Working with QSystemDisplayInfo - System Information API

Overview

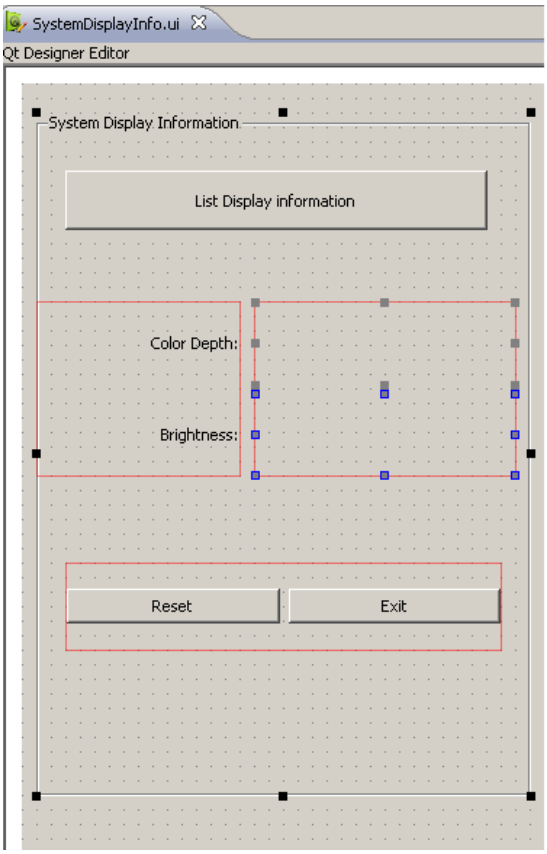
This article shows how to use the Qt Mobility System Information API: `QSystemDisplayInfo`.

What is covered in QSystemDisplayInfo API

This article covers information about:

- - Color depth value of a screen number in bits per pixel
  - Display brightness of screen in % between 1 - 100 scale.

UI design (.ui file)



Project configuration file (.Pro file)

Add the Qt Mobility project configuration option in the .Pro file as shown below

```
CONFIG += mobility
MOBILITY += systeminfo
```

Note, no capabilities are required

Implementing QSystemDisplayInfo API

QSystemDisplayInfo API is a part of the QtMobility namespace. So declare the QtMobility namespace as shown below:

```
using namespace QtMobility;
```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Header file

```
#ifndef SYSTEMDISPLAYINFO_H
#define SYSTEMDISPLAYINFO_H

#include <QtGui/QWidget>
#include "ui_SystemDisplayInfo.h"
#include <qsysteminfo.h>

using namespace QtMobility;
class SystemDisplayInfo : public QWidget
{
    Q_OBJECT

public:
 SystemDisplayInfo(QWidget *parent = 0);
    ~SystemDisplayInfo();

public slots:
 void listDisplayInformation();
 void resetAllFields();

private:
    Ui::SystemDisplayInfo ui;
    QSystemDisplayInfo* displayInfo;
};

#endif // SYSTEMDISPLAYINFO_H
```

Source file

```
#include "SystemDisplayInfo.h"

SystemDisplayInfo::SystemDisplayInfo(QWidget *parent)
    : QWidget(parent)
{
 ui.setupUi(this);
 displayInfo = new QSystemDisplayInfo();

  QObject::connect(ui.listDisplayInfoButton,
      SIGNAL(clicked()),
      this,
      SLOT(listDisplayInformation()));
  QObject::connect(ui.resetButton,
      SIGNAL(clicked()),
      this,
      SLOT(resetAllFields()));
}

SystemDisplayInfo::~SystemDisplayInfo()
{
 delete displayInfo;
 displayInfo = NULL;
}

void SystemDisplayInfo::listDisplayInformation()
{
 QString colorDepthStr = QString::number(displayInfo->colorDepth(0));
 ui.colorDepthLabel->setText(colorDepthStr);

 QString brightnessStr = QString::number(displayInfo->displayBrightness(0));
 ui.brightnessLabel->setText(brightnessStr);
}

void SystemDisplayInfo::resetAllFields()
{
 ui.colorDepthLabel->clear();
 ui.brightnessLabel->clear();
}
```

Output

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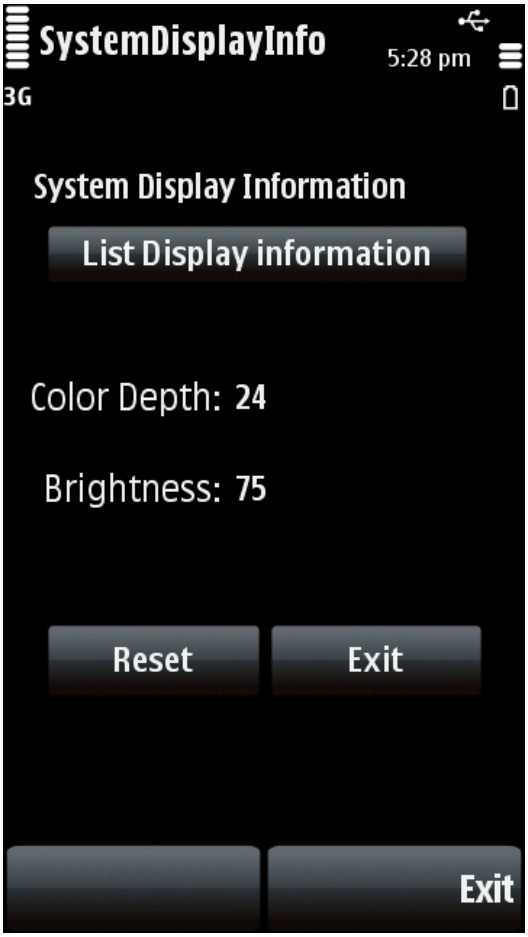

Useful functions

- int colorDepth (int screenNumber);
- int displayBrightness (int screen);

Headers

- #include <qsysteminfo.h>

Classes

- QSystemDisplayInfo
- QString
- QButton
- QLabel

Example Application

- A working example application is available to download from here: QSystemDisplayInfo.zip

Related articles

- Getting started with Qt Mobility APIs
- Setting up environment for Qt Mobility API
- Working with Carbide.c++ IDE for Qt Mobility APIs
- Working with QSystemInfo - System Information API - Part 1
- Working with QSystemInfo - System Information API - Part 2
- Working with QSystemDeviceInfo - System Information API - Part 1
- Working with QSystemStorageInfo - System Information API
- Working with QSystemNetworkInfo - System Information API - Part 1
- Working with QSystemNetworkInfo - System Information API - Part 2

Reference links

- Qt - cross-platform application and UI framework
- Qt Mobility API

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- New Qt APIs Beta - Mobility Project
- SDK help

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