WHAT IS CLAIMED IS:

1. A method for collecting spatiotemporal behaviors and generating a spatiotemporal behavior track, characterized in that, the method comprises:

obtaining a first time series containing a plurality of sampling points, wherein the plurality of sampling points are projection points of a reality display device;

performing a first process on any one of the plurality of sampling points, wherein the first process comprises: setting a window time based on a sampling time of a current sampling point, and finding a first sampling point and a last sampling point within the window time; taking a first device position as a center of a circle, wherein the first device position is a center point of the reality display device corresponding to the current sampling point; calculating an angular speed between the first sampling point and the last sampling point; and if the angular speed is greater than a preset angular speed threshold, taking the current sampling point as a displacement point;

performing the first process on each of others of the plurality of sampling points to obtain a second time series containing a plurality of displacement points; and

drawing a moving track map based on the plurality of displacement points,

wherein, before the drawing the moving track map based on the plurality of displacement points, the method further comprises:

if a time interval between two adjacent displacement points in the second time series is less than a first time interval threshold, determining whether an included angle between two connecting lines respectively connecting the two adjacent displacement points with a second device position is not greater than a preset angle threshold; wherein, the second device position is a center point of the reality display device corresponding to a displacement point with a later sampling time in the two adjacent displacement points;

if the included angle between two connecting lines respectively connecting the two adjacent displacement points with the second device position is not greater than the preset angle threshold, merging the two adjacent displacement points to a new displacement point.

2. The method according to claim 1, wherein, a middle time of the window time is the sampling time of the current sampling point, and the window time comprises sampling times corresponding to at least three sampling points.

3. The method according to claim 1 or 2, wherein, before the setting the window time based on the sampling time of the current sampling point for any of the sampling points, the method further comprises:

if a time interval between two adjacent sampling points in the first time series is within a preset interval, filling data in a gap between the two adjacent sampling points.

4. The method according to claim 3, wherein, the filling data in a gap between the two adjacent sampling points comprises:

filling sampling points on a line connecting the two adjacent sampling points at a first interval; the first interval is calculated based on a distance between the two adjacent sampling points and a number of invalid sampling points between the two adjacent sampling points; the number of invalid sampling points is calculated based on a time interval between the two adjacent sampling points and a sampling period.

5. The method according to claim 1 or 2, wherein, before the drawing the moving track map based on the plurality of displacement points, the method further comprises:

for any one of the plurality of displacement points, if a duration time for which a subject is located at the current displacement point is less than a second time interval threshold, discarding the current displacement point; the duration time for which the subject is located at the current displacement point is a time interval between a sampling time of the current displacement point and a sampling time of the next displacement point,

wherein the subject is an objective subject operating in a virtual reality scene or mixed reality scene.

6. The method according to claim 1 or 2, wherein, the moving track map comprises a displacement route map; the drawing the moving track map based on the plurality of displacement

points comprises:

obtaining a display parameter of each of the plurality of displacement points, wherein, the display parameter comprises color, direction and area, the direction points from a previous displacement point to the current displacement point, the area is positively correlated with a duration time for which a subject is located at the current displacement point; the duration time for which a subject is located at the current displacement point is a time interval between a sampling time of the current displacement point and a sampling time of the next displacement point;

generating the displacement route map based on the display parameter of each of the plurality of displacement points.

7. The method according to claim 1 or 2, wherein, the moving track map comprises a track thermogram; the drawing the moving track map based on the plurality of displacement points comprises:

obtaining at least one Signal of Interest (SOI) region, and counting a number of displacement points in the at least one SOI region;

for any one of the SOI regions, determining a color intensity value based on a duration time for which a subject is located at each of the plurality of displacement points and the number of the displacement points in a unit area, and drawing a track thermogram in a current SOI region based on the color intensity value; wherein, the duration time of the subject at each displacement point is a time interval between a sampling time of each of the plurality of displacement points and a sampling time of the next displacement point.

8. The method according to claim 1 or 2, wherein, after the drawing the moving track map based on the plurality of displacement points, the method further comprises:

obtaining an eye movement data and/or a physiological sign data of a subject at each of the plurality of displacement points, and marking the eye movement data and/or the physiological sign data of each of the plurality of displacement points on the moving track map;

wherein, the physiological sign data comprises at least one of electroencephalogram (EEG), electromyography (EMG), heart rate, blood pressure, pulse, body temperature and respiratory rate.

9. The method according to claim 8, further comprising:

obtaining at least one Signal of Interest (SOI) region;

extracting a displacement point in the at least one SOI region, generating an access evaluation data of each SOI region; normalizing a number of access, a total staying time and a proportion of access time in the access evaluation data of each SOI region, and calculating an access evaluation indicator of each SOI region based on a weighted sum; and/or,

extracting eye movement data in the at least one SOI region, and generating a gaze evaluation data of each SOI region, normalizing a total gaze duration time, a number of gaze and a proportion of gaze time in the gaze evaluation data of each SOI region, and calculating a gaze evaluation indicator of each SOI region based on a weighted sum; and/or,

extracting physiological sign data in the at least one SOI region, generating a physiological sign change evaluation data of each SOI region, normalizing the physiological sign change evaluation data of each SOI region, and calculating a physiological sign change evaluation indicator of each SOI region based on a weighted sum.

10. An apparatus for collecting spatiotemporal behaviors and generating a spatiotemporal behavior track, characterized in that, the apparatus comprises:

a sampling point obtaining module, configured for obtaining a first time series containing a plurality of sampling points, wherein the plurality of sampling points are projection points of a reality display device;

a displacement point obtaining module, configured for performing a first process on any one of the plurality of sampling points, wherein the first process comprises: setting a window time based on a sampling time of a current sampling point, and finding a first sampling point and a last sampling point within the window time; taking a first device position as a center of a circle,

wherein the first device position is a center point of the reality display device corresponding to the current sampling point; calculating an angular speed between the first sampling point and the last sampling point; and if the angular speed is greater than a preset angular speed threshold, taking the current sampling point as a displacement point; performing the first process on each of others of the plurality of sampling points to obtain a second time series containing a plurality of displacement points;

a drawing module, configured for drawing a moving track map based on the plurality of displacement points; and

a merging module, configured for, before drawing the moving track map based on the plurality of displacement points, if a time interval between two adjacent displacement points in the second time series is less than a first time interval threshold, determining whether an included angle between two connecting lines respectively connecting the two adjacent displacement points with a second device position is not greater than a preset angle threshold; wherein, the second device position is a center point of the reality display device corresponding to a displacement point with a later sampling time in the two adjacent displacement points; if the included angle between two connecting lines respectively connecting the two adjacent displacement points with the second device position is not greater than the preset angle threshold, merging the two adjacent displacement points to a new displacement point.

11. An electronic device, comprising: a memory and a processor; characterized in that, the memory stores a computer program that is configured to be loaded by the processor to implement the method according to any one of claims 1-9.

12. A system for collecting spatiotemporal behaviors and generating a spatiotemporal behavior track, characterized in that, the system comprises: a reality display device and the electronic device according to claim 11; wherein,

the reality display device is configured for collecting a coordinate of a projection point of the reality display device based on a preset sampling frequency, and sending a coordinate of the

projection point of the reality display device to the electronic device;

the electronic device is configured for obtaining the coordinate of the projection point of the reality display device, and generating a first time series containing a plurality of sampling points based on the coordinate of the projection point of the reality display device.

13. A computer readable storage medium with a computer program stored thereon, characterized in that, the computer program is configured to be loaded by a processor and to implement the method according to any one of claims 1-9.