



What's New in iOS 12





iOS 12, Apple's newest operating system for mobile devices, introduces new features, new apps and updates many of your existing apps. While many apps may look different, the way you do things feels perfectly familiar.

iOS 12 is designed to make your iPhone and iPad experience faster, more responsive, and more fun. From day one, you will know how to use the world's most advanced mobile OS, in its most advanced form.

iOS 12 is released as a free upgrade for the following devices

- **iPad 5th Generation and later:** iPad 5th & 6th Generation, iPad Air, iPad Air 2, iPad Pro (9.7in, 10.5in and 12.9in - 1st and 2nd Generation)
- **iPad mini 2 and later:** iPad mini 2, iPad mini 3 and iPad mini 4
- **iPod touch 6th generation**
- **iPhone 5s and later:** iPhone 5s, iPhone SE, iPhone 6, iPhone 6 Plus, iPhone 6s, iPhone 6s Plus, iPhone 7, iPhone 7 Plus, iPhone 8, iPhone 8 Plus and iPhone X

Faster and more responsive

The things you do every day are faster than ever. iOS has been overhauled for improved performance on devices as far back as iPhone 5s and iPad Air. Animations are smoother across the system. So when you bring up Control Center, swipe while multitasking, or scroll in apps, it's more fluid and responsive.

Apps launch faster in day-to-day use. And when you're pushing your iOS device to the limit, multitasking between lots of apps, they launch up to 2x faster.

Built-in iOS Apps

Ever since iOS 10, built-in iOS apps have been moved to the iOS App Store as standalone downloads, allowing them to be deleted and re-downloaded at will. The following built-in apps can be removed on iPhone, iPad, and iPod touch devices in iOS 12:

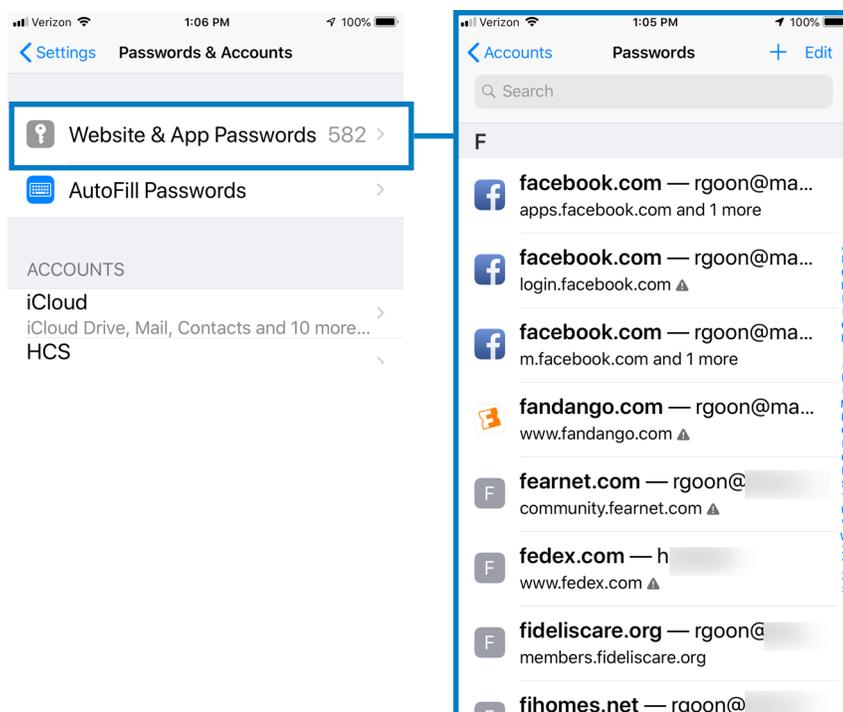
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| • Activity | • Home | • Reminders |
| • Apple Books | • iTunes Store | • Stocks |
| • Calculator | • Mail | • Tips |
| • Calendar | • Maps | • Videos or TV |
| • Compass | • Measure | • Voice Memos |
| • Contacts | • Music | • Watch app |
| • FaceTime | • Notes | • Weather |
| • Files | • Photo Booth | |
| • Find My Friends | • Podcasts | |



Security

Password Management

In iOS 12, your iPhone and iPad automatically suggest strong, unique passwords for each and every website and app where you need to create a login. All of these passwords are stored on your iOS device, and you can even ask Siri to open up your list of passwords, which are synced across your devices. You can share your passwords more easily in iOS 12 with Password AirDrop options, which let you AirDrop your saved passwords to other devices and other people for quicker password exchanges. Passwords can be shared from nearby iOS devices, from an iOS device to a Mac, and from an iOS device to the Apple TV. Apple will let you know if you've used a password that's too weak or has been used across multiple sites with password auditing features. iOS devices flag inadequate passwords and provide you with an option to go right to the site in question to update it with something more secure.



Security Code Autofill

Many apps and services offer two-factor authentication, requiring a code sent to your phone number by SMS text. In iOS 12, Apple detects these incoming security codes from the Messages app and offers the code as an AutoFill option so you don't need to leave the login screen to access the code.

Enhanced tracking prevention

Improvements prevent Share buttons and comment widgets on web pages from tracking you without your permission in Safari. Safari also prevents advertisers from collecting your device's unique settings, so they can't retarget ads to you across the web.

Private end-to-end encryption

FaceTime is encrypted end to end for both one-to-one and group calls, so your conversations remain private and viewable only by the participants.



Facetime

Group FaceTime

iOS 12.1 brings a major new FaceTime feature, Group FaceTime. You can FaceTime with up to 32 people using iOS 12.1 or newer and its sister update, macOS Mojave. In these Group FaceTime chats, all of the participants are visible in a tiled view, with the tile size changing to give attention to the person speaking at the moment. You can also use Focus View to double tap on the person that you want to see.

New people can be added to an ongoing Group FaceTime chat at any time, and Group FaceTime calls can be answered on iPhone, iPad, Mac, Apple Watch, and HomePod. With the latter two options, you can only join a chat with audio rather than with video. Group FaceTime calls send a silent ringless notification to participants that can be tapped to join.

For iPhone X and newer phones, FaceTime also includes the same Effects camera that's been introduced in Messages, letting you access Animoji and Memoji, filters, stickers, and more while FaceTiming someone.

FaceTime has been integrated more deeply into Messages, so you can initiate a FaceTime call in either an individual chat or while in a group chat.





Messages

The Messages app on all devices offers a new Effects camera that lets you add fun effects to photos using your built-in camera.

Tapping on the star on the left of the Messages camera lets you access a selection of filters, shapes, text and text effects, stickers (which can be downloaded from the iMessage App Store), and sketching tools that can be used to enhance photos before you send them within Messages.

Animoji and Memoji

iOS 12 for iPhone X brings new Animoji features like tongue detection and better face tracking. With tongue detection, Animoji can now stick out a tongue, and there's also an option for detecting a wink.

Animoji recordings can now last up to 30 seconds, up from 10 seconds in iOS 11, so you can record much longer Animoji messages.

With Memoji, you can make a personalized Animoji in the Messages app that looks just like you using a deep set of customization options. You can choose skin color, hair color, hair style, eye color, eyebrows, nose, features like freckles and facial hair, accessories, and headwear.

There's no limit on the number of Memoji you're able to create, so you can add multiples for every look you want to express. As mentioned below, Memoji and Animoji can be used in both Messages and FaceTime in iOS 12.



Apple Pay Cash

You can now send and receive money right through your messages app with Apple Pay Cash. You can use the same information you already have in Apple Pay. You can even use Siri to make a payment by saying: Hey Siri, Send \$75.00 to Joan.

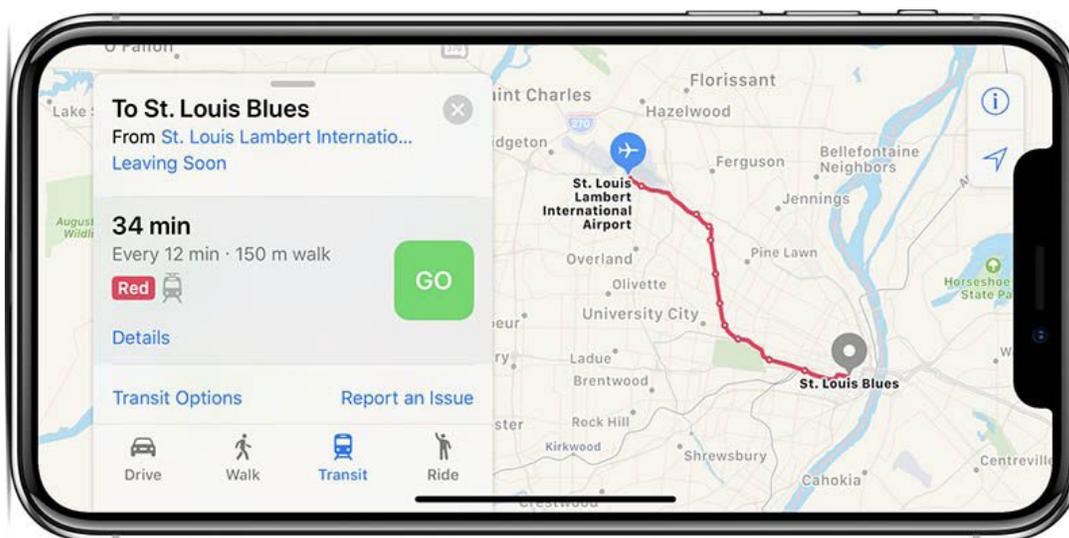


Maps

Apple rebuilt the Apple Maps app from the ground up using anonymized segments of trips gathered by iPhones, satellites and the Apple Maps vehicles that have been driving the streets around the world for years now. Apple no longer plans to rely on third-party data from sources like TomTom for Maps, and will use its in-house data.

The new version of Maps is more responsive to changes in roadways and construction, more visually rich & with more detailed ground cover, pedestrian pathways, and more. It will also be updated more often with information on conditions like roadwork. Maps will feature much better traffic information, real time road conditions, new construction details, road systems, and changes in pedestrian walkways. Search is being overhauled to ensure more relevant results, and navigation, especially pedestrian navigation, is being improved.

As with all of Apple's products, Apple has designed the new Maps app with privacy in mind and without using personal data from customers that has not been completely anonymized. Apple, for example, collects some segments of a person's trip, called "probe data," but not enough to say where a person came from or where they went.





Notifications

iOS 12 brings greater control over the notifications that you're receiving on a daily basis with a new Instant Tuning feature. When a notification comes in on the iPhone or iPad, you can swipe left on it to get options to Manage, View, Clear All. By tapping Manage, you can now choose from Delivery Quietly, Turn Off, or Settings.

- Choosing Deliver Quietly makes it so an app's notifications show up in the Notification Center but don't create a badge on the app icon, appear on the lock screen or present a banner.
- Choosing Turn Off, turns off all of the notifications for a given app, and there's also an option to go to the Settings app to see a full list of notification controls for each app. For apps that you're no longer using that are continuing to send notifications, Siri offers up suggestions to turn them off.
- Settings: Brings you to Settings, Notifications, that specific Notification to adjust.

Group Notification

Apple has also added notification grouping in iOS 12, a highly desired feature that cleans up the lock screen by grouping incoming notifications by app, topic, and more, with the ability to tap on a notification group to see individual notifications. You can also clear notifications by group, which is a useful feature for managing long lists of notifications.

Critical alerts

This will allow select apps to send notifications that will ignore Do Not Disturb settings. This is designed to allow you to use Do Not Disturb without accidentally missing important information, such as a notification from a Glucose Monitor or healthcare provider.





Parental Controls

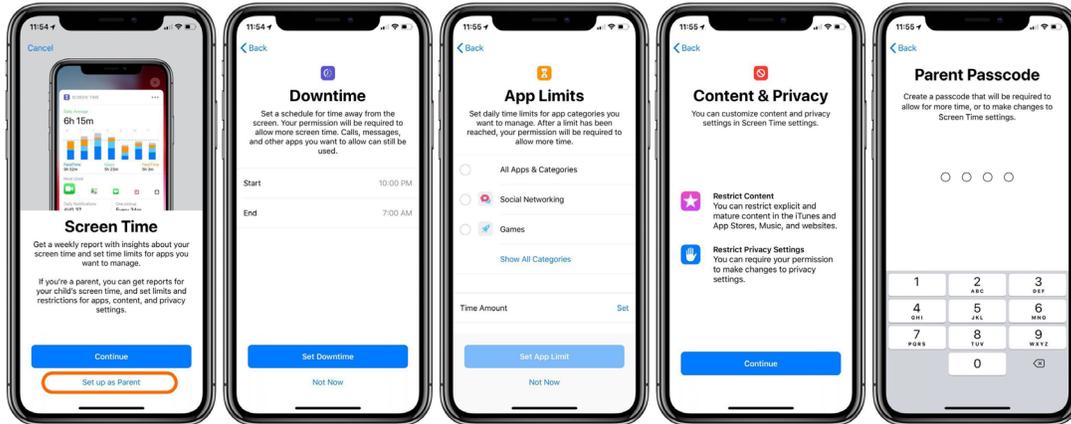
Screen Time, App Limits, and Downtime, along with Content and Privacy Restrictions, are all available to parents to monitor how children are using their time and set limitations on what's available on a child's iOS device.

Parents can restrict app access with App Limits and Downtime, while Screen Time can be used to see how much time a child is spending on an iPhone or iPad. Content and Privacy lets parents restrict certain kinds of apps, set privacy controls, prevent purchases, disable passcode changes, set content age limits, and more.

For example, you can set a child's iPad or iPhone to disallow access to apps in the "Games" category during set periods of the day while leaving access available to the phone and educational apps.

With tools available to set specific app limits for children, Apple's Parental Controls in iOS 12 are far more robust, providing parents with more information on and control over iPhone and iPad usage.

Screen Time and the new Parental Control options all work via Family Sharing, Apple's feature that lets families share content, location information, photos, and more.





Do Not Disturb

Do Not Disturb in iOS 12 has been enhanced in several ways. There are new settings including For 1 hour, Until this evening, Until I leave this location, Until the end of this event, and Bedtime Mode. You can access the first 3 through Control Center by holding the Do Not Disturb button till the menu comes up. For Bedtime Mode, tap schedule to turn on the schedule and setup Bedtime Mode.

Bedtime mode is designed to allow you to glance at your phone in the middle of the night without being distracted by notifications and all you see is the time and date. In the morning, Bedtime mode can be toggled off with a tap, allowing all those muted notifications to roll in.

Suggestions from Siri also include Do Not Disturb toggles for instances when you might want to turn the feature on.

Advanced Do Not Disturb from Control Center

Using 3D touch on the Do Not Disturb toggle in Control Center now gives you choice of For 1 hour, Until this evening, Until I leave this location or Until the end of this event.



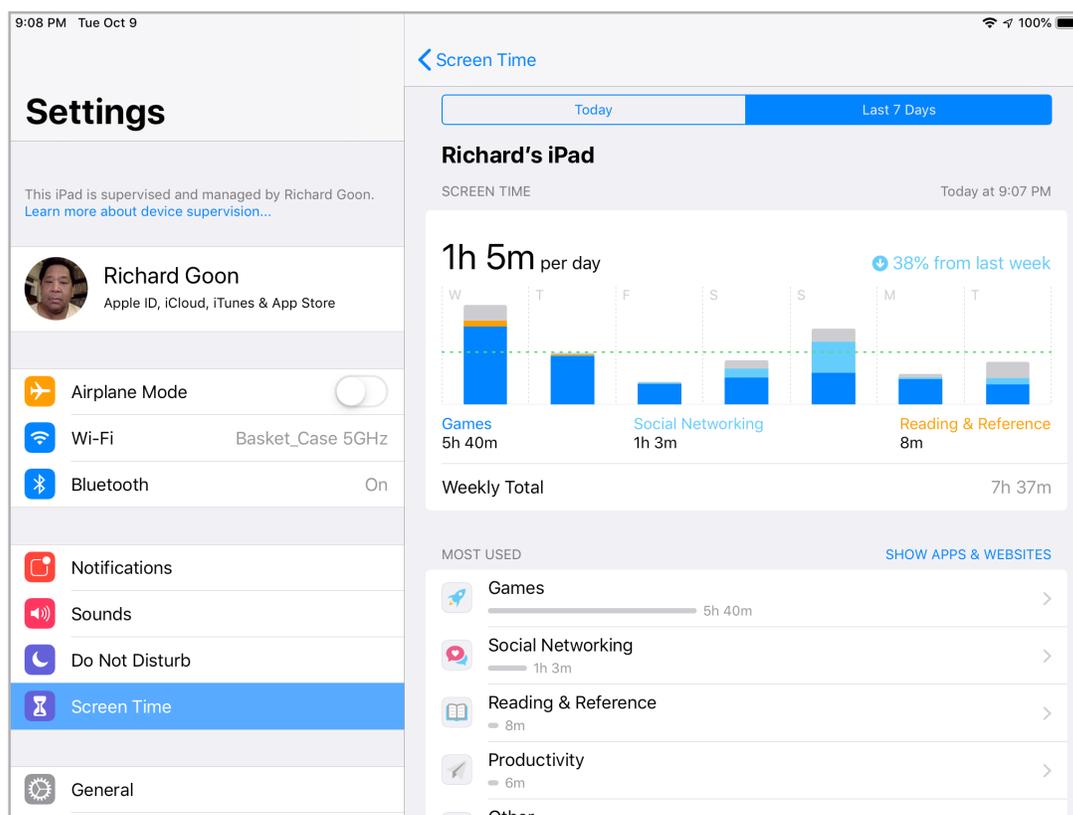


App Limits and Downtime

For iPhone and iPad users who want active reminders to spend less time within a particular app, Apple has implemented App Limits.

You can set a time limit on an app category, such as games, and when you've spent the specified amount of time using that app category, your iOS device will send you a notification letting you know that it's time to move on to something else. You can, of course, ignore the warning, but it's a useful feature who need a little help managing their time.

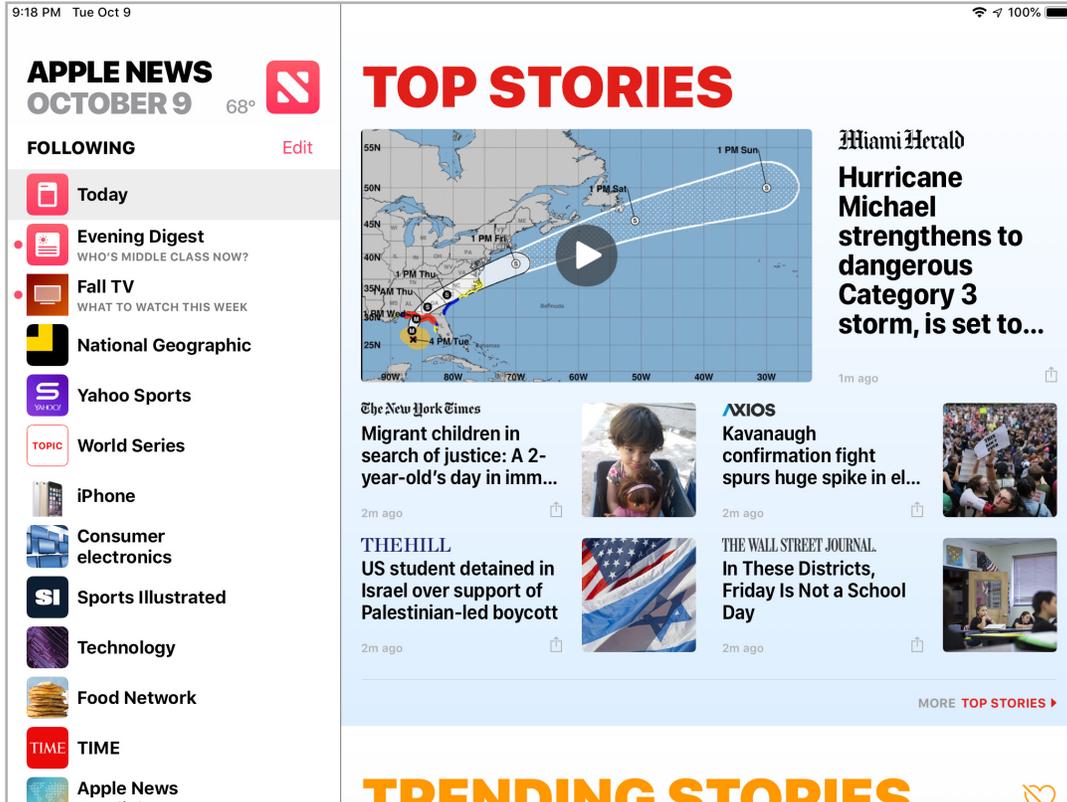
With Downtime, you can set a schedule for times that you want to be away from your iPhone or iPad. When activated, Downtime allows access only to phone calls apps that you choose.





Apple News

A new Browse tab in Apple News is designed to make it easier to discover new channels and topics and to get to your favorites. On the iPad specifically, there's a new Apple News sidebar for more quickly navigating through news topics.

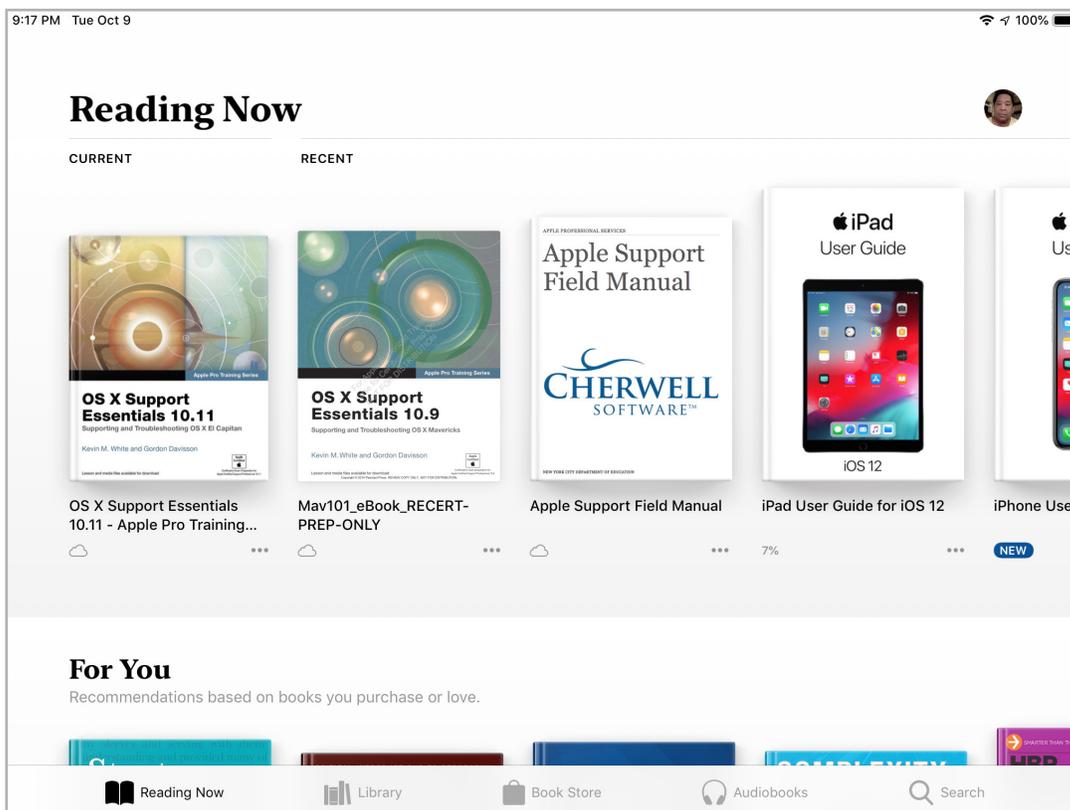




Apple Books

iBooks in iOS 12 features a new look and a new name - Apple Books. With a new Reading Now section, you can pick up where you left off on your book on any of your devices, and keep track of your place across multiple books.

Reading Now also includes suggestions on additional books to explore across categories that include editor's picks, award winners, customer favorites, books based on movies, and more.





Photos

The Photos app in iOS 12 is better than ever. Search is more powerful, allowing you to search for businesses by name or by broad categories like restaurants, and Apple has added more than four million event references for things like sporting events and concerts, so you can also search by event and find your photos that way.

Search suggestions have been added to help you find content before you even start typing, with Apple offering up suggestions that include Events, People, Places, Categories, and Groups, and you can also use multiple search terms at one time.

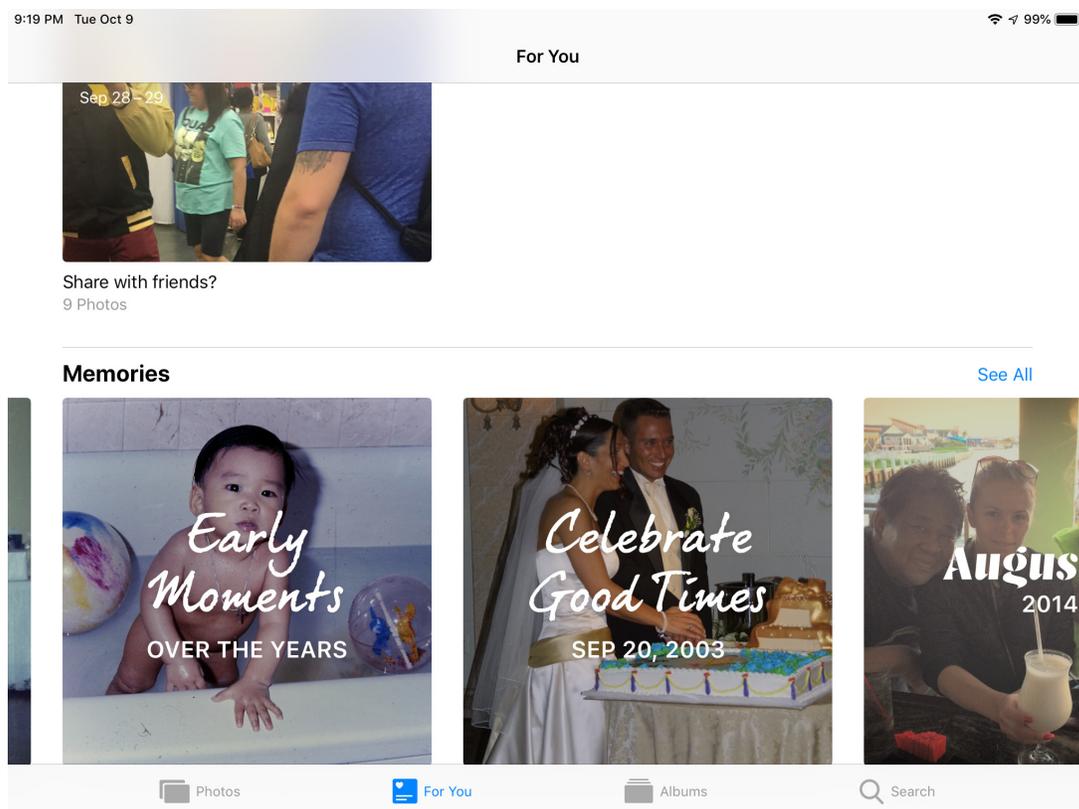
A new “For You” tab has been added to the Photos app, offering up a selection of Memories, recent photos from shared albums, photos you took on the current day in past years, and suggestions for adding a new flare to your best existing images through image edits.

There's also a “Shared Suggestions” feature that's designed to take a selection of photos you've taken that involve friends or family and offer up quick sharing options. It recognizes who is in a photo and suggests sharing the images with that person, and then, for that person, it also suggests sending their own photos back to you with a “Share Back” feature, making it easy to exchange photos linked to an event.

Like all of Apple's Photos features, improved search and Shared Suggestions use on-device machine learning for privacy reasons, with Apple also using end-to-end encryption to keep all of your content safe, even from Apple itself.

New importing tools make it easier to import photos and videos from professional cameras, and RAW photos can be imported into Photos on iPhone and iPad and edited on the iPad Pro.

The albums tab in Photos has also been transformed into a list organized by media type to make it easier to find existing albums more quickly, and there is a new option for sharing photos using an iCloud link.





Siri

Shortcuts

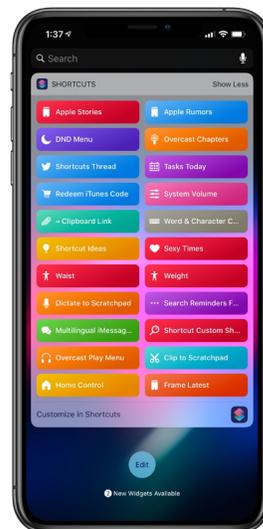
Apple has launched an app called Shortcuts that allows you to create Siri Shortcuts with a drag and drop editor used as a hub for creating Shortcuts. The Shortcuts app includes a Gallery with hundreds of Shortcut suggestions to help you figure out what Siri Shortcuts might be useful to you based on apps you've recently used. Shortcut suggestions are also available in the Shortcuts section of the Settings app.

Siri Shortcuts are multi-step shortcuts using third-party apps that can then be activated using a Siri voice command. For example, you can create a shortcut to turn on the thermostat at home using the Nest app, text your roommate that you're on the way with Messages, or open up the Maps app with directions home all with a single "I'm going home" Siri command.

Or for a surfing trip, you can use a single Siri command to complete several tasks including getting a surf report, getting the current weather, calculating an estimated time of arrival to the beach, and getting a reminder to put on your sunscreen.

Shortcuts are deeply customizable, with third-party apps able to expose a series of quick actions to Siri that can be incorporated into your Shortcut recipes.

For users who already use Workflow apps and have several workflows, downloading the Shortcuts app will import the already-created workflows.



Siri Suggestions

Siri suggestions for both Shortcuts and frequently used apps will show up both on your Lock Screen and when you pull down on the Home screen to access search.

Siri might suggest messaging people you talk to frequently at a certain time, or offer up a third-party app that you use regularly.

If you wake up and order coffee every morning, Siri might suggest your favorite coffee app on the Lock screen. Or if you use a specific workout tracking app at the gym, Siri might suggest that app when it determines that you're at the gym for a workout.

If you're running late to an appointment you've scheduled, Siri might present an option to send a text message to the person you're meeting with. If your grandma has a birthday coming up, Siri might suggest sending her a text.

Siri suggestions are highly intelligent in iOS 12 with Siri able to suggest more than ever before due to the third-party app access provided by Shortcuts.

Other New Siri Features

- Siri has the ability to access your passwords, either for a specific app or your entire iCloud Keychain.
- Siri can search through photos and memories based on people, places, events, time, and object keyword.
- Siri can translate to and from an additional 50 languages, greatly expanding the built-in translation feature.
- Siri has food knowledge from the USDA database. ie. How much caffeine is in coffee?
- Siri can help with passwords, turn your flashlight on and off, find your misplaced iPhone, iPad, AirPods.



New Apps

Stocks

Apple overhauled the entire Stocks app and brought it to the iPad in iOS 12. Stocks has a fresh new look with spark lines and after hours performance, along with Apple News integration that features business news curated by Apple News editors.

There's a customizable watchlist so you can keep track of all of the stocks that you follow. You can tap on any stock to get a more detailed view, including after hours pricing, with the app also display relevant news headlines for each company.

Voice Memos

Voice Memos has been rebuilt to be easier to use, and for the first time, it includes iCloud support so all of your voice recordings are uploaded and stored in the cloud. Voice Memos iCloud support was necessary because Apple has also expanded Voice Memos to the iPad and the Mac with macOS Mojave for the first time.

Measure

iOS 12 includes an all-new Apple-designed augmented reality app called Measure, which is designed to make it easy to measure objects using augmented reality functionality.

Measure lets you measure lines and detect shapes like rectangles to get specific dimensions with just a few taps on the iPhone or iPad's display.

Other Features

Contactless Student ID Cards

Student ID cards can be stored in the Wallet app, letting students use their IDs for access to dorms, the library, campus events, and more. ID cards can also be used to pay for laundry, snacks, and dinners on participating campuses.

iPhone X App Switcher

You no longer need to hold down on apps to close them. Swiping up like on the iPhone 8 and older works.

Screen Time Widget

In the Widgets section, accessible by swiping to the right on the Home screen, there's a new Screen Time widget where you can see how much time you've spent on your iOS device lately, and what you've been doing. You can also see your full Screen Time usage metrics in the Settings app.

Automatic Updates

iOS 12 introduces an option to turn on automatic software updates under General -> Software Update. This will update your version of iOS automatically when an update is available.

Battery Info

In the Settings app, the battery usage chart shows usage for the last 24 hours or the last 10 days instead of the last 7 days. There's also a whole new chart that displays battery usage information.

Tap to Wake

With an iPhone X or later, you can also tap your screen to check your notifications, take a photo, or quickly access your flashlight.

CarPlay

Now supports Google Maps, Waze giving you more choices.

Markup Tools

New markup tools for marking up PDF's, drawing in Notes.