



Abstract

The object of a process and a circuit arrangement for recognizing topologically contiguous image structures arranged in line form is to shorten the processing time for resolving ambiguities irrespective of the shape and characteristics of the contiguous image structures so as to ensure processing in video real-time.

The ambiguities occur as a result of the allocation of consecutive identification numbers to image point groups within a line when already allocated identification numbers are adopted for image point groups of a following line from image point groups first adjoining them by at least one image point in the line direction.

According to the invention, the ambiguities are evaluated already at the moment they are recognized and are entered in a list in the form of an intermediate code. An allocation table is generated directly from this intermediate code at the conclusion of the process of assembling the image point groups in the lines.

The invention is used mainly for automated inspection of structured surfaces, in particular in masks, LCD's, printed circuit boards and semiconductor wafers, during their manufacture.

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