

CLAIMS

1. A method of driving an interactive object, comprising:

obtaining a first image of surroundings of a display device, wherein the display device is used to display an interactive object and a virtual space where the interactive object is located;

obtaining a first position of a target object in the first image;

with a position of the interactive object in the virtual space as a reference point, determining a mapping relationship between first image and virtual space;

driving the interactive object to execute an action according to the first position and the mapping relationship.

2. The method of claim 1, wherein driving the interactive object to execute an action according to the first position and the mapping relationship comprises:

obtaining a corresponding second position of the target object in the virtual space by mapping the first position to the virtual space based on the mapping relationship;

driving the interactive object to execute an action according to the second position.

3. The method of claim 2, wherein driving the interactive object to execute an action according to the second position comprises:

determining a first relative angle between the target object mapped to the virtual space and the interactive object according to the second position;

determining a weight for each of one or more body parts of the interactive object to execute an action;

according to the first relative angle and each weight, driving each body part of the interactive object to rotate a corresponding deflection angle, such that the interactive object faces toward the target object mapped to the virtual space.

4. The method of any one of claims 1-3, wherein image data of the virtual space and image data of the interactive object are obtained by a virtual camera device.

5. The method of claim 4, wherein driving the interactive object to execute an action according to the second position comprises:

moving a position of the virtual camera device in the virtual space to the second position;

setting a sight line of the interactive object to be aligned with the virtual camera device.

6. The method of any one of claims 2-4, wherein driving the interactive object to execute an action according to the second position comprises:

driving the interactive object to execute an action of moving a sight line to the second position.

7. The method of claim 1, wherein driving the interactive object to execute an action according to the first position and the mapping relationship comprises:

obtaining a second image by mapping the first image to the virtual space based on the mapping relationship;

dividing the first image into a plurality of first sub-regions, and dividing the second image into a plurality of second sub-regions corresponding to the plurality of first sub-regions respectively;

determining a target first sub-region where the target object is located in the plurality of first sub-regions of the first image, and determining a target second sub-region in the plurality of second sub-regions of the second image based on the target first sub-region;

driving the interactive object to execute an action according to the target second sub-region.

8. The method of claim 7, wherein driving the interactive object to execute an action according to the target second sub-region comprises:

determining a second relative angle between the interactive object and the target second sub-region;

driving the interactive object to rotate the second relative angle such that the interactive object faces toward the target second sub-region.

9. The method of any one of claims 1-8, wherein with the position of the interactive object in the virtual space as a reference point, determining the mapping relationship between first image and virtual space comprises:

determining a proportional relationship between unit pixel distance of the first image and unit distance of the virtual space;

determining a corresponding mapping plane of a pixel plane of the first image in the virtual space, wherein the mapping plane is obtained by projecting the pixel plane of the first image to the virtual space; and,

determining an axial distance between the interactive object and the mapping plane.

10. The method of claim 9, wherein determining the proportional relationship between unit pixel distance of the first image and unit distance of the virtual space comprises:

determining a first proportional relationship between unit pixel distance of the first image and unit distance of a true space;

determining a second proportional relationship between unit distance of the true space and unit distance of the virtual space;

determining the proportional relationship between unit pixel distance of the first image and unit distance of the virtual space according to the first proportional relationship and the second proportional relationship.

11. The method of any one of claims 1-10, wherein the first position of the target object in the first image comprises a position of a face of the target object and/or a position of a body of the target object.

12. An apparatus for driving an interactive object, comprising:

a first obtaining unit, configured to obtain a first image of surroundings of a display device, wherein the display device is used to display an interactive object and a virtual space where the interactive object is located;

a second obtaining unit, configured to obtain a first position of a target object in the first image;

a determining unit, configured to with a position of the interactive object in the virtual space as a reference point, determine a mapping relationship between first image and virtual space;

a driving unit, configured to drive the interactive object to execute an action according to the first position and the mapping relationship.

13. The apparatus of claim 12, wherein the driving unit is specifically configured to:

obtain a corresponding second position of the target object in the virtual space by mapping the first position to the virtual space based on the mapping relationship;
drive the interactive object to execute an action according to the second position.

14. The apparatus of claim 13, wherein when used to drive the interactive object to execute an action according to the second position, the driving unit is specifically configured to:

determine a first relative angle between the target object mapped to the virtual space and the interactive object according to the second position;

determine a weight for each of one or more body parts of the interactive object to execute an action;

according to the first relative angle and each weight, drive each body part of the interactive object to rotate a corresponding deflection angle, such that the interactive object faces toward the target object mapped to the virtual space.

15. The apparatus of claim 12, wherein the driving unit is specifically configured to:

obtain a second image by mapping the first image to the virtual space based on the mapping relationship;

divide the first image into a plurality of first sub-regions, and divide the second image into a plurality of second sub-regions corresponding to the plurality of first sub-regions respectively;

determine a target first sub-region where the target object is located in the plurality of first sub-regions of the first image, and determine a target second sub-region in the plurality of second sub-regions of the second image based on the target first sub-region;

drive the interactive object to execute an action according to the target second sub-region.

16. The apparatus of claim 15, wherein when used to drive the interactive object to execute an action according to the target second sub-region, the driving unit is specifically configured to:

determine a second relative angle between the interactive object and the target second sub-region;

drive the interactive object to rotate the second relative angle such that the interactive object faces toward the target second sub-region.

17. The apparatus of any one of claims 12-16, wherein the determining unit is specifically configured to:

determine a proportional relationship between unit pixel distance of the first image and unit distance of the virtual space;

determine a corresponding mapping plane of a pixel plane of the first image in the virtual space, wherein the mapping plane is obtained by projecting the pixel plane of the first image to the virtual space; and,

determine an axial distance between the interactive object and the mapping plane.

18. A display device, comprising a transparent display screen, wherein the transparent display screen is used to display an interactive object, and the display device executes the method of any one of claims 1-11 to drive the interactive object in the transparent display screen to execute an action.

19. An electronic device, comprising a storage medium and a processor, wherein the storage medium is configured to store computer instructions run on a processor, and the processor is configured to execute the computer instructions to implement the method of any one of claims 1-11.

20. A computer readable storage medium, storing computer programs thereon, wherein the programs are executed by a processor to implement the method of any one of claims 1-11.