



One application

to rule them all



Tom

- First code 1983
- Graduated 1993
- Rent-a-nerd
- Self employed 2005
- 100+ projects





DHZRIA 1.55-SNAPSHOT@1.8.0_101 (c) SoftWorks
tom

SOFTWORKS

DAG
2016 september
ma di wo do vr sa zo
35 1 2 3 4
36 5 6 7 8 9 10 11
37 12 13 14 15 16 17 18
38 19 20 21 22 23 24 25
39 26 27 28 29 30
40

DAGTOTALEN (NA OPSLAAN)

maandag	8
dinsdag	8
woensdag	8
donderdag	8
(Totaal)	32

PROJECTEN

Favorieten

- 2 reinders
- 9 indirect
- 4 vrij
- 15 PRHC
- 16 KZA

Alle projecten

UREN

Project	Naam	Uren (B)	Omschrijving
15	PRHC	8	
4	vrij	0	

Opslaan & morgen Opslaan Ververs

Time registration

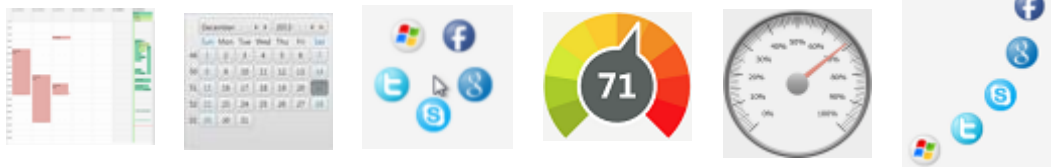


Applet?!?

- Written 2006
- Survived
 - IE6, IE7, IE8, IE9, IE10, IE11
 - Firefox 1.5 to 48
 - Birth of Chrome (2008)
 - Windows XP to 10
- Without a single code change
- Applets soon not supported by browsers (except IE)



Project lead





Convert applet to
desktop application

Write multiplatform
JavaFX application



Goals

- Does JavaFX work at all on mobile?
- How much effort?
- What mobile UI libraries exist?
- Can the app be controlled using touch?
- Performance?
- Single code base?



1

Does it work?



Oh, oh

...

`:createMainDexList FAILED`

`:createMainDexList (Thread[main,5,main]) completed. Took 1.593 secs.`

FAILURE: Build failed with an exception.

* What went wrong:

Execution failed for task ':createMainDexList'.

> Exception in thread "main" com.android.dx.cf.iface.ParseException: InvokeDynamic not supported

BUILD FAILED



Android

- 80% of mobile platform
- Apache Dalvik & Harmony
- Java 6 (97%)
 - InvokeDynamic
 - Try-with-close
 - Lambda's
 - Streams



Nexus 7 08:42

april 2014

	ma	di	wo	do	vr	za	zo
14		1	2	3	4	5	6
15	7	8	9	10	11	12	13
16	14	15	16	17	18	19	20
17	21	22	23	24	25	26	27
18	28	29	30				

Project	Aantal	Omschrijving	project
1	8.0	test	

q w e r t y u i o p

@ # & * - + = ()

a s d f g h j k l

z x c v b n m , .

123 SwiftKey

Retrolambda



Oh really?



2

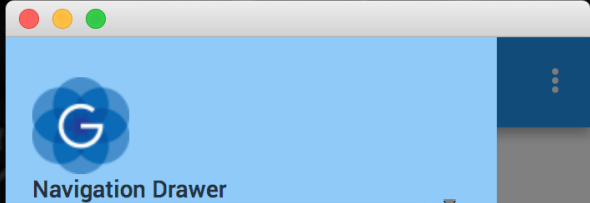
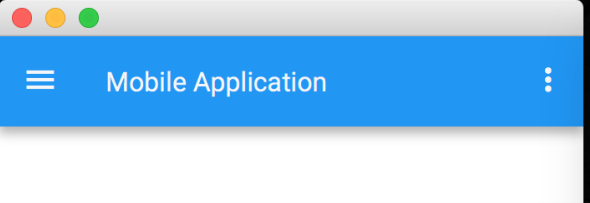
Is it touchy?



The screenshot displays a mobile application interface with three main components:

- Calendar:** A calendar for April 2014. The days of the week are labeled 'ma', 'di', 'wo', 'do', 'vr', 'za', 'zo'. The dates 1 through 30 are shown in a grid. The date 18 is highlighted.
- Table:** A table with three columns: 'Project', 'Aantal', and 'Omschrijving'. The first row contains the data: 'JFall', '8.0', and 'some text'. The text 'some text' is highlighted with a blue selection box.
- Project List:** A list of 14 projects, numbered 1 through 14, with descriptions: 'project 2' through 'project 14'. The list is displayed in a dark-themed sidebar.

GUI Garage Flutter



DH2FX

april 2014

	ma	di	wo	do	vr	za	zo
14		1	2	3	4	5	6
15	7	8	9	10	11	12	13
16	14	15	16	17	18	19	20
17	21	22	23	24	25	26	27
18	28	29	30				

Dag	Totaal
maandag	8.0
dinsdag	8.0
woensdag	8.0
donderdag	8.5
vrijdag	8.0

Project	Aantal	Omschrijving
project 14	2.0	
project 2	5.0	
project 9	1.0	
project 5	0.0	

Opslaan Opslaan & morgen

1: project 1
2: project 2
3: project 3
4: project 4
5: project 5
6: project 6
7: project 7
8: project 8
9: project 9
11: project 11
12: project 12
13: project 13
10: project 10
14: project 14

Gluon Mobile (glisten)



Oh really?



Manually touchify
standard controls

Go commercial



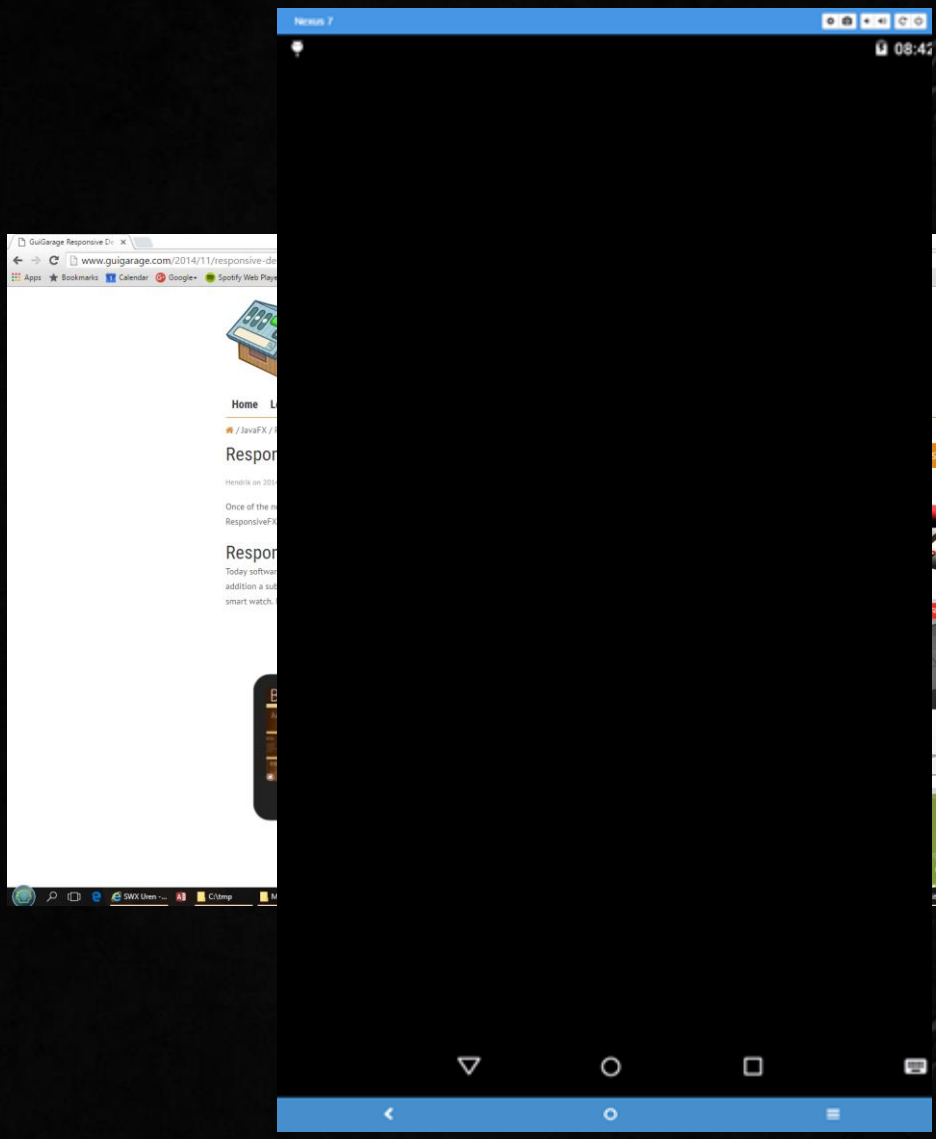
3

Rule them all

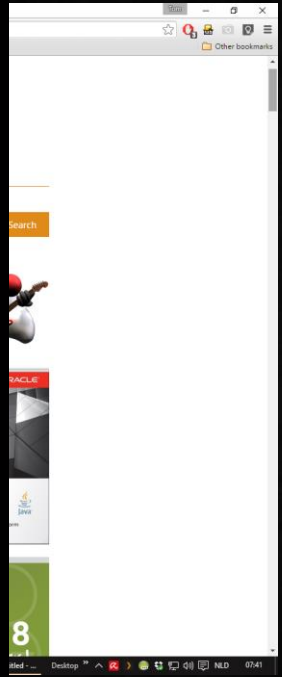


All screens





GUI Garage ResponsiveFX





DH2FX

april 2014

Dag	Totaal
maandag	8.0
dinsdag	8.0
woensdag	8.0
donderdag	8.5
vrijdag	8.0

Project	Aantal	Omschrijving
project 14	2.0	
project 2	5.0	
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project 5	0.0	

Opslaan Opslaan & morgen

DH2FX

april 2014

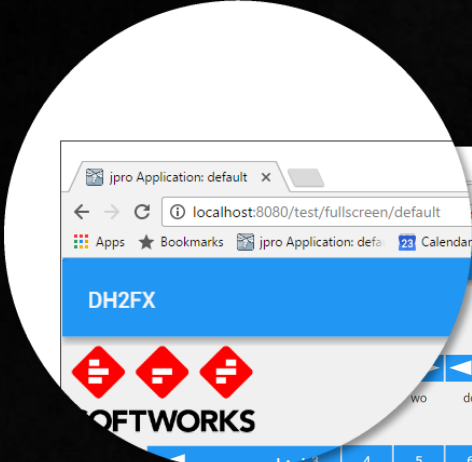
Dag	Totaal
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project 14	2.0	
project 2	5.0	
project 9	1.0	
project 5	0.0	

JFXtra's ResponsiveLayout



Oh really?



Browser window: jpro Application: default x
localhost:8080/test/fullscreen/default

DH2FX DH2FX (c) 2016

SOFTWORKS

2016

Dag	Totaal
maandag	8.0
dinsdag	8.0
woensdag	8.0
donderdag	8.0
vrijdag	8.0

Project	Aantal	Omschrijving
No content in table		

- 2: reinders
- 3: service2media
- 4: vrij
- 5: lundia
- 6: karpi
- 7: wordcup
- 8: glas
- 9: indirect
- 10: nedap
- 11: runbook
- 12: kps
- 13: kp
- 14: tenbrinke
- 15: PRHC
- 16: KZA

JPro



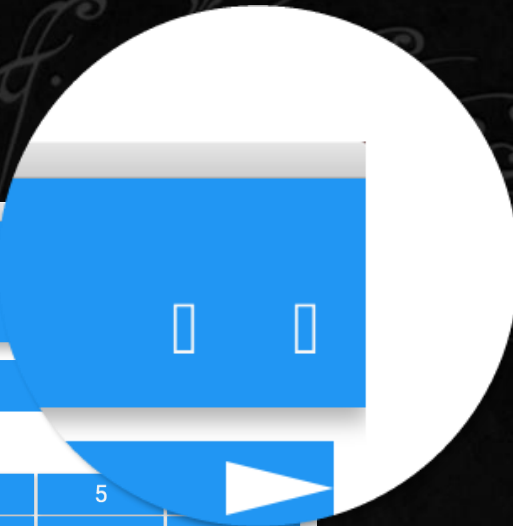
iPhone 6 - iPhone 6 / iOS 9.2 (13C75)

DH2FX

April

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
14		1	2	3	4	5	
15	7	8	9	10	11	12	13
16	14	15	16	17	18	19	20
17	21	22	23	24	25	26	27
18	28	29	30				

Navigation icons: calendar, reminders, location, calculator.



iOS



Wrap up

Goals

- Does JavaFX work at all on mobile?
- How much effort?
- What mobile UI libraries exist?
- Can the app be controlled using touch?
- Performance?
- Single code base?

Verdict

- Yes
- Retrolambda is a problem (for now)
- JFoenix, but I'd go for Gluon
- Yes, but special skinning is a good idea
- Smooth
- Mobile, desktop and browser!



Thank you

- @tbeernot
- tbeernot.wordpress.com
- jfxtras.org
- www.softworks.nl