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Platform	S60 3rd Edition FP1, S60 3rd Edition FP2, S60 5th Edition	Tested on devices	N96
Category	Qt for Symbian	Subcategory	Application

Keywords (APIs, classes, methods, functions): QLCDNumber , QTime, QTimer,XQutils

Overview

This code snippet demonstrates how to create a simple stop watch in Qt for Symbian. It provides a start, stop and reset functionality.

Here a widget is created with QLCDNumber and a three buttons. As soon as user clicks on the start button it starts a timer which generates a signal timeout every second. When a stop button is clicked it simply stops the timer and clicking reset will reset and stop the timer.

While testing this on a real device it is required that screen light should remain on until the stopwatch is running. XQutils, class of Mobile extension, is used for resetting the inactivity timer and hence maintaining the screen light on.

Preconditions

- Download and Install latest version Qt for Symbian - Installation packages which has links on how to install the latest version

Related Link

- Read more about QLCDNumber
- Read more about: <http://pepper.troll.no/s60prereleases/doc/qtimer.html>
- Check this digital clock example

Various Function of QTime And QLCDNumber

- Sets the time to hour h, minute m, seconds s and milliseconds ms.

```
time = new QTime;
time->setHMS(0,0,0,0);
```

- Sets this time to the current time. This is practical for timing.

```
QTime t;
t.start();
some_lengthy_task();
qDebug("Time elapsed: %d ms", t.elapsed());
```

- This property holds the style of the LCDNumber.

```
num->setSegmentStyle(QLCDNumber::Filled);
```

- This property holds the current number of LCD digits displayed.

```
num->setNumDigits(4);
```

Source File

```
#include "stopwatch.h"
#include <QString>
#include "xqutils.h"
stopwatch::stopwatch(QWidget *parent)
    : QWidget(parent)
{
    num = new QLCDNumber(this);
    num->setNumDigits(8);
    time = new QTime(this);
    time->setHMS(0,0,0,0);
    timer = new QTimer(this);
    XQUtils = new XQUtils(this);
    *QTimer::timer = new QTimer(this);
    (connect(timer, SIGNAL(timeout()), utils, SLOT(resetInactivityTime())));
    timer->start(1000);
    (connect(timer, SIGNAL(timeout()), this, SLOT(showTime())));
    =0;
    i
    = new QVBoxLayout(this);
    hLayout = new QHBoxLayout(this);
    = new QPushButton("Reset", this);
    = new QPushButton("Start", this);
    = new QPushButton("Stop", this);
    (connect(reset, SIGNAL(clicked()), this, SLOT(resetTime())));
    (connect(start, SIGNAL(clicked()), this, SLOT(startTime())));
    (connect(stop, SIGNAL(clicked()), this, SLOT(stopTime())));
    QString timeStr = time->toString("hh:mm:ss");
    ->display(text);
    ->setStyleSheet("* { background-color:rgb(199,147,88);color:rgb(255,255,255); padding: 7px}");
    ->setSegmentStyle(QLCDNumber::Filled);
    setStyleSheet("background-color:rgb(236,219,187)}");

    ->addWidget(start);
```

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```
->addWidget (stop);
->addWidget (reset);
->addWidget (num);
->addLayout (hlayout);
    setLayout;
    (300,150);
}

stopwatch::~stopwatch()
{
    // No need to delete any object that has a parent which is properly deleted.
}

void stopwatch::resetTime()
{
    ->setTime(0,0,0);
    QString time->toString("hh:mm:ss");
    ->display(text);
    =0; i
    ->setDisabled(1);
    ->setEnabled(1);

    stopTime
}

void stopwatch::startTime()
{
    //flag=0;
    ->setDisabled(1);
    ->setEnabled(1);
    ->setEnabled(1);
    ->start(1000, timer
}

void stopwatch::stopTime()
{
    ->setDisabled(1);
    ->setEnabled(1);
    ->setEnabled(1);

    ->stop(); timer
    //flag=1;
    //showTime();
}

void stopwatch::showTime()
{QTime newtime;
//if(flag==1)
//i=i-1;
=i+1; i
    =newtime.addSecs(i);
    QString newtime.toString("hh:mm:ss");
    ->display(text);
}
}
```

Header File

```

#ifndef STOPWATCH_H
#define STOPWATCH_H

#include <QtGui/QWidget>
//#include "ui_stopwatch.h"
#include <QVBoxLayout>
#include <QPushButton>
#include <QLCDNumber>
#include <QTime>
#include <QTimer>
#include <QHBoxLayout>
class stopwatch : public QWidget
{
    Q_OBJECT

public:
    int i;
    bool flag;
    stopwatch(QWidget *parent = 0);
    ~stopwatch();
private slots:
    void resetTime();
    void stopTime();
    void startTime();
    void showTime();
private:
    *QTime
    *QTimer
    *QTimer1;

    QVBoxLayout;
    QHBoxLayout;
    QPushButton;
    QPushButton;
    QPushButton;
    QPushButton;
    QLCDNumber *num;
};

#endif // STOPWATCH_H

```

Screenshots



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