CLAIMS

1. A position capture method for capturing an own vehicle position by using a positioning part that measures a position of a vehicle and a plurality of magnetic markers laid on a traveling path of the vehicle with their laying positions specified, comprising:

upon receiving a signal representing detection of any of the plurality of magnetic markers, selecting, from among the laying positions of the plurality of magnetic markers, the laying position located nearest to an actual measured position measured by the positioning part;

capturing, as the own vehicle position, the laying position or a corrected position based on the laying position; and

estimating, during a period from capturing the own vehicle position upon receiving the signal to receiving the another signal representing detection of another one of the magnetic markers, the own vehicle position by inertial navigation which find a displacement of the vehicle on the basis of information representing a motion of the vehicle without capturing the actual measured position.

2. A position capture method for capturing an own vehicle position by using a positioning part that measures a position of a vehicle and a plurality of magnetic markers laid on a traveling path of the vehicle with their laying positions specified, comprising:

upon detection of any magnetic marker of the plurality of magnetic markers, selecting, from among the laying positions of the plurality of magnetic markers, the laying position located nearest to an actual measured position measured by the positioning part;

capturing, as the own vehicle position, the laying position or a corrected position based on the laying position;

estimating, during a period from detection of said any magnetic marker to detection of another one of the magnetic markers, the own vehicle position by inertial navigation which find a displacement of the vehicle on the basis of information representing a motion of the vehicle; and

improving, when detecting the another one of the magnetic markers, an accuracy of inertial navigation by correcting the information representing the motion of the vehicle upon grasping an error in the information representing the motion of the vehicle by comparing the own vehicle position captured with the detection of the another one of the magnetic markers and the own vehicle position estimated by inertial navigation.

3. The position capture method according to claim 1 or 2, wherein an azimuth identification section is provided in which at least two magnetic markers are installed along a line segment whose azimuth and spacing are known, and a traveling direction of the vehicle with respect to the line segment is identified in the azimuth identification section.

4. A position capture method for capturing an own vehicle position by using a positioning part that measures a position of a vehicle and a plurality of magnetic markers laid on a traveling path of the vehicle with their laying positions specified, comprising:

upon detection of any magnetic marker of the plurality of magnetic markers, referring a marker coordinate table which records laying positions of the plurality of magnetic markers and flag data representing whether the magnetic marker constitutes an azimuth identification section in which at least two magnetic markers are installed along a line segment whose azimuth and spacing are known;

selecting, from among the laying positions of the plurality of magnetic markers recorded in the marker coordinate table, the laying position located nearest to an actual measured position measured by the positioning part;

capturing, as the own vehicle position, the laying position or a corrected position based on the laying position; and

identifying a traveling direction of the vehicle with respect to the line segment in the azimuth identification, when the flag data of said any magnetic marker is the one which represents the magnetic marker

constituting the azimuth identification section.

5. The position capture method according to claim 4, wherein section information representing azimuth and spacing in the azimuth identification section is recorded in the marker coordinate table, in association with the magnet marker which constitutes the azimuth identification section.

6. The position capture method according to any one of claims 1 to 5, wherein the corrected position is captured as the own vehicle position, the corrected position being obtained by correcting the nearest laying position with a lateral shift amount, the lateral shift amount being a deviation of the vehicle in a vehicle width direction with respect to the magnetic marker thus detected.

7. The position capture method according to any one of claims 1 to 6, wherein a spacing between magnetic markers laid on the traveling path in order to capture the own vehicle position is set to be wider than a radius of an error circle within which the actual measured position measured by the positioning part falls with a predetermined probability or higher.

8. A system comprising:

a positioning part that measures a position of a vehicle;

a detection unit that detects magnetic markers laid on a traveling path of the vehicle; and

a storage device in which to store position information representing positions in which the magnetic markers are laid,

the system being configured to be able to capture an own vehicle position by using the position capture method according to any one of claims 1 to 7.

9. The system according to claim 8, wherein the magnetic markers are laid along a predetermined route where the vehicle moves,

the system further comprising a control part that controls the

vehicle so that the vehicle moves along the route.