CLAIMS

1. A method for adjusting a screen luminance, comprising:

acquiring a second screen luminance before adjusting the color temperature;

judging whether the second screen luminance is less than a preset minimum screen luminance;

in response to determining that the second screen luminance is less than the preset minimum screen luminance, prohibiting adjusting the color temperature of the screen;

in response to determining that the second screen luminance is not less than the preset minimum screen luminance, acquiring a proportion of blue light filtered out by adjusting a color temperature of a screen based on a relationship between the color temperature and the proportion of blue light filtered out;

acquiring a first screen luminance after adjusting the color temperature;

determining a screen contrast after adjusting the color temperature based on the proportion of blue light and the first screen luminance; and

adjusting the screen luminance based on the screen contrast.

2. The method according to claim 1, wherein determining the screen contrast after adjusting the color temperature based on the proportion of blue light and the first screen luminance comprises:

performing calculation of a preset algorithm based on the proportion of blue light and the first screen luminance to acquire the screen contrast after adjusting the color temperature.

3. The method according to claim 2, wherein performing calculation of the preset algorithm based on the proportion of blue light and the first screen luminance to acquire the screen contrast after adjusting the color temperature comprises:

calculating a screen luminance difference between the second screen luminance and the first screen luminance;

calculating a ratio of the screen luminance difference to the second screen luminance; and

calculating a product of the proportion of blue light and the ratio to acquire the screen contrast.

4. The method according to claim 1, wherein determining the screen contrast after adjusting the color temperature based on the proportion of blue light and the first screen luminance comprises:

acquiring a color temperature of the screen after adjusting the color temperature based on the proportion of blue light; and

querying a pre-stored contrast database to acquire a screen contrast corresponding to the color temperature of the screen and the first screen luminance.

5. The method according to any one of claims 1 to 4, wherein acquiring the proportion of blue light filtered out by adjusting the color temperature of the screen comprises:

acquiring the color temperature of the screen after filtering out the blue light; and

querying a pre-stored correspondence between color temperatures and ratios of blue light based on the acquired color temperature to acquire the proportion of blue light filtered out by adjusting the color temperature of the screen.

6. The method according to any one of claims 1 to 4, wherein acquiring the proportion of blue light filtered out by adjusting the color temperature of the screen comprises:

providing a color temperature adjustment slider;

obtaining a current position of the slider after adjusting the color temperature of the screen; and

acquiring the proportion of blue light filtered out by adjusting the color temperature of the screen based on the current position of the slider and a length of the slider.

7. The method according to any one of claims 1 to 4, wherein acquiring the proportion of blue light filtered out by adjusting the color temperature of the screen comprises:

obtaining a component of the blue light after adjusting the color temperature of the screen; and

acquiring the proportion of blue light filtered out by adjusting the color temperature of the screen based on the component of the blue light.

8. An apparatus for adjusting a screen luminance, comprising:

an acquiring module, configured to acquire a second screen luminance before adjusting the color temperature;

a judging module, configured to judge whether the second screen luminance is less than a preset minimum screen luminance; and

a processing module, configured to, in response to determine that the second screen luminance is less than the preset minimum screen luminance, prohibit adjusting the color temperature of the screen;

wherein the acquiring module is further configured to, in response to determine that the second screen luminance is not less than the preset minimum screen luminance, acquire a proportion of blue light filtered out by adjusting a color temperature of a screen based on a relationship between the color temperature and the proportion of blue light filtered out, and acquire a first screen luminance after adjusting the color temperature;

wherein the apparatus further comprises:

a determining module, configured to determine a screen contrast after adjusting the color temperature based on the proportion of blue light and the first screen luminance; and

an adjusting module, configured to adjust the screen luminance based on the screen contrast.

9. The apparatus according to claim 8, wherein

the determining module is further configured to perform calculation of a preset algorithm based on the proportion of blue light and the first screen luminance to acquire the screen contrast after adjusting the color temperature.

10. The apparatus according to claim 9, wherein the determining module is configured to perform calculation of the preset algorithm based on the proportion of blue light and the first screen luminance to acquire the screen contrast after adjusting the color temperature by acts of:

calculating a screen luminance difference between the second screen luminance and the first screen luminance;

calculating a ratio of the screen luminance difference to the second screen luminance; and

calculating a product of the proportion of blue light and the ratio to acquire the screen contrast.

11. The apparatus according to claim 8, wherein the determining module is configured to determine the screen contrast after adjusting the color temperature based on the proportion of blue light and the first screen luminance by acts of:

acquiring a color temperature of the screen after adjusting the color temperature based on the proportion of blue light; and

querying a pre-stored contrast database to acquire a screen contrast corresponding to the color temperature of the screen and the first screen luminance.

12. The apparatus according to any one of claims 8 to 11, wherein the acquiring module is configured to acquire the proportion of blue light filtered out by adjusting the color temperature of the screen and the first screen luminance after adjusting the color temperature by acts of:

acquiring the color temperature of the screen after filtering out the blue light, and querying a pre-stored correspondence between color temperatures and ratios of blue light based on the acquired color temperature to acquire the proportion of blue light filtered out by adjusting the color temperature of the screen;

or

providing a color temperature adjustment slider, obtaining a current position of the slider after adjusting the color temperature of the screen, and acquiring the proportion of blue light filtered out by adjusting the color temperature of the screen based on the current position of the slider and a length of the slider;

or

obtaining a component of the blue light after adjusting the color temperature of the screen and acquiring the proportion of blue light filtered out by adjusting the color temperature of the screen based on the component of the blue light.

13. A computer-readable storage medium having stored therein computer programs, wherein when the computer programs are executed by a processor, the method for adjusting a screen luminance according to any one of claims 1 to 7 is implemented.