



ANDROID DEVELOPMENT # 1

@brmlab

INFO

http://brmlab.cz/event/android_development

<http://goo.gl/Z5HIE>

PREREQUISITES

- Java SE/EE 1.6+
- OOP
- MVC
- XML
- DOM
- Eclipse IDE
- English

OPTIONAL

- Physical Android device
- GIT / SVN / CVS
- Maven / Ant
- Static Code Analysis
- HTML / CSS
- SQL / SQLite DB

MAJOR KEYWORDS

• Verze API

• SDK / NDK

• Dalvik

• Resources

• Drawables

• JRE - JDK

• AVD

• MVC

• APK

• i18n

• AndroidManifest.xml

• PX / DP / SP

• ACTIVITY

SDK

Various Platforms

- SDK - Java

- NDK - C++

- Alternatives - HTML5, JS

APP STRUCTURE

/src

SOURCES

/gen

AUTO GENERATED

/bin

COMPILE TARGET

/res

RESOURCES

/AndroidManifest.xml

MANIFEST

/libs

LIBRARIES

/assets

ADDITIONAL RES.

RESOURCES

/res

RESOURCES

/drawable

XML / BIN

/values

XML

/layouts

XML

/menu

XML

LANGUAGES CONFIGURATIONS

LANGUAGES

- drawable {-en, -en-gb, -cs}

API LEVEL

- values {-v9, -v11}

ORIENTATION

- layouts {-port, -land}

DISPLAY

- drawable {-mdpi, -ldpi, -hdpi, -xhdpi}

DISPLAY COMPATIBILITY

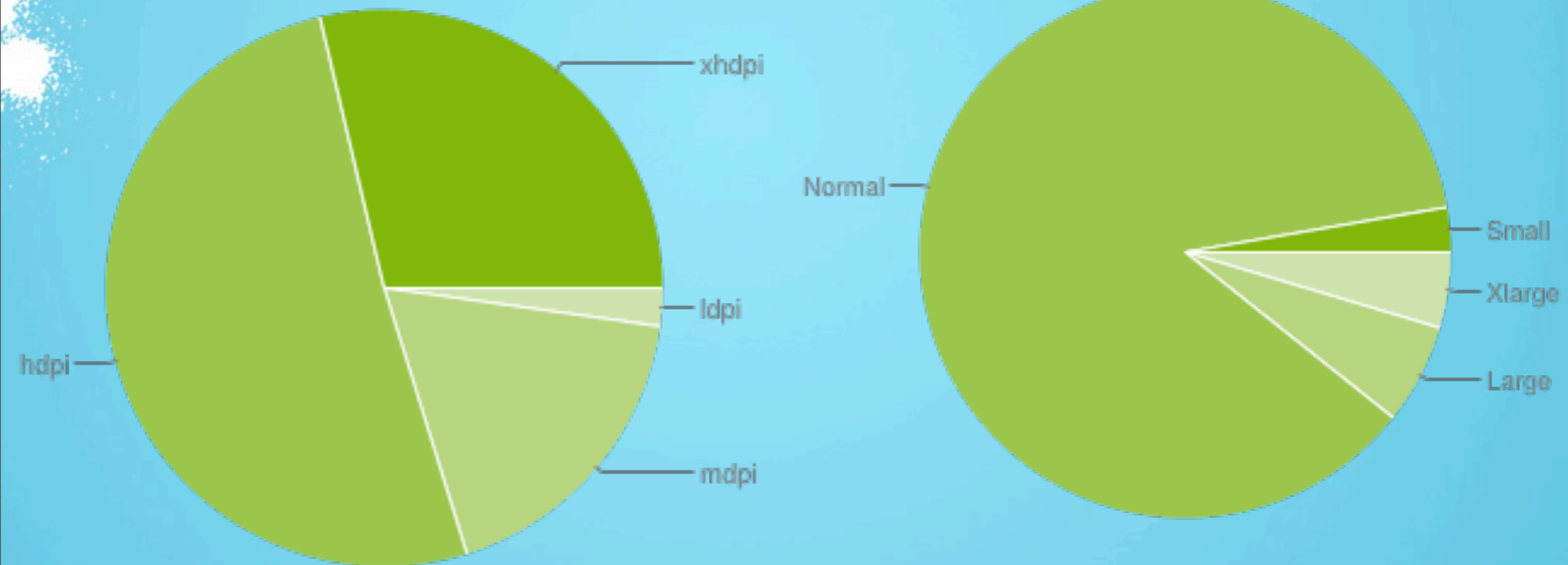
DP - Density-Independent Pixels (DIP)

SP - Scale-Independent Pixels (SIP)

$PX = DP * (DPI / 160)$

eg. $DPI = 320, DP = 3, PX = 6$

SCREENS USAGE



<http://developer.android.com/about/dashboards/index.html>

/AndroidManifest.xml

• APPLICATION VERSION

• SDK (MIN / TARGET)

• APPLICATION

• ACTIVITIES

RUNNING APPLICATION

- ENVIRONMENT

- TARGET / MINIMAL API LEVEL

- PHYSICAL vs. VIRTUAL DEVICE

- MODE

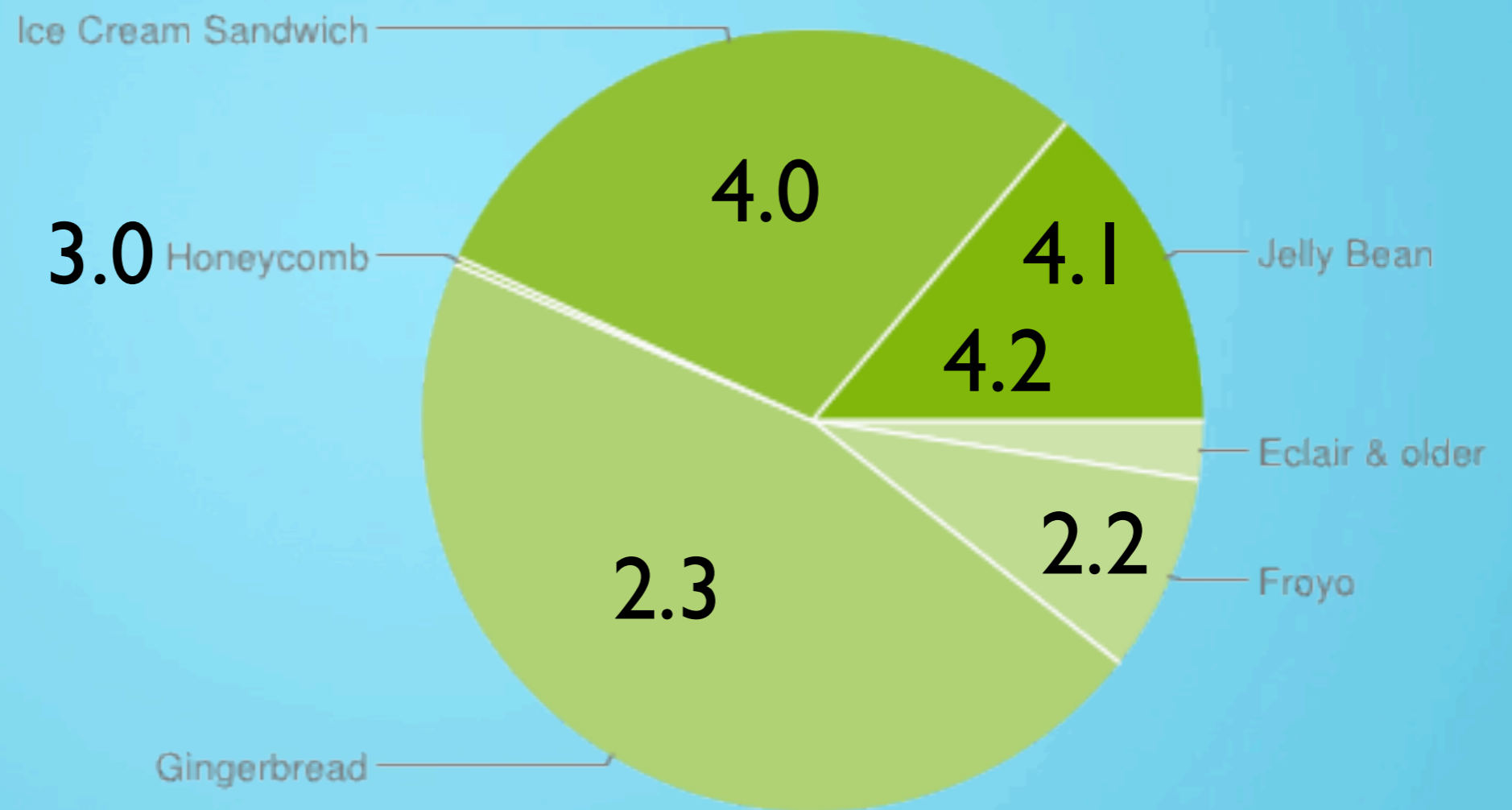
- DEVELOPMENT

- PRODUCTION

- API COMPATIBILITY

- “targetSdk” vs. “minSdk”

VERSIONS USAGE



<http://developer.android.com/about/dashboards/index.html>