

# 영상처리 실제 5주차 실습\_OpenCV의 기초(5)

2023254015 장욱진

```
#include <opencv2/opencv.hpp>

using namespace std;
using namespace cv;

void page8()
{
    Mat ch0(3, 4, CV_8U, Scalar(10));
    Mat ch1(3, 4, CV_8U, Scalar(20));
    Mat ch2(3, 4, CV_8U, Scalar(30));

    Mat bgr_arr[] = { ch0, ch1, ch2 };
    Mat bgr;
    merge(bgr_arr, 3, bgr);
    vector<Mat> bgr_vec;
    split(bgr, bgr_vec);

    cout << "[ch0] = " << endl << ch0 << endl;
    cout << "[ch1] = " << endl << ch1 << endl;
    cout << "[ch2] = " << endl << ch2 << endl << endl;

    cout << "[bgr] = " << endl << bgr << endl << endl;
    cout << "[bgr_vec[0]] = " << endl << bgr_vec[0] << endl;
    cout << "[bgr_vec[1]] = " << endl << bgr_vec[1] << endl;
    cout << "[bgr_vec[2]] = " << endl << bgr_vec[2] << endl;
}

void page16()
{
    Mat image1(300, 300, CV_8U, Scalar(0));
    Mat image2(300, 300, CV_8U, Scalar(0));
    Mat image3, image4, image5, image6;

    Point center = image1.size() / 2;
    circle(image1, center, 100, Scalar(255), -1);
    rectangle(image2, Point(0, 0), Point(150, 300), Scalar(255), -1);

    bitwise_or(image1, image2, image3);
    bitwise_and(image1, image2, image4);
    bitwise_xor(image1, image2, image5);
    bitwise_not(image1, image6);

    imshow("image1", image1), imshow("image2", image2);
    imshow("bitwise_or", image3), imshow("bitwise_and", image4);
    imshow("bitwise_xor", image5), imshow("bitwise_not", image6);
    waitKey();
}

int main()
{
    page8();
    page16();

    return 0;
}
```

## 결과화면

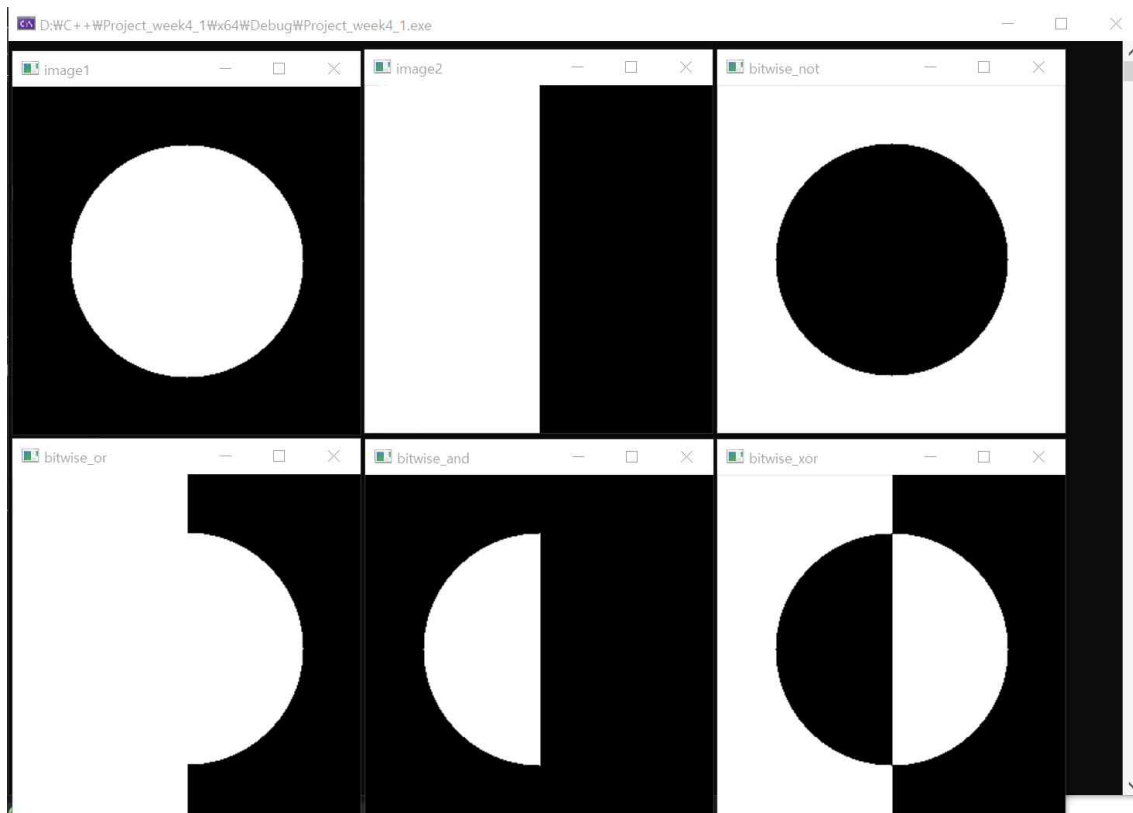
```
Microsoft Visual Studio 디버그 콘솔
[ch0] =
[ 10, 10, 10, 10;
 10, 10, 10, 10;
 10, 10, 10, 10]
[ch1] =
[ 20, 20, 20, 20;
 20, 20, 20, 20;
 20, 20, 20, 20]
[ch2] =
[ 30, 30, 30, 30;
 30, 30, 30, 30;
 30, 30, 30, 30]

[bgr] =
[ 10, 20, 30, 10, 20, 30, 10, 20, 30, 10, 20, 30;
 10, 20, 30, 10, 20, 30, 10, 20, 30, 10, 20, 30;
 10, 20, 30, 10, 20, 30, 10, 20, 30, 10, 20, 30]

[bgr_vec[0]] =
[ 10, 10, 10, 10;
 10, 10, 10, 10;
 10, 10, 10, 10]
[bgr_vec[1]] =
[ 20, 20, 20, 20;
 20, 20, 20, 20;
 20, 20, 20, 20]
[bgr_vec[2]] =
[ 30, 30, 30, 30;
 30, 30, 30, 30;
 30, 30, 30, 30]

D:\WC++\Project_week4_1\64\Debug\Project_week4_1.exe(프로세스 14244개)이(가) 종료되었습니다(코드: 0개).
디버깅이 중지될 때 콘솔을 자동으로 닫으려면 [도구] -> [옵션] -> [디버깅] > [디버깅이 중지되면 자동으로 콘솔 닫기]를 사용
하도록 설정합니다.
이 창을 닫으려면 아무 키나 누르세요...
```

<page8 결과화면>



<page16 결과화면>