



Main sponsor



What is so cool about Android 4.0

Lars Vogel (vogella)



3 Minute Android Intro

History lesson

Features of Android 4.0

Can I use it already?





About me – Lars Vogel



Independent Eclipse and Android consultant, trainer and book author

Eclipse committer

More than one million visitors at <http://www.vogella.de>

What is Android?





Software stack based on Linux

Open Source

Developed by Google



A row of black chess pieces, specifically queens, are arranged horizontally. They are set against a dark background with a warm, glowing light source behind them, creating a silhouette effect and casting soft highlights on the pieces.

Marketleader in the
Smartphone area

880 000 new phone
activiations per day

(Febr. 2012)

Currently looser in the
tablet space

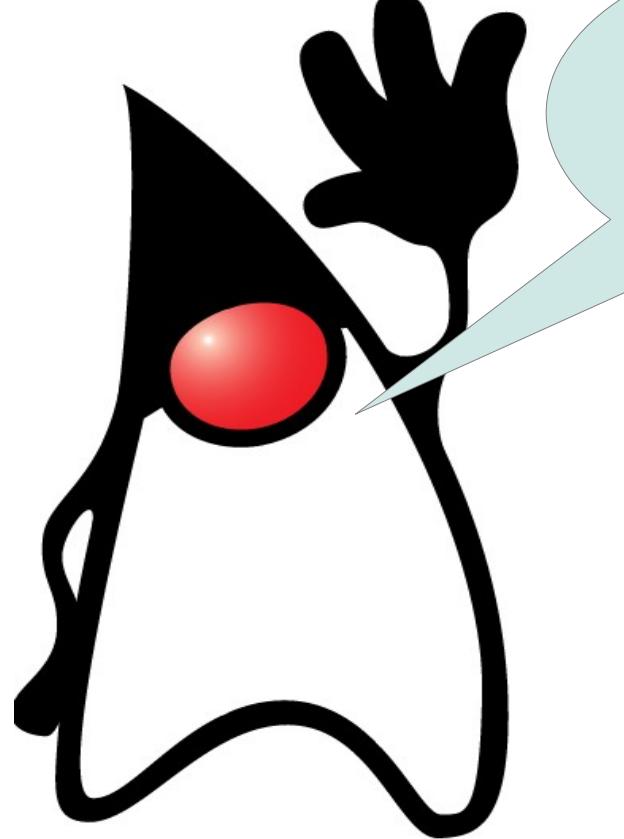
(Number 2)



Programming

Using the Java language to
create applications





We sue
them for that!

BIG MONEY ahead!



The age of Android 3.x



Mobile

Tablet



If I only had the
source code.



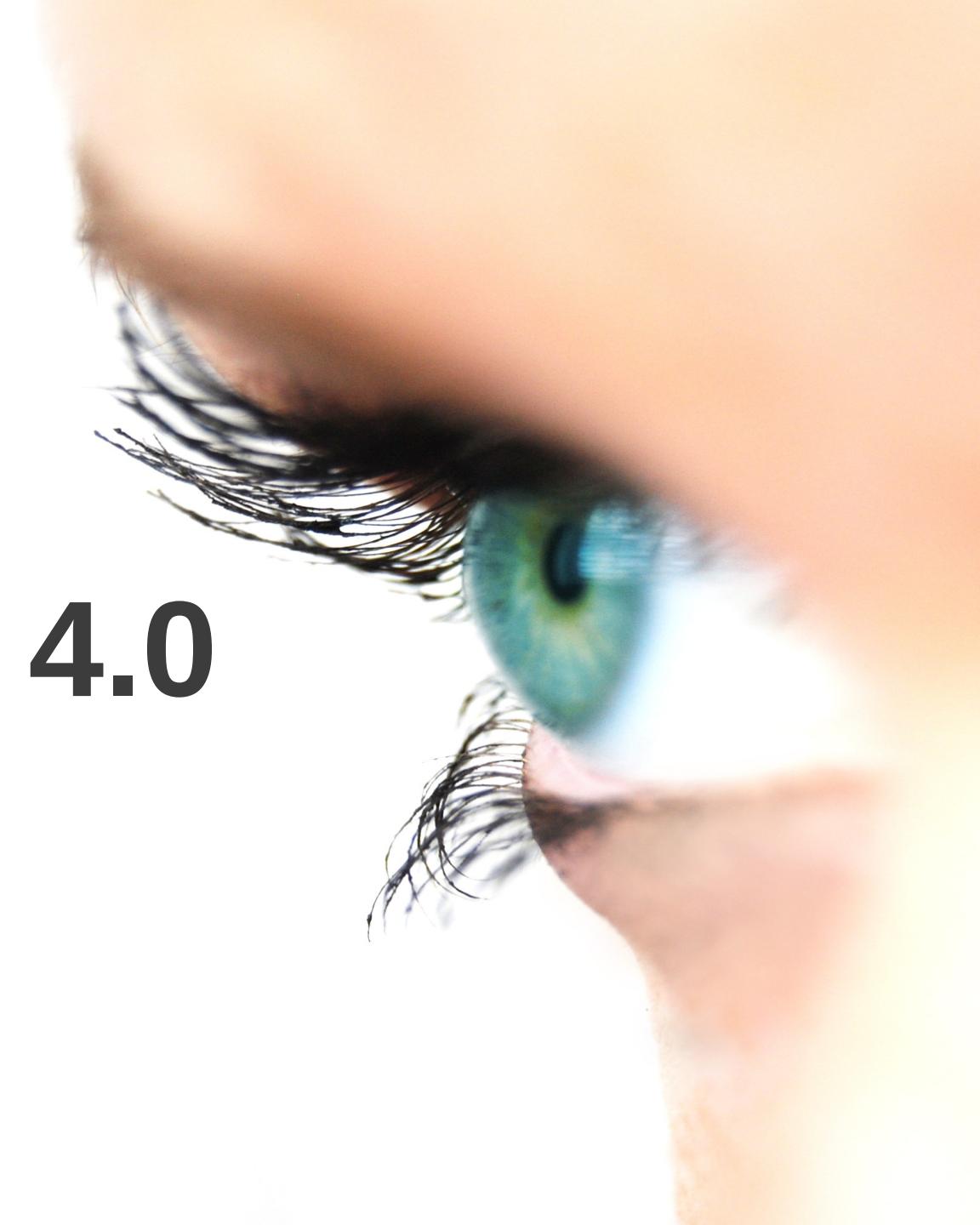
A close-up photograph of a large, intense fire. The flames are predominantly bright orange and yellow, with many smaller sparks and embers visible. The fire appears to be burning on a dark, possibly wooden or charred surface. The overall texture is dynamic and full of energy.

Google?

Android 4.0

**One API
Source code available**

Android 4.0



Hardware Rendering



Holo Theme – Consistent Theming cross devices

android:theme="@android:style/Theme.Holo"
Theme: DeviceDefault

ActionBar



A photograph of a shelf filled with numerous skeins of colorful yarn, organized in a grid pattern. The colors range from pastel to vibrant shades of yellow, green, blue, red, and purple. The skeins are neatly arranged in rows and columns.

GridLayout

Resizable Widgets



StackView in Widgets



A photograph showing two hands against a white background. The top hand is bent at the elbow, with the fingers curled into a loose fist. The bottom hand is held open with the palm facing up. The index finger of the top hand is pointing towards the center of the bottom hand's palm. This visual representation illustrates the 'drag and drop' interaction technique.

**Drag &
Drop**



Texture View

Calendar API



ViewPage

DICKSON U.S. mathematician.

Dick' test', Med. a test for determining immunity or susceptibility to scarlet fever in which scarlet fever toxin is injected into the skin, susceptibility being characterized by redness at the injection area. [1920-25; named after G. F. Dick, who devised it]

dick·ty (dik'tē), *adj., -ti·er, -ti·est.* dicty.

dick·y (dik'ē), *n., pl. dick·ies.* dickey¹.

di·cli·nous (di'klē nəs, di kli'-), *adj. Bot.* 1. (of a plant species, variety, etc.) having the stamens and the pistils in separate flowers, either on the same plant or on different plants; either monoecious or dioecious. 2. (of a flower) having only one sex. *—di·cli·no·ism, n.* [1820-30; *DI* + *CLINIC* (see *CLINIC*) + *-OUS*] *—di·cli·no·ism, n.*

co·fol (di kō'fôl, -fol), *n.* a white crystalline solid, $C_14H_9Cl_5O$, derived from DDT and used to protect crops from mites. [laboratory coinage of unexplained orig.]

cot (di'kot), *n. Bot.* a dicotyledon. Also, **di·cot·yl** (di'kot'l). [by shortening]

cot·y·le·don (di kot'l ēd'n, di'kot l-), *n. Bot.* any angiospermous plant of the class (or subclass) Cotyledoneae, producing seeds with two cotyledons and having an exogenous manner of growth. Cf. **mono·cotyledon**. [1720-30; < NL *Dicotyledones* a pre-Linnaean grouping of such plants. See **DI**-¹, **COTYLEDON**]

cot·y·le·don·ous (di kot'l ēd'n əs, di'kot l-), *adj.* belonging or pertaining to the Dicotyledoneae; having two cotyledons. [1785-95; **DICOTYLEDON** + **-OUS**]

cou·ma·rin (di koo'mär in, kyoo'-), *n. Pharm.* dimarol. [1885-90; **DI**-¹ + COUMARIN]

cou·ma·rol (di koo'mä rôl', -rol', -kyoo'-), *n. Pharm.* dicumarol.

crot·ic (di krot'ik), *adj. Physiol.* having or pertaining to a double beat of the pulse for each beat of the heart. [1700-10; < Gk *díkrot(os)* double beating (*di-* + *krotos* a clapping, rattling noise) + **-IC**] *—crot-*

ment, and the force, accuracy, and effect with which they are used: *The speaker was distinguished for his excellent diction; poetic diction.* PHRASEOLOGY refers more especially to the manner of combining the words into related groups, and esp. to the peculiar or distinctive manner in which certain technical, scientific, and professional ideas are expressed: *legal phraseology.* WORDING refers to the exact words or phraseology used to convey thought: *wording of a will.*

dic·tion·ary (dik'shə ner'ē), *n., pl. -ar·ies.* 1. a book containing a selection of the words of a language, usually arranged alphabetically, giving information about their meanings, pronunciations, etymologies, inflected forms, etc., expressed in either the same or another language: *a dictionary of English; a Japanese-English dictionary.* 2. a book giving information on particular subjects or on a particular class of words, names, or facts, usually arranged alphabetically: *a graphical dictionary; a dictionary of mathematics.* Computers. a. a list of codes, terms, keys, etc., and their meanings, used by a computer program or system. b. a list of words used by a word-processing program as standard against which to check the spelling of text entered. [1520-30; < ML *dictiōnārium*, *dictiōnārius* < *dictiōn-* word (see DICTION) + **-ARIUM**, **-ARIUS** -ARY]

dic·tion·ary cat·alog, a library catalog having a list of books, including authors, titles, subjects, etc., in alphabetical sequence. [1875-80, Amer.]

dic·to·ry (dik'tōrē), *n.* 1. (dik'tōrē graf', -gräf'), *Trademark.* a portable electronic device with a highly sensitive microphone obviating the necessity of a mouthpiece, used in listening to conversations secretly or obtaining information. 2. (dik'tōm), *n., pl. -ta (-tə), -tums.* 1. an announcement; judicial assertion. 2. a statement made in a speech. 3. See **obiter dictum**. [1660-70; *dictum*, a saying, command, word, n. use of *dictum* to say, speak; cf. INDEX] *—edict, decree, fiat, order, sentence, judgment.*

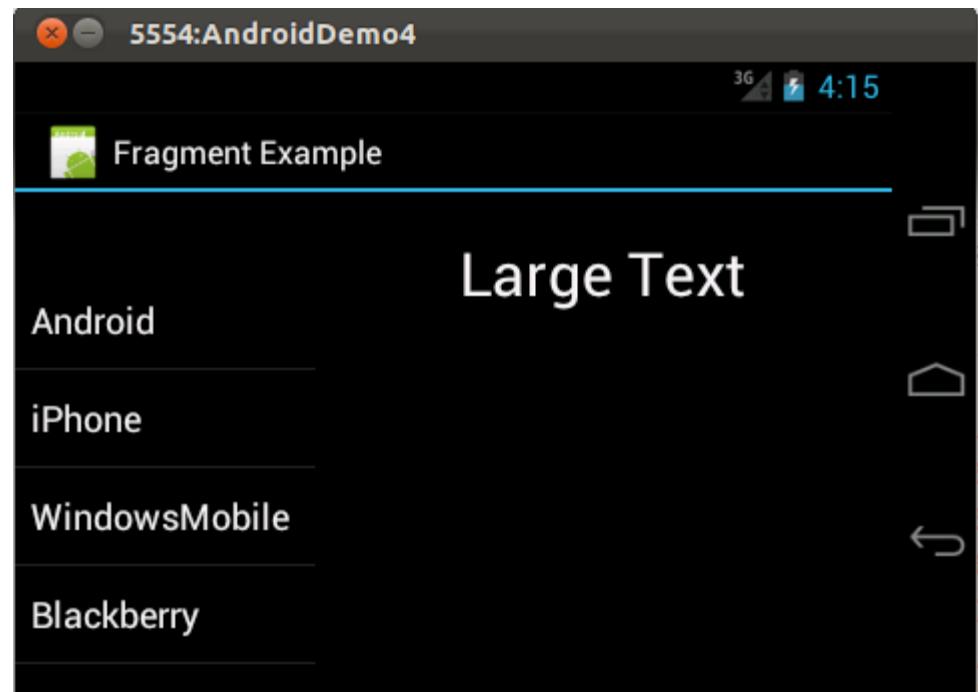
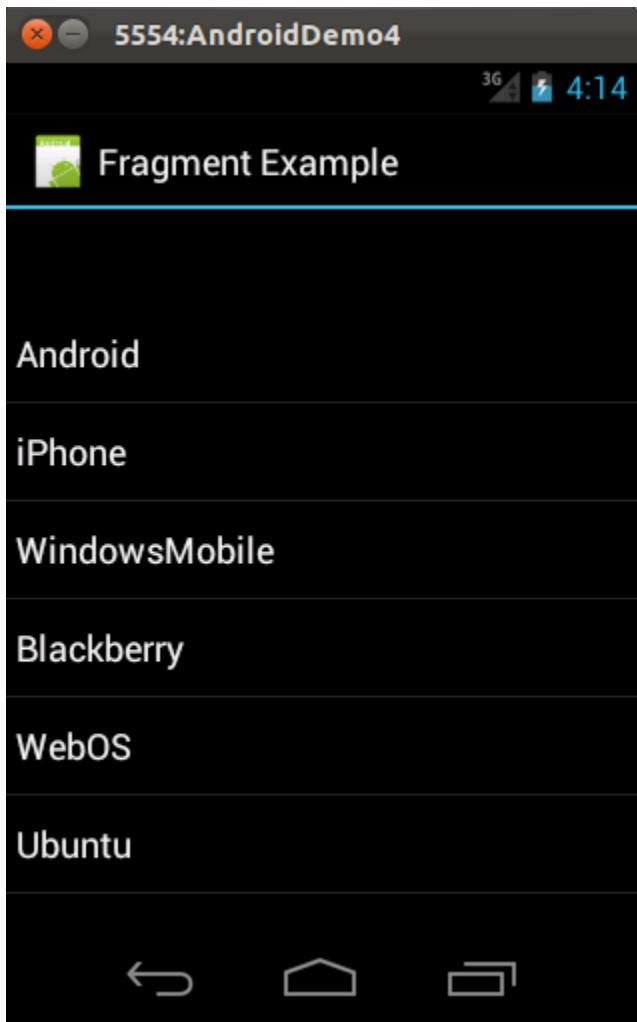
Properties Animation API



Fragments



Fragments



More Stuff

Android Beam via NFC

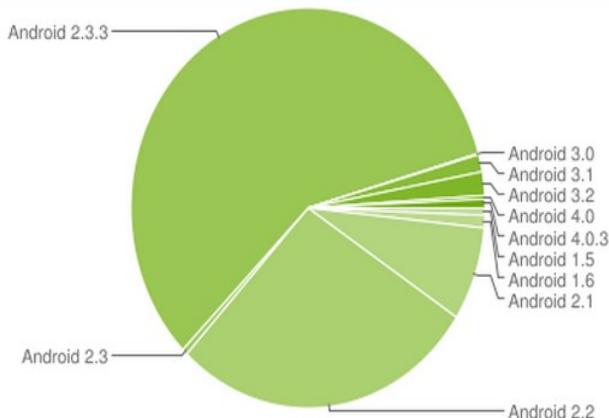
Wi-Fi Direct

Social API

Bluetooth Health Device Profile

... audio and media

Can I use it?



Platform	Codename	API Level	Distribution
Android 1.5	Cupcake	3	0.6%
Android 1.6	Donut	4	1.0%
Android 2.1	Eclair	7	7.6%
Android 2.2	Froyo	8	27.8%
Android 2.3 - Android 2.3.2	Gingerbread	9	0.5%
Android 2.3.3 - Android 2.3.7		10	58.1%
Android 3.0	Honeycomb	11	0.1%
Android 3.1		12	1.4%
Android 3.2		13	1.9%
Android 4.0 - Android 4.0.2	Ice Cream Sandwich	14	0.3%
Android 4.0.3		15	0.7%

Comp Lib v4

Fragments

Solution for ActionBar

ViewPager

GridLayout promised

Own package





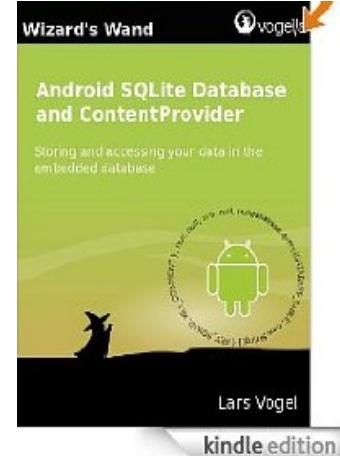
Android 4.0



Android: Where to go from here:

Android Introduction Tutorial

<http://www.vogella.de/articles/Android/article.html>



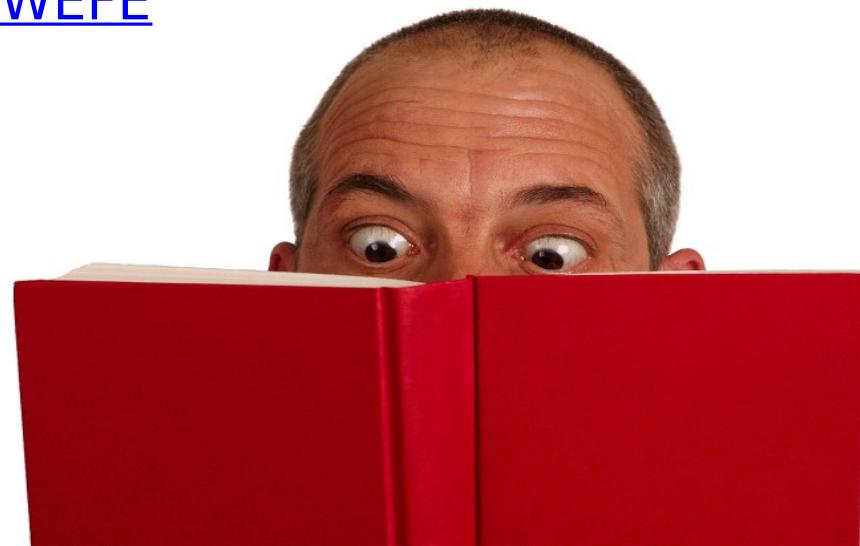
Or Google for „Android Development Tutorial“

Android SQLite and ContentProvider Book

<http://www.amazon.com/dp/B006YUWEFE>

More on Android

<http://www.vogella.de/android.html>



Thank you

For further questions:

Lars.Vogel@gmail.com

<http://www.vogella.de>

Twitter <http://www.twitter.com/vogella>

Google+ <http://gplus.to/vogella>



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