

CLAIMS

1. A method for controlling a view of a virtual camera in a virtual world, the method comprising:
 - based on a position of a head-mounted display, identifying an initial virtual camera rotation angle, relative to a global coordinate system of the virtual world, wherein the virtual camera is wrapped in a container such that rotation of the container causes rotation of the virtual camera relative to the global coordinate system;
 - receiving an indication to change the view to a particular direction;
 - identifying a desired rotation angle, relative to the global coordinate system, for a view to correspond to the particular direction; and
 - rotating the container by a rotation value based at least on both the desired rotation angle and the initial virtual camera rotation angle.
2. The method of claim 1, wherein rotating the container causes a final virtual camera rotation angle to be equivalent to the desired rotation angle relative to the global coordinate system.
3. The method of claim 1, further comprising:
 - displaying, on a display screen of the HMD, the view of the virtual camera according to the initial virtual camera angle;
 - based on receiving an indication to change the view to a particular direction, fading the screen to black; and
 - fading the screen from black to display the view of the virtual camera according to the final virtual camera rotation angle.
4. The method of claim 1, wherein receiving the indication comprises receiving a selection of a locomotion marker.
5. The method of claim 1, further comprising displaying a selectable locomotion marker, wherein the display of the selectable locomotion marker indicates the particular direction.
6. The method of claim 1, wherein the rotation angle comprises at least one of a pitch angle, a yaw angle, or a roll angle.
7. The method of claim 1, further comprising determining the rotation value by:
 - subtracting the initial virtual camera rotation angle from 360 degrees to generate an intermediate value; and
 - adding the intermediate value to the desired rotation angle to generate the rotation value.

8. A system comprising:
- a head mounted display (HMD);
 - at least one processor operatively connected to the HMD; and
 - a memory storing instructions that, when executed by the at least one processor, perform a set of operations comprising:
 - based on a position of the HMD, identifying an initial virtual camera rotation angle of a virtual camera, relative to a global coordinate system of the virtual world, wherein the virtual camera is wrapped in a container such that rotation of the container causes rotation of the virtual camera relative to the global coordinate system;
 - receiving an indication to change the view to a particular direction;
 - identifying a desired rotation angle, relative to the global coordinate system, for a view to correspond to the particular direction; and
 - rotating the container by a rotation value based at least on both the desired rotation angle and the initial virtual camera rotation angle.
9. The system of claim 8, wherein rotating the container causes a final virtual camera rotation angle to be equivalent to the desired rotation angle relative to the global coordinate system.
10. A method for controlling a view of a virtual camera in a virtual world, the method comprising:
- based on a position of a head-mounted display, identifying an initial virtual camera rotation angle of a virtual camera, wherein the virtual camera is associated with a container such that rotation of the container causes rotation of the virtual camera relative to the global coordinate system;
 - displaying, on a display screen of the HMD, the view of the virtual camera according to the initial virtual camera angle;
 - displaying, on the display screen of the HMD, a locomotion marker;
 - receiving a selection of the locomotion marker;
 - identifying a particular direction for a view corresponding to the selected locomotion marker;
 - identifying a desired rotation angle for a view to correspond to the particular direction; and
 - rotating the container by a rotation value based at least on both the desired rotation angle and the initial virtual camera rotation angle.

11. The method of claim 10, wherein rotating the container causes a final virtual camera rotation angle to be equivalent to the desired rotation angle relative to the global coordinate system.
12. The method of claim 10, wherein the rotation angle comprises at least one of a pitch angle, a yaw angle, or a roll angle.
13. The method of claim 10, wherein the operations further comprise determining the rotation value by:
 - subtracting the initial virtual camera rotation angle from 360 degrees to generate an intermediate value; and
 - adding the intermediate value to the desired rotation angle to generate the rotation value.
14. The method of claim 10, further comprising determining whether a view of the user is within a predetermined area, and wherein displaying the locomotion marker is based on the view of the user being within the predetermined area.
15. The method of claim 10, further comprising displaying a snap zone and a view direction marker.