CLAIMS

1. A method for constructing object motion trajectory, comprising:

acquiring at least two different types of object features matching with a search condition, wherein the at least two different types of object features comprise at least two of face features, body features or vehicle features;

acquiring photographing time points and photographing places that are respectively associated with the at least two different types of object features; and

generating an object motion trajectory according to a combination of the photographing time points and the photographing places that are respectively associated with the at least two different types of object features.

2. The method of claim 1, wherein generating the object motion trajectory according to the combination of the photographing time points and the photographing places that are respectively associated with the at least two different types of object features further comprises:

taking one type of object feature in the at least two different types of object features as a main object feature, and the other type of object feature as an auxiliary object feature;

determining, according to a photographing time point and a photographing place that are associated with the main object feature, as well as a photographing time point and a photographing place that are associated with the auxiliary object feature, whether a relative position between the auxiliary object feature and the main object feature meets a motion law of an object; and

removing, in response to the relative position between the auxiliary object feature and the main object feature not meeting the motion law of the object, the photographing time point and the photographing place that are associated with the auxiliary object feature.

3. The method of claim 2, wherein determining, according to the photographing time point and the photographing place that are associated with the main object feature, as well as the photographing time point and the photographing place that are associated with the auxiliary object feature, whether the relative position between the auxiliary object feature and the main object feature meets the motion law of the object further comprises:

calculating a position difference according to the photographing place of the main object feature and the photographing place of the auxiliary object feature;

calculating a time difference according to the photographing time point of the main object feature and the photographing time point of the auxiliary object feature; and

calculating a motion velocity based on the position difference and the time difference, and determining, when the motion velocity is more than a preset motion velocity threshold, that the relative position between the auxiliary object feature and the main object feature does not meet the motion law of the object.

4. The method of claim 1 or 2, wherein acquiring the photographing time points and the photographing places that are respectively associated with the at least two different types of object features comprises:

acquiring a first object picture that corresponds to the at least two different types of object features; and

determining, at least based on the first object picture, the photographing time points and the photographing places that are respectively associated with the object features.

5. The method of claim 4, further comprising:

after acquiring the first object picture that corresponds to the at least two different types of object features,

acquiring at least one of an object face image corresponding to the face feature, an object body image corresponding to the body feature or an object vehicle image

corresponding to the vehicle feature, respectively; and

associating, when the object face image and the object body image correspond to the same first object picture and have a preset spatial relationship, the object face image with the object body image in the first object picture; associating, when the object face image and the object vehicle image correspond to the same first object picture and have a preset spatial relationship, the object face image with the object vehicle image in the first object picture; and associating, when the object body image and the object vehicle image correspond to the same first object picture and have a preset spatial relationship, the object body image with the object vehicle image in the first object picture.

6. The method of claim 5, further comprising:

when the at least two different types of object features comprise the face feature, and after the object face image and the object vehicle image in the first object picture are associated with each other,

acquiring, based on the object vehicle image, a second object picture corresponding to the object vehicle image; and wherein

determining, at least based on the first object picture, the photographing time points and the photographing places that are respectively associated with the object features comprises:

determining, based on the first object picture and the second object picture, the photographing time points and the photographing places that are respectively associated with the object features.

7. The method of claim 5, further comprising:

when the at least two different types of object features comprise the face feature, and after the object face image and the object body image in the first object picture are associated with each other,

acquiring, based on the object body image, a third object picture corresponding to the object body image; and wherein

determining, at least based on the first object picture, the photographing time points and the photographing places that are respectively associated with the object features comprises:

determining, based on the first object picture and the third object picture, the photographing time points and the photographing places that are respectively associated with the object features.

8. The method of any one of claims 5 to 7, wherein

the preset spatial relationship comprises at least one of: an image coverage range of a first object associated image comprises an image coverage range of a second object associated image; the image coverage range of the first object associated image partially overlaps with the image coverage range of the second object associated image; or the image coverage range of the first object associated image links with the image coverage range of the second object associated image,

the first object associated image comprises one or more of the object face image, the object body image or the object vehicle image, and the second object associated image comprises one or more of the object face image, the object body image or the object vehicle image.

9. The method of claim 1, wherein acquiring the at least two different types of object features matching with the search condition comprises:

acquiring at least two search conditions; and

searching object features matching with any search condition in the at least two search conditions from a database.

10. The method of claim 9, wherein the search condition comprises at least one of an identity search condition, a face search condition, a body search condition or a vehicle search condition,

wherein the object feature is preliminarily associated with identity information, the identity information being one of identity card information, name information or archival information.

11. The method of claim 9, wherein searching the object features matching with any search condition in the at least two search conditions from the database comprises:

clustering, with a sample feature of the any search condition in the at least two search conditions as a clustering center, object features in the database, and determining object features within a preset range of the clustering center as the object features matching with the search condition.

12. A device for constructing object motion trajectory, comprising a search module, an acquisition module and a trajectory construction module, wherein

the search module is configured to acquire at least two different types of object features matching with a search condition, wherein the at least two different types of object features comprise at least two of face features, body features or vehicle features;

the acquisition module is configured to acquire photographing time points and photographing places that are respectively associated with the at least two different types of object features; and

the trajectory construction module is configured to generate an object motion trajectory according to a combination of the photographing time points and the photographing places that are respectively associated with the at least two different types of object features.

13. The device for constructing object motion trajectory of claim 12, wherein the trajectory

construction module is further configured to:

take one type of object feature in the at least two different types of object features as a main object feature, and the other type of object feature as an auxiliary object feature;

determine, according to a photographing time point and a photographing place that are associated with the main object feature, as well as a photographing time point and a photographing place that are associated with the auxiliary object feature, whether a relative position between the auxiliary object feature and the main object feature meets a motion law of an object; and

remove, in response to the relative position between the auxiliary object feature and the main object feature not meeting the motion law of the object, the photographing time point and the photographing place that are associated with the auxiliary object feature.

14. The device for constructing object motion trajectory of claim 13, wherein the trajectory construction module is further configured to:

calculate a position difference according to the photographing place of the main object feature and the photographing place of the auxiliary object feature;

calculate a time difference according to the photographing time point of the main object feature and the photographing time point of the auxiliary object feature; and

calculate a motion velocity based on the position difference and the time difference, and determine, when the motion velocity is more than a preset motion velocity threshold, that the relative position between the auxiliary object feature and the main object feature does not meet the motion law of the object.

15. The device for constructing object motion trajectory of claim 12 or 13, wherein the acquisition module is further configured to:

acquire a first object picture that corresponds to the at least two different types of object features; and

determine, at least based on the first object picture, the photographing time points and the photographing places that are respectively associated with the object features.

16. The device for constructing object motion trajectory of claim 15, wherein the acquisition module is further configured to:

acquire at least one of an object face image corresponding to the face feature, an object body image corresponding to the body feature or an object vehicle image corresponding to the vehicle feature, respectively; and

associate, when the object face image and the object body image correspond to the same first object picture and have a preset spatial relationship, the object face image with the object body image in the first object picture; associate, when the object face image and the object vehicle image correspond to the same first object picture and have a preset spatial relationship, the object face image with the object vehicle image in the first object picture; and associate, when the object body image and the object vehicle image correspond to the same first object picture and have a preset spatial relationship, the object body image with the object vehicle image in the first object picture.

~~17. The device for constructing object motion trajectory of claim 16, wherein the acquisition module is further configured to: when the at least two different types of object features comprise the face feature, and after the object face image and the object vehicle image in the first object picture are associated with each other,~~

~~acquire, based on the object vehicle image, a second object picture corresponding to the object vehicle image; and~~

~~determine, based on the first object picture and the second object picture, the photographing time points and the photographing places that are respectively associated with the object features.~~

~~18. The device for constructing object motion trajectory of claim 16, wherein the acquisition~~

~~module is further configured to: when the at least two different types of object features comprise the face feature, and after the object face image and the object body image in the first object picture are associated with each other,~~

~~acquire, based on the object body image, a third object picture corresponding to the object body image; and~~

~~determine, based on the first object picture and the third object picture, the photographing time points and the photographing places that are respectively associated with the object features.~~

~~19. The device for constructing object motion trajectory of any one of claims 16 to 18, wherein~~

~~the preset spatial relationship comprises at least one of: an image coverage range of a first object associated image comprises an image coverage range of a second object associated image; the image coverage range of the first object associated image partially overlaps with the image coverage range of the second object associated image; or the image coverage range of the first object associated image links with the image coverage range of the second object associated image, and~~

~~wherein the first object associated image comprises one or more of the object face image, the object body image or the object vehicle image, and the second object associated image comprises one or more of the object face image, the object body image or the object vehicle image.~~

~~20~~17. The device for constructing object motion trajectory of claim 12, wherein the search module is further configured to:

acquire at least two search conditions; and

search object features matching with any search condition in the at least two search conditions from a database.

~~21. The device for constructing object motion trajectory of claim 20, wherein the search condition comprises at least one of an identity search condition, a face search condition, a body search condition or a vehicle search condition,~~

~~wherein the object feature is preliminarily associated with identity information, the identity information being one of identity card information, name information or archival information.~~

~~22. The device for constructing object motion trajectory of claim 20, wherein the search module is further configured to:~~

~~cluster, with a sample feature of the any search condition in the at least two search conditions as a clustering center, object features in the database, and determine object features within a preset range of the clustering center as the object features matching with the search condition.~~

~~23~~18. A device for constructing object motion trajectory, comprising a processor and a memory for storing a computer program, and the processor is configured to execute the computer program to implement the steps of the method for constructing object motion trajectory of any one of claims 1 to 11.

~~24~~19. A computer readable storage medium having stored therein a computer program which, when being executed by a processor, causes the processor to implement the steps of the method for constructing object motion trajectory of any one of claims 1 to 11.

~~25~~20. A computer program product comprising instructions which, when being executed by a processor, cause the processor to implement the method for constructing object motion trajectory based on a picture of any one of claims 1 to 11.