Implementing area monitoring in Qt

This code snippet demonstrates how to implement area monitoring in Qt using the Location module of Qt Mobility. It is assumed here that you have set up Qt Mobility in your development environment and on your device. For more information, see CS001615 - Setting up Qt Mobility.

Qt project file

Link the Location module into the project:

```
CONFIG += mobility
MOBILITY = location
```

Using the Location module requires the Location capability:

```
symbian: {
    TARGET.CAPABILITY = Location
}
```

Header

```
#include <qgeoareamonitor.h>
#include <qgeopositioninfo.h>

// QtMobility namespace
QTM_USE_NAMESPACE

class MainWindow : public QMainWindow
{
    Q_OBJECT

public slots:
    /**
     * Called when the current position is in range of the area.
     */
    void areaEntered(const QGeoPositionInfo &update);
    /**
     * Called when the current position moves out of range of the area.
     */
    void areaExited(const QGeoPositionInfo &update);

private:
    /**
     * Initializes the area monitor.
     */
    void initAreaMonitor();
}
```

Source

```
#include <qgeocoordinate.h>
```


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```
void MainWindow::initAreaMonitor()
{
    // Create the area monitor
    QGeoAreaMonitor *monitor = QGeoAreaMonitor::createDefaultMonitor(this);

    // Connect the area monitoring signals to the corresponding slots
    connect(monitor, SIGNAL(areaEntered(QGeoPositionInfo)),
            this, SLOT(areaEntered(QGeoPositionInfo)));
    connect(monitor, SIGNAL(areaExited(QGeoPositionInfo)),
            this, SLOT(areaExited(QGeoPositionInfo)));
    qreal latitude = 60.169966;
    qreal longitude = 24.952115;
    QGeoCoordinate myLocation(latitude, longitude);
    monitor->setCenter(myLocation);
    monitor->setRadius(100);
}

void MainWindow::areaEntered(const QGeoPositionInfo &update) {
    printString("The area has been entered.");
}

void MainWindow::areaExited(const QGeoPositionInfo &update) {
    printString("The area has been exited.");
}
```

Postconditions

A specific area is defined and monitored.

See also

- CS001615 - Setting up Qt Mobility
- http://doc.qt.nokia.com/qtmobility-1.0/location-overview.html

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