a highest object level of "4 cost".

[00152] In this embodiment of the present disclosure, the reference level interval to which the account level belongs is determined from the plurality of level intervals, in a case that the account level of the target account increases from the target level to the reference level in a reference turn that matches the target account in the turn-based virtual task; and the reference object acquisition control that matches the reference level interval is acquired, and the at least one object acquisition control is updated and displayed according to the reference object acquisition control. Thus, in a case that the account level of the target account is continuously increased, a new object acquisition control that may acquire a higher-level virtual object may be continuously activated and displayed, so that the target account may freely select different strategies of acquiring and combining virtual objects. Meanwhile, an object acquisition control of a corresponding level is acquired according to the account level, to ensure that only when the account level is gradually increased, the object acquisition control of the higher-level virtual object may be activated, thereby avoiding a case that the higher-level virtual object may be acquired in a case that the account level is low, and ensuring balance between different accounts.

[00153] Specifically, because a high-level object acquisition control needs to consume more virtual resources for activation, the target account may choose to consume fewer virtual resources in an early stage of a task to quickly obtain a large quantity of low-level virtual objects to form a first virtual object combination. Alternatively, the target account may choose not to consume virtual resources temporarily in the early stage, to accumulate virtual resources in a late stage of the task, i.e., in a case that the account level of the object account is high, a high-level object acquisition control is activated to acquire a low-level virtual object, thereby acquiring a second virtual object combination. That is, the object acquisition control displayed in this embodiment of the present disclosure may be determined according to the account description information configured for indicating the task progress of the target account in the virtual task, so that different object acquisition controls may be displayed in different stages of the target account, for a user to choose to acquire virtual objects having different object attributes in different stages, thereby improving the flexibility of combining the virtual objects.

[00154] In this embodiment of the present disclosure, the reference level interval to which the account level belongs is determined from the plurality of level intervals, in a case that the account level of the target account increases from the target level to the reference level in a reference turn that matches the target account in the turn-based virtual task; and the reference object acquisition control that matches the reference level interval is acquired, and the at least one object acquisition control is updated and displayed according to the reference object acquisition control. Thus, in a case that the account level of the target account is continuously increased, a new object

acquisition control that may acquire a higher-level virtual object may be continuously activated and displayed, so that the target account may freely select different strategies for acquiring and combining virtual objects.

[00155] In some embodiments, after the displaying, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the method further includes: increasing an object interaction parameter of first interaction virtual objects in a case that an object quantity of the first interaction virtual objects displayed in the target region is greater than or equal to a target quantity, the object interaction parameter being configured for indicating operation strength of the first interaction virtual objects to perform the interaction operation, and the first interaction virtual objects being virtual objects of a target category.

[00156] In this embodiment of the present disclosure, a particular quantity of interaction virtual objects of the same type are possessed to increase the object parameter of the interaction virtual objects. That is, particular gain processing is performed on the particular quantity of interaction virtual objects of the same type possessed by the target account.

[00157] The gain processing may include, but is not limited to, increasing the object level of the first interaction virtual objects, increasing a virtual skill of the first interaction virtual objects, and increasing object attribute data of the first interaction virtual objects.

[00158] Specifically, the object parameter may be specifically embodied as a virtual synergy skill. The virtual synergy skill may act on the interaction virtual objects of the same object type possessed by the target account. For example, in a case that the virtual synergy skill is "enhance armors", armors of a plurality of warrior-type interaction virtual objects are enhanced when a quantity of the warrior-type interaction virtual objects possessed by the target account is greater than or equal to three (i.e., a target quantity). For another example, in a case that the virtual synergy skill is "increase damage values", damage values that a plurality of interaction virtual objects can inflict on enemy virtual objects may be increased at the same time when a quantity of the assassin-type interaction virtual objects possessed by the target account is greater than or equal to three.

[00159] In some embodiments, a gain effect may be preset in a server, or may be set by a user. When a quantity of the first interaction virtual objects displayed in the target region is equal to the target quantity, the target quantity of first interaction virtual objects may be fused to obtain a second interaction virtual object. The second interaction virtual object has an increased object interaction parameter, i.e., has the gain effect.

[00160] In this embodiment of the present disclosure, the target quantity of first interaction virtual objects are fused into the second interaction virtual object, and the gain effect of a plurality of first interaction virtual objects of the same type is reflected by one second interaction virtual object, thereby reducing occupation of a memory by the plurality of first interaction virtual objects, shortening determination time of a server for the virtual objects possessed by the target account, and improving virtual object interaction efficiency.

[00161] In some embodiments, the displaying, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control includes:

[00162] S1: Highlight a target virtual object in the target object set in a case that the target object set includes the target virtual object that belongs to the target category; and

[00163] S2: Display target prompt information in a case that the target object set does not include the virtual object that belongs to the target category, the target prompt information being configured for indicating update of the target object set by consuming virtual resources; and consuming, in response to a confirmation operation on the target prompt information, the target quantity of virtual resources from the virtual resource set currently possessed by the target account, and updating the target object set.

[00164] In this embodiment of the present disclosure, when the candidate virtual objects in the target object set are displayed, the candidate virtual objects that may form a particular object combination may be highlighted, thereby prompting the target account that the highlighted candidate virtual objects may be acquired to acquire a particular virtual object combination.

[00165] In addition, the target prompt information may be displayed in a case that the displayed candidate virtual objects in the target object set do not include the virtual objects that may form the particular object combination. A mode of displaying the target prompt information may include, but is not limited to, prompting in a text form, or efficiently prompting in an image display form, to indicate that the target object set may be updated by further consuming virtual resources, thereby increasing a probability of acquiring a particular type of candidate virtual objects and increasing a probability of acquiring a particular virtual object combination. In the above implementation, in response to the confirmation operation on the target prompt information by the target account, an update operation on the target object set may be further triggered, thereby improving update efficiency of the target object set.

[00166] In this embodiment of the present disclosure, the target virtual object is highlighted in the target object set in a case that the target object set includes a target virtual object that belongs to the target category; and the target prompt information is displayed in a case that the target object set does not include the virtual object that belongs to the target category. Thus, when the candidate virtual object is displayed, related information is prompted according to a particular type of virtual object currently required by the target account or according to a particular virtual object combination to be acquired by the target account, thereby improving the efficiency of acquiring a particular virtual object combination.

[00167] A complete implementation of the present disclosure is described below with reference to FIG. 11. In this embodiment of the present disclosure, the target account may be specifically an object account controlled by a game player, and the virtual object may be specifically a virtual game piece in an auto battler game.

[00168] Before the auto battler game starts, a server side (which may be, for example, a server 106 in FIG. 1) establishes an association mechanism between game piece levels and resources. For example, level 1 unlocks 1-cost game pieces, and correspondingly, 1 virtual gold coin needs to be consumed; levels 2-3 unlock 2-cost game pieces, and correspondingly, 2 virtual gold coins need to be consumed; levels 4-5 unlock 3-cost game pieces, and correspondingly, 3 virtual gold coins need to be consumed; levels 6-7 unlock 4-cost game pieces, and correspondingly, 4 virtual gold coins need to be consumed; and levels 8-9 unlock 5-cost game pieces, and correspondingly, 5 virtual gold coins need to be consumed.

[00169] Next, S1102 is performed: A client transmits a current player level to the server side.

[00170] The server side performs S1104: Determine whether a corresponding level threshold is reached. In a case that the corresponding level threshold is reached, S1106 is performed: Open a cost card pool corresponding to the current level. In a case that the corresponding level threshold is not reached, S1104-1 is performed: Open a cost card pool one tier lower, and end.

[00171] Next, the server side performs S1108: Feed back to the client to open a corresponding game piece card pool.

[00172] The client transmits a current player level to the server side, and the server side identifies the level to determine cost of a chess card pool unlockable at the current level, and feeds back the cost to the client to unlock a corresponding cost card pool.

[00173] Correspondingly, as can be displayed on the client shown in FIG. 4, in an object acquisition stage, after a player enters a virtual store through a resource prompt identifier 403, the

store displays a currently available card pool; a system identifies that the current level is level 7, and correspondingly unlocks and displays the game piece card pools of 1 cost, 2 cost, 3 cost, and 4 cost, that is, corresponding object acquisition controls are displayed in an object acquisition region 404.

[00174] Then, in the client, S1110 is performed: Acquire a quantity of virtual gold coins of a player.

[00175] S1112 is performed: Determine whether the quantity of possessed virtual gold coins is sufficient. If not sufficient, S1112-1 is performed: Fail to open the game piece card pool. If sufficient, S1114 is performed: Open the selected card pool.

[00176] In the above operations, the player clicks the corresponding cost card pool to perform unlocking. The client determines whether the player possesses sufficient virtual gold coins. If the virtual gold coins are sufficient, the cost card pool store is successfully opened, and a round of random corresponding cost game pieces is refreshed, where the sufficient virtual gold coins represent that the quantity of the possessed virtual gold coins is greater than a quantity threshold. In a case that virtual gold coins are insufficient, a card pool corresponding to this round of store cannot be opened, where insufficient virtual gold coins represent that the quantity of possessed virtual gold coins is less than the quantity threshold.

[00177] The client performs S1116: Transmit cost of the opened card pool to the server side.

[00178] S1118: The server side determines the quantity of game pieces that need to be refreshed, and feeds back the quantity to the client.

[00179] S1120: The client displays a corresponding quantity of game pieces.

[00180] In the above operations, when the store is opened, the client transmits cost of the currently opened shop to the server side; the server side determines a quantity of refreshed game pieces corresponding to the current store card cost, refreshes a corresponding quantity of random game pieces, and feeds back the game pieces to the client; and the client displays the refreshed game pieces.

[00181] As shown in FIG. 5, in response to a trigger operation on the object acquisition control 505, the player may consume 1 virtual gold coin, and click a 1-cost game piece card pool (i.e., the object acquisition control 505) to open a store. The opened shop refreshes five 1-cost game piece cards, and the player may select any one card for acquisition.

[00182] Finally, operation S1122: Acquire a game piece in response to a trigger operation on the game piece, or refresh a round of game pieces in response to a trigger operation on a refresh control.

[00183] In the above operation, the player may click any game piece for acquisition. The client determines the game piece selected by the player and adds the game piece into a battle preparation region. After addition, this round of the store ends. In addition, the player may also consume virtual gold coins to refresh the content of this round of store. The client determines whether the player has sufficient gold coins to refresh. In a case that the virtual gold coins are sufficient, the cost card pool store is successfully refreshed, and a round of random corresponding cost game pieces is refreshed. In a case that the virtual gold coins are insufficient, this round of store may not be refreshed.

[00184] As shown in FIG. 6, in response to a selection operation on the "little monster e", the "little monster e" may be added into a battle preparation region (i.e., a display region 602) for display. After a player selects a game piece, this round of store is closed and returned to a default state, i.e., a display interface is restored as shown in FIG. 3.

[00185] As shown in FIG. 8, in response to a further trigger operation on an object acquisition control, game pieces in this round of store may be refreshed. As shown in FIG. 8, in response to a trigger operation on an object acquisition control of "4 cost", two new candidate virtual objects are refreshed and acquired.

[00186] In addition, in the above implementation, the player may consume virtual gold coins to upgrade an account level, and may unlock more cost card pools after the upgrade. For example, level 1 unlocks 1-cost game piece card pools, levels 2-3 unlock 2-cost game piece card pools, levels 4-5 unlock 3-cost game piece card pools, levels 6-7 unlock 4-cost game piece card pools, and levels 8-9 unlock 5-cost game piece card pools. If the player currently upgrades to level 7, the player may currently unlock the 4-cost game piece card pools; the player may consume four virtual gold coins to open a round of the 4-cost game piece card pools, or consume four more gold coins to refresh this round of the card pools. The higher the cost for opening the card pool, the fewer the quantity of game pieces in the card pool, thereby preventing the player from quickly acquiring a high-cost three-star game piece and causing imbalance in the game.

[00187] An embodiment of the present disclosure provides an acquisition method for a virtual object. By a method of unlocking exclusive cost game piece card stores corresponding to different levels, a player may rapidly form a low-cost card, or collect gold coins to upgrade to a high level to rapidly acquire a powerful high-cost card, thereby enriching the gameplay form of the auto battler.

[00188] For simple description, the above method embodiments are stated as a series of action combinations. However, a person skilled in the art is to know that the present disclosure is

not limited by the sequence of the described actions because some operations may be performed in another sequence or simultaneously according to the present disclosure. In addition, a person skilled in the art is also to know that the embodiments described in this description are all exemplary embodiments, and the involved actions and modules are not necessarily required for the present disclosure.

[00189] According to another aspect of an embodiment of the present disclosure, an acquisition apparatus for a virtual object for implementing the acquisition method for the virtual object is further provided. As shown in FIG. 12, the apparatus includes:

[00190] an acquisition unit 1202, configured to acquire, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account description information being configured for indicating task progress of the target account in the turn-based virtual task;

[00191] a first display unit 1204, configured to display at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which includes at least one virtual object having the common object attribute;

[00192] a second display unit 1206, configured to display, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and

[00193] a third display unit 1208, configured to display, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

[00194] In some embodiments, the second display unit 1206 includes: a consumption module, configured to consume, in response to the trigger operation on the target object acquisition control, a target quantity of virtual resources from a virtual resource set currently possessed by the target account, in a case that target resource indication information is displayed on the target object acquisition control, the at least one object acquisition control displaying one piece of resource indication information respectively, and the resource indication information being configured for indicating virtual resources to be consumed for acquiring a corresponding virtual object set according to the object acquisition control; an acquisition module, configured to acquire the target

object set corresponding to the target object acquisition control, the virtual objects in the virtual object set corresponding to one object acquisition control having the same object level, an object level of candidate virtual objects in the target object set being a target level, and an object attribute including the object level; and a display module, configured to display the candidate virtual objects included in the target object set.

[00195] In some embodiments, the second display unit 1206 is further configured to: display a first object acquisition control according to a target style in a case that a resource quantity of the virtual resources currently possessed by the target account is less than a first quantity indicated by first resource indication information, the first resource indication information being displayed on the first object acquisition control; and display operation prompt information in response to a trigger operation on the first object acquisition control, the operation prompt information being configured for indicating that the virtual object set corresponding to the first object acquisition control may not be acquired currently.

[00196] In some embodiments, the display module is further configured to: consume, in response to a trigger operation on a reference object acquisition control, a reference quantity of virtual resources from the virtual resource set currently possessed by the target account; acquire a reference object set corresponding to the reference object acquisition control, the object level of the candidate virtual objects in the reference object set being a reference level; update the target object set according to the reference object set; and display the candidate virtual objects included in an updated target object set.

[00197] In some embodiments, the acquisition module is further configured to: acquire a second quantity of candidate virtual objects as the reference object set in a case that the reference level is higher than the target level, the second quantity being less than a third quantity of the candidate virtual objects included in the target object set before update; and acquire a fourth quantity of candidate virtual objects as the reference object set in a case that the reference level is less than or equal to the target level, the fourth quantity being greater than or equal to a fifth quantity of the candidate virtual objects included in the target object set before update.

[00198] In some embodiments, the acquisition module is further configured to one of the following: replace the candidate virtual objects in the target object set with the candidate virtual objects in the reference object set; and add the candidate virtual objects included in the reference object set into the target object set.

[00199] In some embodiments, the acquisition module is further configured to one of the following: acquire, from a preset first virtual object set and according to the first quantity, the

candidate virtual objects having the object level being the target level as the target object set, the first virtual object set including a plurality of virtual objects having different object levels, and the first virtual object set being configured for providing the virtual objects for different object accounts in the turn-based virtual task; acquire, from a second virtual object set possessed by the target account and according to the first quantity, the candidate virtual objects having the object level being the target level as the target object set, the second virtual object set including a plurality of virtual objects configured for the target account before the turn-based virtual task starts; and acquire, from the interaction object set possessed by the reference account and according to the first quantity, the candidate virtual objects having the object level being the target level as the target object set, the reference account being configured for performing a card interaction operation with the target account in the turn-based virtual task; and the first quantity being an object quantity corresponding to the target object acquisition control.

[00200] In some embodiments, the first display unit 1204 includes: a first determination module, configured to determine, from a plurality of level intervals and according to an account level of the target account, a target level interval to which the account level belongs, the account description information including the account level, and the account level being updated according to an account operation of the target account in the turn-based virtual task; a second determination module, configured to determine the at least one object acquisition control according to the target level interval, a control quantity of the object acquisition control being positively correlated with the account level indicated by the level interval; and a first display module, configured to display the at least one object acquisition control, the at least one object acquisition control including the target object acquisition control.

[00201] In some embodiments, the acquisition apparatus for the virtual object further includes: an update unit, configured to determine, from the plurality of level intervals, a reference level interval to which the account level belongs, in a case that the account level of the target account increases from the target level to the reference level in a reference turn that matches the target account in the turn-based virtual task; and acquire the reference object acquisition control that matches the reference level interval, and update and display the at least one object acquisition control according to the reference object acquisition control, the object level of the virtual objects acquired by the reference object acquisition control being higher than the object level of the virtual objects in the target object set.

[00202] In some embodiments, the acquisition apparatus for the virtual object further includes: an increasing unit, configured to increase an object interaction parameter of first

interaction virtual objects in a case that an object quantity of the first interaction virtual objects displayed in the target region is greater than or equal to a target quantity, the object interaction parameter being configured for indicating operation strength of the first interaction virtual objects to perform the interaction operation, and the first interaction virtual objects being virtual objects of a target category.

[00203] In some embodiments, the third display unit 1208 is configured to: highlight a target virtual object in the target object set in a case that the target object set includes the target virtual object that belongs to the target category; and display target prompt information in a case that the target object set does not include the virtual object that belongs to the target category, the target prompt information being configured for indicating update of the target object set by consuming virtual resources; and consume, in response to a confirmation operation on the target prompt information, the target quantity of virtual resources from the virtual resource set currently possessed by the target account, and update the target object set.

[00204] In some embodiments, in the embodiments of the present disclosure, the embodiments to be implemented by the above unit modules may refer to the above method embodiments, and will not be elaborated here.

[00205] According to another aspect of an embodiment of the present disclosure, an electronic device for implementing the acquisition method for the virtual object is further provided. The electronic device may be a terminal device or a server as shown in FIG. 13. In this embodiment of the present disclosure, an example in which the electronic device is the terminal device is taken for description. As shown in FIG. 13, the electronic device includes a memory 1302 and a processor 1304. The memory 1302 has a computer program stored therein. The processor 1304 is configured to perform operations in any method embodiment through the computer program.

[00206] In some embodiments, in the embodiments of the present disclosure, the electronic device may be located in at least one network device of a plurality of network devices in a computer network.

[00207] In some embodiments, in the embodiments of the present disclosure, the processor may be configured to perform the following operations through the computer program:

[00208] S1: Acquire, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account description information being configured for indicating task progress of the target account in the turn-based virtual task;

[00209] S2: Display at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which includes at least one virtual object having the common object attribute;

[00210] S3: Display, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and

[00211] S4: Display, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

[00212] In some embodiments, for a person ordinary skilled in the art, a structure shown in FIG. 13 is merely an example. An electronic apparatus and an electronic device may alternatively be terminal devices such as smartphones (for example, Android mobile phones or iOS mobile phones), tablet computers, palmtop computers, mobile Internet devices (MIDs), or portable apple devices (PADs). FIG. 13 does not limit the structures of the electronic apparatus and the electronic device. For example, the electronic apparatus and the electronic device may further include more or fewer assemblies (for example, a network interface) than those shown in FIG. 13, or have a configuration different from that shown in FIG. 13.

[00213] Where the memory 1302 may be configured to store software programs and modules, such as program instructions/modules corresponding to the acquisition method and apparatus for the virtual object in the embodiments of the present disclosure. The processor 1304 executes the software programs and the modules stored in the memory 1302 to perform various function applications and data processing, i.e., to implement the acquisition method for the virtual object. The memory 1302 may include a high-speed random memory, or may include a non-volatile memory, such as one or more magnetic storage apparatuses, a flash memory, or another non-volatile solid-state memory. In some embodiments, the memory 1302 may further include memories remotely arranged relative to the processor 1304, and the remote memories may be connected to a terminal through a network. Examples of the network include, but are not limited to, Internet, Intranet, a local area network, a mobile communication network, and a combination thereof. Where the memory 1302 may be specifically, but not limited to, configured to store information such as acquisition information of various elements and virtual objects in a scene picture. For example, as shown in FIG. 13, the memory 1302 may include, but is not limited to, the acquisition unit 1202,

the first display unit 1204, the second display unit 1206, and the third display unit 1208 in the acquisition apparatus for the virtual object. In addition, the memory may further include, but is not limited to, other module units in the acquisition apparatus for the virtual object. Details are not described again in this example.

[00214] In some embodiments, a transmission apparatus 1306 is configured to receive or transmit data through a network. Specific examples of the network may include a wired network and a wireless network. In an example, the transmission apparatus 1306 includes a network interface controller (NIC). The NIC may be connected to other network devices and routers through a network cable, so as to communicate with the Internet or the local area network. In an example, the transmission apparatus 1306 is a radio frequency (RF) module configured to wirelessly communicate with the Internet.

[00215] In addition, the electronic device further includes: a display 1308 configured to display a virtual scene in a display interface; and a connection bus 1310 configured to connect various modular components in the electronic device.

[00216] In other embodiments, the terminal device or the server may be a node in a distributed system, where the distributed system may be a blockchain system. The blockchain system may be a distributed system formed by a plurality of nodes connected in the form of network communication. Where a peer to peer network may be formed between the nodes. Any form of a computing device, such as the server, the terminal, and other electronic devices, may become a node in the blockchain system by joining the peer to peer network.

[00217] According to one aspect of an embodiment of the present disclosure, a computer program product is provided, including computer programs/instructions, the computer programs/instructions including program codes configured for performing the methods shown in flowcharts. In this embodiment, the computer programs may be downloaded and installed from a network through a communication portion, and/or installed from a removable medium. When the computer programs are executed by a central processing unit, various functions provided in the embodiments of the present disclosure are executed.

[00218] The sequence numbers of the foregoing embodiments of the present disclosure are merely for description purposes but do not imply the preference among the embodiments.

[00219] According to one aspect of an embodiment of the present disclosure, a computer-readable storage medium is provided. A processor of a computer device reads computer instructions

from the computer-readable storage medium and executes the computer instructions, to cause the computer device to perform the acquisition method for the virtual object.

[00220] In some embodiments, in the embodiments of the present disclosure, the computer-readable storage medium may be configured to store computer programs for executing the following operations:

[00221] S1: Acquire, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account description information being configured for indicating task progress of the target account in the turn-based virtual task;

[00222] S2: Display at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which includes at least one virtual object having the common object attribute;

[00223] S3: Display, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and

[00224] S4: Display, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

[00225] In some embodiments, in the embodiments of the present disclosure, for a person ordinary skilled in the art, all or some of operations in various methods of the above embodiments are completed through programs that instruct relevant hardware of a terminal device. The programs may be stored in a computer-readable storage medium. The storage medium may include: a flash drive, a read-only memory (ROM), a random access memory (RAM), a magnetic disk, an optical disc, or the like.

[00226] When implemented in the form of a software functional unit and sold or used as an independent product, an integrated unit in the above embodiment may be stored in the above computer-readable storage medium. Based on such understanding, the technical solutions of the present disclosure may be reflected in the form of a software product in essence or in a part of making a contribution to the related art, or all or a part of the technical solutions. A computer software product is stored in a storage medium, including a plurality of instructions to enable one or

more computer devices (which may be a personal computer, a server, or a network device) to execute all or some operations of the methods in the embodiments of the present disclosure.

[00227] In the above embodiments of the present disclosure, the description of the embodiments has the emphasis. For the part not detailed in one embodiment, the related description of other embodiments may be referred to.

[00228] In several embodiments provided in the present disclosure, the disclosed client may be implemented in other modes. Where apparatus embodiments described above are only illustrative. For example, division of the units is only logical function division, and an additional division mode may exist during actual implementation. For example, a plurality of units or assemblies may be combined or may be integrated into another system, or some features may be neglected or not performed. In addition, coupling or direct coupling or communication connection between displayed or discussed components may be indirect coupling or communication connection through a plurality of interfaces, units, or modules, and may be electrical or in other forms.

[00229] Units described as separated components may be or may not be separated physically, and components displayed as units may be or may not be physical units, i.e., the components may be located at one place or may be distributed on a plurality of network units. The purpose of the solution in this embodiment of the present disclosure may be achieved by selecting some or all units according to actual needs.

[00230] In addition, functional units in the embodiments of the present disclosure may be integrated in a processing unit, or the units may physically exist individually, or two or more than two units may be integrated in one unit. The integrated unit may be realized in the form of hardware or may be realized in the form of a software functional unit.

[00231] The above descriptions are only exemplary embodiments of the present disclosure. For a person ordinary skilled in the art, several improvements and modifications may be made without departing from the principles of the present disclosure, and these improvements and modifications are also to be deemed to fall within the protection scope of the present disclosure.

CLAIMS

1. A method for acquiring a virtual object, performed by an electronic device, and comprising:

acquiring, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account description information being configured for indicating task progress of the target account in the turn-based virtual task;

displaying at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which comprises at least one virtual object having a common object attribute;

displaying, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and

displaying, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

2. The method according to claim 1, wherein the displaying, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control comprises:

consuming, in response to the trigger operation on the target object acquisition control, a target quantity of virtual resources from a virtual resource set currently possessed by the target account, in a case that target resource indication information is displayed on the target object acquisition control, the at least one object acquisition control displaying one piece of resource indication information respectively, and the resource indication information being configured for indicating virtual resources required for acquiring a corresponding virtual object set according to the object acquisition control;

acquiring the target object set corresponding to the target object acquisition control, the virtual objects in the virtual object set corresponding to one object acquisition control having the same object level, an object level of candidate virtual objects in the target object set being a target level, and the common object attribute comprising an object level; and

displaying the candidate virtual objects comprised in the target object set.

3. The method according to claim 2, wherein the displaying at least one object acquisition control that matches the account description information comprises:

displaying a first object acquisition control according to a target style in a case that a resource quantity of the virtual resources currently possessed by the target account is less than a first quantity indicated by first resource indication information, the first resource indication information being displayed on the first object acquisition control; and

displaying operation prompt information in response to a trigger operation on the first object acquisition control, the operation prompt information being configured for indicating that the virtual object set corresponding to the first object acquisition control is not acquired currently.

4. The method according to claim 2, wherein after the displaying, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control, the method further comprises:

consuming, in response to a trigger operation on a reference object acquisition control, a reference quantity of virtual resources from the virtual resource set currently possessed by the target account;

acquiring a reference object set corresponding to the reference object acquisition control, an object level of candidate virtual objects in the reference object set being a reference level;

updating the target object set according to the reference object set; and

displaying the candidate virtual objects comprised in an updated target object set.

5. The method according to claim 4, wherein the acquiring a reference object set corresponding to the reference object acquisition control comprises:

acquiring a second quantity of candidate virtual objects as the reference object set in a case that the reference level is higher than the target level, the second quantity being less than a third quantity of the candidate virtual objects comprised in the target object set before update; and

acquiring a fourth quantity of candidate virtual objects as the reference object set in a case that the reference level is less than or equal to the target level, the fourth quantity being greater than or equal to a fifth quantity of the candidate virtual objects comprised in the target object set before update.

6. The method according to claim 4, wherein the updating the target object set according to the reference object set comprises one of the following:

replacing the candidate virtual objects in the target object set with the candidate virtual objects

in the reference object set; and

adding the candidate virtual objects comprised in the reference object set into the target object set.

7. The method according to claim 4, wherein the displaying the candidate virtual objects comprised in an updated target object set comprises:

zooming out object identifiers of the candidate virtual objects according to a zooming-out proportion in a case that a quantity of the candidate virtual objects is greater than a quantity threshold, the zooming-out proportion being negatively correlated with the quantity; or

displaying a part of the candidate virtual objects in a case that the quantity of the candidate virtual objects is greater than the quantity threshold, and displaying a slide control; and displaying another remaining part of the candidate virtual objects in response to a slide operation on the slide control.

8. The method according to claim 2, wherein the acquiring the target object set corresponding to the target object acquisition control comprises one of the following:

acquiring, from a preset first virtual object set and according to the first quantity, the candidate virtual objects having the object level being the target level as the target object set, the first virtual object set comprising a plurality of virtual objects having different object levels, and the first virtual object set being configured for providing the virtual objects for different object accounts in the turn-based virtual task;

acquiring, from a second virtual object set possessed by the target account and according to the first quantity, the candidate virtual objects having the object level being the target level as the target object set, the second virtual object set comprising a plurality of virtual objects configured for the target account before the turn-based virtual task starts; and

acquiring, from the interaction object set possessed by a reference account and according to the first quantity, the candidate virtual objects having the object level being the target level as the target object set, the reference account being configured for performing a card interaction operation with the target account in the turn-based virtual task;

wherein the first quantity is an object quantity corresponding to the target object acquisition control.

9. The method according to claim 2, wherein the displaying at least one object acquisition control that matches the account description information comprises:

determining, from a plurality of level intervals and according to an account level of the target account, a target level interval to which the account level belongs, the account description information comprising the account level, and the account level being updated according to an account operation of the target account in the turn-based virtual task;

determining the at least one object acquisition control according to the target level interval, a control quantity of the object acquisition control being positively correlated with the account level indicated by the level interval; and

displaying the at least one object acquisition control, the at least one object acquisition control comprising the target object acquisition control.

10. The method according to claim 9, wherein after the displaying, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the method further comprises:

determining, from the plurality of level intervals, a reference level interval to which the account level belongs, in a case that the account level of the target account increases from the target level to the reference level in a reference turn that matches the target account in the turn-based virtual task; and

acquiring a reference object acquisition control that matches the reference level interval, and updating and displaying the at least one object acquisition control according to the reference object acquisition control, an object level of the virtual objects acquired by the reference object acquisition control being higher than an object level of the virtual objects in the target object set.

11. The method according to any one of claims 1 to 10, wherein after the displaying, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the method further comprises:

increasing an object interaction parameter of first interaction virtual objects in a case that an object quantity of the first interaction virtual objects displayed in the target region is greater than or equal to a target quantity, the object interaction parameter being configured for indicating operation strength of the first interaction virtual objects to perform the interaction operation, and the first interaction virtual objects being virtual objects of a target category.

12. The method according to claim 11, wherein the displaying, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control comprises:

highlighting a target virtual object in the target object set in a case that the target object set

comprises the target virtual object that belongs to the target category; and

displaying target prompt information in a case that the target object set does not comprise the virtual object that belongs to the target category, the target prompt information being configured for indicating update of the target object set by consuming the virtual resources; and consuming, in response to a confirmation operation on the target prompt information, the target quantity of virtual resources from the virtual resource set currently possessed by the target account, and updating the target object set.

13. The method according to claim 11, wherein the increasing an object interaction parameter of first interaction virtual objects comprises:

performing at least one of the following processing:

increasing an object level of the first interaction virtual object;

increasing a virtual skill of the first interaction virtual object;

adding object attribute data of the first interaction virtual object; and

implementing a virtual synergy skill on the first interaction virtual object of the target category in a case that the object interaction parameter is the virtual synergy skill.

14. The method according to any one of claims 1 to 13, wherein in a case that the account description information is the account level of the target account and the object attribute of the virtual object is an object type, the method further comprises:

acquiring the virtual object set in the following mode:

acquiring a plurality of second-type virtual objects in a first stage if an opponent account possesses a first-type virtual object in the first stage, and combining the plurality of second-type virtual objects into a second-type virtual object set, the object account being an account that belongs to a different camp from the target account and that performs an adversarial operation, and the second-type virtual objects being configured for restraining the first-type virtual object; and

acquiring, if a to-be-interacted virtual object set possessed by the opponent account in a second stage comprises a third-type virtual object, a fourth-type virtual object configured for restraining the third-type virtual object in the second stage to form the virtual object set.

15. An acquisition apparatus for a virtual object, comprising:

an acquisition unit, configured to acquire, in a target turn that matches a target account in a turn-based virtual task, account description information of the target account, the account

description information being configured for indicating task progress of the target account in the turn-based virtual task;

a first display unit, configured to display at least one object acquisition control that matches the account description information, the object acquisition control being configured to acquire a virtual object set which comprises at least one virtual object having a common object attribute;

a second display unit, configured to display, in response to a trigger operation on a target object acquisition control in the at least one object acquisition control, a target object set acquired according to the target object acquisition control; and

a third display unit, configured to display, in response to a selection operation on a target virtual object in the target object set, the target virtual object in a target region, the target region being configured for displaying an interaction object set currently possessed by the target account, and interaction virtual objects in the interaction object set being configured for performing an interaction operation in a virtual scene.

16. A computer-readable storage medium, comprising a stored program which, when running, implements the method according to any one of claims 1 to 14.

17. A computer program product, comprising computer programs/instructions, the computer programs/instructions, when executed by a processor, implementing operations of the method according to any one of claims 1 to 14.

18. An electronic device, comprising a memory and a processor, the memory having computer programs stored therein, and the processor being configured to implement the method according to any one of claims 1 to 14 through the computer programs.