

WHAT IS CLAIMED IS:

Claim 1. A position detection device (30) comprising:

a person detection unit (14) to receive an image captured by a monitoring camera (11_1), to execute a process for detecting a person in the image, and to output two-dimensional camera coordinates indicating a position of the detected person;

a coordinate transformation unit (15) to transform the two-dimensional camera coordinates to three-dimensional coordinates represented in a predetermined common coordinate system;

a character recognition unit (34) to recognize a character string (43) on a nameplate (42) of a device in a wearable camera image captured by a wearable camera (31) when the wearable camera (31) is worn by the person;

a character search unit (35) to search a layout chart of the device for the recognized character string (43);

a map coordinate determination unit (16b) to determine two-dimensional map coordinates based on a position where the character string (43) is found when the recognized character string (43) is found in the layout chart, and to calculate the two-dimensional map coordinates based on the three-dimensional coordinates when the recognized character string (43) is not found in the layout chart; and

a display control unit (17) to acquire a map and to output image data in which position information on the two-dimensional map coordinates is superimposed on the map.

2. A position detection method executed by a position detection device (30), the method comprising:

a step of receiving an image captured by a monitoring camera (11_1), executing a process for detecting a person in the image, and outputting two-dimensional camera coordinates indicating a position of the detected person;

a step of transforming the two-dimensional camera coordinates to three-dimensional coordinates represented in a predetermined common coordinate system;

a step of recognizing a character string (43) on a nameplate (42) of a device in a wearable camera image captured by a wearable camera (31) when the wearable camera (31) is worn by the person;

a step of searching for a position of the person based on a result of matching between the recognized character string (43) and a character string included in a layout chart of the device;

a step of determining two-dimensional map coordinates based on a position where the character string (43) is found when the recognized character string (43) is found in the layout chart, and calculating the two-dimensional map coordinates based on the three-dimensional coordinates when the recognized character string (43) is not found in the layout chart; and

a step of acquiring a map and outputting image data in which position information on the two-dimensional map coordinates is superimposed on the map.

Claim 3. A position detection program that causes a computer to execute the position detection method according to claim 2.