CLAIMS

1. A method for detecting an object exchange behavior, comprising:

acquiring a video stream of a target scenario;

performing, in a case of detecting from a present image in the video stream that a first person places a to-be-exchanged object in a first preset region, a compliance detection on a type of the to-be-exchanged object based on the present image to obtain a first detection result; and

outputting, in a case where the first detection result is not compliant, alarm prompt information for characterizing a type error of the to-be-exchanged object,

wherein performing the compliance detection on the type of the to-be-exchanged object based on the present image to obtain the first detection result comprises:

acquiring personal information of a second person associated with the to-be-exchanged object, and preset exchangeable type information corresponding to the target scenario; and

determining, in a case where the type of the to-be-exchanged object is matched with an object type corresponding to the personal information, and the preset exchangeable type information, that the first detection result is compliant; and/or

determining, in a case where the type of the to-be-exchanged object is not matched with the object type corresponding to the personal information, or, the preset exchangeable type information, that the first detection result is not compliant.

2. The method of claim 1, wherein the method further comprises:

before performing the compliance detection on the type of the to-be-exchanged object based on the present image to obtain the first detection result, sequentially detecting a preset

take-away action of the first person and the to-be-exchanged object in the first preset region for at least one frame of image in the video stream, wherein the preset take-away action comprises an action for taking away the to-be-exchanged object from a preset object placement region; and

determining at least one frame of image in which the preset take-way action of the first person is detected and the to-be-exchanged object is present in the first preset region as the present image.

3. The method of claim 1, wherein the method further comprises:

after detecting from the present image that the first person places the to-be-exchanged object in the first preset region, continuously acquiring, based on the video stream, a first image in which the first person places a target exchange object in a second preset region, the target exchange object being an object for exchanging the to-be-exchanged object;

performing, in a case of acquiring the first image, a compliance detection on a type of the target exchange object based on the first image to obtain a second detection result; and

outputting, in a case where the second detection result is not compliant, alarm prompt information for characterizing a type error of the target exchange object.

4. The method of claim 3, wherein performing the compliance detection on the type of the target exchange object based on the first image to obtain the second detection result comprises:

acquiring preset type configuration information; and

determining, in a case where the type of the to-be-exchanged object is matched with the type of the target exchange object according to the preset type configuration information, that the second detection result is compliant; and/or

determining, in a case where the type of the to-be-exchanged object is not matched

with the type of the target exchange object according to the preset type configuration information, that the second detection result is not compliant.

5. The method of claim 3, wherein performing the compliance detection on the type of the target exchange object based on the first image to obtain the second detection result comprises:

acquiring personal information of a second person associated with the to-be-exchanged object, and preset exchangeable type information corresponding to the target scenario; and

determining, in a case where the type of the target exchange object is matched with an object type corresponding to the personal information, and the preset exchangeable type information, that the second detection result is compliant; and/or

determining, in a case where the type of the target exchange object is not matched with the object type corresponding to the personal information, or, the preset exchangeable type information, that the second detection result is not compliant.

6. The method of claim 3, wherein the method further comprises:

before performing the compliance detection on the type of the target exchange object to obtain the second detection result, sequentially detecting a first preset placement action of the first person and the target exchange object in the second preset region for at least one frame of image after the present image in the video stream, wherein the preset placement action comprises an action for placing the target exchange object in the second preset region; and

determining at least one frame of image in which the first preset placement action of the first person is detected and the target exchange object is present in the second preset region as the first image.

7. The method of claim 3, wherein the method further comprises:

after acquiring the first image, continuously acquiring, based on the video stream, a second image in which the first person pushes the target exchange object out of the second preset region;

detecting, in a case of acquiring the second image, values of the target exchange object and the to-be-exchanged object based on the first image and the present image respectively; and

outputting, in a case where the values of the target exchange object and the to-be-exchanged object are unequal, alarm prompt information for characterizing a value error of the target exchange object.

8. The method of claim 7, wherein the method further comprises:

before detecting the values of the target exchange object and the to-be-exchanged object based on the first image and the present image respectively, sequentially detecting, a second preset placement action of the first person and the target exchange object in a preset object placement region out of the second preset region for at least one frame of image after the first image in the video stream, wherein the second preset placement action comprises an action for placing the target exchange object in the preset object placement region; and

determining at least one frame of image in which the second preset placement action of the first person is detected and the target exchange object is present in the second preset region as the second image.

9. The method of claim 7, wherein the method further comprises:

after acquiring the second image, continuously acquiring, based on the video stream, a third image in which the first preset region does not contain the to-be-exchanged object; and

outputting, in a case where a duration for not acquiring the third image reaches a preset duration, alarm prompt information for characterizing that the to-be-exchanged object is not recycled.

10. The method of claim 7, wherein the method further comprises:

acquiring personal information of a second person associated with the to-be-exchanged object; and

removing, in a case of acquiring the second image, an association between the to-be-exchanged object and the personal information, and associating the target exchange object with the personal information.

11. The method of any one of claims 7 to 10, wherein the target scenario comprises a game table scenario; and the to-be-exchanged object comprises a token, and the first preset region and the second preset region comprise a preset operation region of the first person on the game table.

12. An apparatus for detecting an object exchange behavior, comprising:

an acquisition module, configured to acquire a video stream of a target scenario;

a detection module, configured to perform, in a case of detecting from a present image in the video stream that a first person places a to-be-exchanged object in a first preset region, a compliance detection on a type of the to-be-exchanged object based on the present image to obtain a first detection result; and

an alarm module, configured to output, in a case where the first detection result is not compliant, alarm prompt information for characterizing a type error of the to-be-exchanged object,

wherein the detection module is specifically configured to acquire personal information of a second person associated with the to-be-exchanged object, and preset exchangeable type information corresponding to the target scenario; and determine, in a case where the type of the to-be-exchanged object is matched with an object type corresponding to the personal information, and the preset exchangeable type information, that the first detection result is compliant; and/or determine, in a case where the type of the to-be-exchanged object is not matched with the object type corresponding to the personal information, or, the preset exchangeable type information, that the first detection result is not compliant.

13. The apparatus of claim 12, wherein

the detection module is further configured to, before performing the compliance detection on the type of the to-be-exchanged object based on the present image to obtain the first detection result, sequentially detect a preset take-away action of the first person and the to-be-exchanged object in the first preset region for at least one frame of image in the video stream, wherein the preset take-away action comprises an action for taking away the to-be-exchanged object from a preset object placement region; and determine at least one frame of image in which the preset take-way action of the first person is detected and the to-be-exchanged object is present in the first preset region as the present image.

14. The apparatus of claim 12, wherein

the detection module is further configured to, after detecting from the present image that the first person places the to-be-exchanged object in the first preset region, continuously acquire, based on the video stream, a first image in which the first person places a target exchange object in a second preset region, the target exchange object being an object for exchanging the to-be-exchanged object; and perform, in a case of acquiring the first image, a compliance detection on a type of the target exchange object based on the first image to obtain a second detection result; and

the alarm module is further configured to output, in a case where the second detection

result is not compliant, alarm prompt information for characterizing a type error of the target exchange object.

15. The apparatus of claim 14, wherein

the detection module is specifically configured to acquire preset type configuration information; and determine, in a case where the type of the to-be-exchanged object is matched with the type of the target exchange object according to the preset type configuration information, that the second detection result is compliant; and/or determine, in a case where the type of the to-be-exchanged object is not matched with the type of the target exchange object according to the preset type configuration information, that the second detection result is not compliant.

16. An electronic device, comprising a processor, a memory and a communication bus, wherein

the communication bus is configured to implement connection and communication between the processor and the memory; and

the processor is configured to execute one or more programs stored in the memory, to implement the method for detecting the object exchange behavior of any one of claims 1 to 11.

17. A computer-readable storage medium, storing one or more programs, wherein the one or more programs are able to be executed by one or more processors, to implement the method for detecting the object exchange behavior of any one of claims 1 to 11.

18. A computer program, stored in a memory; wherein the computer program, when executed by a processor, implements method for detecting the object exchange behavior of any one of claims 1 to 11.