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DataMatrixReader

ver 1.1

Description

Библиотека для распознавания DataMartrix кодов.

Using

Function:

```
int DataMatrixCodeReader(
     IplImage* Image,
     DM_RESULT* ResultDM,
     int* all_result,
     int param,
     int mode_binary
);
```

Parametres:

Image – image in grayscale 8-bit 1-channel.

ResultDM – the returned result of recognition, the array of structures DM_RESULT must be allocated in advance. The structure is described as follows:

```
struct DM_RESULT
{
     CvPoint Points[4];
     char result[1600];
};
```

where Points – 4 corner points of the found code, result – decoded result.

all_result – a pointer to a variable that contains the maximum number of possible codes found. It also returns the number of codes found.

param – parameter used for binarization. If the binarization is a threshold, then the parameter is a threshold from 1 to 255. If it is 0, then the Otsu criterion is used to automatically calculate the threshold. If binarization is adaptive, then the parameter characterizes the neighborhood.

mode_binary – binarization modes:

DM_THRESHOLD (0x01) – threshold binarization can not be specified jointly with DM_ATHRESHOLD

DM_ATHRESHOLD (0x02) – adaptive binarization can not be specified jointly with DM_THRESHOLD

DM_HIGHQUALITY (0x04) – enhanced quality of code recognition on small images due to slower recognition

DM_MINDECODEERROR (0x08) – return only those codes where Reed-Solomon errors in the minimum amount.

Recommendations

Adaptive binarization works best for a large neighborhood (for example, 31). However, in this case it can be much slower. Therefore, you can use several separate calls with different threshold binarization values, which can easily be parallelized

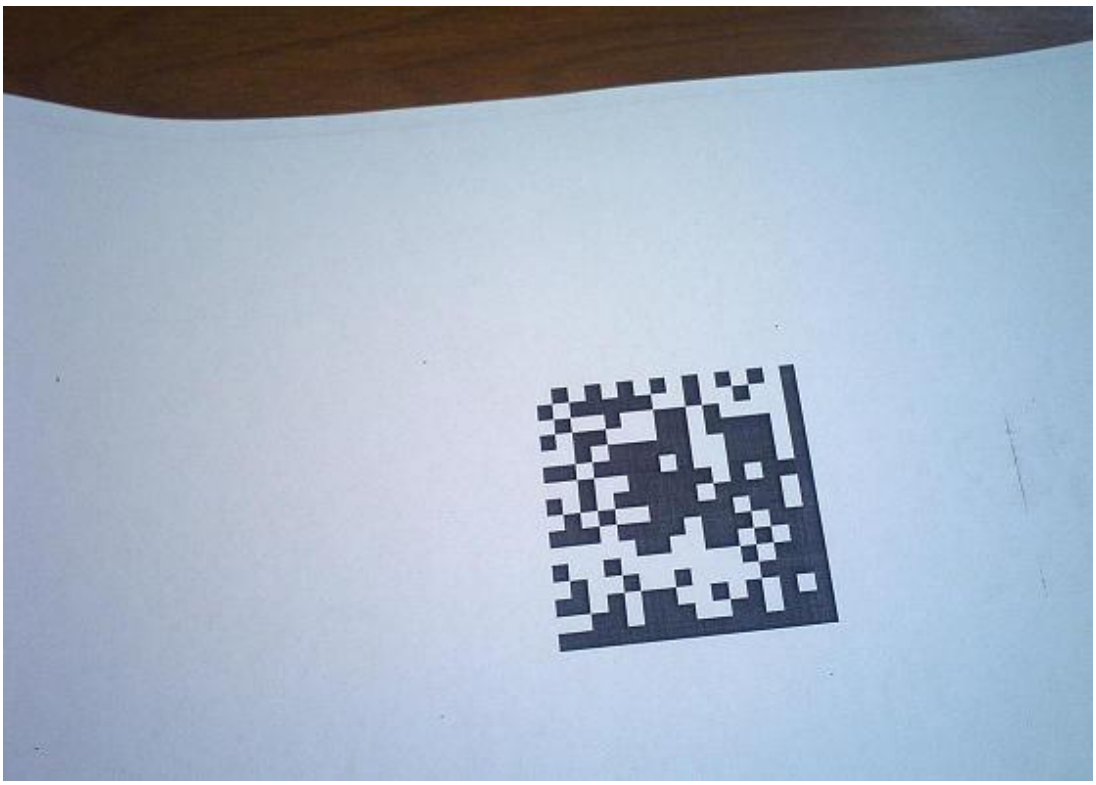
Sample barcodereader

Two mode:

-im – with images;

-vc – with camera.

There is an image in the images folder:



Call in Windows:
barcodereader.exe -im ..\images\6.jpg res.jpg
Result

```
D:\IntBuSoft\barcode\x86>barcodereader.exe -im ..\images\6.jpg res.jpg
Time: 0.000s
Test code
```

The res.jpg image also displays the result: