

ubuntu[®]



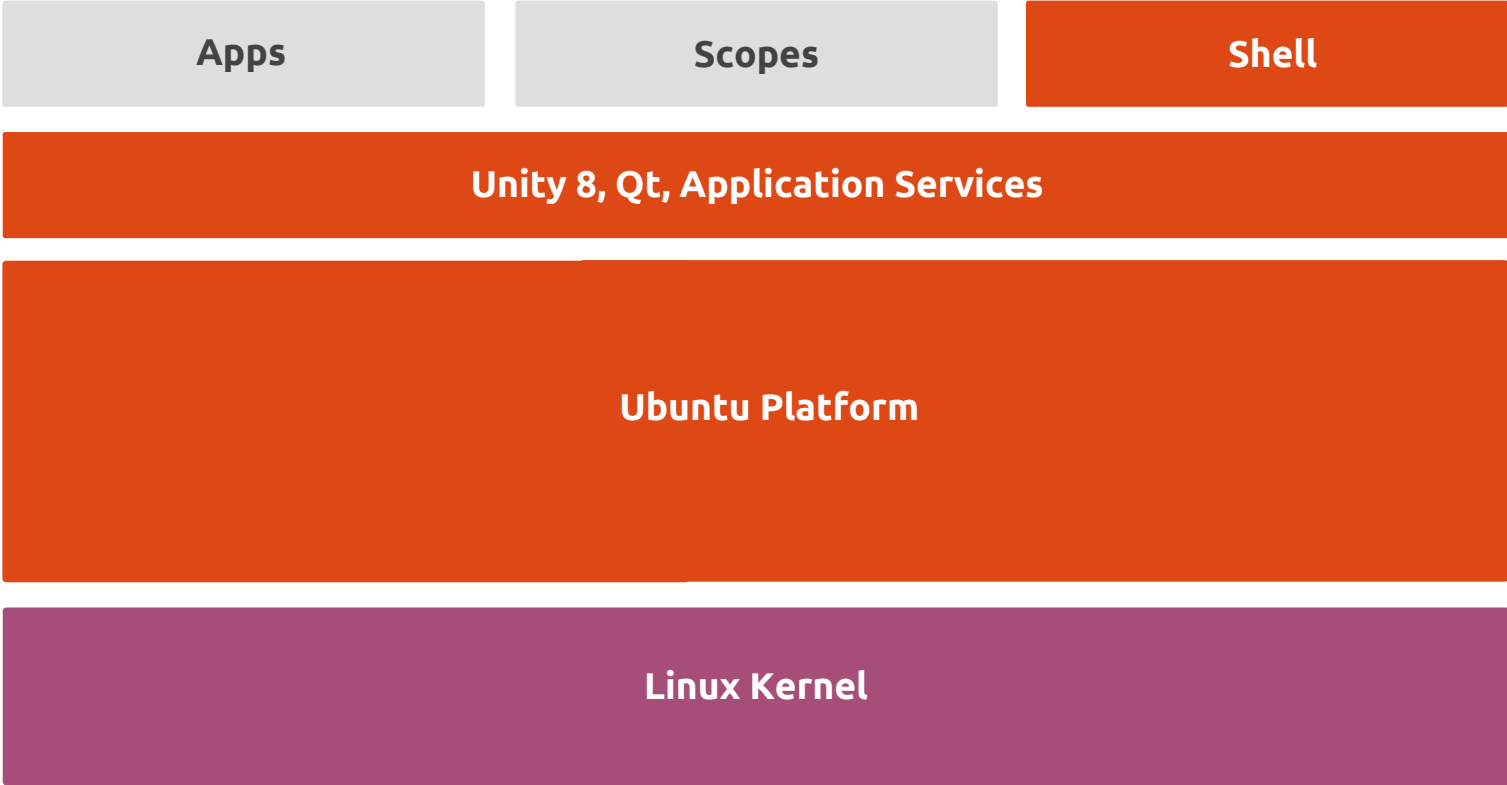
the human touch

What is Ubuntu for Phones?

It's all Ubuntu



One Platform

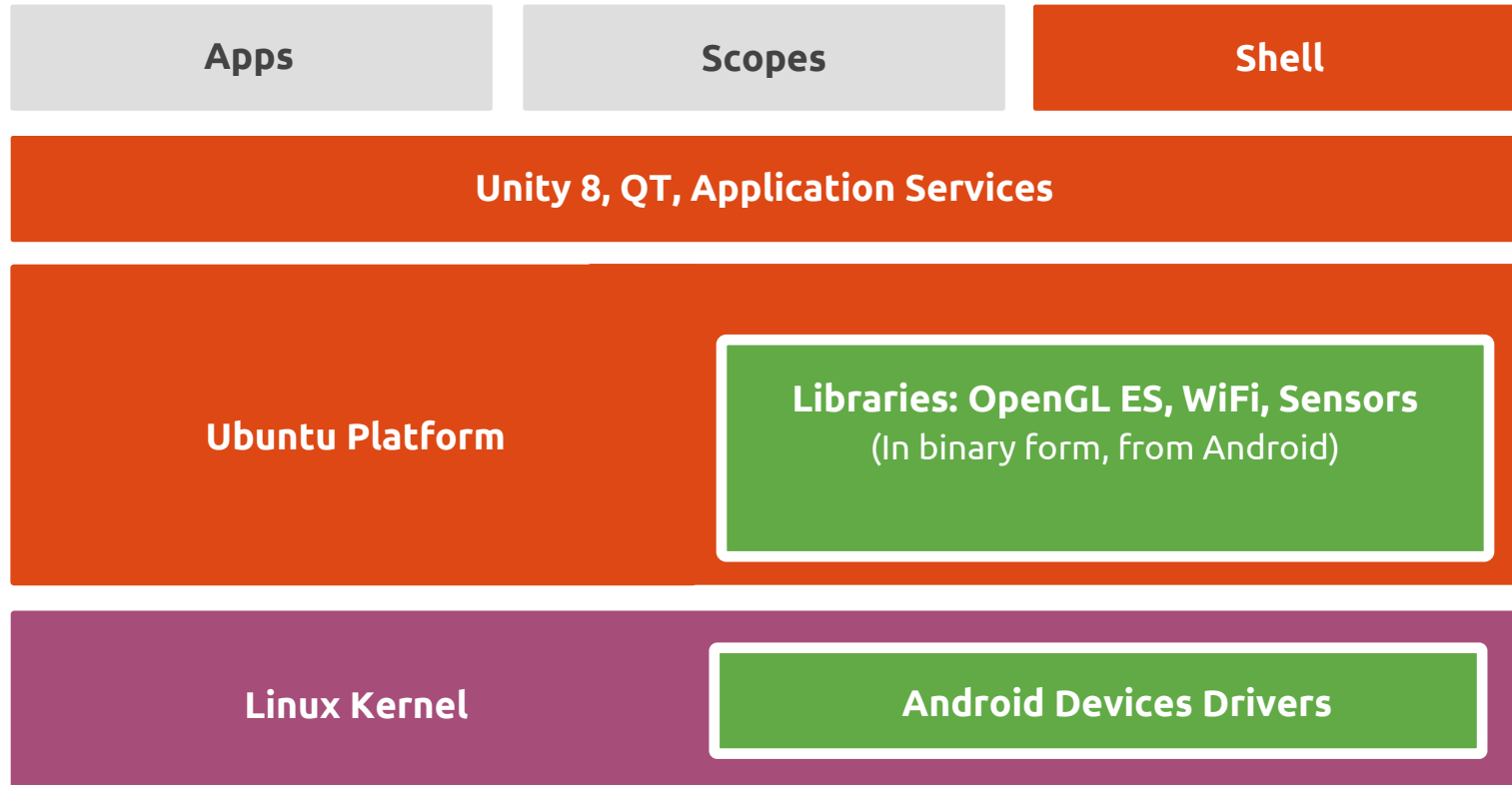


Everything you're familiar with

- > Same kernel
- > Same platform services*
- > Same GNU userland tools
- > Same archives
- > Same Unity shell*

* Phone and desktop versions current out of sync

Runs on Android hardware



Adds new technology

- > Mir
- > Click packages
- > Application Confinement
- > Lifecycle Management
- > Image-based Updates (OTA)

Adds telephony features

- > Voice Calling
- > SMS/MMS
- > Cellular Data
- > SIM card management
- > Android Container

A better app development story

- > Improved Developer Portal
- > Created an Ubuntu SDK
- > Lots of new platform services
- > Simplified packaging
- > Faster, easier app store
- > Ready for a converged future

Why should you care about
new app platforms?

You might think that...

“Android + iOS own the mobile phone market, it’s too late for new platforms to compete”

Previous King of the Hill

- > In 2007 Nokia has 51% market share
- > In 2004 Symbian had 70%
- > In 2010 IDC predicted that Symbian would still be #1 in 2014 with 33% market share
 - > Predicted Blackberry would be #2
- > In 2010 Gartner predicted that Symbian would still be #1 in 2014 with 30% market share

Current king is still new

- > In Q4 2010 Android finally passed Symbian
 - > Based on quarterly shipments, not phones in use
- > Symbian's unit shipments didn't decrease until 2011
- > Symbian spent 6 years as #1 mobile phone OS
- > Android currently at **4 years** as #1
- > Apple was never #1

You might think that...

“Android/iOS already does everything I need”

Devices are getting more and more powerful



TRS-80



iPhone 3GS



iPhone 5

Devices are getting more and more powerful



TRS-80



iPhone 3GS



iPhone 5



1977



2008



2013



Devices are getting more and more powerful

TRS-80



iPhone 3GS



iPhone 5



1.7 MHz CPU

0.004 MB RAM

5 MB Storage

600 MHz CPU

256 MB RAM

32 GB Storage

1300 MHz CPU

1024 MB RAM

64 GB Storage

Your use cases haven't kept up

- > You do the same things you did 5 years ago, just bigger and faster
- > The current OS designs only support the current use cases
- > The OS must provide for use cases that can take advantage of the exponential growth in hardware

You gotta play to win

- > Mobile has changed the way people approach and use computers
- > Mobile devices now outnumber desktops and laptops
- > The future of computing will combine PC and mobile use cases

Why would users want
Ubuntu?

A new kind of phone



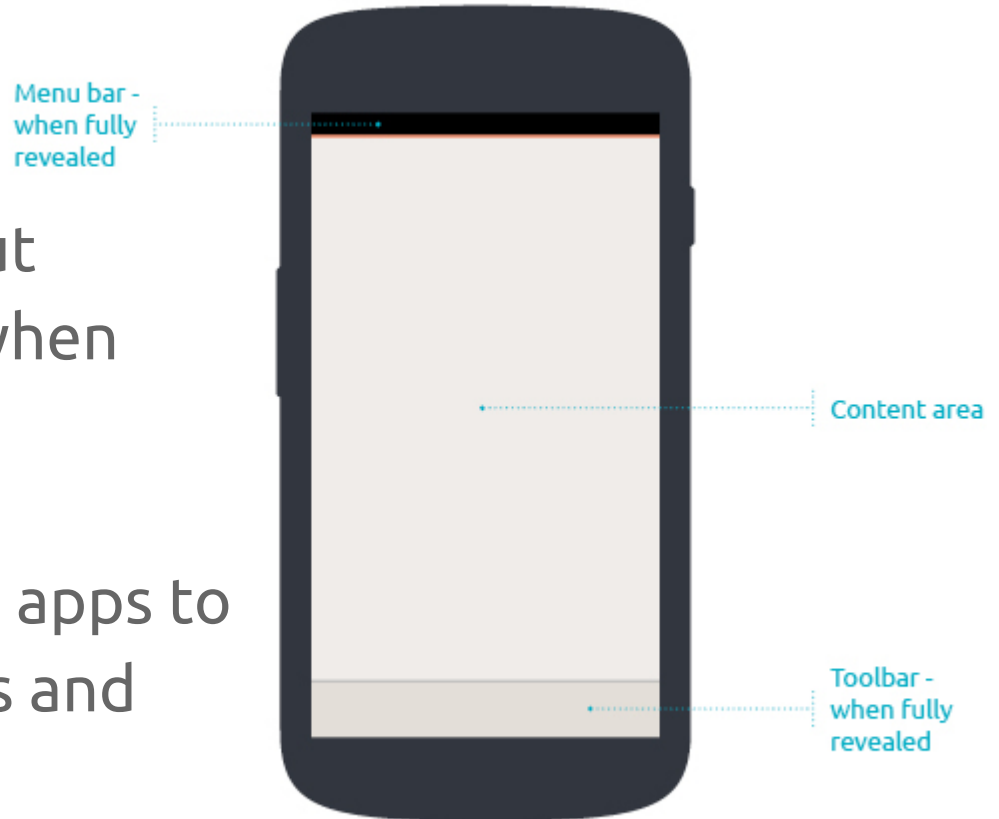
Innovative, easy to use interface

- > **Simple** and intuitive gestures, use the four edges to navigate
- > **Right edge** to switch between active apps
- > **Left edge** reveals the launcher to quickstart your apps
- > **Top edge** for system indicators and messaging
- > **Bottom edge** for in-app controls
- > **Tip:** full right-to-left swipe to see all running apps



Your content is king

- > **Unity** stays out of the way of your apps
- > The **Header** component moves out of the way when you scroll down, but reappears immediately when you scroll back up
- > The **Bottom Edge** allows apps to make innovative features and controls easily accessible



Customization without Fragmentation

1

Ubuntu is designed **to allow for OEM and Operator differentiation**, at the default service layer, without fragmentation

2

Ubuntu enables partners to **build their own footprint on Ubuntu devices**, creating a rich core OS experience with scopes

3

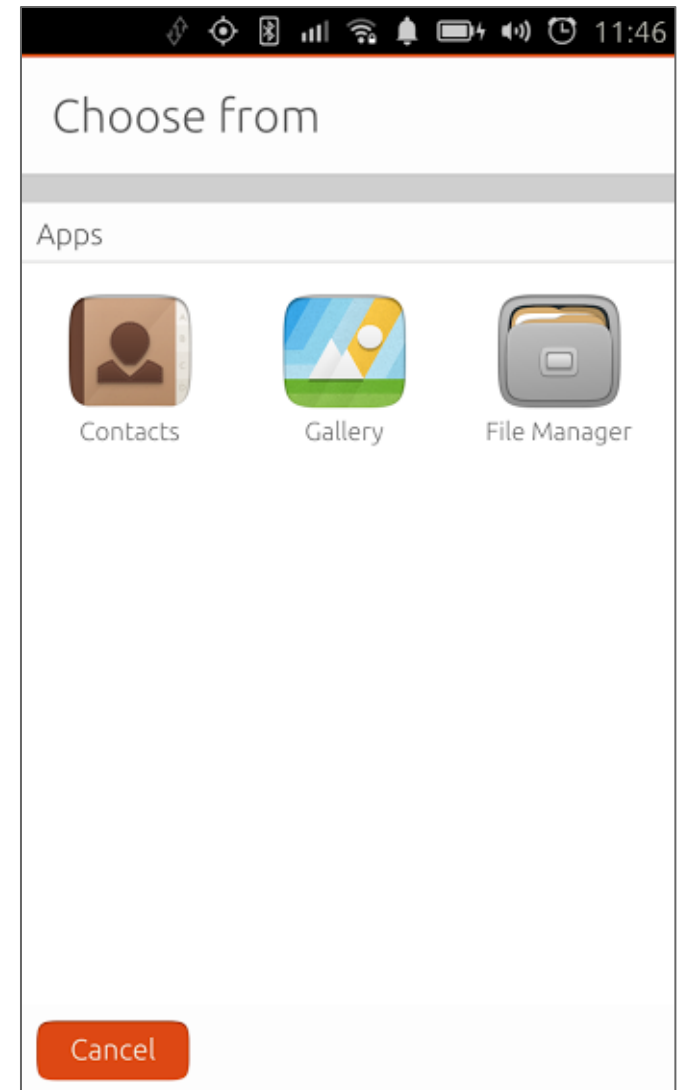
Unprecedented customization capabilities in comparison to Android and other platforms:

- user account - own user identity
- default UX - with scopes and default apps
- branding and theming - own visual identity
- backend integration -i.e. carrier billing



Easier, safer permissions system

- > No permission grant on app install
- > Access granted only when it's to be used
- > Content sharing via **Content Hub** gives granular access control
- > Content selection gives implicit access permission without annoying prompts



Ready for a converged future

- > Ubuntu designed from the ground up to run across devices and form factors
- > The UI and the UX metaphors naturally adapt to different screen sizes
- > Ubuntu paves the way for a new category of superphones
- > Just dock your device to a monitor and keyboard



You can join us on the desktop today



**More than 10 years building
the best desktop OS**



**Over 3500 desktop
apps already**



**An active and dedicated
community**

Why would developers
want Ubuntu?

Easier development languages for apps

- > Use QML for easy integration or for resource-demanding applications
- > Powerful GUI toolkit and platform integration APIs

- > Use HTML5 to use Internet technologies or to port existing apps
- > HTML5 UI Toolkit that matches QML
- > Cordova API for HTML5 platform access for device integration

- > Webapps for remote site integration



HTML



Simple, powerful development tools

The image shows the Qt Creator IDE interface. The main window displays a QML file named `MainView` with the following code:

```
1 import QtQuick 2.0
2 import Ubuntu.Components 1.1
3 import "components"
4
5 /*!
6  \brief MainView with a Label and Button elements.
7  */
8
9 MainView {
10     // objectName for functional testing purposes (autopilot-qt5)
11     objectName: "mainView"
12 }
```

The `New` dialog box is open, showing the "Choose a template:" section. The "Ubuntu" template is selected. The dialog also displays a list of "Files and Classes" and a description of the selected template.

Choose a template: Ubuntu Phone Templates

- App with Simple UI
- App with Tabbed UI
- App with QML Extension Library
- Go app with QML UI
- Unity Scope
- Web App

Files and Classes

- C++
- BlackBerry
- Qt
- GLSL
- General
- Java
- Python

Description: Creates a Qt Quick 2 application project with a sample UI containing a Label and a Button. This project contains QML code only. Includes also unit and functional tests.

Platform independent

Buttons: Cancel, Choose...

Faster publishing with no human review

The screenshot displays the Ubuntu App Developer web interface. At the top, a navigation bar includes 'ubuntu® app developer' and tabs for 'Apps', 'Scopes', 'Cloud', 'Web', 'Publish', 'Community', and 'My Apps'. A search bar is located on the right. Below the navigation, there are tabs for 'Ubuntu Touch' and 'Ubuntu Desktop'. The main heading is 'Submit your application'. The interface is divided into sections: 'Uploading', 'Scanning', 'General', and 'Discover'. The 'General' section is active, showing details for the 'XDA Developers App'. The app's status is 'Published', and there is an 'Unpublish application' button. The app's description is 'Browse the XDA Developer Forums with ease and style'. The tagline is 'Access the XDA Forums from Ubuntu'. The price is 'Free'. The version number is '0.2', with a 'New version' button. The 'Your application:' section at the bottom shows a file upload area with a 'Select file' button and the message 'No file selected for upload.'

ubuntu® app developer Apps Scopes Cloud Web Publish Community My Apps Search

Ubuntu Touch Ubuntu Desktop

Submit your application

Uploading Scanning General Discover

Your app
Upload a new application.

Changelog:
(Optional)

What changed in

xda

XDA Developers App

• **Published**

[Unpublish application](#)

Overview Feedback Stats

General ⌵ [Edit name and tagline](#) | [Edit description](#)

Browse the XDA Developer Forums with ease and style

Tagline: Access the XDA Forums from Ubuntu

Price: Free

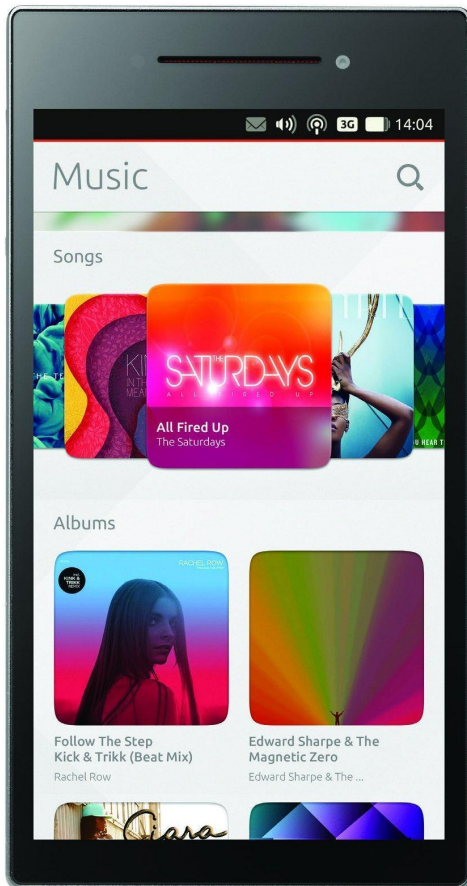
Version number: 0.2 [New version](#)

Your application:

Drag and drop a file here [Select file](#)

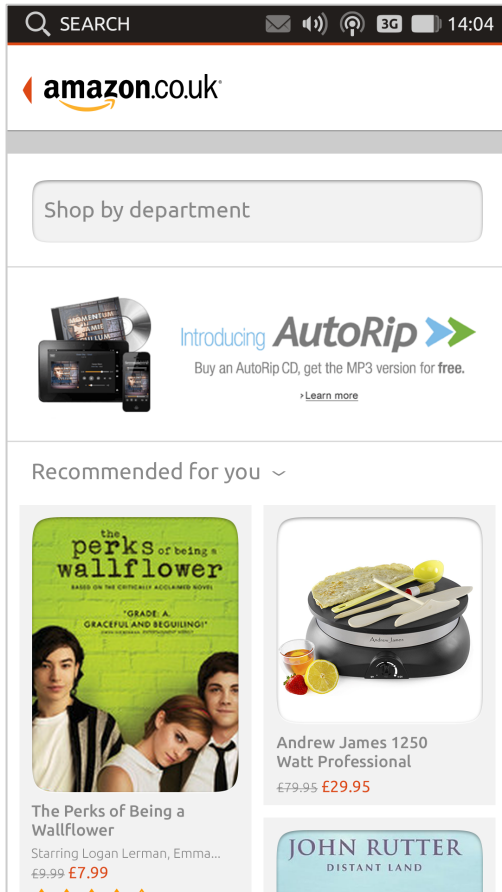
No file selected for upload.

Your Content without an App

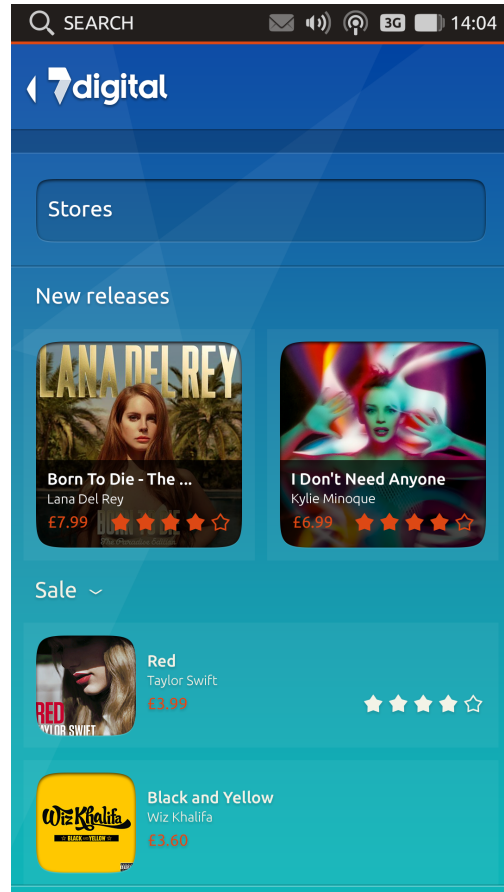


- > **Scopes are a UI toolkit** to present local or remote content and services in the home screen
- > **Users customize their phone** by adding scopes to their home screens
- > **Discoverability** of apps, services and content from multiple sources:
 - > users can find your content alongside that shipped by the OEM and carrier
 - > users can focus on finding content quickly

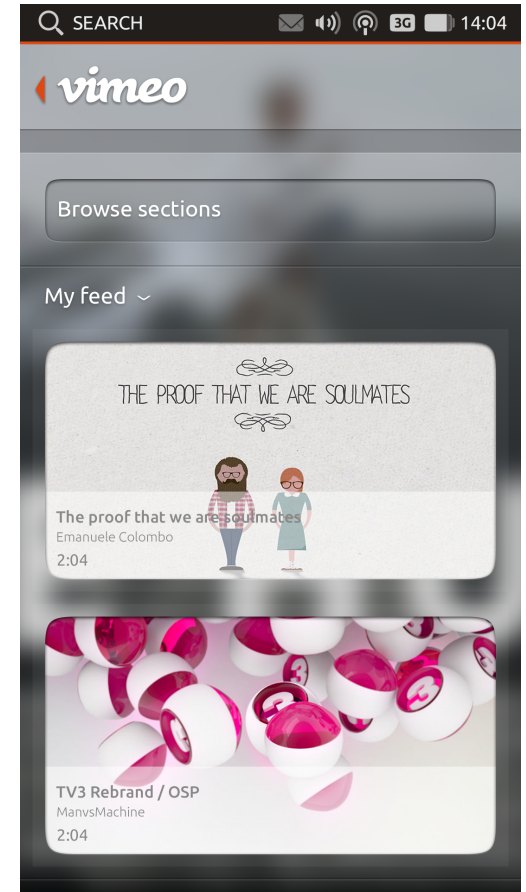
Customize your content experience



Amazon

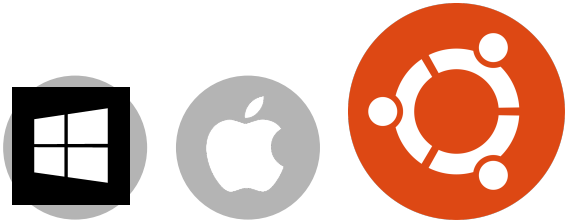


7 digital



Vimeo

Established desktop market



The world's 3rd most popular PC OS



25,000,000 users
and still counting



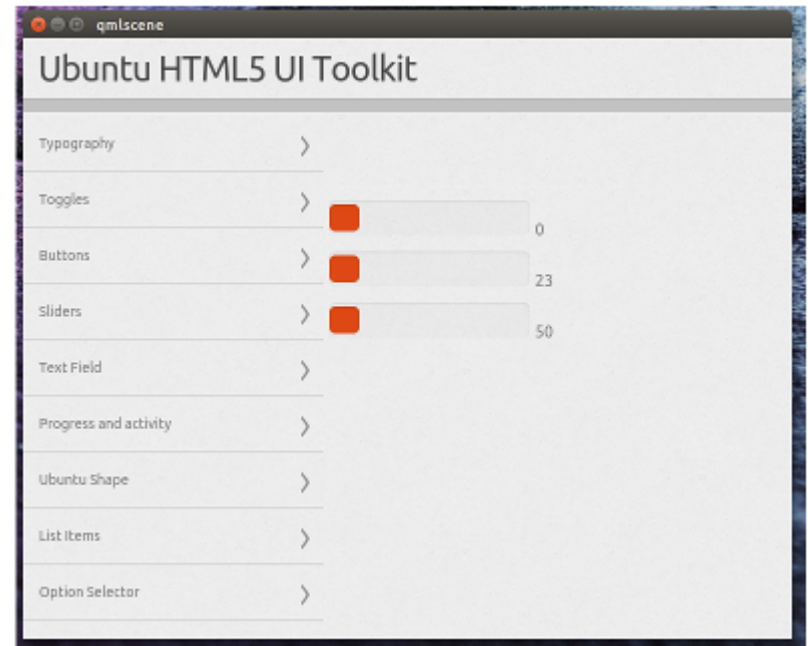
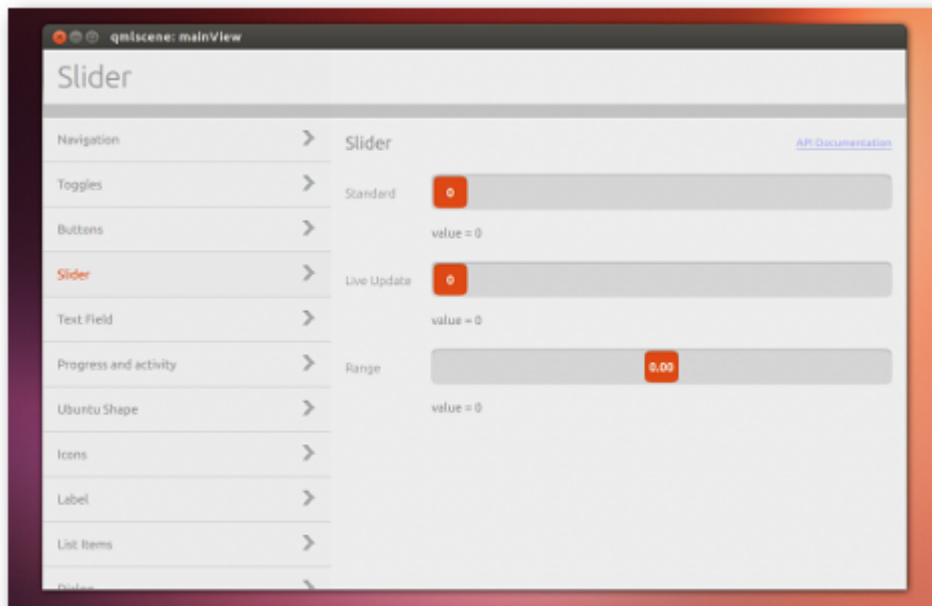
7,000 downloads every day
from Windows users



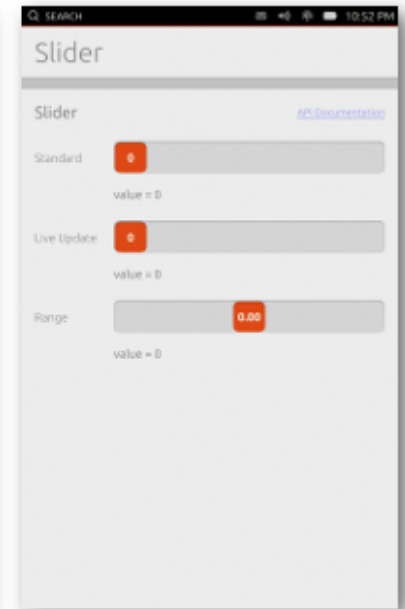
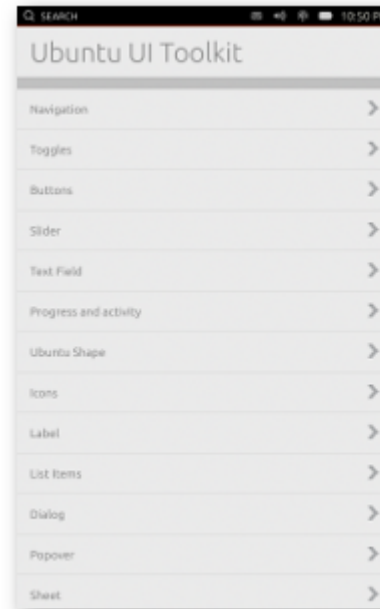
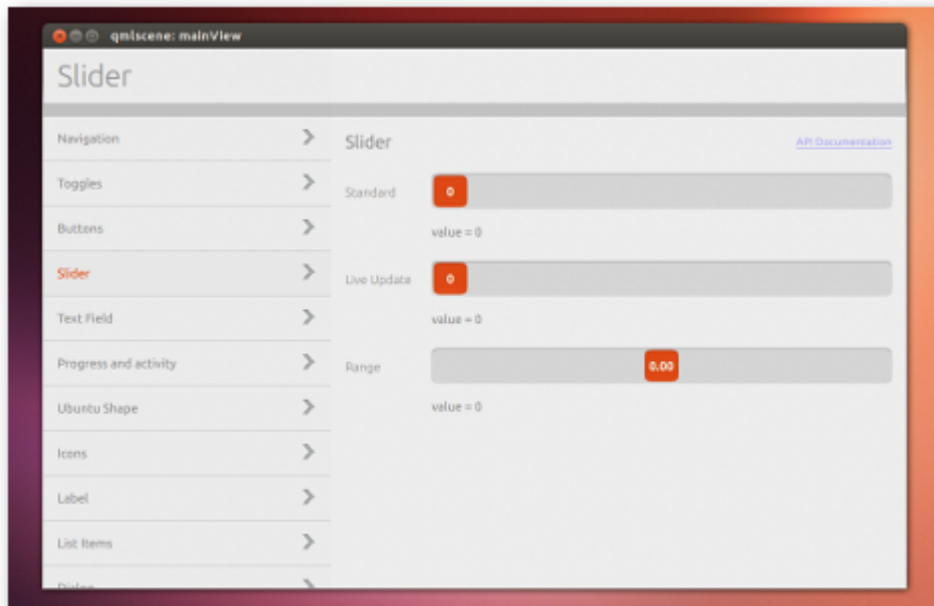
Users in 240 countries
Localised in over 80 languages

What does the Ubuntu SDK
offer?

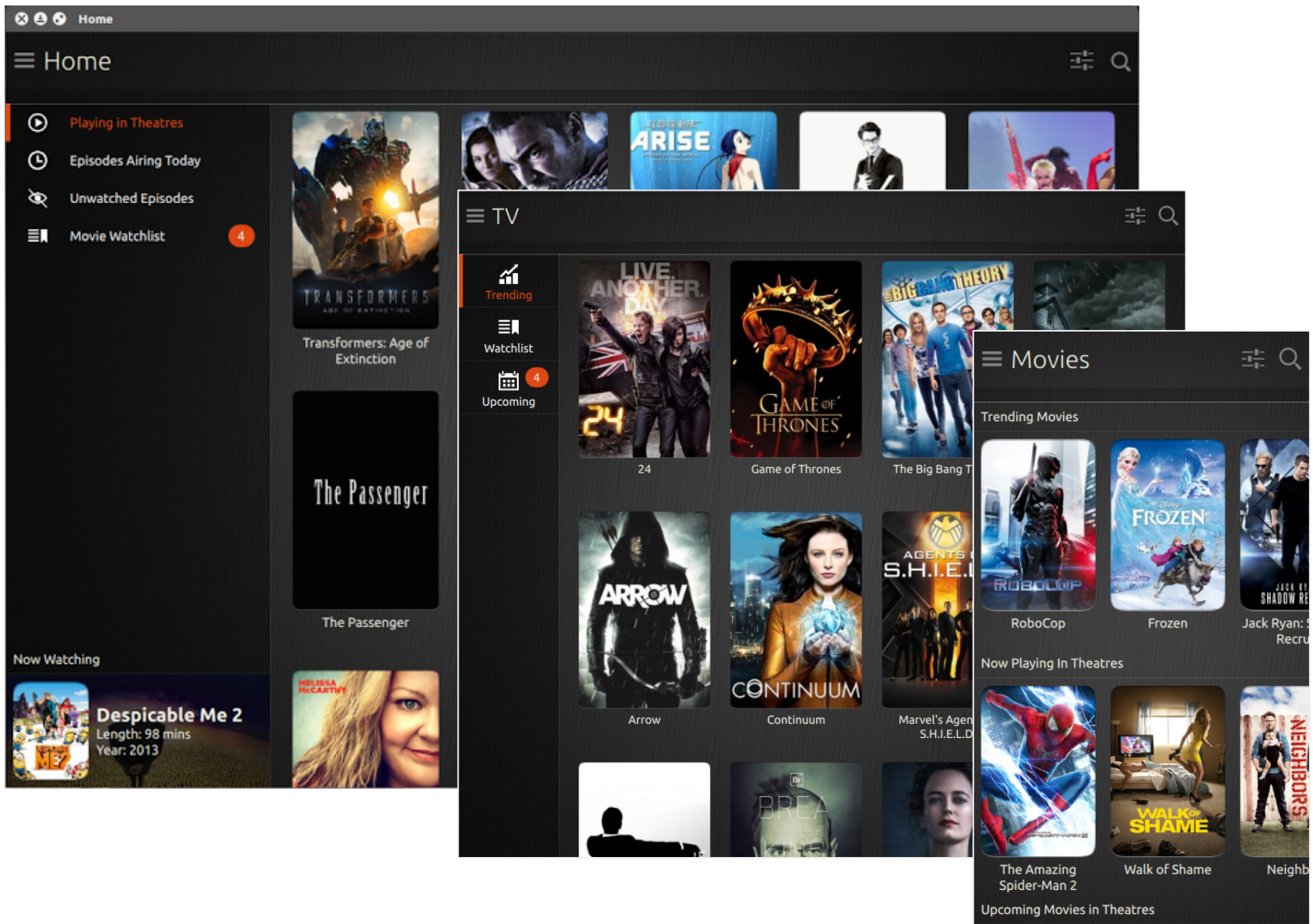
QML & HTML5 as first-class, native languages



UI Toolkit scales to screen size & resolution



Conditional layouts



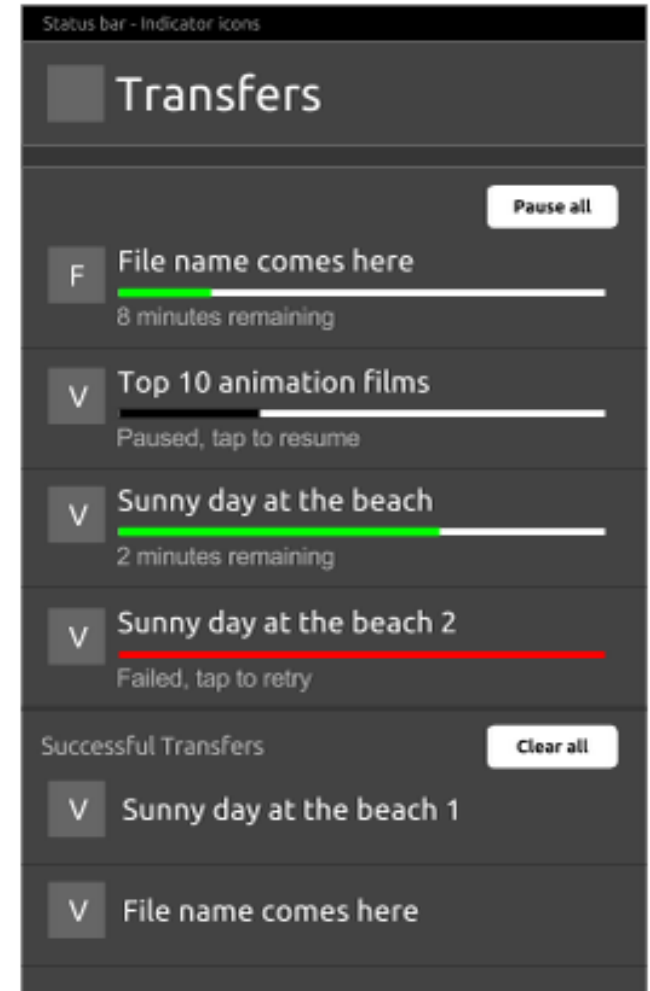
Ubuntu Webview: more than just Webkit

- > **Oxide** embeds Chromium browser component in your app
- > Enabled **Incognito Mode**
- > Use system-wide **User Agent Overrides**
 - > Or provide your own
- > Share **context** between Webview instances
- > **API Compatible** with QtWebkit



Ubuntu Download Manager

- > Handles **long-running** downloads in the background
- > **Notifies** your app when the download is complete
 - > Grants access to the files
 - > Re-opens your app if necessary
- > Supports **multiple** simultaneous downloads
- > Lets the user **pause, resume or retry** downloads



Content Hub

- > Lets you **send and receive** files or content from other apps
- > **Target** a specific app, or let the user **choose** from a list of apps that support the content type
- > Grants your app **permission to access** only the files the user has selected
- > Can **share content** without copying to the target app
 - > Can share links and text too

U1db: The Ubuntu One Database

- > Provides **schema-less** (NoSQL) database storage
- > Apps can have **multiple** database files
- > Simple **index** definition for fast queries
- > **Integrates** easily with Qt components
- > Provides **device syncing** ability out of the box
 - > Not part of the U1 File Sync that was discontinued

Online Accounts

- > Stores user **credentials** in a secure, centralized place
- > Gives **access** to multiple apps
 - > User can **choose** which apps can access which accounts
- > Includes providers for **Google, Facebook, Twitter** and **Ubuntu One**
- > Apps can install their own **Account Provider** for other services

Where do I find more
developer resources?

Ubuntu Developer Portal

The image shows a screenshot of the Ubuntu Developer Portal. The top navigation bar includes links for Ubuntu, Community, Ask!, Developer, Design, Discourse, Hardware, Insights, Juju, Shop, and More. A search bar is located on the right side of the navigation bar. The main content area features a large heading "Ubuntu 14.04 is here" and a sub-heading "Developers' favourite free OS is now available on desktop, server and smartphones. Celebrate and write an Ubuntu app today". A prominent orange button labeled "Get started now" is positioned below the text. Below this, there are two columns of content, each starting with a gear icon and the heading "Applications". The first column contains the text: "Write gorgeous apps with stunning animated and fluid UIs. Choose native or HTML5 and get started with the Ubuntu SDK." The second column contains the text: "Scopes open a world of content to use and make your own by writing scopes that enhance the user experience".

The second part of the image is a detailed view of the "QML for Ubuntu SDK 14.10 (Development)" page. The page title is "QML for Ubuntu SDK 14.10 (Development)" and it includes a search bar labeled "Search API:". The page is organized into several sections:

- Ubuntu SDK**
- Ubuntu App Platform**
- QML**
 - Overview
 - Tutorials
 - APIs
 - Cookbook
- HTML5**
- Graphical Interface**
 - Qt.labs.folderlistmodel
 - Qt.labs.settings
 - QtQuick
 - QtQuick.Particles
 - QtQuick.Window
 - QtQuick.XmlListModel
 - QtTest
 - Ubuntu.Components
 - Ubuntu.Components.ListItems
 - Ubuntu.Components.Pickers
 - Ubuntu.Components.Popups
 - Ubuntu.Components.Styles
 - Ubuntu.Components.Themes
 - Ubuntu.Layouts
 - Ubuntu.PerformanceMetrics
 - Ubuntu.Test
 - Ubuntu.Web
 - UbuntuUserInterfaceToolkit
- Platform Services**
 - QtContacts
 - QtLocation
 - QtOrganizer
 - U1db
 - Ubuntu.Content
 - Ubuntu.DownloadManager
 - Ubuntu.OnlineAccounts
 - qt pim
- Device and Sensors**
 - QtFeedback
 - QtSensors
 - Ubuntu.Connectivity
- Multimedia**
 - QtAudioEngine
 - QtMultimedia
 - qtmultimedia
- Language Types**
 - QtQml

Ubuntu Design Portal

Ubuntu Community Ask! Developer Design Discourse Hardware Insights Juju Shop More ▾

ubuntu[®] design Our audiences Our brand Web Apps Examples Downloads 🔍


App Design Guides

We want everyone to be able to design and build beautiful and usable apps for Ubuntu on the phone. That's why we made this guide.

- Get started ▾
 - Design vision
 - UI model
 - Gestures
 - Screen sizes
 - Responding to orientation
 - Make it Ubuntu
 - Frequently asked questions
- Style ▶
- Global patterns ▶
- Building blocks ▶


Get started

Familiarise yourself with the essentials before designing an app. [Design vision](#) >



Global patterns

Follow these patterns to ensure all apps behave consistently. [Layout](#) >



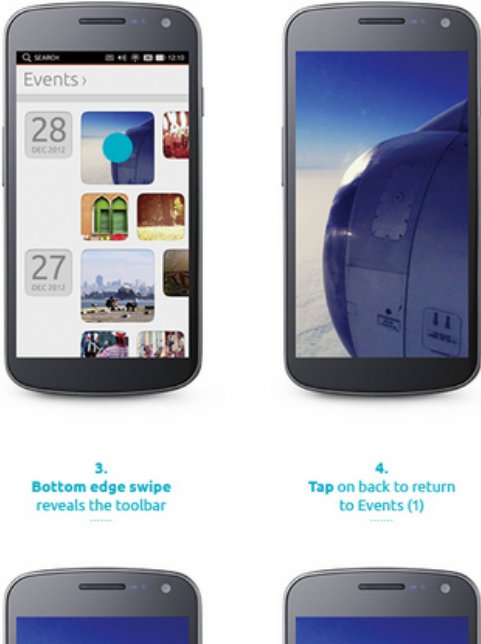
What's new

We'll be posting new content and updates regularly so watch this space!

Page stack

We use this when we need to move from a main page to a secondary page.

1. Tap to select photo
2. Full screen view of photo
3. Bottom edge swipe reveals the toolbar
4. Tap on back to return to Events (1)



- Get started ▶
- Style ▶
- Global patterns ▶
- Building blocks ▾
 - Header
 - Toolbar
 - Toggles
 - Buttons
 - Tabs
 - Expansion
 - Page stack ▶
 - Dialog
 - Option selector
 - List items
 - Popover
 - Progress and activity
 - Slider
 - Text field

Ask Ubuntu

Ubuntu Community **Ask!** Developer Design Discourse Hardware Insights Juju Shop More ▾

StackExchange 3 +473 3,831 4 19 review help ▾ [application-development]

ask ubuntu⁴ Questions Tags Users Badges Unanswered Ask Question

Tagged Questions INFO NEWEST **FREQUENT** VOTES ACTIVE UNANSWERED


Writing applications for Ubuntu (including Ubuntu Touch) and questions about the application submission process to the Ubuntu Software Center. This covers both open source and commercial applications.
[learn more...](#) [improve tag wiki](#) [top users](#) [synonyms](#)

235 frequent questions tagged [application-development](#) [about »](#)

Hot Meta Posts

- 4 Improve my question further in askubuntu
- 4 Supercharge ROOMBA — again!
- 5 Migration of tags (live-cd, livedvd)
- 7 What should we do about XBMC's new name?


59 votes
8 answers
4k views


How to get my software into Ubuntu?
As a developer of free software, I want to get my application into Ubuntu. Should I provide a source tarball and ask for packaging? Or should I create a package myself? Should I target Ubuntu ...
[application-development](#) [packaging](#) [application-submission](#)
asked Dec 6 '10 at 16:19
 **Witek**
416 1 7 17

61 votes
7 answers
33k views

What is the best way to develop apps for Ubuntu? [closed]
I want to write applications for Ubuntu. I do not know much about programming but I want develop for Ubuntu. I am trying to learn Python right now. What do you think is the best way to develop apps ...
[application-development](#)
community wiki
10 revs, 7 users 59% User

16 votes
2 answers
5k views

How can I get started with developing apps for Ubuntu Touch? [closed]
I am interested in trying the new Ubuntu for phones OS development. (I am not an Ubuntu developer, I am new to Ubuntu. Impressed by the Ubuntu Touch preview, I got interested in learning how to ...
[application-development](#) [ubuntu-touch](#)
asked Jan 10 '13 at 10:37
 **Track Ruler**
183 1 5


mi yodeya
Is it problematic to own and use a Swiss Gear bag?

Related Tags

Online Communities



6,300 Members
13,000 Followers

freenode

#ubuntu-app-devel
#ubuntu-touch



43,000 Likes
facebook.com/ubuntuappdev

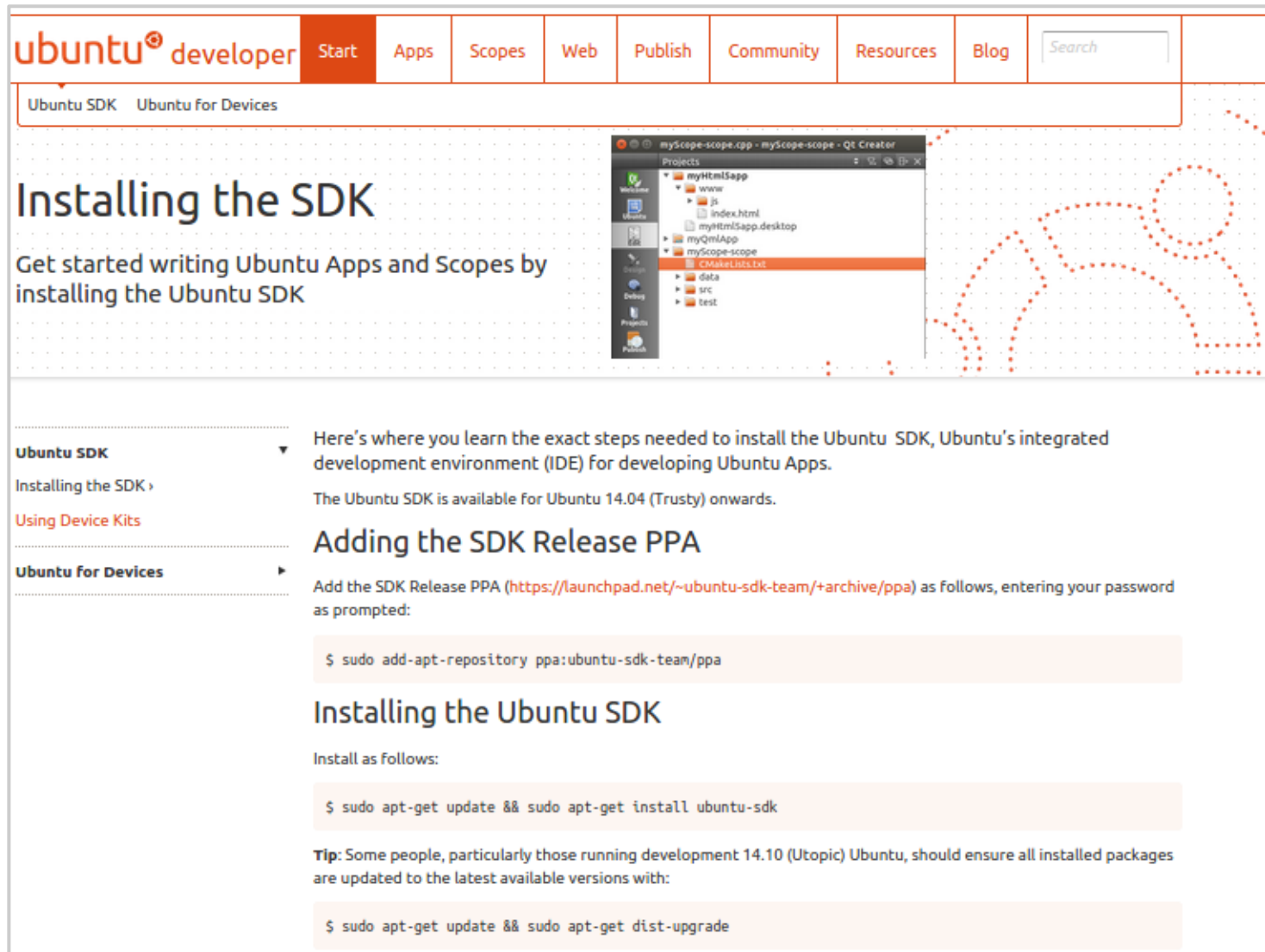


ubuntu-app-devel@lists.ubuntu.com
ubuntu-phone@lists.lists.launchpad.net

What do I do next?

Get the Ubuntu SDK

<http://developer.ubuntu.com/start/ubuntu-sdk/installing-the-sdk/>

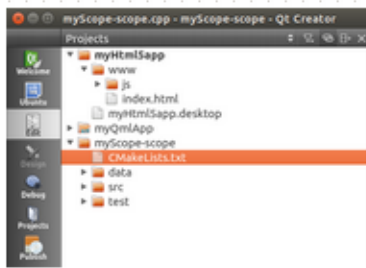


ubuntu[®] developer Start Apps Scopes Web Publish Community Resources Blog Search

Ubuntu SDK Ubuntu for Devices

Installing the SDK

Get started writing Ubuntu Apps and Scopes by installing the Ubuntu SDK



Ubuntu SDK ▾
Installing the SDK ›
Using Device Kits

Ubuntu for Devices ▸

Here's where you learn the exact steps needed to install the Ubuntu SDK, Ubuntu's integrated development environment (IDE) for developing Ubuntu Apps.

The Ubuntu SDK is available for Ubuntu 14.04 (Trusty) onwards.

Adding the SDK Release PPA

Add the SDK Release PPA (<https://launchpad.net/~ubuntu-sdk-team/+archive/ppa>) as follows, entering your password as prompted:

```
$ sudo add-apt-repository ppa:ubuntu-sdk-team/ppa
```

Installing the Ubuntu SDK

Install as follows:

```
$ sudo apt-get update && sudo apt-get install ubuntu-sdk
```

Tip: Some people, particularly those running development 14.10 (Utopic) Ubuntu, should ensure all installed packages are updated to the latest available versions with:

```
$ sudo apt-get update && sudo apt-get dist-upgrade
```

Write your first app!

http://developer.ubuntu.com/apps/qml/tutorial/building_your_first_qml_app/

ubuntu[®] developer

Start Apps Scopes Web Publish Community Resources Blog

Ubuntu SDK Ubuntu App Platform QML HTML5

Building your first QML app

By David Planella (code by the SDK Team)

Ubuntu SDK

Ubuntu App Platform

QML

Overview

Tutorials

APIs

Cookbook

HTML5

In this recipe you will learn how to write a currency converter app for Ubuntu on the phone. You will be using several components from the Ubuntu QML toolkit: *i18n*, *units*, *ItemStyle* for theming, *Label*, *ActivityIndicator*, *Popover*, *Button*, *TextField*, *ListItems.Header* and *ListItems.Standard*

The application will show you how to use the QML declarative language to create a functional user interface and its logic, and to communicate through the network and fetch data from a remote source on the Internet.

In practical terms, you will be writing an application that performs currency conversion between two selected currencies. The rates are fetched using the European Central Bank's API. Currencies can be changed by pressing the buttons and selecting the currency required from the list.

Requirements

- ◊ Ubuntu 14.04 or later – [get Ubuntu](#)
- ◊ The Ubuntu SDK – [install the Ubuntu SDK](#)

The tools

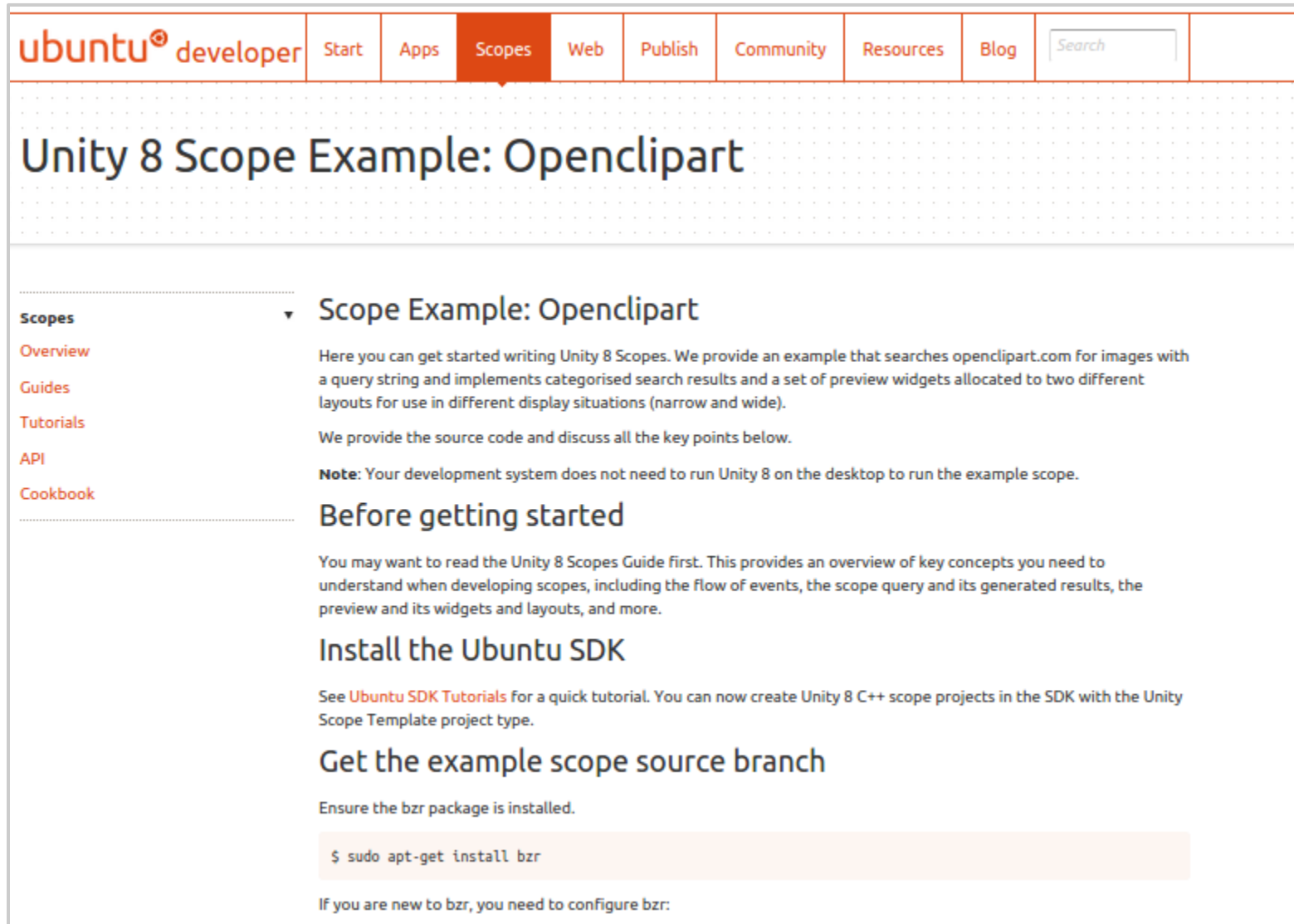
The focus of this tutorial will be on the Ubuntu UI toolkit preview and its components, rather than on the tools. However, it is worth mentioning and giving an overview of the tools you will be using:

Development host

Ubuntu 12.04 (or later) will be used as the host machine for development. At the end of this recipe you will have

Write your first scope!

<http://developer.ubuntu.com/scopes/tutorials/unity-8-scope-example-openclipart/>



The screenshot shows the Ubuntu Developer website navigation bar with the 'Scopes' menu item highlighted. The main heading is 'Unity 8 Scope Example: Openclipart'. A left sidebar contains a 'Scopes' section with sub-links for Overview, Guides, Tutorials, API, and Cookbook. The main content area features a dropdown menu for 'Scope Example: Openclipart' with a downward arrow. Below this, the text explains that the page provides an example of writing Unity 8 Scopes that searches openclipart.com for images. It notes that the development system does not need to run Unity 8 on the desktop. The section 'Before getting started' advises reading the Unity 8 Scopes Guide. The 'Install the Ubuntu SDK' section refers to Ubuntu SDK Tutorials. The 'Get the example scope source branch' section includes a terminal command to install bzip2.

ubuntu[®] developer Start Apps **Scopes** Web Publish Community Resources Blog

Unity 8 Scope Example: Openclipart

Scopes ▾ **Scope Example: Openclipart**

Overview

Here you can get started writing Unity 8 Scopes. We provide an example that searches openclipart.com for images with a query string and implements categorised search results and a set of preview widgets allocated to two different layouts for use in different display situations (narrow and wide).

Guides

We provide the source code and discuss all the key points below.

Tutorials

API

Note: Your development system does not need to run Unity 8 on the desktop to run the example scope.

Cookbook

Before getting started

You may want to read the Unity 8 Scopes Guide first. This provides an overview of key concepts you need to understand when developing scopes, including the flow of events, the scope query and its generated results, the preview and its widgets and layouts, and more.

Install the Ubuntu SDK

See [Ubuntu SDK Tutorials](#) for a quick tutorial. You can now create Unity 8 C++ scope projects in the SDK with the Unity Scope Template project type.

Get the example scope source branch

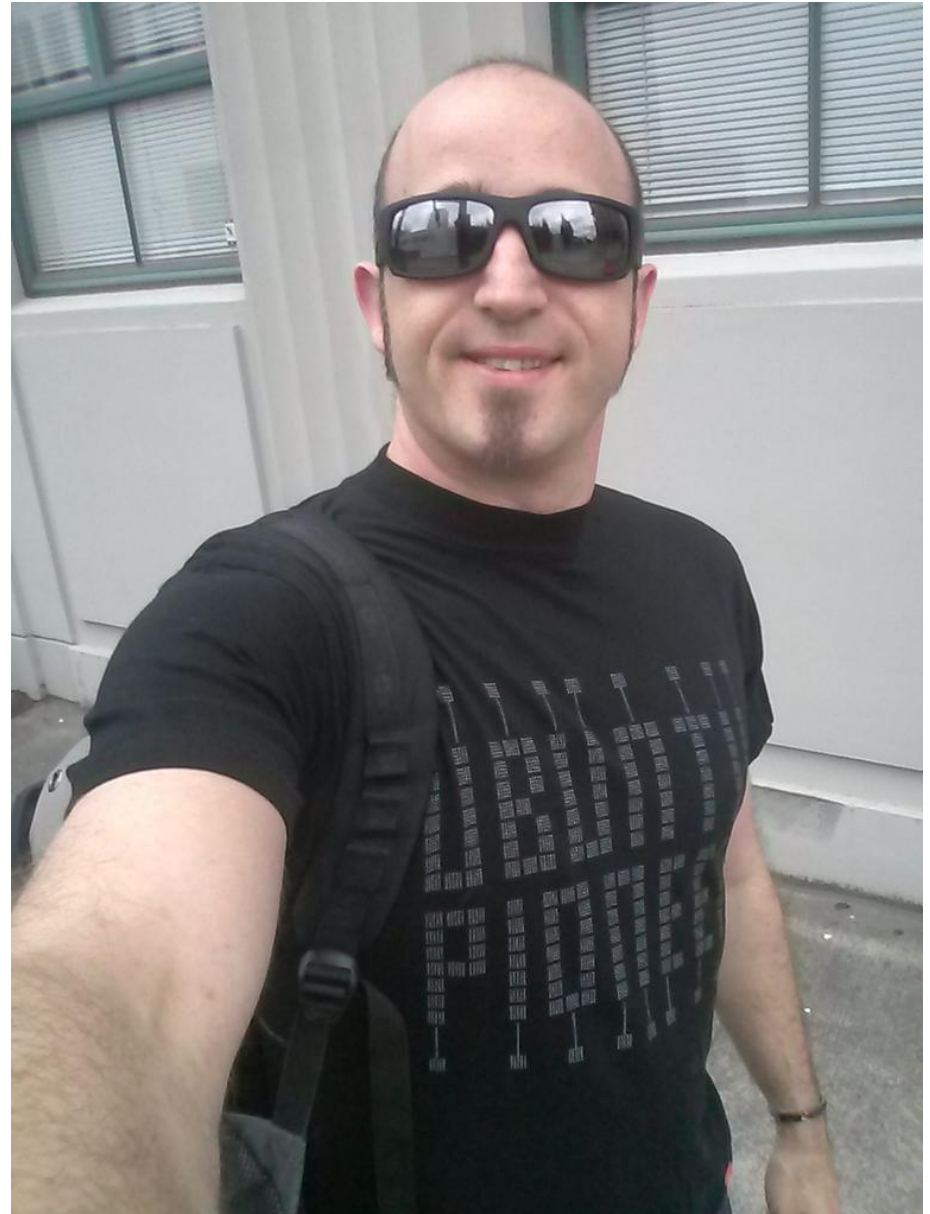
Ensure the bzip2 package is installed.

```
$ sudo apt-get install bzip2
```

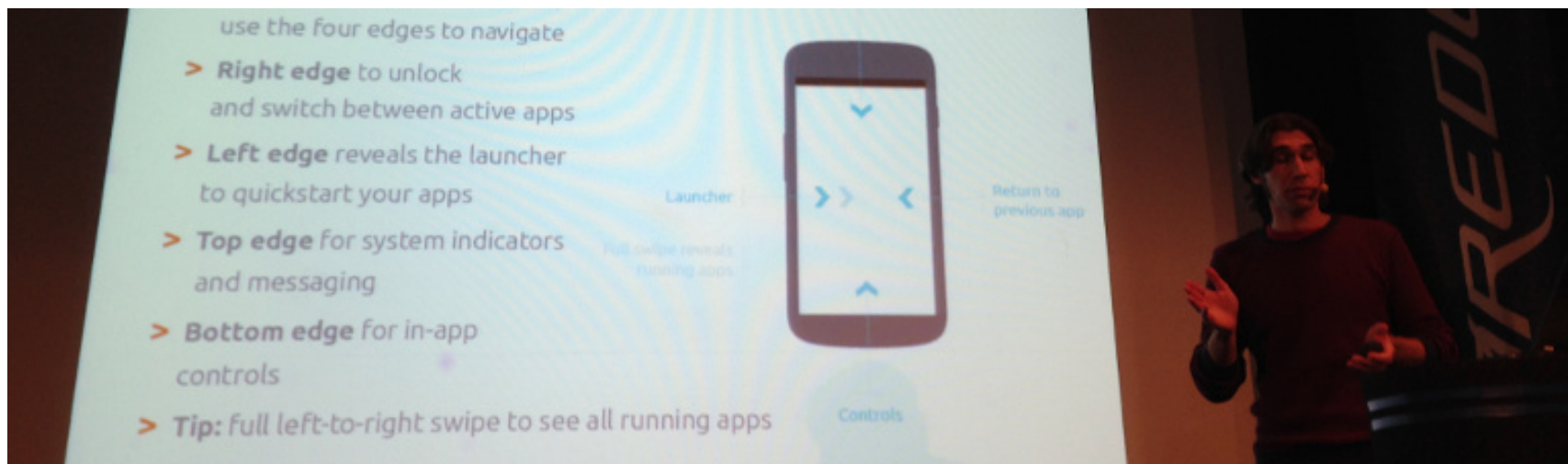
If you are new to bzip2, you need to configure bzip2:

Become an Ubuntu Pioneer!

- Featured on: developer.ubuntu.com/pioneers/
- Free limited-edition Ubuntu Pioneers t-shirt
- Open to the first 200 developers who publish an app or scope
- Only about 30 slots left!



App Development Schools



- > **Teach** Ubuntu app development to others:
 - > Local Ubuntu Community (LoCo) teams
 - > LUGs and other FOSS groups
 - > Schools or organizations
- > We provide the instruction materials & sample code

<http://developer.ubuntu.com/resources/app-dev-training/>

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the human touch