

# Qt Smart Graphics

Version 2.0

Documented by KKyang

## Introduction

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A simple library that improves the user experience when displaying images by Qt's QLabel and QGraphicsView. It also supports OpenCV Mat array type.

qsmartGraphicsView supports show image functions which supports QImage and Mat (in BGR format). It also supports mouse clicks, moves, and wheel events.

qsmartLabel supports show image functions which supports QImage and Mat (in BGR format). It also supports mouse clicks events.

## Author

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Original by Shih-Jhong Yu, Revised by KKyang. If there is any bug found, feel free to open an issue at Github.

## License

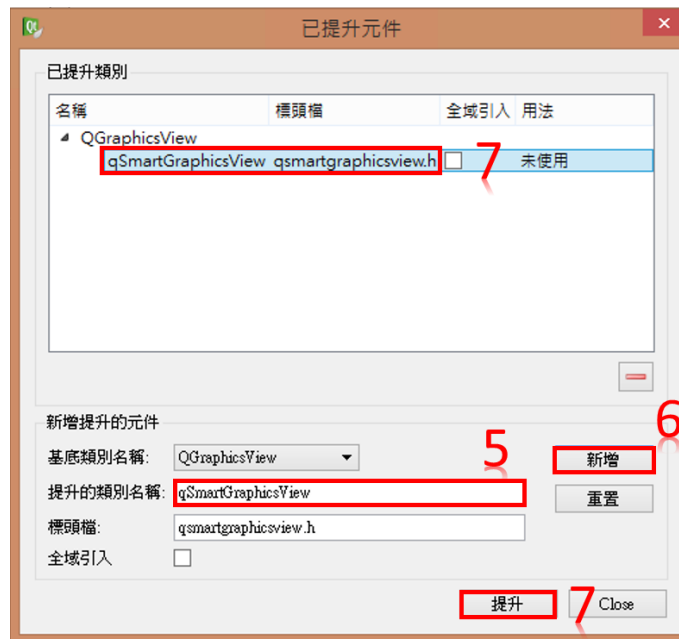
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This library is written by Qt 5.3 and is distributed via source codes. Due to Qt open source licensing, this library is protected under LGPLv3 license.

## Usage

The tutorial shows how to use the library by Qt Creator

1. Put qsmartgraphicsview.h, qsmartgraphicsview.cpp, qsmartlabel.h, qsmartlabel.cpp into your Qt project.
2. Go to mainwindow.ui
3. Add a new QGraphicsView or QLabel in Creator.
4. Right click the widget and choose “promote to...”
5. Add the promote widget by entering the name of the class in the line edit at the button.



6. Click “Add”
7. Click the added class then press promote.
8. Open main.cpp
9. Add `#include <QReadWriteLock>` and `QReadWriteLock lock;`

It should look like this:

```
#include "mainwindow.h"

#include <QApplication>

#include <QReadWriteLock>

QReadWriteLock lock;
```

10. If your Qt version is older than 5.5, use the OpenGL compiler. For Qt 5.5 or later, add `QT += opengl` in your .pro file.
11. If want to use with OpenCV, simply add `DEFINE += HAVE_OPENCV` to .pro file. (Currently only qSmartGraphicsView needs to add this line.)
12. Done.