QtQuick Training Course

Module Five

Objectives

1 Organizing your app

Comparing applications

Common applications structure

Using Loader

Preparing your app for a more complex C++ logic

2 Understanding a simple app

Avoiding spaghetti code

Creating components

All together now

Module Five

Topics

1 Organizing your app

2 Understanding a simple app

3 Questions

4 Lab

Common apps screenflows and conclusions

Single main screen

Fixed main menu

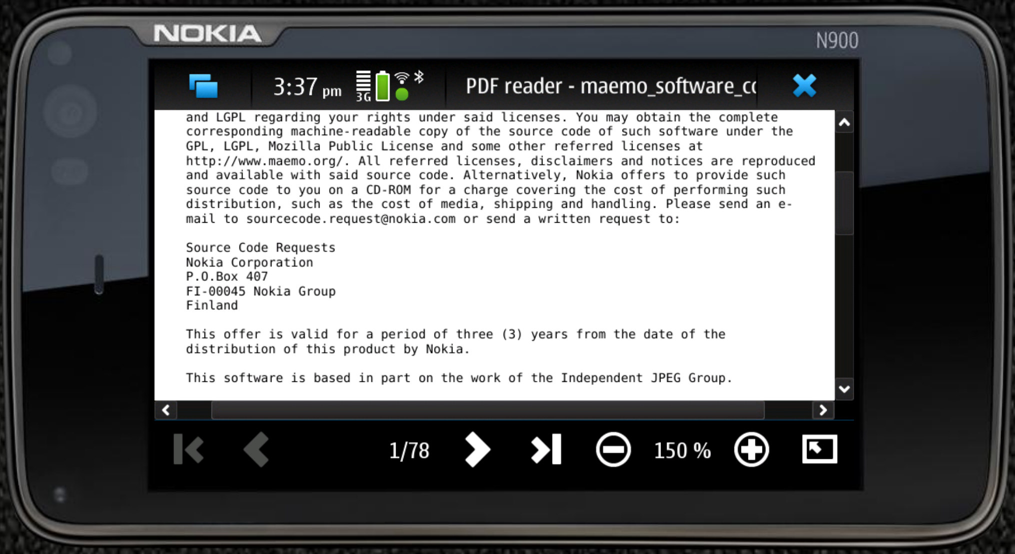
Main menu and internal screens

Conclusions

Single main screen

No navigation is necessary and there are no internal screens

n900: PDF Reader



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This offer is valid for a period of three (3) years from the date of the distribution of this product by Nokia.

This software is based in part on the work of the Independent JPEG Group.

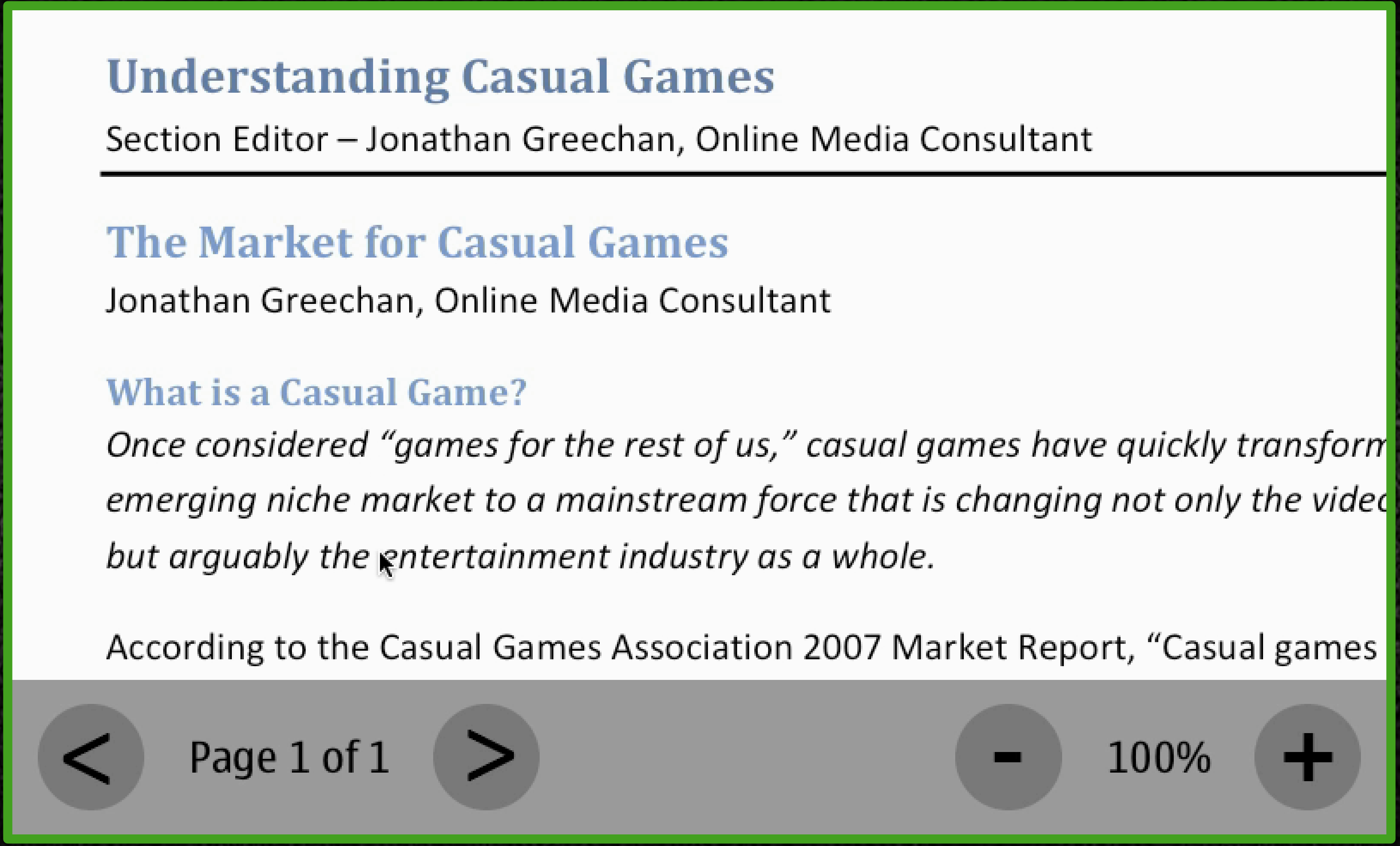
The simplest type of application

It usually has few (but really focused) features

One or two screens to fulfill the app’s purpose

How to implement it in QtQuick

A piece of code demonstrating how you could implement this app



Understanding Casual Games

Section Editor – Jonathan Greechan, Online Media Consultant

The Market for Casual Games

Jonathan Greechan, Online Media Consultant

What is a Casual Game?

Once considered "games for the rest of us," casual games have quickly transform emerging niche market to a mainstream force that is changing not only the vided but arguably the entertainment industry as a whole.

According to the Casual Games Association 2007 Market Report, "Casual games

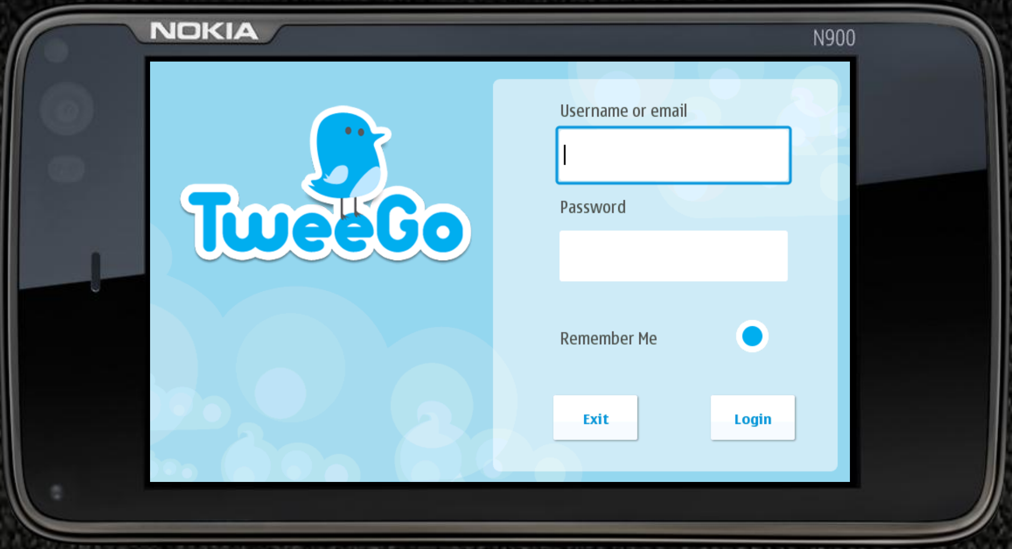
See video: addon/module-005/videos/pdf_viewer.mov

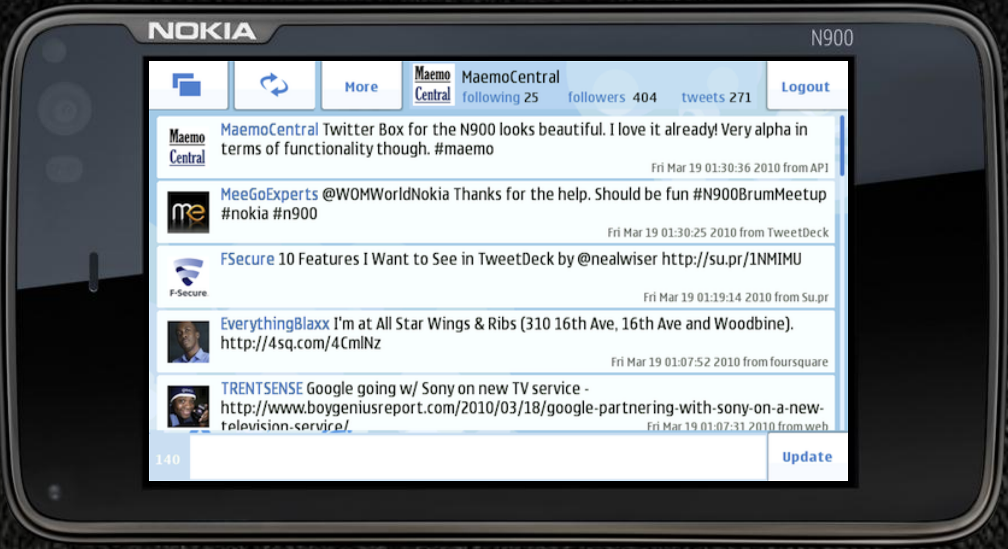
See example: addon/module-005/examples/single-screen.qml

Organizing your app

Single main screen

n900: TweeGo





Maemo Central MaemoCentral following 25 followers 404 tweets 271

MaemoCentral Twitter Box for the N900 looks beautiful. I love it already! Very alpha in terms of functionality though. #maemo
Fri Mar 19 01:30:36 2010 from API

MeeGoExperts @WOMWorldNokia Thanks for the help. Should be fun #N900BrumMeetup #nokia #n900
Fri Mar 19 01:30:25 2010 from TweetDeck

FSecure 10 Features I Want to See in TweetDeck by @nealwiser http://su.pr/1NMIMU
Fri Mar 19 01:19:14 2010 from Su.pr

EverythingBlaxx I'm at All Star Wings & Ribs (310 16th Ave, 16th Ave and Woodbine). http://4sq.com/4CmlNz
Fri Mar 19 01:07:52 2010 from foursquare

TRENTSENSE Google going w/ Sony on new TV service - http://www.boygeniusreport.com/2010/03/18/google-partnering-with-sony-on-a-new-television-service/
Fri Mar 19 01:07:31 2010 from web

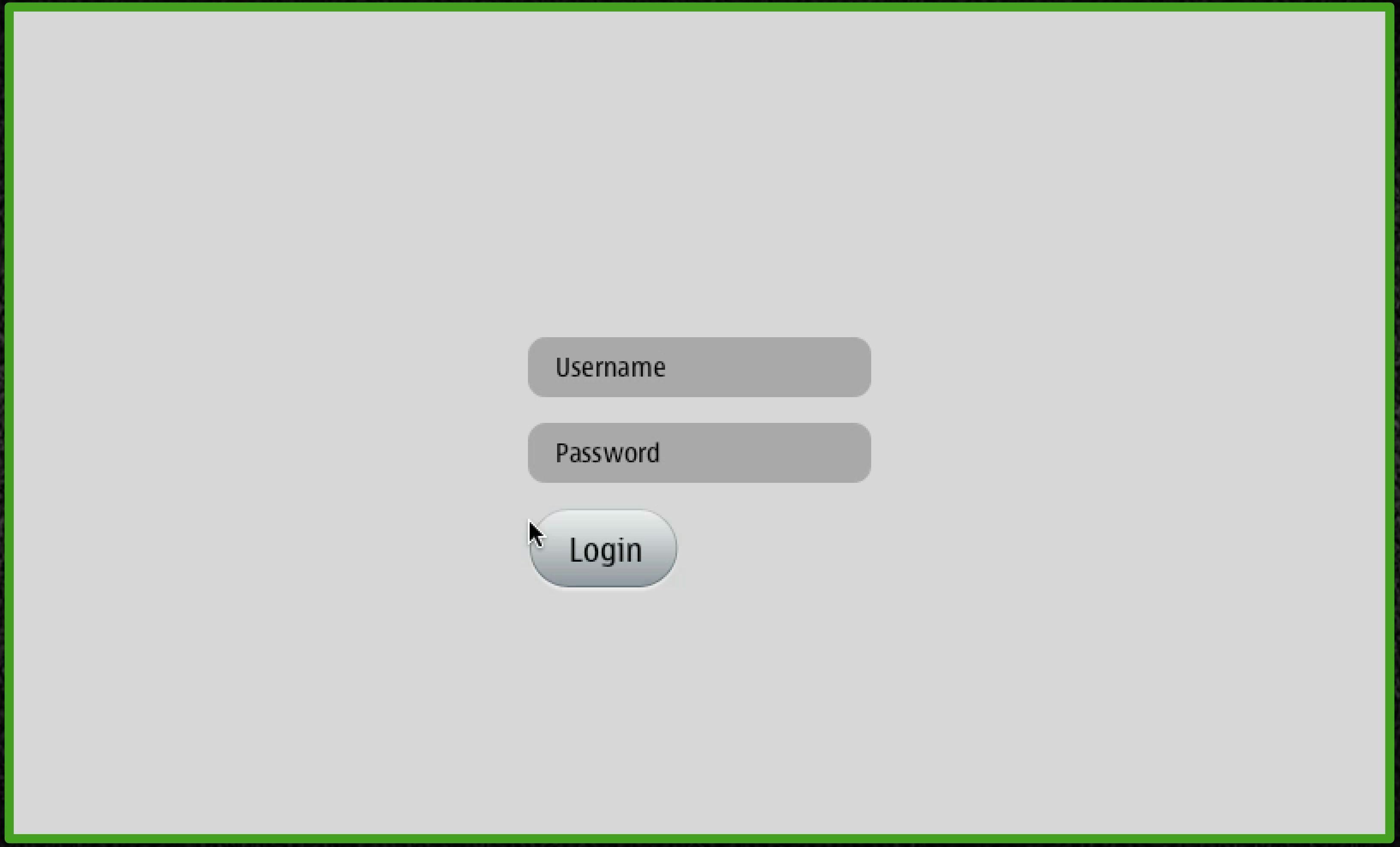
Login and read your twitter timeline

Screens that don’t exist together

No settings to store accounts or other data

How to implement it in QtQuick

A piece of code demonstrating how you could implement this app



See video: addon/module-005/videos/twitter_client.mov

See example: addon/module-005/examples/twitter-login.qml

Common apps screenflows and conclusions

Single main screen

Fixed main menu

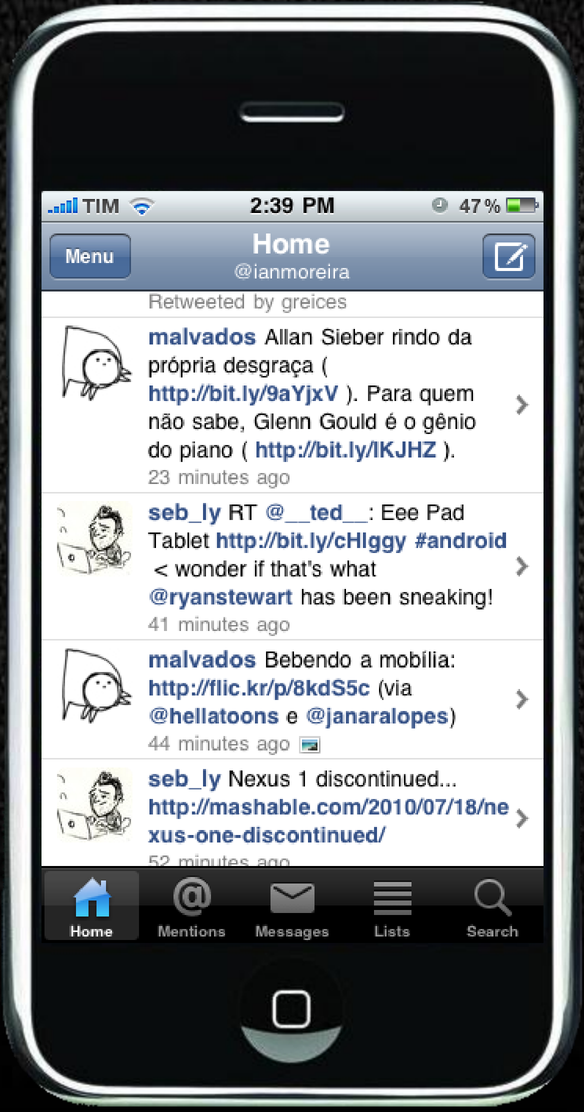
Main menu and internal screens

Conclusions

Organizing your app

Fixed main menu

iPhone: Echofon



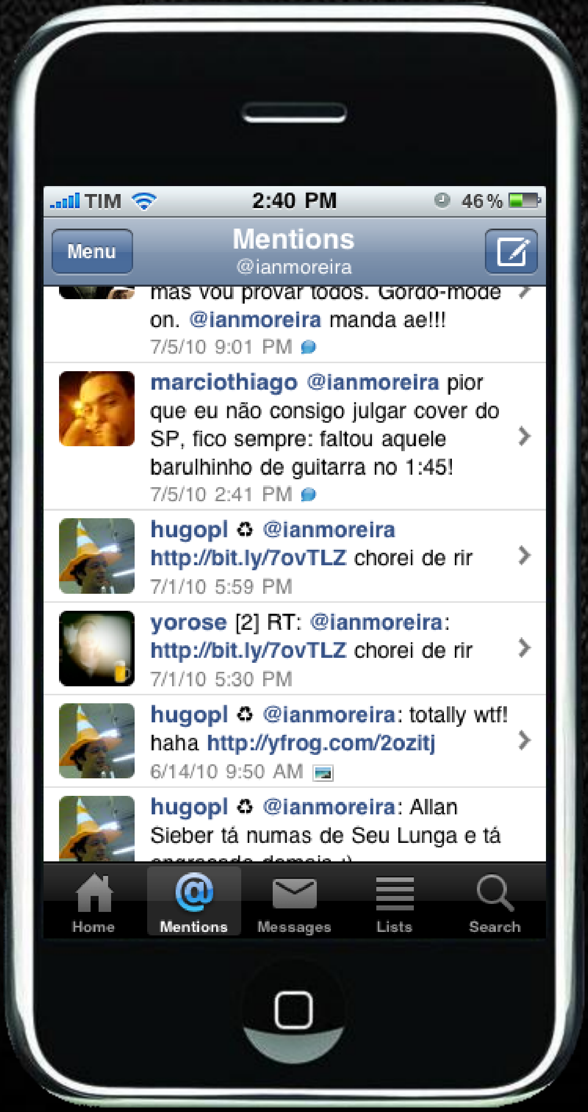
Retweeted by greices

malvados Allan Sieber rindo da própria desgraça (http://bit.ly/9aYjxV). Para quem não sabe, Glenn Gould é o gênio do piano (http://bit.ly/lKJHZ).
23 minutes ago

seb_ly RT @__ted__: Eee Pad Tablet http://bit.ly/cHlggy #android < wonder if that's what @ryanstewart has been sneaking!
41 minutes ago

malvados Bebendo a mobília: http://flic.kr/p/8kdS5c (via @hellatoons e @janaralopes)
44 minutes ago

seb_ly Nexus 1 discontinued... http://mashable.com/2010/07/18/nexus-one-discontinued/
52 minutes ago



mas vou provar todos. Gordo-mode on. @ianmoreira manda ae!!!
7/5/10 9:01 PM

marciothiago @ianmoreira pior que eu não consigo julgar cover do SP, fico sempre: faltou aquele barulhinho de guitarra no 1:45!
7/5/10 2:41 PM

hugopl ♻ @ianmoreira http://bit.ly/7ovTLZ chorei de rir
7/1/10 5:59 PM

yorose [2] RT: @ianmoreira: http://bit.ly/7ovTLZ chorei de rir
7/1/10 5:30 PM

hugopl ♻ @ianmoreira: totally wtf! haha http://yfrog.com/2ozitj
6/14/10 9:50 AM

hugopl ♻ @ianmoreira: Allan Sieber tá numas de Seu Lunga e tá engraçado demais :)

Features exposed by the menu on the bottom

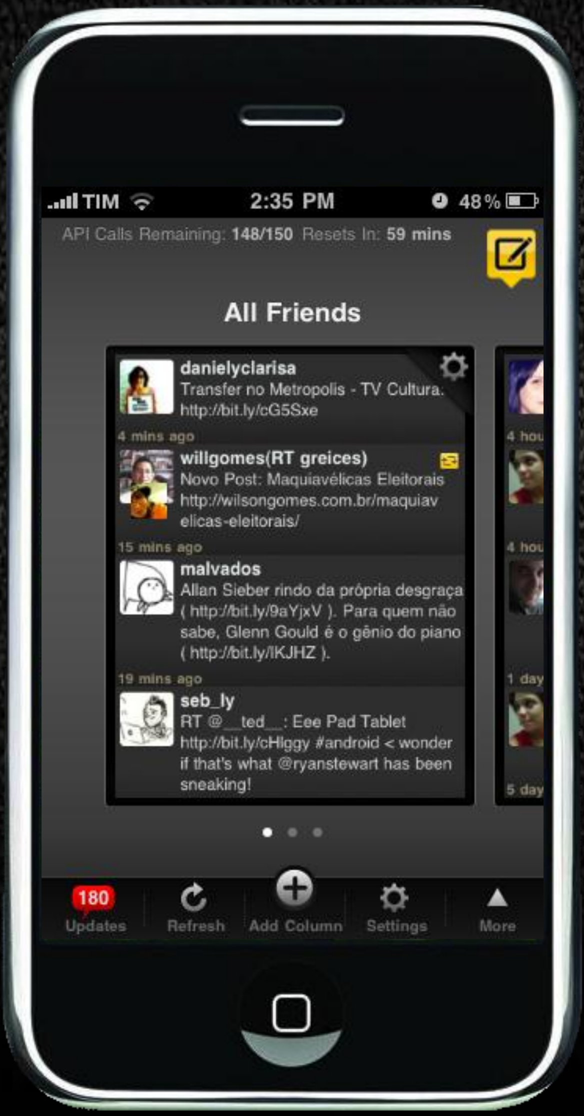
Architecture is based on modifying a ListModel

Very common structure in iPhone apps

Organizing your app

Fixed main menu

iPhone: TweetDeck

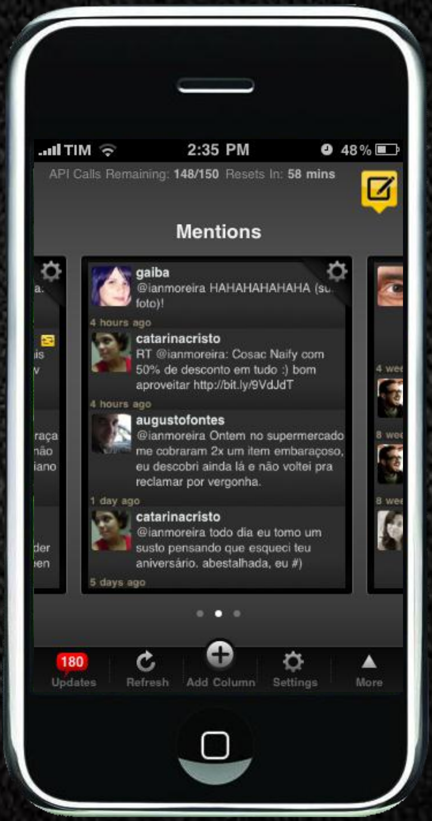


danielyclarisa
Transfer no Metropolis - TV Cultura. http://bit.ly/cG5Sxe
4 mins ago

willgomes(RT greices)
Novo Post: Maquiavélicas Eleitorais http://wilsongomes.com.br/maquiavelicas-eleitorais/
15 mins ago

malvados
Allan Sieber rindo da própria desgraça (http://bit.ly/9aYjxV). Para quem não sabe, Glenn Gould é o gênio do piano (http://bit.ly/lKJHZ).
19 mins ago

seb_ly
RT @__ted__: Eee Pad Tablet http://bit.ly/cHlggy #android < wonder if that's what @ryanstewart has been sneaking!



gaiba
@ianmoreira HAHAHAHAHAHA (su foto)!
4 hours ago

catarinacristo
RT @ianmoreira: Cosac Naify com 50% de desconto em tudo :) bom aproveitar http://bit.ly/9VdJdT
4 hours ago

augustofontes
@ianmoreira Ontem no supermercado me cobraram 2x um item embaraçoso, eu descobri ainda lá e não voltei pra reclamar por vergonha.
1 day ago

catarinacristo
@ianmoreira todo dia eu tomo um susto pensando que esqueci teu aniversário. abestalhada, eu #)
5 days ago

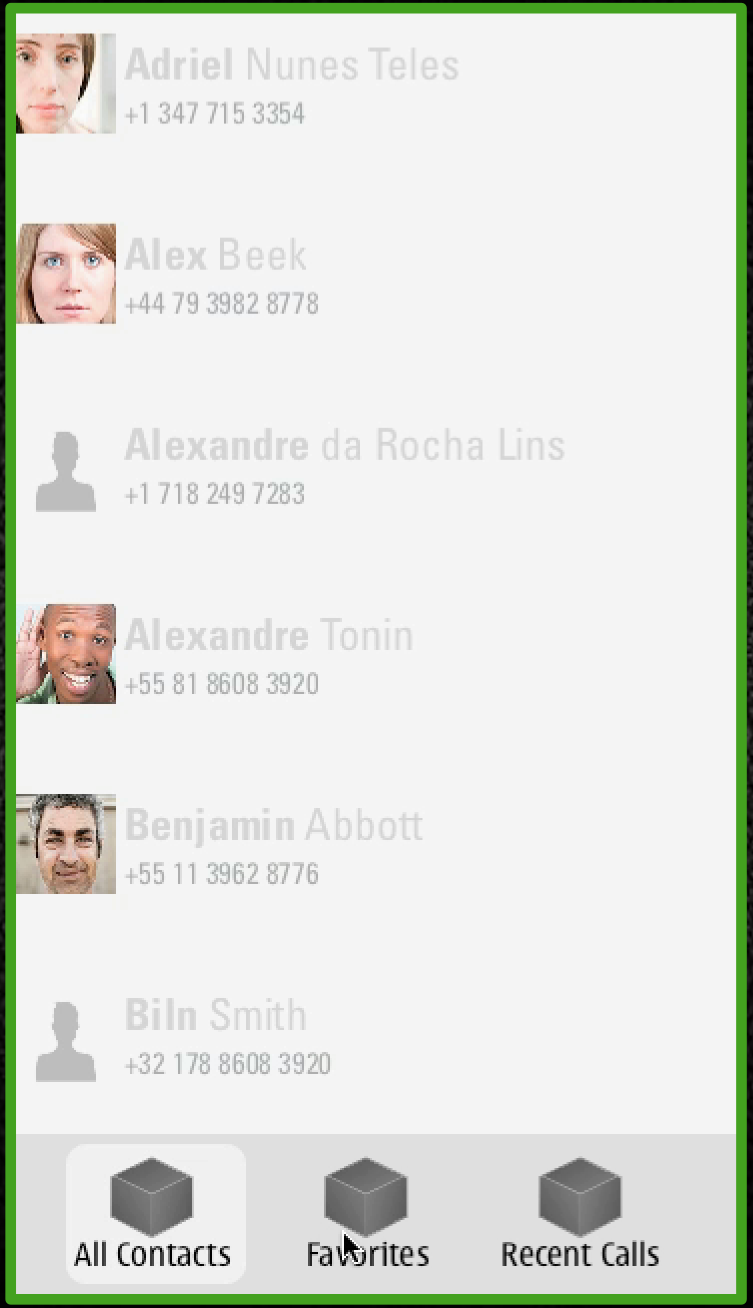
Three ListModels already loaded

Zoom in and out each one of them

Organizing your app

How to implement it in QtQuick

A piece of code demonstrating how you could implement this app



Adriel Nunes Teles
+1 347 715 3354

Alex Beek
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Alexandre Tonin
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Benjamin Abbott
+55 11 3962 8776

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+32 178 8608 3920

See video: addon/module-005/videos/contacts.mov

See example: addon/module-005/examples/fixed-main-menu.qml

Common apps screenflows and conclusions

Single main screen

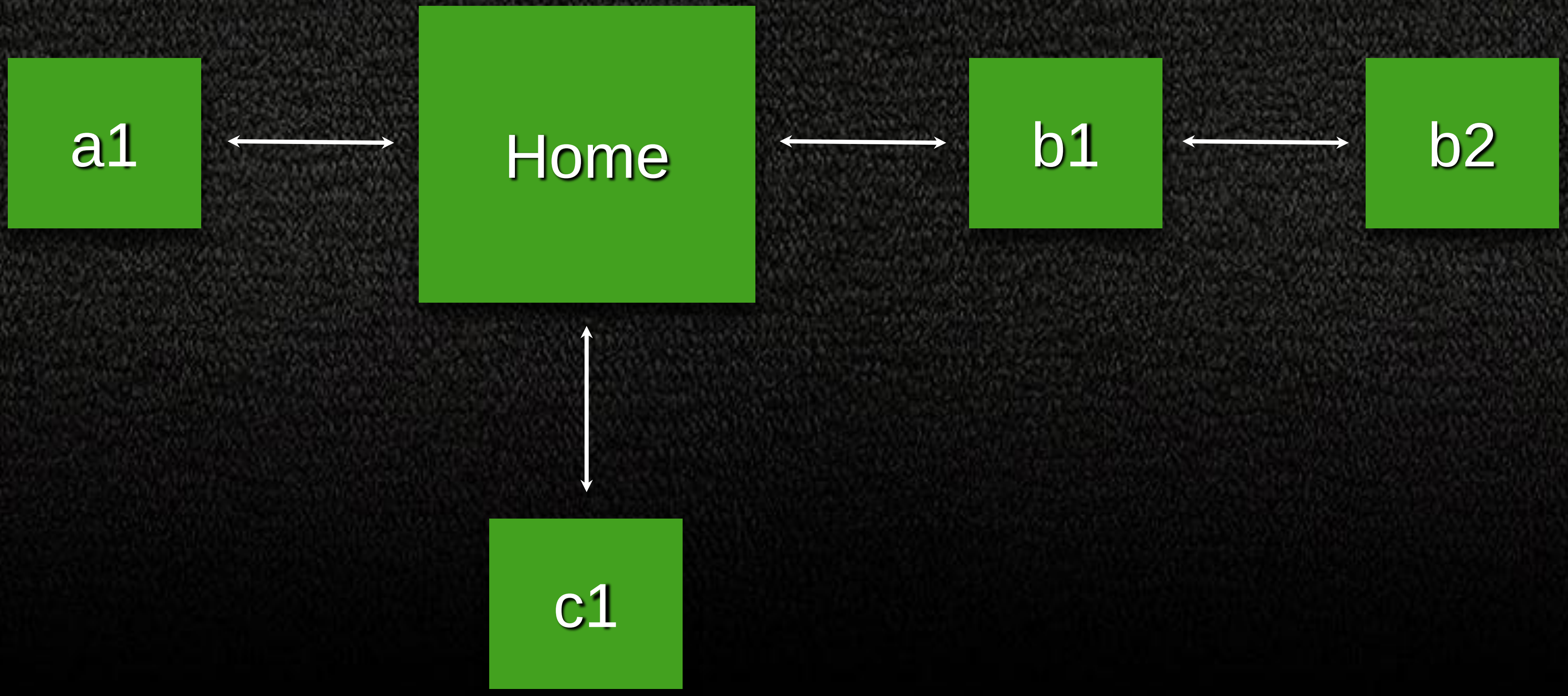
Fixed main menu

Main menu and internal screens

Conclusions

Main menu and internal screens

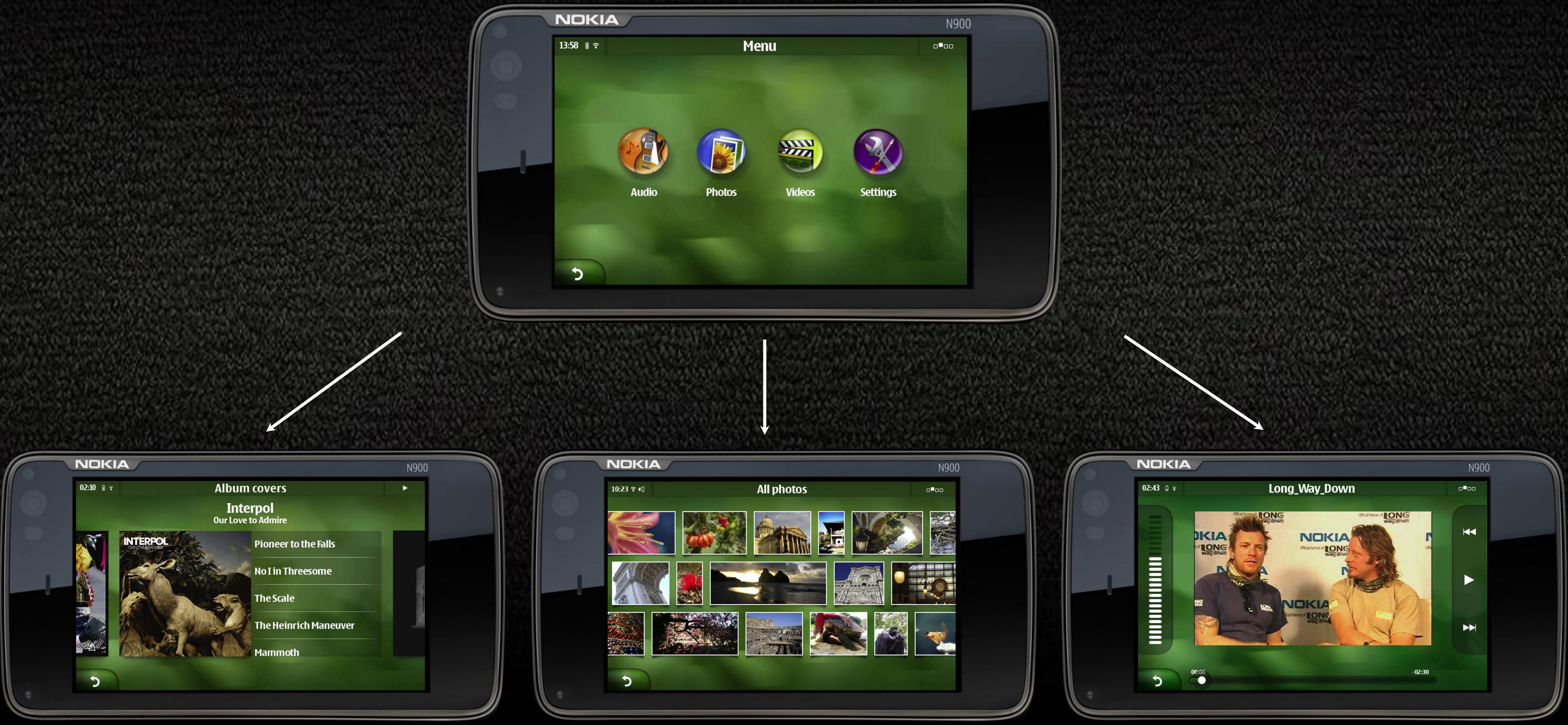
This one is reserved for the more complex applications. It usually has a home screen and a back button for you to return there. It is a simple structure for apps that have lots of features.



Organizing your app

Main menu and internal screens

n900: Canola



Audio

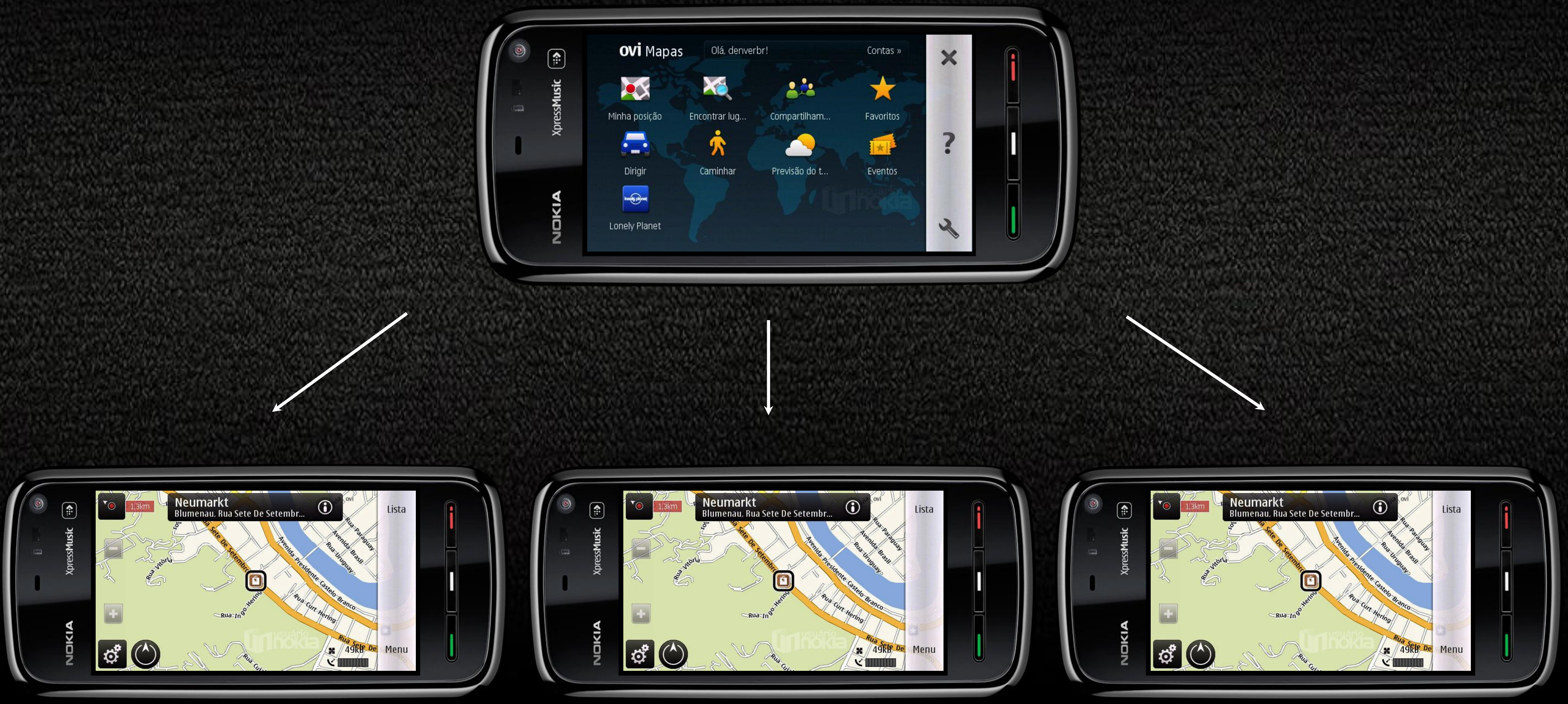
Photos

Videos

Organizing your app

Main menu and internal screens

5800: Ovi Maps



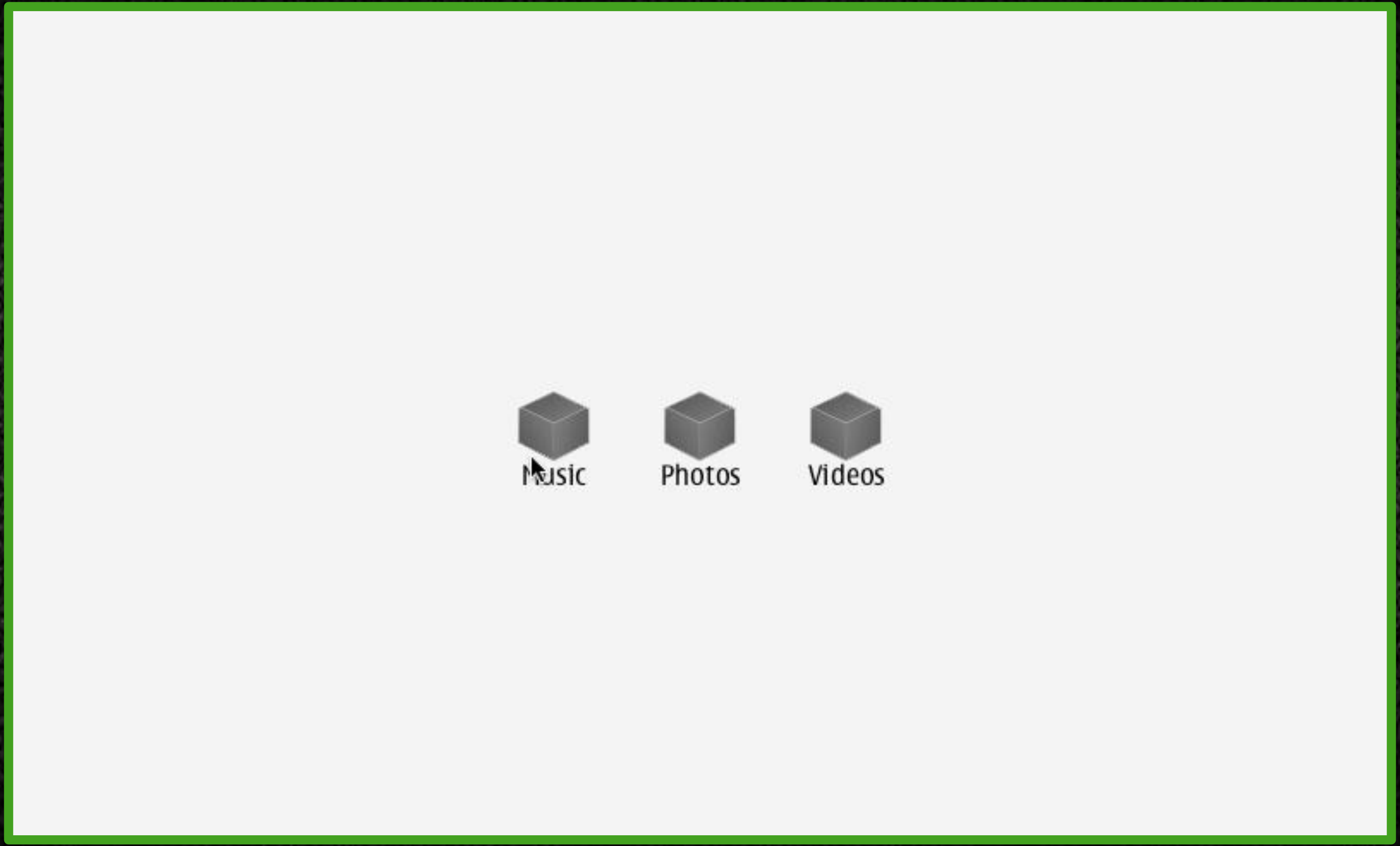
Drive

My Position

Favorites

How to implement it in QtQuick

A piece of code demonstrating how you could implement this app



See video: addon/module-005/videos/internal_screens.mov

See example: addon/module-005/examples/internal-screens.qml

Common apps screenflows and modules

Single main screen

Fixed main menu

Main menu and internal screens

Modules

Modules

A QML module is a collection of QML types

Organize your QML content into independent units

Modules defined by a URL or defined by a URI

Optional versioning mechanism

Module qmldir File

You must have a ‘qmldir’ file that must be inside your package folder. It must look like this

qmldir

```
# <Comment>
<TypeName> [<InitialVersion>] <File>
internal <Name> <File>
plugin <Name> [<Path>]
```

In the end, it will be similar to this

qmldir

```
Button 1.0 Button.qml
Slider 1.0 Slider.qml
StartStopButton 1.0 StartStopButton.qml
```

Organizing your app

Module Examples

You can use modules that are defined by a URL or by a URI. See it in action in the example below

```
import QtQuick 1.0
import "http://ian.factorium.com.br/qml" as ModuleExample

Rectangle {
    width: 640
    height: 480
    ModuleExample.StartStopButton {
        id: button
    }
}
```

See example: addon/module-005/examples/modulesExample.qml

To know more about QtQuick Modules:
http://doc.qt.nokia.com/4.7-snapshot/qdeclarativemodules.html

Topics

1 Organizing your app

2 Understanding a simple app

3 Questions

4 Lab

Avoiding spaghetti code

Tips for you to write a better and optimized code

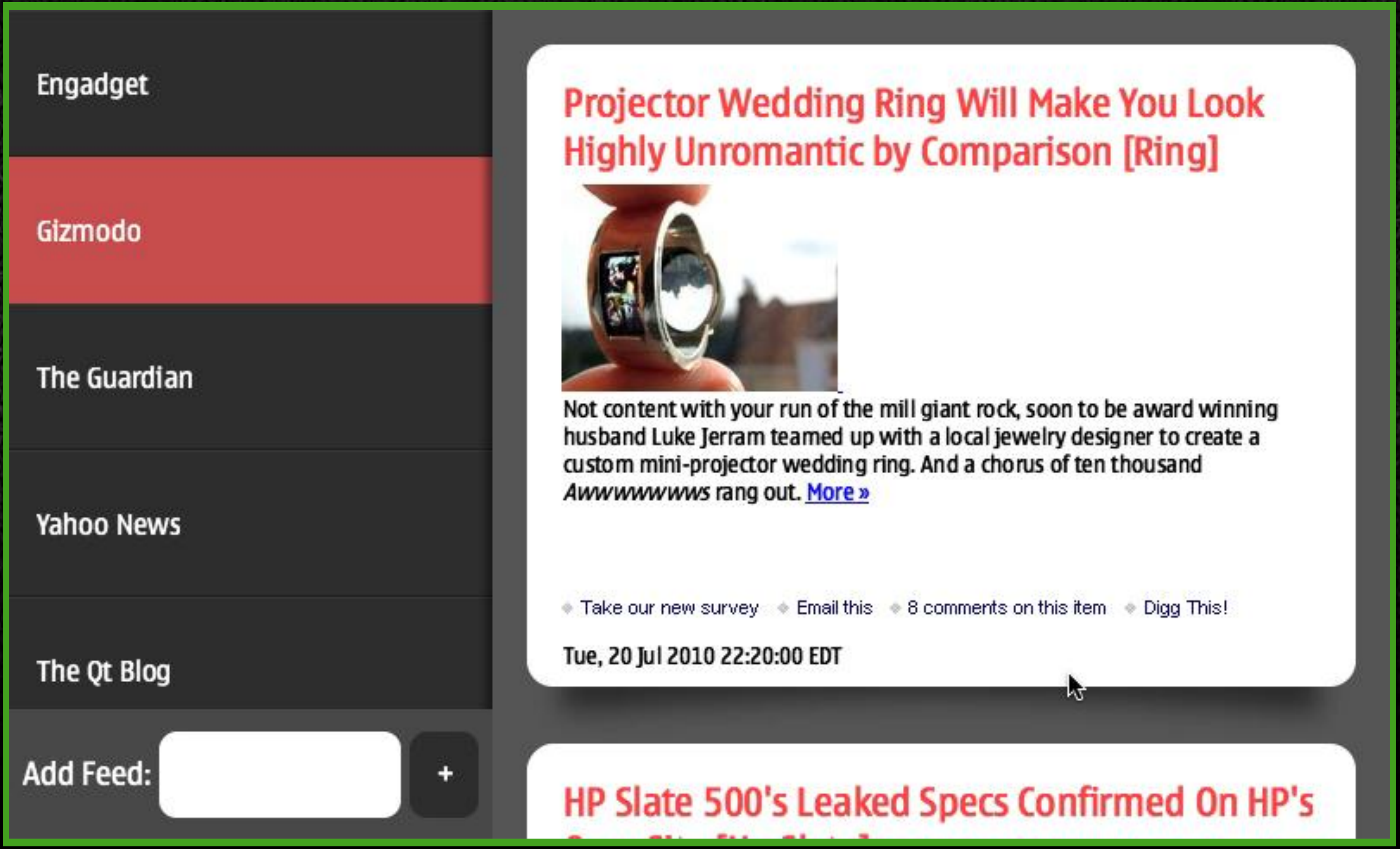
Variable names must have a logic through the app

Reusing your code is not always a priority

It is fundamental to make it comprehensible to anyone

Dissecting an app

Below there is a RSS Reader app. How do you think its code was organized and how it is its navigation?



Engadget

Gizmodo

The Guardian

Yahoo News

The Qt Blog

Add Feed: +

Projector Wedding Ring Will Make You Look Highly Unromantic by Comparison [Ring]

Not content with your run of the mill giant rock, soon to be award winning husband Luke Jerram teamed up with a local jewelry designer to create a custom mini-projector wedding ring. And a chorus of ten thousand *Awwwwwwws* rang out. More »

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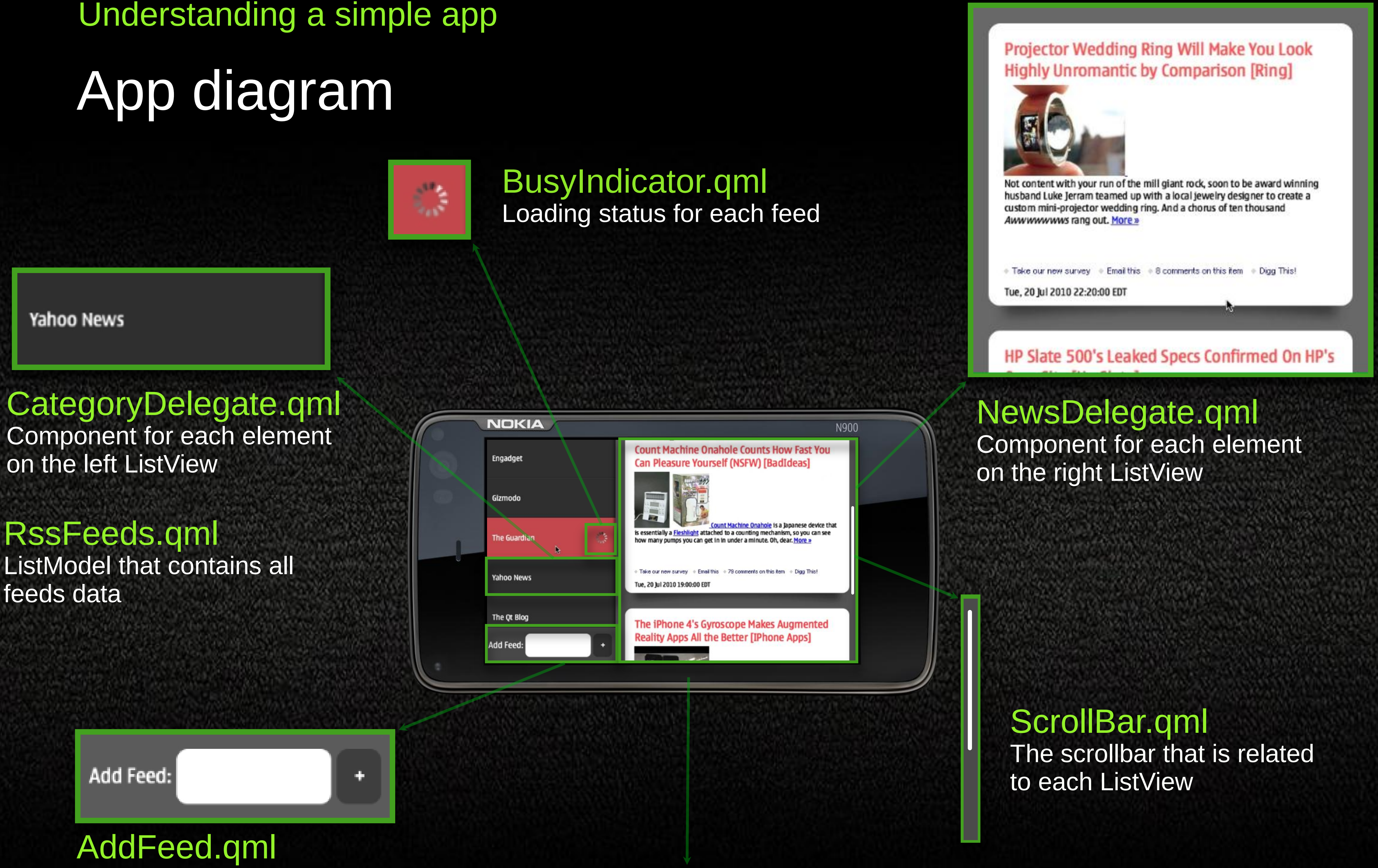
Tue, 20 Jul 2010 22:20:00 EDT

HP Slate 500's Leaked Specs Confirmed On HP's

See video: addon/module-005/videos/rss_reader.mov

Understanding a simple app

App diagram



BusyIndicator.qml
Loading status for each feed

CategoryDelegate.qml
Component for each element on the left ListView

RssFeeds.qml
ListModel that contains all feeds data

NewsDelegate.qml
Component for each element on the right ListView

ScrollBar.qml
The scrollbar that is related to each ListView

AddFeed.qml
TextInput to add new feeds

rssNews.qml
Main File

Projector Wedding Ring Will Make You Look Highly Unromantic by Comparison [Ring]

Not content with your run of the mill giant rock, soon to be award winning husband Luke Jerram teamed up with a local jewelry designer to create a custom mini-projector wedding ring. And a chorus of ten thousand *Awwwwwwws* rang out. More »

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Tue, 20 Jul 2010 22:20:00 EDT

HP Slate 500's Leaked Specs Confirmed On HP's

Count Machine Onahole Counts How Fast You Can Pleasure Yourself (NSFW) [BadIdeas]

Count Machine Onahole is a Japanese device that is essentially a Fleshlight attached to a counting mechanism, so you can see how many pumps you can get in in under a minute. Oh, dear. More »

Take our new survey · Email this · 79 comments on this item · Digg This!

Tue, 20 Jul 2010 19:00:00 EDT

The iPhone 4's Gyroscope Makes Augmented Reality Apps All the Better [IPhone Apps]

See example: addon/module-005/examples/rssnews

Running it on the device

Once you have Qt installed, it is easy to test your app on the n900

NOKIA
Engadget
The Guardian
Yahoo News
The Qt Blog
Add Feed:
Afghanistan pullout could start next year, says PM
Prime minister says British troops could start being withdrawn next year, but decision will be 'based on conditions on the ground'
Britain could start withdrawing troops from Afghanistan as early as next year depending on conditions there, David Cameron said today following a meeting with Barack Obama in Washington yesterday.

See video: addon/module-005/videos/n900_rss_reader.mov

Module Five

Topics

1 Organizing your app

2 Understanding a simple app

3 Questions

4 Lab

Questions

What is a Loader element?

How your app can be prepared to load data from C++?

Name three common applications' screenflow cases.

When is it necessary to create a Component?

How can you avoid spaghetti code?

Module Five

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Lab

Now it is time to use pen and paper

Think about an app and its structure (touch screen or keypad).
Draw your screens and ideas.

Apps suggestions:

- Music Player
- Game
- Twitter Client
- Picture Viewer
- Contact Merger
- Spending tracker

Optional: Think about Components you would create or reuse