CLAIMS

1. A warning method, comprising:

acquiring a plurality of frames of images obtained by photographing a game table, wherein the game table comprises a placement region configured for placing a token; and

in a case of determining, based on at least one frame of first image in the frames of images, that a game enters a settlement stage, in response to determining, according to at least one frame of second image in the frames of images, that the token in the placement region is changed by a gamer of the game, outputting warning information, wherein the at least one frame of second image is shot in a case where the game enters the settlement stage,

wherein the warning information comprises an identifier of at least one replacement region of the replacement region and action information, not conforming to the game, of the gamer.

2. The method of claim 1, wherein the game table comprises a game prop operating region, and determining, based on the at least one frame of first image in the frames of images, that the game enters the settlement stage comprises:

acquiring the at least one frame of first image obtained by photographing the game table in a game prop operating stage of the game;

determining game prop information in the game prop operating region based on the at least one frame of first image; and

determining, according to the game prop information, that the game enters the settlement stage.

3. The method of claim 1 or 2, wherein determining, according to the at least one frame of second image in the frames of images, that the token in the placement region is changed by

the gamer of the game comprises:

detecting token change information of the placement region based on the at least one frame of second image; and

in a case where the token in the placement region is changed and an operator associated with the changed token is the gamer, determining that the token in the placement region is changed by the gamer.

4. The method of any one of claims 1 to 3, wherein acquiring the frames of images obtained by photographing the game table comprises:

receiving the frames of images obtained by photographing the game table and respectively sent from at least one camera set up at at least one of a side or top of the game table; or

receiving at least one channel of video obtained by photographing the game table and respectively sent from the at least one camera set up at at least one of the side or the top of the game table, and

extracting the frames of images from the at least one channel of video.

5. The method of any one of claims 1 to 4, wherein outputting the warning information comprises: outputting the warning information to a management system.

6. The method of any one of claims 1 to 5, further comprising: after outputting the warning information,

determining a first attribute value based on the at least one frame of second image, wherein the first attribute value is an attribute value of the token before the token in the placement region is changed by the gamer;

acquiring at least one frame of third image shot after the at least one frame of second image from the frames of images;

determining a second attribute value based on the at least one frame of third image, wherein the second attribute value is an attribute value of the token after the token in the placement region is changed by the gamer; and

in a case where the first attribute value is the same as the second attribute value, outputting withdrawal information instructing to withdraw a warning.

7. The method of any one of claims 1 to 6, further comprising:

acquiring at least one frame of fourth image shot in at least one of a token placement stage or a game prop operating stage of the game from the frames of images; and

outputting prompt information in a case of determining, based on the at least one frame of fourth image, that a token is added to a specified placement region in at least one placement region in the at least one of the token placement stage or the game prop operating stage, wherein the prompt information indicates token addition to the specified placement region.

8. The method of any one of claims 1 to 7, wherein in response to determining, according to the at least one frame of second image in the frames of images, that the token in the placement region is changed by the gamer of the game, outputting the warning information comprises at least one of:

in response to determining, according to the at least one frame of second image, that a token is added by the gamer of the game to a placement region of a winner, outputting first warning information, wherein the first warning information indicates the token addition of the gamer to the placement region of the winner; or

in response to determining, according to the at least one frame of second image, that a

token is taken away by the gamer of the game from a placement region of a loser, outputting second warning information, wherein the second warning information indicates token takeaway of the gamer from the placement region of the loser.

9. The method of claim 3, wherein detecting the token change information of the placement region based on the at least one frame of second image comprises:

determining an attribute value of a first token in the placement region based on a first subimage in the at least one frame of second image;

acquiring a second subimage shot after the first subimage from the at least one frame of second image;

acquiring a third subimage shot after the second subimage from the at least one frame of second image in a case of determining that an operator associated with the token in the placement region in the second subimage is the gamer; and

determining an attribute value of a second token in the placement region in the third subimage;

wherein in a case where the token in the placement region is changed and the operator associated with the changed token is the gamer, determining that the token in the placement region is changed by the gamer comprises:

in a case where the attribute value of the first token is different from the attribute value of the second token and the operator associated with the token in the placement region is the gamer, determining that the token in the placement region is changed by the gamer.

10. The method of any one of claims 1 to 9, further comprising:

determining an attribute value of a third token in the placement region based on a fourth subimage in the at least one frame of second image;

acquiring a fifth subimage shot after the fourth subimage from the at least one frame of second image;

in a case of determining that an operator associated with the token in the placement region in the fifth subimage is a game controller, acquiring a sixth subimage shot after the fifth subimage from the at least one frame of second image ;

determining an attribute value of a fourth token in the placement region in the sixth subimage; and

in a case where the attribute value of the third token is different from the attribute value of the fourth token, determining that the token in the placement region is changed by the game controller.

11. The method of any one of claims 1 to 10, wherein in response to determining, according to the at least one frame of second image in the frames of images, that the token in the placement region is changed by the gamer of the game, outputting the warning information comprises:

in response to determining, based on the at least one frame of second image, that a token is added by the gamer of the game to the placement region of a winner after all tokens in the placement region of the winner are cleared, outputting third warning information, where the third warning information indicates that token addition of the gamer to the placement region of the winner after the all tokens in the placement region of the winner are cleared.

12. The method of claim 3, wherein detecting the token change information of the placement region based on the at least one frame of second image comprises:

in a case of determining, based on a seventh subimage in the at least one frame of second image, that the token in the placement region is cleared in the seventh subimage, acquiring an eighth subimage shot after a seventh subimage from the at least one frame of second image;

in a case of determining that an operator associated with the token in the placement region in the eighth subimage is the gamer, acquiring a ninth subimage shot after the eighth subimage from the at least one frame of second image; and

in a case where the placement region has a token in the ninth subimage, determining that the token change information of the placement region comprises addition of a new token after the token is cleared;

wherein in a case where the token in the placement region is changed and the operator associated with the changed token is the gamer, determining that the token in the placement region is changed by the gamer comprises:

in a case of determining that the new token is added after the token in the placement region is cleared and an operator associated with the token in the placement region is the gamer, determining that the token in the placement region is changed by the gamer.

13. A warning apparatus, comprising:

an acquisition unit, configured to acquire a plurality of frames of images obtained by photographing a game table, wherein the game table comprises at least one placement region configured for placing a token; and

an outputting unit, configured to, in a case of determining, based on at least one frame of first image in the frames of images, that a game enters a settlement stage, in response to determining, according to at least one frame of second image in the frames of images, that the token in any the placement region is changed by a gamer of the game, output warning information, wherein the at least one frame of second image is shot in a case where the game enters the settlement stage,

wherein the warning information comprises an identifier of at least one replacement region of the replacement region and action information, not conforming to the game, of the gamer.

14. A warning device, comprising:

a memory, configured to store a computer program capable of running in the processor; and

a processor, configured to implement steps in the method of any one of claims 1 to 12 whern executing the computer program.

15. A computer storage medium, storing one or more programs, wherein the one or more programs are executable by one or more processors to implement steps in the method of any one of claims 1 to 12.