CLAIMS

What is claimed is:

1. A method for executing an action, applied to a data processing device, wherein the method comprises:

setting a first virtual key to be in a state allowing touch control, in response to a target object controlled by a client completing an action combination during a game, wherein the first virtual key is configured to trigger the target object to execute an acceleration operation, and the action combination comprises a first action and a second action;

detecting whether a first touch operation on the first virtual key being in the state is performed;

controlling the target object to execute the acceleration operation, and detecting within a target time period whether a second touch operation on a control key is performed, in response to detecting that the first touch operation is performed, wherein the control key is configured to control the target object to execute a target action, and the target time period is less than or equal to a first time threshold; and

controlling the target object to execute the target action in a process of executing the acceleration operation, in response to detecting that the second touch operation is performed within the target time period;

wherein setting the first virtual key to the state allowing touch control comprises:

detecting a target angle generated in a process of the target object switching from the first action to the second action, wherein the target angle is an included angle between a forward direction of the target object and a sliding direction of the target object; and

determining to adjust the first virtual key from a state not allowing touch control to the state allowing touch control, in response to the target angle being less than or equal to a second angle threshold.

2. The method according to claim 1, wherein controlling the target object to execute the target action in the process of executing the acceleration operation, in response to detecting that the second touch operation is performed within the target time period comprises:

determining a driving force applied on the target object due to executing the acceleration operation to be an action force in a process of executing the target action;

determining, based on the action force, an actual velocity vector of the target object executing the target action; and

determining, based on the actual velocity vector, a trajectory of the target object executing the target action, wherein a quantity of collisions of the target object due to executing the target action along the trajectory is less than a target threshold.

3. The method according to claim 2, wherein determining, based on the action force, the actual velocity vector of the target object executing the target action comprises:

determining, based on the action force, a forward velocity vector of the target object executing the target action; and

determining the actual velocity vector of the target object executing the target action, based on the forward velocity vector of the target object executing the target action and a centrifugal velocity vector on the target object due to executing the target action, wherein an included angle between a direction of the actual velocity vector and a direction of the forward velocity vector, of the target object executing the target action, is less than a first angle threshold.

4. The method according to claim 1, wherein controlling the target object to execute the acceleration operation in response to detecting that the first touch operation is performed comprises:

determining a quantity of touch-control operations that have been performed on the first virtual key in the game, in response to detecting that the first touch operation is performed;

obtaining target acceleration matching with the quantity, wherein the larger the quantity is, the larger the target acceleration is; and

controlling the target object to execute the acceleration operation based on the target acceleration.

5. The method according to claim 4, wherein obtaining target acceleration matching with the quantity comprises:

obtaining a target proportion matching with the quantity;

increasing forward acceleration of the target object based on the target proportion, to obtain updated forward acceleration; and

determining the updated traveling acceleration as the target acceleration.

6. The method according to any one of claims 1 to 5, wherein the control key comprises a first control key and a second control key, the first control key is configured to adjust the forward

direction of the target object, and the second control key is configured to trigger the target object to perform the target action; and

wherein before setting the first virtual key to be in the state allowing touch control, the method further comprises:

obtaining an operation instruction that is generated by performing a long-press operation on the first control key and the second control key in a human-computer interaction interface displayed in the client; and

controlling the target object to execute the action combination in response to the operation instruction, wherein the target object takes a first direction as the forward direction when being controlled to execute the first action, and the target object takes a second direction as the forward direction when being controlled to execute the second action.

7. An apparatus for executing an action, comprising:

a setting unit, configured to set a first virtual key to be in a state allowing touch control, in response to a target object controlled by a client completing an action combination once during a game, wherein the first virtual key is configured to trigger the target object to execute an acceleration operation, and the action combination comprises a first action and a second action;

a first detecting unit, configured to detect whether a first touch operation on the first virtual key being in the state is performed;

a second detecting unit, configured to control the target object to execute the acceleration operation, and detect within a target time period whether a second touch operation on a control key is performed, in response to detecting the first touch operation is performed, wherein the control key is configured to control the target object to execute a target action, and the target time period is less than or equal to a first time threshold; and

a first execution unit, configured to control the target object to execute the target action in a process of executing the acceleration operation, in response to detecting that the second touch operation is performed within the target time period;

wherein the setting unit comprises:

a detection module, configured to detect a target angle generated in a process of the target object switching from the first action to the second action, wherein the target angle is an included angle between a forward direction of the target object and a sliding direction of the target object; and

a setting module, configured to determine to adjust the first virtual key from a state not allowing touch control to the state allowing touch control, in response to the target angle being less than or equal to a second angle threshold.

8. The apparatus according to claim 7, wherein the first execution unit comprises:

a first determining module, configured to determine a driving force applied on the target object due to executing the acceleration operation to be an action force in a process of executing the target action;

a second determining module, configured to determine, based on the action force, an actual velocity vector of the target object executing the target action; and

a third determining module, configured to determine, based on the actual velocity vector, a trajectory of the target object executing the target action, wherein a quantity of collisions of the target object due to executing the target action along the trajectory is less than a target threshold.

9. The apparatus according to claim 8, wherein the second determining module comprises:

a first determining sub-module, configured to determine, based on the action force, a forward velocity vector of the target object executing the target action; and

a second determining sub-module, configured to determine the actual velocity vector of the target object executing the target action, based on the forward velocity vector of the target object executing the target action and a centrifugal velocity vector on the target object due to executing the target action, wherein an included angle between a direction of the actual velocity vector and a direction of the forward velocity vector, of the target object executing the target action, is less than a first angle threshold.

10. The apparatus according to claim 7, wherein the second detecting unit comprises:

a fourth determining module, configured to determine a quantity of touch-control operations that have been performed on the first virtual key in the game, in response to detecting that the first touch operation is performed;

an obtaining module, configured to obtain target acceleration matching with the quantity, wherein the larger the quantity is, the larger the target acceleration is; and

a control module, configured to control the target object to execute the acceleration operation based on the target acceleration.

11. The apparatus according to claim 10, wherein the obtaining module comprises:

an obtaining sub-module, configured to obtain a target proportion matching with the quantity;

an adjustment sub-module, configured to increase forward acceleration of the target object based on the target proportion, to obtain updated forward acceleration; and

a third determining sub-module, configured to determine the updated traveling acceleration as the target acceleration.

12. The apparatus according to any one of claims 7 to 11, wherein the control key comprises a first control key and a second control key, the first control key is configured to adjust the forward direction of the target object, and the second control key is configured to trigger the target object to perform the target action; and

the apparatus further comprises:

an obtaining unit, configured to obtain an operation instruction, before the first virtual key is set to be in the state allowing touch control, wherein the operation instruction is generated by performing a long-press operation on the first control key and the second control key in a human-computer interaction interface displayed in the client; and

a second execution unit, configured to control the target object to execute the action combination in response to the operation instruction, wherein the target object takes a first direction as the forward direction when being controlled to execute the first action, and the target objects takes a second direction as the forward direction when being controlled to execute the second action.

13. A storage medium, storing a program, wherein:

the program when being executed performs the method according to any one of claims 1 to 6.

14. An electronic device, comprising a memory and a processor, wherein:

the memory stores a computer program, and

the processor is configured to perform the method according to any one of claims 1 to 6 through the computer program.

15. A computer program product, comprising instructions, wherein:

the computer program product when executed on a computer configures the computer to perform the method according to any one of claims 1 to 6.