Claims

[Claim 1]
A position information processing system including a position information processing apparatus and a center side apparatus,
wherein the position information processing apparatus comprises at least:
an accepting device that repeatedly accepts sequential information including a plurality of types of information changeable with time, including position information obtained using a satellite signal;
an interpolation processing device that holds the accepted sequential information corresponding to only the last N times (N being an integer of 3 or more) of the acceptance, uses the first and the last of the held sequential information corresponding to the N times as a basis for prediction for predicting sequential information other than the first and the last information, and obtains a prediction value of the predicted sequential information on the basis of the sequential information used as the basis for the prediction by a predetermined interpolation operation;
a recording information generation device that, on the basis of comparison between the sequential information held by the interpolation processing device and the prediction value obtained by the interpolation, outputs either the sequential information correlated with time information, or the sequential information used as the basis for prediction and prediction method specifying information that specifies a method for the interpolation operation; and

a recording device that records information output by the recording information generation device, and

the center side apparatus receives the information recorded by the position information processing apparatus, and authenticates the position information included in the received information.

[Claim 2]
The position information processing system according to claim 1,
wherein the information obtained using the satellite signal includes the position information and an encryption code, and
the recording device records, regarding the

sequential information, the sequential information including the position information and the encryption code.

[Claim 3]

A position information processing apparatus comprising:

an accepting device that repeatedly accepts sequential information including a plurality of types of recording target information changeable with time, including position information obtained using a satellite signal;

an interpolation processing device that holds the accepted sequential information corresponding to only the last N times (N being an integer of 3 or more) of the acceptance, uses the first and the last of the held sequential information corresponding to the N times as a basis for prediction for predicting sequential information other than the first and the last information, and obtains a prediction value of the predicted sequential information on the basis of the sequential information used as the basis for the prediction by a predetermined interpolation operation;

a recording information generation device that, on the basis of comparison between the sequential information held by the interpolation processing device and the prediction value obtained by the interpolation, outputs either the sequential information correlated with time information, or the sequential information used as the basis for prediction and prediction method specifying information that specifies a method for the interpolation operation; and

a recording device that records information output by the recording information generation device.

[Claim 4]

The position information processing apparatus according to claim 3,

wherein the information obtained using the satellite signal includes the position information and an encryption code, and

the recording device records, regarding the sequential information, the sequential information including the position information and the encryption code.