

【OpenCV/aruco】创建board Demo

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订阅专栏

• 说在前面

操作系统: win10

vs 版本: 2017

opencv 版本: 4.0.1

opencv-contrib 版本: 4.0.1

接上篇: [【OpenCV/aruco】检测marker Demo](#)

下一篇: [【OpenCV/aruco】校准相机\(Camera Calibration\) Demo](#)

• Board

board是一个aruco marker的棋盘, 上面布置了许多marker。

board可用于校准 (Calibrate) 摄像机

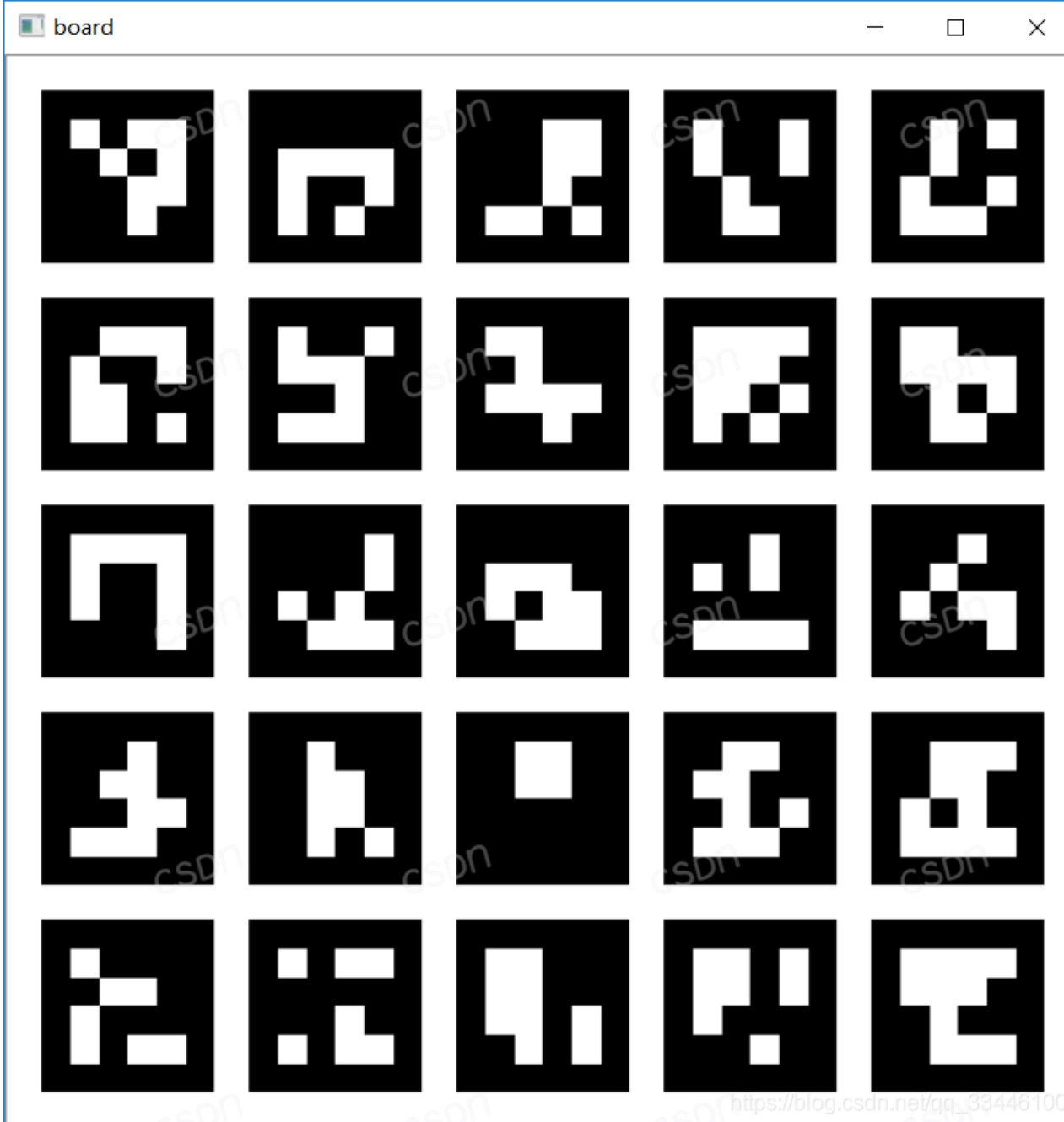
• 运行截图

内容来源: csdn.net

作者昵称: o0o_-

原文链接: https://blog.csdn.net/qq_33446100/article/details/89186826

作者主页: https://blog.csdn.net/qq_33446100qq_33446100



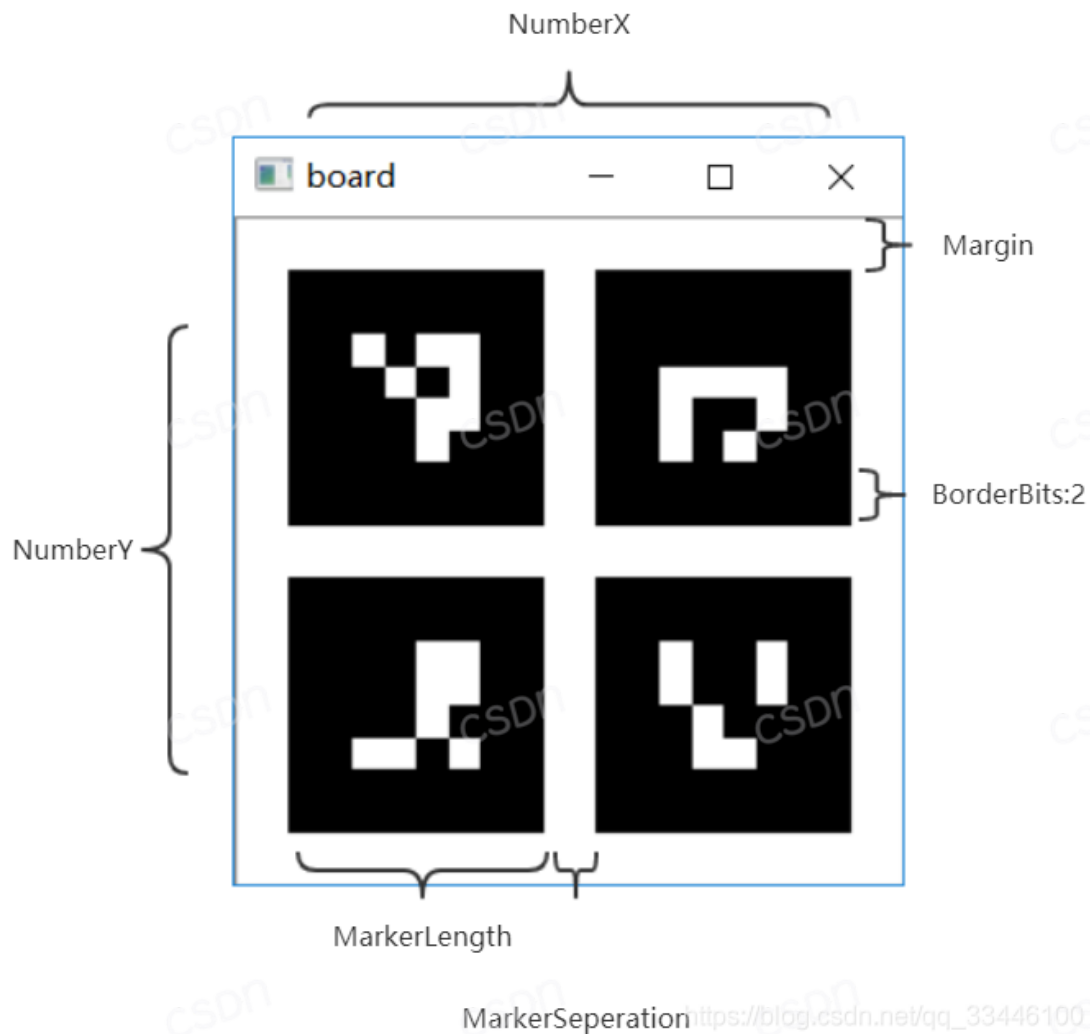
- 说明

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• 函数定义

```

1 static Ptr<GridBoard> cv::aruco::GridBoard::create (
2     int     markersX,           // X方向marker数量, 即上图NumberX
3     int     markersY,           // Y方向marker数量, 即上图NumberY
4     float   markerLength,       // marker长度, 即上图MarkerLength
5     float   markerSeperation,   // marker之间的间隔, 即上图MarkerSeperation
6     const Ptr< Dictionary > & dictionary, // 字典
7     int     firstMarker = 0     // grid board上第一个marker的ID
8                                     // 通过改变该参数可以生成不同的board
9 )

```

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```

1 void cv::aruco::GridBoard::draw (
2   Size      outSize,          // 输出图像大小
3   OutputArray img,           // 输出图像
4   int       marginSize = 0,  // 即上图Margin, 即最外面的marker与图像边界之间的距离
5   int       borderBits = 1   // 即上图BoderBits,代表每个marker边框大小
6 )

```

• 代码

```

1 #include <opencv2\highgui.hpp>
2 #include <opencv2\aruco.hpp>
3 #include <opencv2\aruco\dictionary.hpp>
4 #include <opencv2\aruco\charuco.hpp>
5 #include <opencv2\core.hpp>
6 #include <opencv2\imgproc\imgproc.hpp>
7 #include <opencv2\opencv.hpp>
8 #include <vector>
9 #include <iostream>
10
11 using namespace std;
12 using namespace cv;
13
14 int main()
15 {
16     int markersX = 5; //X轴上标记的数量
17     int markersY = 5; //Y轴上标记的数量 本例生成5x5的棋盘
18     int markerLength = 100; //标记的长度, 单位是像素
19     int markerSeparation = 20; //每个标记之间的间隔, 单位像素
20     int dictionaryId = cv::aruco::DICT_4X4_50; //生成标记的字典ID
21     int margins = markerSeparation; //标记与边界之间的间隔
22
23     int borderBits = 1; //标记的边界所占的bit位数
24     bool showImage = true;
25
26     Size imageSize;
27     imageSize.width = markersX * (markerLength + markerSeparation) - markerSeparation + 2 * margins;
28     imageSize.height =

```

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```

29     markersY * (markerLength + markerSeparation) - markerSeparation + 2 * margins;
30
31     Ptr<aruco::Dictionary> dictionary =
32         aruco::getPredefinedDictionary(aruco::PREDEFINED_DICTIONARY_NAME(dictionaryId));
33
34     Ptr<aruco::GridBoard> board = aruco::GridBoard::create(markersX, markersY, float(markerLength),
35         float(markerSeparation), dictionary);
36
37     // show created board
38     Mat boardImage;
39     board->draw(imageSize, boardImage, margins, borderBits);
40
41     if (showImage) {
42         imshow("board", boardImage);
43         waitKey(0);
44     }
45
46     return 0;
47 }

```

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