

# 暑期課程 基本影像處理 day 2 課程內容補充

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# 8-bit Image to 2D array

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```
Mat img = imread("lena.bmp", 0);           //load 8-bit image
int h = img.rows;
int w = img.cols;

//二維陣列宣告
int **input = .....;
for ( ..... ) {
    .....;
}
```

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```
//Convert Mat to 2D Array
for (int row = 0 ; row<h ; row++) {
    for (int col = 0 ; col<w ; col++) {
        input[row][col] = img.at<uchar>(row,col);    //input 為宣告好的二維陣列
    }
}
```

//運算處理

```
.....
.....
```

```
//Convert 2D Array to Mat
for (int row = 0 ; row<h ; row++) {
    for (int col = 0 ; col<w ; col++) {
        img.at<uchar>(row,col) = input[row][col];    //input 為宣告好的二維陣列
    }
}
```

//show結果圖

```
.....
.....
```

//使用完後釋放二維陣列

```
for( ..... ){
    delete[] .....;
}
delete[] .....;
```

# 元件取值

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## TextBox

```
int tmp1 = Convert::ToInt32(textBox1->Text);    //convert string to 32bit Int  
  
int value = 10;  
textBox1->Text = Convert::ToString(value);      //show value
```

# 元件取值

## HScrollBar

使用ValueChanged事件

拉動時最右邊為Maximum-LargeChange+1

故設Maximum = 255+LargeChange-1

取值:

```
int tmp2 = hScrollBar1->Value;
```

```
//get value of scrollbar
```

