CLAIMS

1. A method for generating mark information in a virtual environment, performed by an electronic device, the method comprising:

displaying a target-perspective picture, the target-perspective picture showing the virtual environment including a virtual character from a target perspective, a sight bead and a mark control being displayed in the target-perspective picture;

receiving a first-perspective switching operation;

changing an observation direction of the target-perspective picture and an aiming position of the sight bead according to the first-perspective switching operation;

receiving a mark operation triggered on the mark control; and

generating, according to the mark operation, mark information on a virtual object to which the aiming position points;

wherein the method further comprises:

receiving a second-perspective switching operation;

aiming the sight bead at existing mark information according to the second-perspective switching operation;

superimposing and displaying a cancel control on the target-perspective picture in response to a determination that the sight bead is aimed at the existing mark information;

in response to a determination that the existing mark information is marked by a teammate of the virtual character, when the cancel control is displayed on the target-perspective picture, further displaying a response control, the virtual character responding to the mark information of the teammate by using the response control;

receiving a cancel operation triggered on the cancel control; and

cancelling displaying of the existing mark information according to the cancel operation.

2. The method according to claim 1, wherein the mark control is a joystick control, and the mark operation comprises a slide operation acting on the joystick control; and

the generating, according to the mark operation, mark information on a virtual object to which the aiming position points comprises:

superimposing and displaying a roulette option list on the target-perspective picture in

response to a determination that the joystick control receives the slide operation, the roulette option list comprising at least two candidate mark types arranged along a roulette edge;

determining a target mark type from the at least two candidate mark types according to an end position of the slide operation; and

generating the mark information corresponding to the target mark type on the virtual object to which the aiming position points.

3. The method according to claim 2, wherein the at least two candidate mark types comprise at least two of the following types:

a warning mark, a material mark, a go-forward mark, an attack mark, a retreat mark, a defense mark, a caution mark, and a neutral mark.

4. The method according to claim 1, wherein the mark control is a joystick control, and the mark operation comprises a slide operation acting on the joystick control; and

the method further comprises:

superimposing and displaying a roulette option list on the target-perspective picture in response to a determination that the joystick control receives the slide operation, the roulette option list comprising at least two candidate mark types arranged along a roulette edge and a central region; and

cancelling generation of the mark information in response to a determination that an end position of the slide operation is in the central region.

5. The method according to claim 2, wherein the generating the mark information corresponding to the target mark type on the virtual object to which the aiming position points comprises:

projecting a ray in a forward direction from the aiming position;

determining an intersection position between the ray and a map scene or the virtual object in the virtual environment; and

generating the mark information corresponding to the target mark type on the intersection position.

6. The method according to claim 5, wherein the ray is not visible in the virtual environment; or the ray is a fully or partially visible ray in the virtual environment.

~~7. The method according to any one of claims 1 to 6, wherein after the generating, according to~~

~~the mark operation, mark information on a virtual object to which the aiming position points, the method further comprises:~~

~~receiving a second-perspective switching operation;~~

~~aiming the sight bead at existing mark information according to the second-perspective switching operation;~~

~~superimposing and displaying a cancel control on the target-perspective picture in response to a determination that the sight bead is aimed at the existing mark information;~~

~~receiving a cancel operation triggered on the cancel control; and~~

~~cancelling displaying of the existing mark information according to the cancel operation.~~

~~8~~7. The method according to claim ~~7~~6, wherein the method further comprises:

adjusting the aiming position of the sight bead according to the second-perspective switching operation; and

calculating a first distance between the adjusted aiming position and a marked position corresponding to the existing mark information; and

the superimposing and displaying a cancel control on the target-perspective picture in response to a determination that the sight bead is aimed at the existing mark information comprises:

superimposing and displaying the cancel control on the target-perspective picture in a case that the first distance is less than a first distance threshold and the sight bead is aimed at the existing mark information.

~~9. The method according to claim 7, wherein in response to a determination that the virtual character has a teammate, the existing mark information comprises mark information marked by the virtual character or mark information marked by the teammate.~~

~~10~~8. An apparatus for generating mark information in a virtual environment, comprising:

a display module, configured to display a target-perspective picture, the target-perspective picture showing the virtual environment including a virtual character from a target perspective, a sight bead and a mark control being displayed in the target-perspective picture;

a receiving module, configured to receive a first-perspective switching operation;

a switching module, configured to change an observation direction of the target-perspective picture and an aiming position of the sight bead according to the first-perspective switching operation;

the receiving module being configured to receive a mark operation triggered on the mark control; and

a generation module, configured to generate, according to the mark operation, mark information on a virtual object to which the aiming position points;

wherein the receiving module is further configured to receive a second-perspective switching operation;

the switching module is further configured to aim the sight bead at existing mark information according to the second-perspective switching operation;

the display module is further configured to superimpose and display a cancel control on the target-perspective picture in response to a determination that the sight bead is aimed at the existing mark information; in response to a determination that the existing mark information is marked by a teammate of the virtual character, when the cancel control is displayed on the target-perspective picture, further display a response control, the virtual character responding to the mark information of the teammate by using the response control;

the receiving module is further configured to receive a cancel operation triggered on the cancel control; and

the display module is further configured to cancel displaying of the existing mark information according to the cancel operation.

~~11~~9. The apparatus according to claim ~~10~~8, wherein the mark control is a joystick control, and the mark operation comprises a slide operation acting on the joystick control;

the display module is configured to superimpose and display a roulette option list on the target-perspective picture in response to a determination that the joystick control receives the slide operation, the roulette option list comprising at least two candidate mark types arranged along a roulette edge;

a determining module is configured to determine a target mark type from the at least two candidate mark types according to an end position of the slide operation; and

the generation module is configured to generate the mark information corresponding to the target mark type on the virtual object to which the aiming position points.

10~~2~~. The apparatus according to claim ~~11~~9, wherein the at least two candidate mark types comprise at least two of the following types:

a warning mark, a material mark, a go-forward mark, an attack mark, a retreat mark, a defense

mark, a caution mark, and a neutral mark.

~~13~~11. The apparatus according to claim ~~10~~8, wherein the mark control is a joystick control, and the mark operation comprises a slide operation acting on the joystick control;

the display module is further configured to superimpose and display a roulette option list on the target-perspective picture in response to a determination that the joystick control receives the slide operation, the roulette option list comprising at least two candidate mark types arranged along a roulette edge and a central region; and

the apparatus further comprises: a cancel module, configured to cancel generation of the mark information in response to a determination that an end position of the slide operation is in the central region.

~~14~~12. The apparatus according to claim 9~~11~~, wherein_

the generation module is configured to: project a ray in a forward direction from the aiming position; determine an intersection position between the ray and a map scene or the virtual object in the virtual environment; and generate the mark information corresponding to the target mark type on the intersection position.

~~15. The apparatus according to any one of claims 10 to 14, wherein:~~

~~the receiving module is configured to receive a second-perspective switching operation;~~

~~the switching module is configured to aim the sight bead at existing mark information according to the second-perspective switching operation;~~

~~the display module is configured to superimpose and display a cancel control on the target-perspective picture in response to a determination that the sight bead is aimed at the existing mark information;~~

~~the receiving module is configured to receive a cancel operation triggered on the cancel control; and~~

~~the display module is configured to cancel displaying of the existing mark information according to the cancel operation.~~

1~~6~~3. A terminal, comprising a memory; and a processor connected to the memory, the memory storing at least one instruction, at least one program, a code set or an instruction set, the at least one instruction, the at least one program, the code set or the instruction set being loaded and executed by the processor to cause the processor to perform the method according to any one of claims 1-~~9~~7.

~~17~~14. A computer-readable storage medium, storing at least one instruction, at least one program, a code set or an instruction set, the at least one instruction, the at least one program, the code set or the instruction set being loaded and executed by a processor to cause the processor to perform the method according to any one of claims 1-~~9~~7.