CLAIMS

1. An image synchronization method, comprising:

acquiring a preset frame frequency corresponding to each of a plurality of image collection apparatuses, and determining a signal transmission frequency on the basis of a plurality of preset frame frequencies, wherein the signal transmission frequency is less than or equal to any of the preset frame frequencies;

synchronously sending image collection triggering signals to the plurality of image collection apparatuses according to the signal transmission frequency;

in a case where a candidate image for a target object that is returned by any of the plurality of image collection apparatuses and is collected in response to the image collection triggering signals are received, recording a time parameter corresponding to the candidate image;

for each image collection apparatus, caching at least one candidate image collected by the image collection apparatus and a time parameter corresponding to the at least one candidate image into a respective one of a plurality of image cache queues in a corresponding relationship according to a time parameter ranking sequence to construct a respective one of a plurality of groups of candidate images;

acquiring ~~a~~ the plurality of groups of candidate images collected by ~~a~~ the plurality of image collection apparatuses ~~for a target object~~ and time parameters corresponding to ~~each of~~ the candidate images~~, wherein each of the image collection apparatuses corresponds to one of the plurality of groups of candidate images, and each group of candidate images includes at least one of the candidate images~~;

selecting one of the candidate images from the each group of candidate images as an image to be analyzed, and constructing a group of images to be analyzed on the basis of a plurality of images to be analyzed; and

determining the group of images to be analyzed as a synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying a preset synchronization condition.

~~2. The method of claim 1, further comprising:~~

~~synchronously sending image collection triggering signals to a plurality of image collection apparatuses;~~

~~in a case where a candidate image that is returned by any of the image collection apparatuses and is collected in response to the image collection triggering signals is received, recording the time parameter corresponding to the candidate image; and~~

~~caching the candidate images and the time parameters into any image cache queue in a corresponding relationship according to the time parameter ranking sequence to construct any group of candidate images, wherein each of the image collection apparatuses corresponds to one image cache queue.~~

~~3. The method of claim 2, wherein the synchronously sending image collection triggering signals to a plurality of image collection apparatuses comprises:~~

~~acquiring a preset frame frequency corresponding to each of the image collection apparatuses, and determining a signal transmission frequency on the basis of a plurality of preset frame frequencies, wherein the signal transmission frequency is less than or equal to any of the preset frame frequencies; and~~

~~synchronously sending the image collection triggering signals to the plurality of image collection apparatuses according to the signal transmission frequency.~~

~~4~~2. The method of claim ~~2~~1, wherein the selecting one of the candidate images from the each group of candidate images as an image to be analyzed comprises:

selecting a candidate image with a time parameter ranked first from a group of candidate images cached in each image cache queue as an image to be analyzed, to obtain the plurality of images to be analyzed.

~~5~~3. The method of claim ~~4~~2, after the constructing a group of images to be analyzed on the basis of the plurality of images to be analyzed, and before the determining the group of images to be analyzed as a synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying a preset synchronization condition, further comprising:

determining an image with a time parameter ranked last in the group of images to be analyzed as a target image;

calculating a time difference value between a time parameter corresponding to the target image and a time parameter corresponding to any image to be analyzed in the group of images to be analyzed; and

determining that the time parameters of the images to be analyzed all satisfy a preset synchronization condition in response to the time difference value being less than or equal to a preset time threshold value.

~~6~~4. The method of claim ~~5~~3, after the calculating a time difference value between a time parameter corresponding to the target image and a time parameter corresponding to any image to be analyzed in the group of images to be analyzed, further comprising:

in response to the time difference value between the time parameter corresponding to the target image and a time parameter corresponding to a first image to be analyzed in the image group to be analyzed being greater than the preset time threshold value, discarding the first image to be analyzed, wherein the first image to be analyzed is any other image to be analyzed except the target image in the group of images to be analyzed;

continuing to select a second image to be analyzed with a time parameter ranked first from a first image cache queue to which the first image to be analyzed belongs; and

updating the group of images to be analyzed on the basis of the second image to be analyzed, and continuing to execute determination processing of the target image and determination processing of the preset synchronization condition on the basis of the updated group of images to be analyzed.

~~7~~5. The method of any one of claims 1 to ~~6~~4, after the determining the group of images to be analyzed as a synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying a preset synchronization condition, further comprising:

performing preprocessing on each image to be analyzed in the synchronization image group to obtain a processed synchronization image group that satisfies a preset model input condition; and

inputting the processed synchronization image group into a target algorithm model to perform image analysis processing.

~~8~~6. The method of any one of claims ~~2~~ 1 to ~~6~~4, after the determining the group of images to be analyzed as a synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying a preset synchronization condition, further comprising:

constructing a next group of images to be analyzed on the basis of the image to be analyzed with a time parameter ranked first of each of the image cache queues, and executing the determination processing of a next synchronization image group corresponding to the target object.

~~9~~7. The method of claim 1, wherein the plurality of image collection apparatuses are relatively arranged in a plurality of angle directions of the target object, each image collection apparatus being arranged in one angle direction.

~~10~~8. A computer device, comprising a memory and a processor, wherein the memory stores a computer program capable of running in the processor, and wherein when executing the program, the processor is configured to:

acquire a preset frame frequency corresponding to each of a plurality of image collection apparatuses, and determine a signal transmission frequency on the basis of a plurality of preset frame frequencies, wherein the signal transmission frequency is less than or equal to any of the preset frame frequencies;

synchronously send image collection triggering signals to the plurality of image collection apparatuses according to the signal transmission frequency;

in a case where a candidate image for a target object that is returned by any of the plurality of image collection apparatuses and is collected in response to the image collection triggering signals are received, record a time parameter corresponding to the candidate image;

for each image collection apparatus, cache at least one candidate image collected by the image collection apparatus and a time parameter corresponding to the at least one candidate image into a respective one of a plurality of image cache queues in a corresponding relationship according to a time parameter ranking sequence to construct a respective one of a plurality of groups of candidate images;

acquire ~~a~~ the plurality of groups of candidate images collected by ~~a~~ the plurality of image collection apparatuses ~~for a target object~~ and time parameters corresponding to ~~each of~~ the candidate images~~, wherein each of the image collection apparatuses corresponds to one of the plurality of groups of candidate images, and each group of candidate images includes at least one of the candidate images~~;

select one of the candidate images from the each group of candidate images as an image to be analyzed, and construct a group of images to be analyzed on the basis of a plurality of images to be analyzed; and

determine the group of images to be analyzed as a synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying a preset synchronization condition.

~~11. The computer device of claim 10, wherein the processor is further configured to:~~

~~synchronously send image collection triggering signals to a plurality of image collection apparatuses;~~

~~in a case where a candidate image that is returned by any of the image collection apparatuses and is collected in response to the image collection triggering signals is received, record the time parameter corresponding to the candidate image; and~~

~~cache the candidate images and the time parameters into any image cache queue in a corresponding relationship according to the time parameter ranking sequence to construct any group of candidate images, wherein each of the image collection apparatuses corresponds to one image cache queue.~~

~~12. The computer device of claim 11, wherein when synchronously sending the image collection triggering signals to the plurality of image collection apparatuses, the processor is configured to:~~

~~acquire a preset frame frequency corresponding to each of the image collection apparatuses, and determine a signal transmission frequency on the basis of a plurality of preset frame frequencies, wherein the signal transmission frequency is less than or equal to any of the preset frame frequencies; and~~

~~synchronously send the image collection triggering signals to the plurality of image collection apparatuses according to the signal transmission frequency.~~

~~13~~9. The computer device of claim ~~11~~8, wherein when selecting one of the candidate images from the each group of candidate images as the image to be analyzed, the processor is configured to:

select a candidate image with a time parameter ranked first from a group of candidate images cached in each image cache queue as an image to be analyzed, to obtain the plurality of images to be analyzed.

~~14~~10. The computer device of claim ~~13~~9, after constructing the group of images to be analyzed on the basis of the plurality of images to be analyzed, and before determining the group of images to be analyzed as the synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying the preset synchronization condition, the processor is further configured to:

determine an image with a time parameter ranked last in the group of images to be analyzed as a target image;

calculate a time difference value between a time parameter corresponding to the target image and a time parameter corresponding to any image to be analyzed in the group of images to be analyzed; and

determine that the time parameters of the images to be analyzed all satisfy a preset synchronization condition in response to the time difference value being less than or equal to a preset time threshold value.

~~15~~11. The computer device of claim ~~14~~10, after calculating the time difference value between the time parameter corresponding to the target image and the time parameter corresponding to

any image to be analyzed in the group of images to be analyzed, the processor is further configured to:

in response to the time difference value between the time parameter corresponding to the target image and a time parameter corresponding to a first image to be analyzed in the image group to be analyzed being greater than the preset time threshold value, discard the first image to be analyzed, wherein the first image to be analyzed is any other image to be analyzed except the target image in the group of images to be analyzed;

continue to select a second image to be analyzed with a time parameter ranked first from a first image cache queue to which the first image to be analyzed belongs; and

update the group of images to be analyzed on the basis of the second image to be analyzed, and continue to execute determination processing of the target image and determination processing of the preset synchronization condition on the basis of the updated group of images to be analyzed.

~~16~~12. The computer device of any one of claims ~~10~~ 8 to ~~15~~11, after determining the group of images to be analyzed as the synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying the preset synchronization condition, the processor is further configured to:

perform preprocessing on each image to be analyzed in the synchronization image group to obtain a processed synchronization image group that satisfies a preset model input condition; and

input the processed synchronization image group into a target algorithm model to perform image analysis processing.

~~17~~13. The computer device of any one of claims ~~11~~ 8 to ~~15~~11, after determining the group of images to be analyzed as the synchronization image group corresponding to the target object

in response to the time parameters of the images to be analyzed all satisfying the preset synchronization condition, the processor is further configured to:

construct a next group of images to be analyzed on the basis of the image to be analyzed with a time parameter ranked first of each of the image cache queues, and execute the determination processing of a next synchronization image group corresponding to the target object.

~~18~~14. The computer device of claim ~~10~~8, wherein the plurality of image collection apparatuses are relatively arranged in a plurality of angle directions of the target object, each image collection apparatus being arranged in one angle direction.

~~19~~15. A computer-readable storage medium, having a computer program stored thereon, wherein the computer program, when executed by a processor, is configured to perform the method of any one of claims 1 to 7~~:~~

~~acquire a plurality of groups of candidate images collected by a plurality of image collection apparatuses for a target object and time parameters corresponding to each of the candidate images, wherein each of the image collection apparatuses corresponds to one of the plurality of groups of candidate images, and each group of candidate images includes at least one of the candidate images;~~

~~select one of the candidate images from the each group of candidate images as an image to be analyzed, and construct a group of images to be analyzed on the basis of a plurality of images to be analyzed; and~~

~~determine the group of images to be analyzed as a synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying a preset synchronization condition~~.

~~20~~16. A computer program, comprising computer instructions executable by an electronic device, wherein when executed by a processor in the electronic device, the computer instructions are configured to perform the method of any one of claims 1 to 7~~:~~

~~acquire a plurality of groups of candidate images collected by a plurality of image collection apparatuses for a target object and time parameters corresponding to each of the candidate images, wherein each of the image collection apparatuses corresponds to one of the plurality of groups of candidate images, and each group of candidate images includes at least one of the candidate images;~~

~~select one of the candidate images from the each group of candidate images as an image to be analyzed, and construct a group of images to be analyzed on the basis of a plurality of images to be analyzed; and~~

~~determine the group of images to be analyzed as a synchronization image group corresponding to the target object in response to the time parameters of the images to be analyzed all satisfying a preset synchronization condition~~.