

digitimes





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Android O

Developer Preview

Android "O" is the working title of an upcoming release of the Android mobile operating system. It was first released as an alpha quality developer preview on March 21, 2017.

History

On March 21, 2017, Google released the first developer preview of Android "O", available for the Nexus 5X, Nexus 6P, Nexus Player, Pixel C, and Pixel smartphone devices. Google will release a total of four developer previews, with the second preview coming in May, the third in June, and the fourth in July, with a final, official release scheduled for the third quarter of 2017. On its Program Overview pages, Google states that the first developer preview is considered alpha quality, with the upcoming second preview considered beta quality.

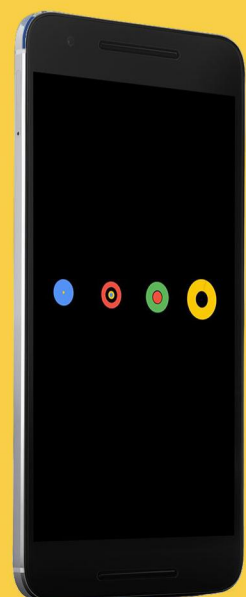
Features

User experience

Notifications can be snoozed, and batched into topic-based groups known as "channels". Android "O" contains integrated support for picture-in-picture modes. Adding a custom ringtone, alarm or notification sound is simplified. The "Settings" app features an entirely new design, with a white theme and deeper categorization of different settings. On the home screen, number badges can appear on app icons, indicating notifications.

Platform

Android "O" will add support for Neighborhood Aware Networking (NAN) for Wi-Fi based on Wi-Fi Aware, wide color gamuts in apps, an API for autofillers, multiprocess and Google Safe Browsing support for WebViews, an API to allow system-level integration for VoIP apps, and launching activities on remote displays. Android Runtime (ART) features performance improvements. Android "O" contains additional limits on apps' background activities in order to improve battery life. Apps can specify "adaptive icons" for differently-shaped containers specified by themes (such as circles, squares, and squircles).



Build a Responsive UI with Constraint Layout



ConstraintLayout allows you to create large and complex layouts with a flat view hierarchy (no nested view groups). It's similar to RelativeLayout in that all views are laid out according to relationships between sibling views and the parent layout, but it's more flexible than RelativeLayout and easier to use with Android Studio's Layout Editor.

All the power of ConstraintLayout is available directly from the Layout Editor's visual tools, because the layout API and the Layout Editor were specially built for each other. So you can build your layout with ConstraintLayout entirely by drag-and-dropping instead of editing the XML.

ConstraintLayout is available in an API library that's compatible with Android 2.3 (API level 9) and higher. This page provides a guide to building a layout with ConstraintLayout in Android Studio 2.3 or higher. If you'd like more information about the Layout Editor itself, see the Android Studio guide to Build a UI with Layout Editor.

To see a variety of layouts you can create with ConstraintLayout, check out the Constraint Layout Examples project on GitHub.

Constraints overview

To define a view's position in ConstraintLayout, you must add at least one horizontal and one vertical constraint for the view. Each constraint represents a connection or alignment to another view, the parent layout, or an invisible guideline. Each constraint defines the view's position along either the vertical or horizontal axis; so each view must have a minimum of one constraint for each axis, but often more are necessary.

When you drop a view into the Layout Editor, it stays where you leave it even if it has no constraints. However, this is only to make editing easier; if a view has no constraints when you run your layout on a device, it is drawn at position [0,0] (the top-left corner).



Add a constraint

Start by dragging a view from the Palette window into the editor. When you add a view in a `ConstraintLayout`, it displays a bounding box with square resizing handles on each corner and circular constraint handles on each side.

Click the view to select it. Then click-and-hold one of the constraint handles and drag the line to an available anchor point (the edge of another view, the edge of the layout, or a guideline). When you release, the constraint is made, with a default margin separating the two views.

When creating constraints, remember the following rules:

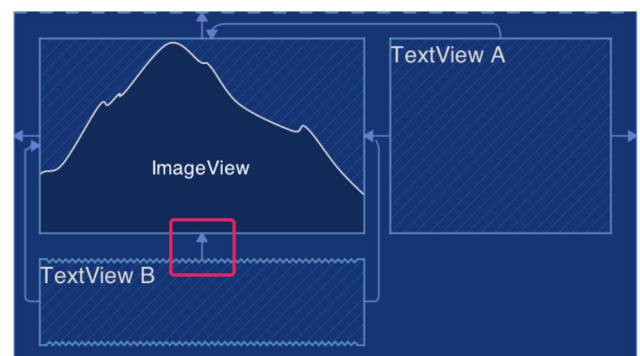
Every view must have at least two constraints: one horizontal and one vertical.

You can create constraints only between a constraint handle and an anchor point that share the same plane. So a vertical plane (the left and right sides) of a view can be constrained only to another vertical plane; and baselines can constrain only to other baselines.

Each constraint handle can be used for just one constraint, but you can create multiple constraints (from different views) to the same anchor point.

To remove a constraint, select the view and then click the constraint handle. Or remove all the constraints by selecting the view and then clicking `Clear Constraints`.

If you add opposing constraints on a view, the constraint lines become squiggly like a spring to indicate the opposing forces, as shown in video 2. The effect is most visible when the view size is set to "fixed" or "wrap content," in which case the view is centered between the constraints. If you instead want the view to stretch its size to meet the constraints, switch the size to "match constraints"; or if you want to keep the current size but move the view so that it is not centered, adjust the constraint bias.



Product (Red)

Product Red, stylized as (PRODUCT)RED, is a licensed brand owned by (RED) that seeks to engage the private sector in raising awareness and funds to help eliminate HIV/AIDS in 8 African countries. It is licensed to partner companies including Nike, American Express (UK), Apple Inc., The Coca-Cola Company, Starbucks, Converse, Electronic Arts, Head, Buckaroo, Penguin Classics (UK & International), Gap, Armani, Hallmark(US), SAP, Beats Electronics, Supercell and the YouTube personality PewDiePie. The concept was founded in 2006 by U2 frontman and activist Bono, together with Bobby Shriver of the ONE Campaign and DATA. The Global Fund to Fight AIDS, Tuberculosis and Malaria is a recipient of Product Red's money. As part of a new business model, each partner company creates a product with the Product Red logo. In return for the opportunity to increase revenue through the Product Red license, up to 50% of profits gained by each partner is donated to the Global Fund.

As Product Red is owned by Red, a portion of the contributions received from the partner brands is assigned as profit. Such an amalgamation of humanitarian aid and for-profit businesses is one example of "ethical consumerism". In 2012, ONE acquired (RED) as a division of ONE. Both organizations were co-founded by Bono and Bobby Shriver.

Criticism

Product Red has been criticized for not having an effect proportional to the advertising investment, for being much less efficient than direct charitable contribution, and for having a lack of transparency with regards to the amount of money going to charity as a percentage of every purchase. Some critics argue that a retail middleman between donor and charity is unnecessary; donors should just give. Like with the Gap website and Campaign Red, some argued that it encouraged consumption of the products, thus, encouraging companies to use the product for publicity, rather than social responsibility. While Product Red has helped give funds and attention to the problem, it does not form a relationship between the donors and recipients. Scholars argue that this sacrifices the purpose of movements such as Product Red.



Jessica Wirgau, professor at the Virginia Polytechnic institute stated that, "Red not only misses the opportunity to promote civic engagement with its audience but also.... gives corporations the power to decide which causes should be supported and to what degree". Another critique is that Product Red's expansion into traditional fundraising techniques, such as art auctions, undermines its claim to be a different and more sustainable approach to raising money for AIDS. Other critics have pointed out that its emphasis on funding treatment for AIDS sufferers meant that large amounts of the money will ultimately end up with pharmaceutical companies "unwilling to distribute their drugs for free". Many accuse the campaign of profiting by using diseases as a marketing vehicle, for being "cause branding" rather than corporate social responsibility. In the Stanford Social Innovation Review, Mark Rosenman wrote that it was an "example of the corporate world aligning its operations with its central purpose of increasing shareholder profit, except this time it is being cloaked in the patina of philanthropy." The National Labor Committee for Worker and Human Rights criticised Product Red for its links with Gap, which was historically a target of anti-sweatshop activists, although anti-sweatshop organisation Labour Behind the Label states that Gap has "come further than many" clothing companies to counter exploitation. Gap's Product Red clothes are made in Lesotho, rather than simply for the best price in China (this goes beyond the requirements of Product Red). Labour Behind the Label criticises Product Red for not requiring more measures to protect the rights of the workers who make their products.



kindle fire OS

This article is about the Android based mobile operating system by Amazon. For the HTML5 powered operating system by Mozilla, see Firefox OS.

Amazon FireOS is an Android-based mobile operating system produced by Amazon for its Fire Phone and Kindle Fire range of tablets, and other content delivery devices like Fire TV; the tablet versions of the Kindle ereaders are the Fire range. It is forked from Android. Fire OS primarily centers on content consumption, with a customized user interface and heavy ties to content available from Amazon's own storefronts and services.

While the Kindle Fire line has always used customized distributions of Android, particularly 2.3.3 (API level 10) (Kindle Fire) and 4.0.3 (API level 15) (Fire HD), Amazon only began referring to the distribution as Fire OS beginning with its third iteration of Kindle Fire tablets, which includes the Fire HD 2nd generation and Fire HDX models. Unlike previous Kindle Fire models, whose operating system is listed as being "based on" Android, the Fire HDX "FireOS 3.0" operating system is listed as being "compatible with" Android; FireOS 3 is forked from Android 4.2.2, (API level 17). In the Fire HD (3rd generation) and Fire HDX (2nd generation) tablets, Fire OS 4 is included that is forked from Android 4.4.2 (API level 19). Fire OS 4.5.1 is based on Android 4.4.3. Fire OS 5.0 is based on Android 5.0 (API level 22).

Features

Fire OS uses a customized user interface designed to prominently promote content available through Amazon services, such as Amazon Appstore, Amazon Video, Amazon MP3 & Audible, and Kindle Store. Its home screen features a carousel of recently accessed content and apps, with a "favorites shelf" of pinned apps directly below it. Sections are provided for different types of content, such as apps, games, music, audiobooks, and video among others. A search function allows users to search through their local content library or Amazon's stores. Similarly to Android, sliding from the top of the screen exposes quick settings and notifications. Fire OS also provides integration with Goodreads, Facebook, and Twitter. X-Ray is also integrated into its playback functions, allowing users to access supplemental information on what they are currently viewing. On the Fire HDX and Fire Phone, an additional function called "Mayday" allows users to connect directly to a support agent for assistance via one-way video chat. Amazon claims that most Mayday calls would be answered within 15 seconds. The OS features a user system, along with Kindle FreeTime, a suite of parental controls which allow parents to set time limits for using certain types of content.



Fire OS 5, which is based on Android 5.0 “Lollipop”, uses an updated interface. The home screen now features a traditional application grid and pages for content types as opposed to the previous carousel interface. It also introduces “On Deck”, a function which automatically moves content out of offline storage to maintain storage space for new content, the speed reading tool “Word Runner”, and screen color filters. Parental controls were enhanced with a new web browser for FreeTime mode featuring a curated selection of content appropriate for children, as well as “Activity Center” for monitoring usage by children. Fire OS 5 removes support for device encryption; an Amazon spokesperson stated that encryption was an enterprise-oriented feature that was underused.

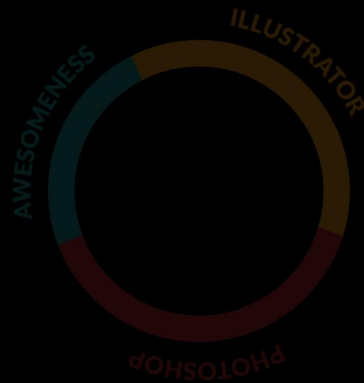
However, in March 2016, after the removal was publicized and criticized in the wake of the FBI-Apple encryption dispute, Amazon announced that it would be restoring the feature in a future patch. Fire OS devices are exclusively tied to Amazon’s software and content ecosystems; they do not offer the Google Play Store or come pre-installed with any other of Google’s proprietary apps or APIs, such as Google Maps or Google Cloud Messaging. Fire OS does provide proprietary alternatives to Google’s platforms; for example, in lieu of Google Maps, Fire OS offers Here Maps with a clone of Google Maps API 1.0. As Fire OS is intentionally designed to be incompatible with Google’s official Android compatibility standards, Fire OS devices do not include Google’s proprietary software or use the Android trademarks. However, as with other Android devices, third-party apps can still be sideloaded via APK files, although full compatibility is not guaranteed if the app depends on Google services. Members of the Open Handset Alliance (which include the majority of Android OEMs) are contractually forbidden to produce Android devices based on forks of the OS, therefore Kindle Fire tablets are manufactured by Quanta Computer, which is not an OHA member.

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