Hello World Using QtScript

This article shows how to use `QtScript` through a simple "Helloworld" example. It demonstrates how to embed a script engine into the application, how to evaluate a script, and how to process the result of the evaluation.

Source

```
#include <QApplication>
#include <QMessageBox>
#include <QPushButton>
#include <QtScript>


int main(int argc, char *argv[])
{
    // load the script file to evaluate from a resource
    Q_INIT_RESOURCE(helloscript);

    QApplication app(argc, argv);
    QScriptEngine engine;

    // push button is created and exported to the script environment as a global variable, button.
    // Scripts will be able to access properties, signals and slots of the button as properties of the button script object
    QPushButton button;
    QScriptValue scriptButton = engine.newQObject(&button);
    engine.globalObject().setProperty("button", scriptButton);

    // read the contents of the script file
    QString fileName(":/helloscript.js");
    QFile scriptFile(fileName);
    scriptFile.open(QIODevice::ReadOnly);
    QTextStream stream(&scriptFile);
    QString contents = stream.readAll();
    scriptFile.close();


    // script evaluated.
    QScriptValue result = engine.evaluate(contents, fileName);


    // If any Error, Display line number and error in a message box.
    if (result.isError()) {
        QMessageBox::critical(0, "Hello Script",
                              QString::fromLatin1("%0:%1: %2")
                              .arg(fileName)
                              .arg(result.property("lineNumber").toInt32())
                              .arg(result.toString()));
        return -1;
    }

    // App Event loop is entered if everything went well
    return app.exec();
}
```

Script File (helloscript.js)

```
// set the text and stylesheet of button in script
button.text = 'Hello World!';
button.styleSheet = 'font-style: italic';
button.show();
```

Project file (helloscript.pro)

You need following linkage in your .pro file.

```
QT += script
RESOURCES += helloscript.qrc
SOURCES += main.cpp

# install
target.path = $$[QT_INSTALL_EXAMPLES]/script/helloscript
sources.files = $$SOURCES $$HEADERS $$RESOURCES $$FORMS helloscript.pro
sources.path = $$[QT_INSTALL_EXAMPLES]/script/helloscript
INSTALLS += target sources

symbian: include($$PWD/../../symbianpkgrules.pri)
```

Resource file (helloscript.qrc)

Add helloscript.js file in Resource file.

```
<RCC>
    <qresource prefix="/" >
        <file>helloscript.js</file>
    </qresource>
</RCC>
```


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References

- QtScript

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