

CLAIMS

1. A method for barcode identification, the method comprising:

determining, based on an extraction policy and a predetermined character rule, an identification result of a barcode image, wherein the extraction policy defines an initial row of pixels in the barcode image and a rule for selecting a next row of pixels after a current row of pixels in the barcode image, wherein the determining comprises:

selecting, as a current row, the initial row of pixels defined by the extraction policy;

extracting (S201) the current row of pixels from the barcode image;

parsing (S202) the current row of pixels to obtain a current character string corresponding to the current row of pixels; and

determining (S203) whether the current character string satisfies the predetermined character rule and (i) if so, determining (S208) the current character string as the identification result of a barcode in the barcode image, and (ii) if not, performing an iteration of:

selecting (S204) as the current row of pixels a next row of pixels according to the extraction policy;

extracting (S204) the current row of pixels from the barcode image;

parsing (S205) the current row of pixels to obtain a current character string corresponding to the current row of pixels; and

determining first whether (i) (S206) the current character string satisfies the predetermined character rule and if not whether (ii) (S207) the current character string is the same as the immediately previous current character string, and if either is true, determining (S208) the current character string as the identification result of a barcode in the barcode image, and otherwise continuing the iteration of selecting (S204), extracting (S204), parsing (S205), and determining (S206, S207).

2. The method according to claim 1, wherein the extraction policy is to extract pixels starting from a default row and then at an interval of a fixed number of rows, until a target extraction row goes beyond the barcode image.

3. The method according to claim 1, wherein the extraction policy is to extract pixels starting from a default row to a target extraction row based on the extraction interval that

dynamically changes an interval between rows to be extracted, until the target extraction row goes beyond the barcode image.

4. The method according to claim 2 or 3, further comprising:

5 counting a number of occurrence frequencies of each character string obtained through parsing when the target extraction row goes beyond the barcode image; and
 determining a character string whose number of occurrence frequencies is largest and is greater than 1 as the identification result of the barcode in the barcode image.

10 5. The method according to claim 4, further comprising:

 determining that barcode identification fails when the number of occurrence frequencies of each character string obtained through parsing is 1.

15 6. The method according to claim 1, wherein the character rule is that no consecutive predetermined characters exist, and the consecutive predetermined characters do not comprise uppercase letters, lowercase letters, numbers 0 to 9, and spaces.

7. The method according to claim 1, further comprising:

 obtaining an image including the barcode; and
20 processing the image by performing at least one of a compression operation, a greyscale processing, and a binarization operation.

8. An apparatus for barcode identification, the apparatus comprising a plurality of modules configured to perform the method of any one of claims 1 to 7.