

Virtual and Augmented Reality

Augmented Cards Game: Manual



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1 Compiling

The solution developed is provided as a Visual Studio C++ application. A compiled version of the program is attached, but can also be rebuilt from Visual Studio. In order to do so, users should have *OpenCV* (Open Source Computer Vision) 2.4.11 properly configured as per the instructions provided on the official website.

2 Running

The application can be executed directly from the generated *AugmentedCards.exe*. A simple menu will provide further instructions during executing. The application can acquire images from the file system or from a connected camera, and use two different recognition methods (binary absolute difference and *SURF* (Speeded Up Robust Features)).



Figure 1: Application menu.

It should be noted that both decks and images to be acquired should be placed inside an assets folders (path: "../Assets/") and then referred directly by their name (e.g., "*image-sample.png*").

The augmented image will have both its contours and corresponding rectangle corners drawn, along with information about the match found by the application. The winner (or winners, in case of a tie) will be drawn in green. In the default game mode, the card with the highest value wins (noting that the Jokers have a value of 0). A sample execution is provided in figure 2.

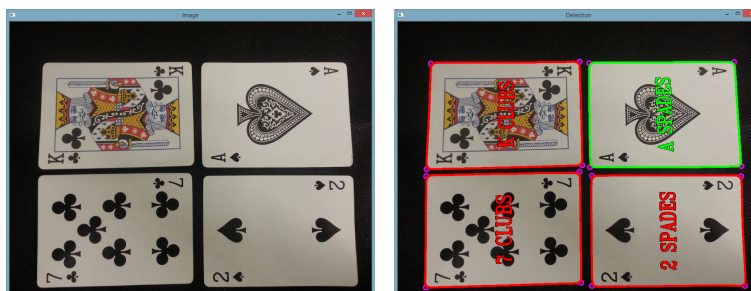


Figure 2: Augmented image sample.