Get System information using Qt

Overview

This code example shows how to access system information from the device. Using this code we can get current language, current country code, available language, OS version, Qt lib version, Firmware, and other available features of the device. Code example use `QSystemInfo` API from `QtMobility` APIs. Basically the system information API offers access to discover system-related information and capabilities.

This snippet requires `ReadDeviceData` capabilities. **Self-signing** is not possible, a Developer certificate is needed to sign application for testing.

Prerequisite

- Install Qt for Symbian:Installing Qt on Symbian
- Install QtMobility APIs:Setting up environment for Qt Mobility API

Headers required

```
#include <qsysteminfo.h>
```

.pro file

Modify your **.pro** file as follows.

```
QT += core \
    gui \
    network
INCLUDEPATH += d:/qtmobility/src/systeminfo
INCLUDEPATH += D:/QtMobility/src/global

CONFIG += mobility
MOBILITY = systeminfo
symbian:TARGET.CAPABILITY = ReadDeviceData
```

Header file

```
/* GetSystemInfo.h */

#ifndef GETSYSTEMINFO_H
#define GETSYSTEMINFO_H

#include <QtGui/QMainWindow>
#include <qsysteminfo.h>

QTM_USE_NAMESPACE;

class QListWidget;
class QScrollArea;

class GetSystemInfo : public QMainWindow
{
    Q_OBJECT

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

private:
 //void resizeEvent (QResizeEvent* event);
 void setWidgetGeometry(QSize* screenSize);
 void getSystemInformation();

private:
    QSystemInfo     *sysInfo;
 QListWidget     *listWidget;
 QScrollArea     *scrollArea;
};

#endif // GETSYSTEMINFO_H
```

Source file

```
/* GetStorageInfo.cpp */
```


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```
#include "GetSystemInfo.h"
#include <QListWidget>
#include <QScrollArea>

GetSystemInfo::GetSystemInfo(QWidget *parent)
    : QMainWindow(parent)
{
 setWindowTitle("Get system information");

 /*The sysInfo becomes a child of the GetDisplayInfo, and will be destroyed when the GetDisplayInfo is deleted */
 sysInfo = new QSystemInfo(this);

 /* To show items in list view */
 listWidget = new QListWidget();
 listWidget->setObjectName(QString::fromUtf8("listWidget"));

 /* To make UI scrollable */
 scrollArea = new QScrollArea();
 setWidgetGeometry(&(size()));

 /* scrollArea takes ownership of the listWidget, so no need to delete it */
 scrollArea->setWidget(listWidget);
 scrollArea->setAlignment(Qt::AlignLeft);
 scrollArea->setWidgetResizable(true);

 /* QMainWindow takes ownership of the scrollArea, so no need to delete it */
 setCentralWidget(scrollArea);
 getSystemInformation();
}

void GetSystemInfo::getSystemInformation()
{
 QString strInfo;

 /* get current language of device */
 strInfo.append(sysInfo->currentLanguage());
 strInfo.prepend("Current language: ");
 listWidget->addItem(strInfo);

 /* get current country code of device */
 strInfo.clear();
 strInfo.append(sysInfo->currentCountryCode());
 strInfo.prepend("Current country code: ");
 listWidget->addItem(strInfo);

 /* get available languages of device */
 QStringList langList = sysInfo->availableLanguages();
 QString langStr;

 strInfo.clear();
 strInfo.append("Available languages are: ");
 listWidget->addItem(strInfo);


 foreach ( QString str, langList )
 {
  langStr.clear();
  langStr.append("   ");
  langStr.append(str);
  listWidget->addItem(langStr);
 }

 /* get OS version of device */
 strInfo.clear();
 strInfo.append(sysInfo->version(QSystemInfo::Os));
 strInfo.prepend("OS version: ");
 listWidget->addItem(strInfo);

 /* get library version of device */
 strInfo.clear();
 strInfo.append(sysInfo->version(QSystemInfo::QtCore));
 strInfo.prepend("Qt lib version: ");
 listWidget->addItem(strInfo);

 /* get firmware version of device */
 strInfo.clear();
 strInfo.append(sysInfo->version(QSystemInfo::Firmware));
 strInfo.prepend("Firmware version: ");
 listWidget->addItem(strInfo);

 /* get available feature of device */
 strInfo.clear();
 strInfo.append("Following feature is available on device: ");
 listWidget->addItem(strInfo);

 /* check if bluetooth is available on device */
 strInfo.clear();
 strInfo.append("   Bluetooth: ");
 if(sysInfo->hasFeatureSupported(QSystemInfo::BluetoothFeature))
 {
  strInfo.append("Yes");
 }
 else
 {
  strInfo.append("No");
 }
 listWidget->addItem(strInfo);

 /* check if camera is available on device */
 strInfo.clear();
 strInfo.append("   Camera: ");
 if(sysInfo->hasFeatureSupported(QSystemInfo::CameraFeature))
 {
  strInfo.append("Yes");
 }
 else
 {
  strInfo.append("No");
 }
 listWidget->addItem(strInfo);

 /* check if FM radio is available on device */
 strInfo.clear();
 strInfo.append("   FM radio: ");
 if(sysInfo->hasFeatureSupported(QSystemInfo::FmradioFeature))
 {
  strInfo.append("Yes");
 }
 else
 {
```


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```
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if infra-red is available on device */
strInfo.clear();
strInfo.append("   Infra Red: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::IrFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if LED is available on device */
strInfo.clear();
strInfo.append("   LED: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::LedFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if  memory card feature is available on device */
strInfo.clear();
strInfo.append("   Memory card: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::MemcardFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if USB is available on device */
strInfo.clear();
strInfo.append("   USB: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::UsbFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if vibration  is available on device */
strInfo.clear();
strInfo.append("   Vibration: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::VibFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if WLAN is available on device */
strInfo.clear();
strInfo.append("   WLAN: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::WlanFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if SIM feature is available on device */
strInfo.clear();
strInfo.append("   SIM feature: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::SimFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if GPS is available on device */
strInfo.clear();
strInfo.append("   GPS: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::LocationFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);

/* check if Video is available on device */
strInfo.clear();
strInfo.append("   Video: ");
if(sysInfo->hasFeatureSupported(QSystemInfo::VideoOutFeature))
{
 strInfo.append("Yes");
}
else
{
 strInfo.append("No");
}
listWidget->addItem(strInfo);
```


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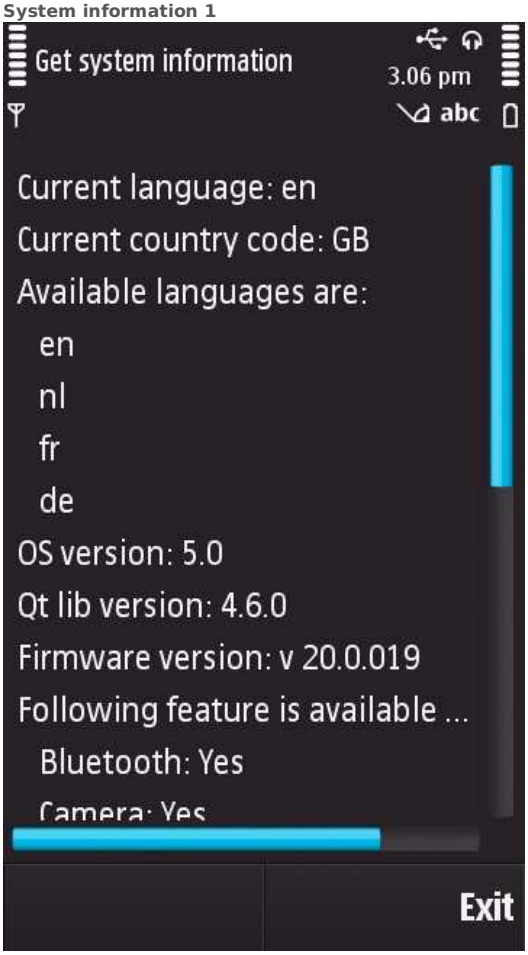
```
 /* check if Haptics is available on device */
 strInfo.clear();
 strInfo.append("   Haptics: ");
 if(sysInfo->hasFeatureSupported(QSystemInfo::HapticsFeature))
 {
  strInfo.append("Yes");
 }
 else
 {
  strInfo.append("No");
 }
 listWidget->addItem(strInfo);
}

GetSystemInfo::~GetSystemInfo()
{

}

void GetSystemInfo::setWidgetGeometry(QSize* screenSize)
{
 resize(*screenSize);
 QRect rect(0,0,screenSize->width(), screenSize->height());
 listWidget->setGeometry(rect);
}
```

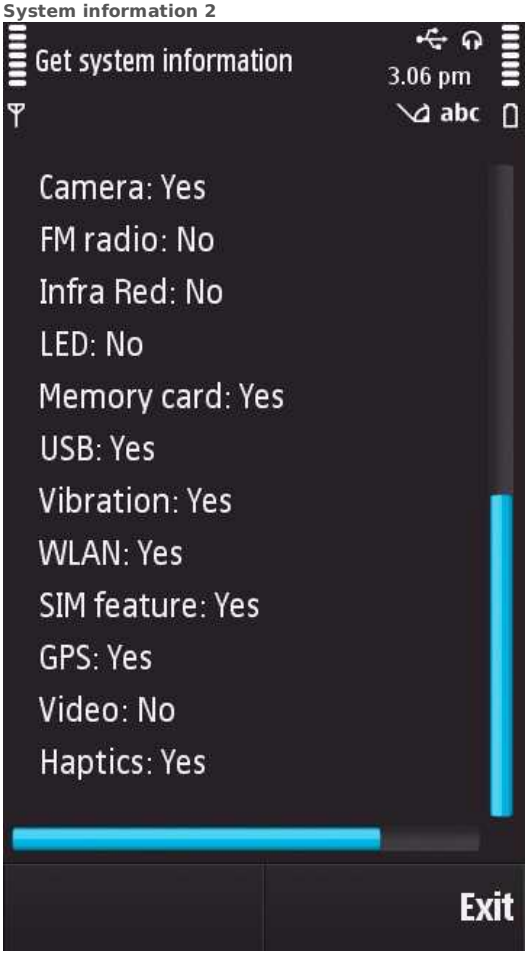
Postconditions

The code snippet is expected to read system information from device and show it on screen.

System information 1



System information 2



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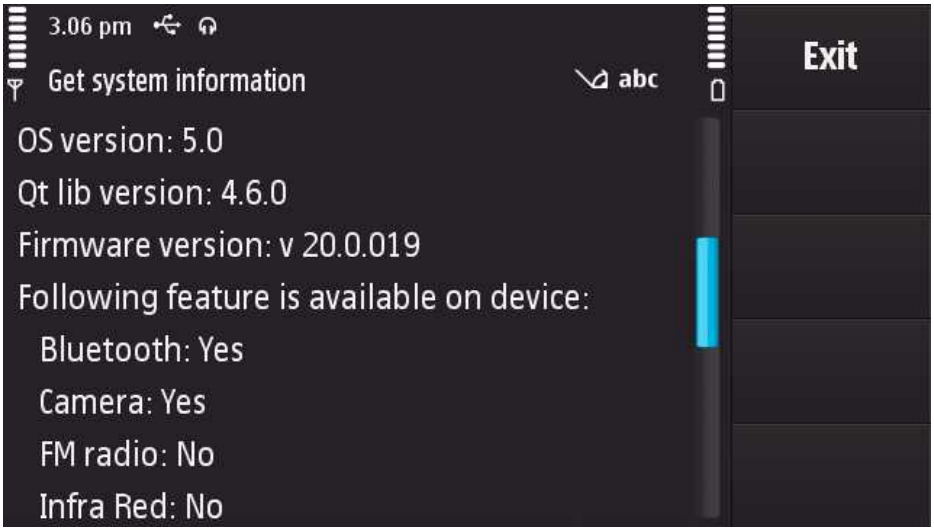

Download Code Example

- Working Code Example is available to download from here.

Related articles

- Get Device information using Qt for Symbian
- Get Display information using Qt for Symbian
- Get Network information using Qt for Symbian
- Get Storage information using Qt for Symbian

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