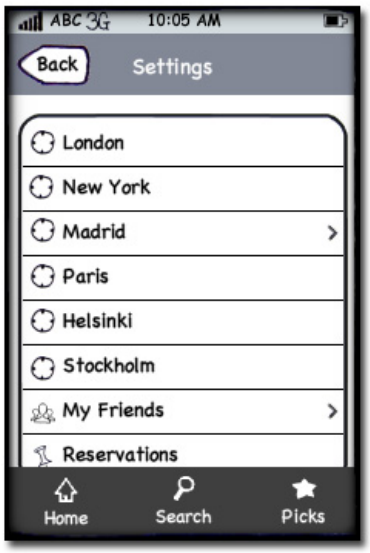
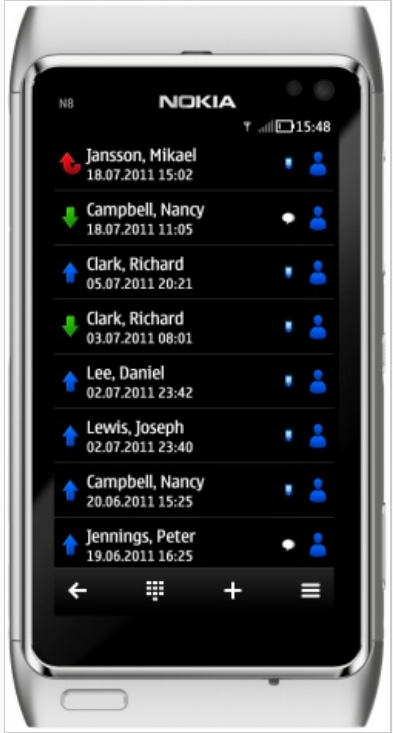
Mapping iPhone and Android UI Concepts to Qt

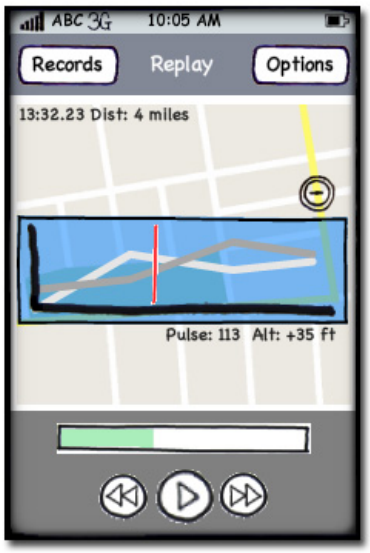
This article covers some of the most common features and examples for porting cases, grouped by typical applications. Application sketches on the left side of this document illustrate common application types on iPhone and Android devices. UI component images on the right show some of the most common Qt Components used for building similar user experiences.



- **QML ListView** The ListView element provides a list or icon view onto a model. Read more
- **QML Column** The Column element provides a vertical layout for managing other QML elements. Read more
- **Example: Dynamic linking** Plug & Paint example demonstrates how to write Qt applications that can be extended through dynamically loaded plugins Open
- **Example: Server** Fortune Server example shows how to create a server in Qt for a simple network service Open
- **Feature: State Framework** State Machine framework provides an API and execution model that can be used to easily create UI functionality in Qt applications Read more
- **Example: State transitions** Event Transitions example shows how to use event transitions, a feature of The State Machine Framework Open



Symbian Qt Components portrait list



- **Feature: View transform** By applying a transformation to the view, you can easily add support for common navigation features such as zooming and rotating Read more
- **Example: Drawing** Basic Drawing example shows how to display basic graphics primitives in a variety of styles Open
- **Example: Complex paths** Painter Paths example shows how painter paths can be used to build complex shapes for rendering Open
- **Feature: Draw path** Draws the given painter path using the current pen for outline and the current brush for filling Read more
- **Example: Path stroke** Path Stroke example demonstrates various types of pens that can be used in Qt for paths Open
- **Example: Advanced drawing** Advanced Drawing example shows how to use advanced vector techniques to draw text using a QPainterPath Open

Common Symbian Qt Components buttons and text elements

- **Example: XML with DOM** QDomDocument enable developers to access the contents of XML files using a Document Object Model (DOM) API. Simple DOM Model example shows

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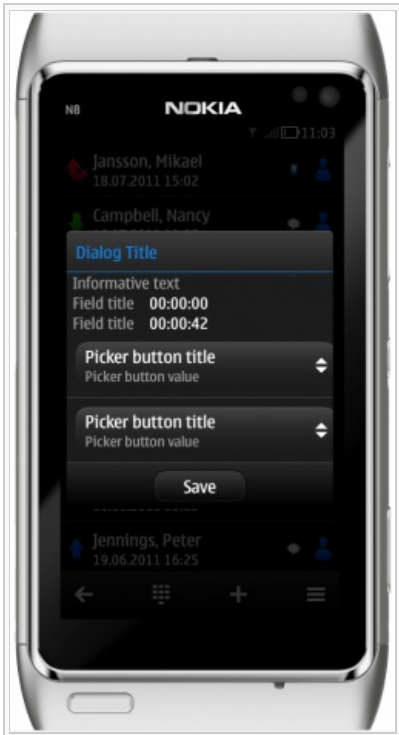
how to use it. Open

- **Example: Image composition** Image Composition example demonstrates the powerful image composition features supported in Qt. Open
- **Example: Advanced composition** Composition demo shows some of the more advanced composition modes supported by Qt Open
- **Example: SVG viewer** SVG Viewer example shows how to add SVG viewing support to applications for great scalable UIs and graphics. Open
- **Example: State toggle** Two-way button example shows how to use State Machine Framework to implement a logic that toggles state when a button is clicked Open
- **Example: State animations** Move Blocks example shows how to animate items in a QGraphicsScene using State Machine Framework with a custom transition. Open
- **Example: State animations** Application Chooser example shows how to use the Qt state machine and the animation framework. Open

Symbian Qt Components menu

- **Class: Syntax highlighting** Syntax highlighters are often used when the user is entering text in a specific format and help the user to read the text. Read more
- **Example: Auto completer** Auto-complete makes forms easier to use in mobile environments. Completer example shows how to provide string-completion facilities for an input widget based on defined data. Open
- **Example: Custom completer** Custom Completer is an other example of how to provide string-completion facilities for an input widgetOpen
- **Example: Google suggest** Google Suggest example demonstrates how to use the QNetworkAccessManager class to obtain a list of suggestions from the Google search engine as the user types into a QLineEdit Open
- **Example: HTTP Client** Qt provides network-transparent features for many media and content classes, but HTTP interaction is still the very basic of modern development. HTTP example demonstrates a how to fetch files specified by URLs from remote hosts Open
- **Example: Web view** Web view is a powerful tool for easy content handling. DOM Traversal example shows how to use the QWebElement class to access the structure of web view's HTML page Open
- **Example: Web view selector** Simple Selector example shows how to use QWebElement to access the Document Object Model (DOM) in a



Symbian Qt Components dialog example

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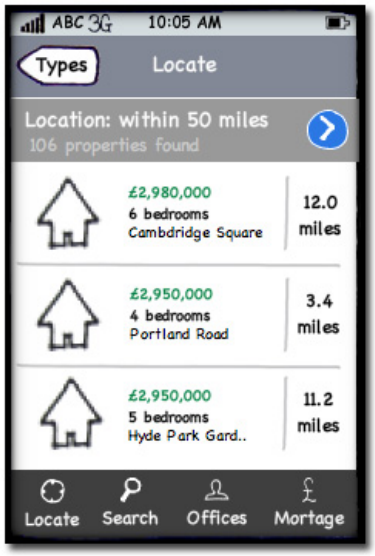
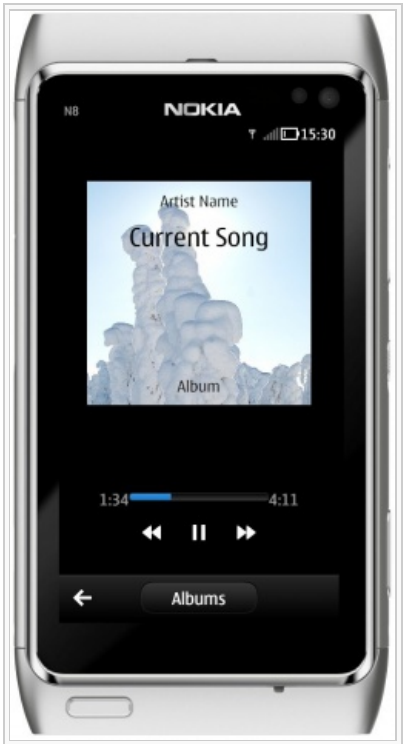
Web page Open



- **QML GridView** The GridView element allows displaying model data in a grid layout Read more
- **Example: Sorting** Custom Sort/Filter Model example illustrates how to perform advanced sorting and filtering in Qt Open
- **Example: Localization** Qt makes localization easy. Internationalization (I18N) example demonstrates Qt's support for translated text Open
- **Example: Regexps** Regular Expressions (RegExp) example shows how regular expressions in Qt are used with strings Open
- **Example: SQL query** Query Model example shows how to make customized versions of data obtained from a SQL query Open
- **Example: SQL drill-down** Drill Down example shows how to read data from a database as well as submit changes Open

- **Example: Audio output** QAudioOutput class provides an interface for sending audio data to an audio output device. Audio output example demonstrates use of this class. Open
- **Example: Music player** Music Player Example shows how to use Phonon - the multimedia framework that comes with Qt - to create a simple music player. Open
- **Example: Bearer management** Bearer Cloud example shows how to use the Bearer Management API to monitor the connectivity state of the local device, i.e. for loading offline content only while WLAN is available Open



Sample Symbian Qt Components application view

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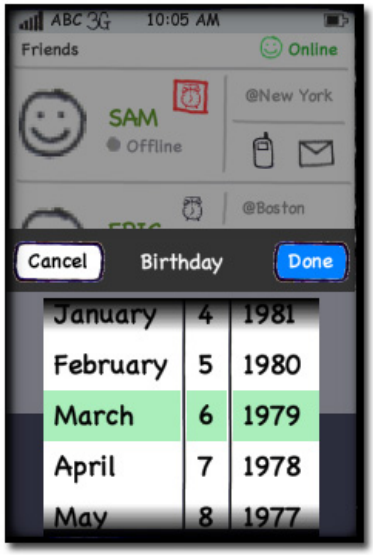
- **Example: Audio input** Audio Input example shows how to use QAudioInput class, that provides an interface for receiving audio data from an audio input device. Open
- **Example: Gradients** Gradients Example show how the various types of gradients can be used in Qt. Open

- **Example: Drag'n'drop icons** Drag'n'drop is the basic feature in modern user interfaces. Draggable Icons example shows how to drag and drop image data between widgets in Standard view Open
- **Example: Drag'n'drop text** Draggable Text example shows how to drag and drop textual data between widgets in Standard view Open
- **Feature: Drag'n'drop** Graphics View framework provides drag and drop support for the scene, and for each and every item Read more
- **Example: Fetch more** Fetch More example shows how two add items to an item view model on demand, commonly used by applications with a list view Open
- **Example: FTP Client** FTP Client example demonstrates how Qt can be used to list the available files on an FTP server and download them. Open
- **Example: P2P chat** Network Chat example demonstrates a stateful peer-to-peer Chat client that uses broadcasting with QUdpSocket and QNetworkInterface to discover its peers. Open



- **Example: Inline-SVG** Text Object example shows how to reduce layout work and insert an SVG file (such as status icons, emoticons etc) into a QTextDocument Open
- **Example: Undo framework** Undo Framework example shows how to easily implement advanced undo/redo functionality with the Qt undo framework Open
- **Feature: QtScript** QtScript module provides classes for making Qt applications scriptable. Read more
- **Example: Qt scripting** Qt Scripting example demonstrates how to implement the functionality of a calculator widget Open

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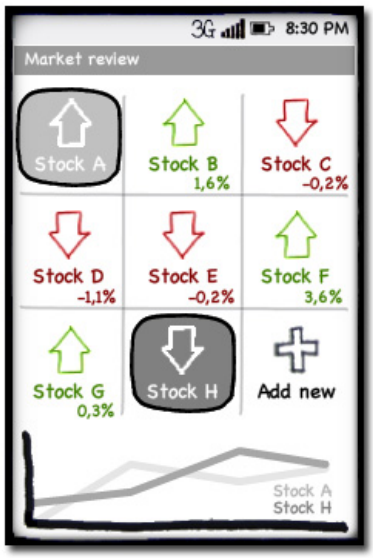

- **Example: Generated icons** Qicon class in Qt creates automatically different button states from the given image object. Widget Icons example demonstrates how to use this great feature. Open
- **Class: Grid layout** QGraphicsGridLayout class provides a grid layout for managing widgets in Graphics View Read more
- **Feature: Painter rotate** Adjusting coordinate system on-the-fly makes drawing of custom layouts easier in some cases. QPainter's rotate functionality rotates the coordinate system the given angle clockwise. [1]

The sketches were created with [Balsamiq Mockups].

- See also Nokia Developer Design and User Experience Guide for ideas on how to achieve the best possible user experience when porting your application for Nokia devices.

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