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(12) **CORRECTED EUROPEAN PATENT APPLICATION**
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(54) **TEMPLATE MATCHING METHOD AND DEVICE, AND RECORDING MEDIUM WHERE PROGRAM THEREFOR IS RECORDED**

(57) There is provided a template matching method having a small amount of calculation and high detection accuracy. The amount of calculation is reduced while minimizing the degradation of the detection accuracy by calculating the similarity between a template image region and a reference image region at rough position intervals and estimating by interpolation of the similarity at a position where it is not calculated from the similarity calculated at a peripheral position. At the time, even if the gradient of a similarity greatly changes at the minimal point, estimation can be realized with high accuracy by executing estimation making use of the directional gradients of the similarity obtained in plural different directions independently. Additionally, occurrence of wrong detection is avoided by the restriction to disable the difference between the estimated similarity and adjacent similarity to exceed a threshold, which is defined based on the similarity between the template image region and the image region obtained by moving the template image region in the same direction as or in the opposite direction to the direction of estimation.

FIG.1

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