CLAIMS

What is claimed is:

1. An animation frame display method, performed by an electronic device, the method comprising:

obtaining a resource consumption index based on an initial animation update frequency of at least one virtual model, the resource consumption index being used for indicating a quantity of resources required to be consumed for animation update according to the initial animation update frequency of the at least one virtual model;

obtaining a target animation update frequency of the at least one virtual model based on the resource consumption index and the initial animation update frequency; and

displaying an animation frame corresponding to the at least one virtual model according to the target animation update frequency,

wherein the obtaining a target animation update frequency of the at least one virtual model based on the resource consumption index and the initial animation update frequency comprises:

determining, when the resource consumption index is greater than a resource consumption threshold, an adjustment coefficient based on the resource consumption index and the resource consumption threshold;

adjusting the initial animation update frequency based on the adjustment coefficient to obtain a first animation update frequency of the at least one virtual model; and

obtaining the target animation update frequency of the at least one virtual model based on the first animation update frequency.

2. The method according to claim 1, wherein the obtaining the target animation update frequency of the at least one virtual model based on the first animation update frequency comprises:

taking, when a first virtual model satisfies a first model screening condition and a first animation update frequency of the first virtual model is not higher than a reference animation update frequency, the reference animation update frequency as a target animation update frequency of the first virtual model, the first virtual model being any virtual model in the at least one virtual model.

3. The method according to claim 1, wherein the obtaining the target animation update frequency of the at least one virtual model based on the first animation update frequency comprises:

taking, when a first virtual model satisfies a first model screening condition and a first animation update frequency of the first virtual model is higher than a reference animation update frequency, or, when the first virtual model does not satisfy the first model screening condition, the first animation update frequency of the first virtual model as a target animation update frequency of the first virtual model, the first virtual model being any virtual model in the at least one virtual model.

4. The method according to claim 1, wherein the adjustment coefficient is a ratio of the resource consumption index to the resource consumption threshold; and the adjusting the initial animation update frequency based on the adjustment coefficient to obtain a first animation update frequency of the at least one virtual model comprises:

calculating a product of a picture frame number corresponding to the initial animation update frequency of a first virtual model and the adjustment coefficient, and rounding the product to obtain a target value, the first virtual model being any virtual model in the at least one virtual model; and

taking an animation update frequency with a corresponding picture frame number as the target value as the first animation update frequency of the first virtual model.

5. The method according to claim 1, wherein the obtaining a target animation update frequency of the at least one virtual model based on the resource consumption index and the initial animation update frequency comprises:

taking the initial animation update frequency as the target animation update frequency of the at least one virtual model when the resource consumption index is not greater than a resource consumption threshold.

6. The method according to any one of claims 1 to 5, wherein the displaying an animation frame corresponding to the at least one virtual model according to the target animation update frequency comprises:

displaying, when a target animation update frequency of a first virtual model is not matched with a count value of the first virtual model, a first animation frame or a target animation frame of the first virtual model, the first virtual model being any virtual model in the at least one virtual model,

the first animation frame being a latest animation frame displayed in an animation of the first virtual model, the target animation frame being determined based on the first animation frame, the second animation frame, and the count value of the first virtual model, and the second animation frame being an animation frame following the first animation frame in the animation of the first virtual model.

7. The method according to claim 6, wherein the displaying a first animation frame or a target animation frame of the first virtual model comprises:

displaying the first animation frame of the first virtual model when the first virtual model does not satisfy a second model screening condition; and

displaying the target animation frame of the first virtual model when the first virtual model satisfies the second model screening condition.

8. The method according to claim 7, wherein before the displaying the target animation frame of the first virtual model, the method further comprises:

determining candidate interpolation smoothing animation frames based on the first animation frame and the second animation frame; and

determining an interpolation smoothing animation frame corresponding to the count value of the first virtual model among the candidate interpolation smoothing animation frames, and taking the interpolation smoothing animation frame corresponding to the count value of the first virtual model as the target animation frame of the first virtual model.

9. The method according to any one of claims 1 to 5, wherein the displaying an animation frame corresponding to the at least one virtual model according to the target animation update frequency comprises:

displaying, when a target animation update frequency of a first virtual model is matched with a count value of the first virtual model, a second animation frame of the first virtual model, the first virtual model being any virtual model in the at least one virtual model, the second animation frame being an animation frame following the first animation frame in the animation of the first virtual model, and the first animation frame being a latest animation frame displayed in the animation of the first virtual model.

10. The method according to any one of claims 1 to 5, wherein the displaying an animation frame corresponding to the at least one virtual model according to the target animation update frequency comprises:

adjusting, when a first virtual model is associated with a second virtual model, a target animation update frequency of the first virtual model to an animation update frequency of the second virtual model to obtain an adjusted animation update frequency of the first virtual model, the first virtual model being any virtual model in the at least one virtual model; and

displaying an animation frame corresponding to the first virtual model according to the adjusted animation update frequency of the first virtual model.

11. The method according to claim 10, wherein after the adjusting a target animation update frequency of the first virtual model to an animation update frequency of the second virtual model, the method further comprises:

adjusting a count value of the first virtual model to a count value of the second virtual model to synchronize animation update of the first virtual model with animation update of the second virtual model.

12. The method according to any one of claims 1 to 5, wherein the obtaining a resource consumption index based on an initial animation update frequency of at least one virtual model comprises:

obtaining a resource consumption sub-index of the at least one virtual model, the resource consumption sub-index of any virtual model being positively correlated with the initial animation update frequency of any virtual model; and

summarizing the resource consumption sub-index of the at least one virtual model to obtain the resource consumption index.

13. The method according to claim 12, wherein the obtaining a resource consumption sub-index of the at least one virtual model comprises:

determining a picture frame number corresponding to the initial animation update frequency of a first virtual model, the first virtual model being any virtual model in the at least one virtual model; and

taking a positive number negatively correlated with the picture frame number as the resource consumption sub-index of the first virtual model.

14. The method according to any one of claims 1 to 5, wherein before the obtaining a resource consumption index based on an initial animation update frequency of at least one virtual model, the method further comprises:

determining a proportion of a first virtual model, the first virtual model being any virtual model in the at least one virtual model, and the proportion of the first virtual model being a ratio of a rendering size of the first virtual model to a reference size; and

taking an animation update frequency corresponding to the proportion of the first virtual model

as the initial animation update frequency of the first virtual model.

15. The method according to any one of claims 1 to 5, wherein the resource consumption threshold is a resource consumption threshold corresponding to a target category, and the at least one virtual model is a virtual model of the target category.

16. The method according to any one of claims 1 to 5, wherein the obtaining a resource consumption index based on an initial animation update frequency of at least one virtual model comprises:

obtaining the resource consumption index based on the initial animation update frequency of the at least one virtual model when a situation of the virtual model satisfies a reference condition,

the situation of the virtual model satisfying the reference condition in any one of the following cases: the number of all virtual models required to display animation frames in the same screen is greater than a first number threshold; the number of virtual models with proportions greater than a proportion threshold among all virtual models required to display animation frames in the same screen is greater than a second number threshold; the number of all virtual models required to display animation frames in the same screen is greater than the first number threshold, and the number of virtual models with proportions greater than the proportion threshold among all the virtual models is greater than the second number threshold; and

a proportion of any virtual model is a ratio of a rendering size of any virtual model to a reference size.

17. An animation frame display apparatus, comprising:

a first obtaining unit, configured to obtain a resource consumption index based on an initial animation update frequency of at least one virtual model, the resource consumption index being used for indicating a quantity of resources required to be consumed for animation update according to the initial animation update frequency of the at least one virtual model;

a second obtaining unit, configured to obtain a target animation update frequency of the at least one virtual model based on the resource consumption index and the initial animation update frequency; and

a display unit, configured to display an animation frame corresponding to the at least one virtual model according to the target animation update frequency,

wherein the second obtaining unit is further configured to:

determine, when the resource consumption index is greater than a resource consumption threshold, an adjustment coefficient based on the resource consumption index and the resource consumption threshold;

adjust the initial animation update frequency based on the adjustment coefficient to obtain a first animation update frequency of the at least one virtual model; and

obtain the target animation update frequency of the at least one virtual model based on the first animation update frequency.

18. A computer device, comprising a processor and a memory, the memory storing at least one computer instruction, and the at least one computer instruction being loaded and executed by the processor, whereby the computer device implements the animation frame display method according to any one of claims 1 to 16.

19. A non-volatile computer-readable storage medium, storing at least one computer program, the at least one computer program being loaded and executed by a processor, whereby a computer implements the animation frame display method according to any one of claims 1 to 16.

20. A computer program product, comprising computer programs or computer instructions, the computer programs or the computer instructions being loaded and executed by a processor, whereby a computer implements the animation frame display method according to any one of claims 1 to 16.