Updating Your App For iOS 11

Session 204

David Duncan, iOS System Experience
Raj Ramamurthy, iOS System Experience
Kyle Sluder, iOS System Experience
Adopting new functionality in UIKit’s Bars
Managing margins and insets
New features of UIScrollView and UITableView
### Browse

- **Locations**
  - iCloud Drive
  - On My iPhone
  - Recently Deleted

- **Favorites**

- **Tags**
  - Red
  - Orange
  - Yellow
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<thead>
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<th>Locations</th>
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</tbody>
</table>
UIBarItem

(UIBarItem.landscapeImagePhone)
**UIBarItem**

UIBarItem.landscapeImagePhone

UIBarItem.largeContentSizeImage
What's New in Accessibility

Grand Ballroom A
Wed 1:50PM
Controlling When Large Titles Display
Controlling When Large Titles Display

navigationBar.prefersLargeTitles = true
Controlling When Large Titles Display

`navigationItem.largeTitleDisplayMode`
Controlling When Large Titles Display

UILabel
Automatic
Controlling When Large Titles Display

UI Navigation Bar

- Never
Controlling When Large Titles Display

UINavigationBar

Automatic

Always

Never
Controlling When Large Titles Display
Controlling When Large Titles Display

UINavigationBar

- Automatic
- Always
- Never
Integrated UISearchController with Navigation
Integrated UISearchController with Navigation

navigationItem.searchController
Integrated UISearchBar with Navigation

navigationItem.searchController

navigationItem.hidesSearchBarWhenScrolling
UIViewController and Scroll Interactions
UIStoryboard and Scroll Interactions

UIStoryboard is responsible for some features
UINavigationController and Scroll Interactions

UINavigationController is responsible for some features
• UISearchControllers
• Refresh controls
• Rubber banding
UIToolbar and UINavigationController— Layout
UIToolbar and UINavigationBar— Layout

Extensive new Auto Layout support
UIToolbar and UINavigationBar— Layout

Extensive new Auto Layout support
Keep your constraints inside your views
UIToolbar and UINavigationBar— Layout

Extensive new Auto Layout support

Keep your constraints inside your views

“We assume you know what you’re doing”
Avoiding Zero-Sized Custom Views
Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position
Avoiding Zero-Sized Custom Views

`UINavigationBar` and `UIToolbar` provide position

You must provide size
Avoiding Zero-Sized Custom Views

UIKitNavigationBar and UIToolbar provide position

You must provide size

• Constraints for width and height
Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position

You must provide size

• Constraints for width and height

• Implement `intrinsicContentSize`
Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position

You must provide size

• Constraints for width and height
• Implement `intrinsicContentSize`
• Connect your subviews via constraints
Margins and Insets
Here's to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They're not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can't do is ignore them. Because they change things. They push the human race forward. And while some may see them as the crazy ones, we see genius. Because the people who are crazy enough to think they can change the world, are the ones who do.
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```swift
class MyViewController: UIViewController {
    override func viewDidLoad() {
        viewRespectsSystemMinimumLayoutMargins = false
    }
}
```
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Safe Area

Describes area of view not occluded by ancestors

Available as insets or layout guide

Incorporates overscan compensation insets
Safe Area

Describes area of view not occluded by ancestors

Available as insets or layout guide

Incorporates overscan compensation insets

UIView.safeAreaInsets
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Describes area of view not occluded by ancestors

Available as insets or layout guide

Incorporates overscan compensation insets

`UIView.safeAreaLayoutGuide`
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Available as insets or layout guide

Incorporates overscan compensation insets

UIScreen.overscanCompensationInsets
Extending the Safe Area Insets

- `UIViewController.additionalSafeAreaInsets`
- `UIView.safeAreaInsetsDidChange()`
- `UIViewController.viewSafeAreaInsetsDidChange()`
Extending the Safe Area Insets

UIViewController.additionalSafeAreaInsets
UIView.safeAreaInsetsDidChange()
UIViewController.viewSafeAreaInsetsDidChange()
Scroll Views
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Table Views
Self-Sizing by Default

Link on iOS 11, all estimated heights default to `UITableViewAutomaticDimension`

Headers, footers, and cells use self-sizing by default

iOS only—behavior is not changed on tvOS

Ensure all views have sufficient internal constraints

Return fixed sizes from delegate methods
Opting Out of New Behavior

Set table view estimated height properties to zero
Also disables self-sizing

```swift
override func viewDidLoad() {
    tableView.estimatedRowHeight = 0
    tableView.estimatedSectionHeaderHeight = 0
    tableView.estimatedSectionFooterHeight = 0
}
```
## Opting Out of New Behavior

Set table view estimated height properties to zero

Also disables self-sizing

```swift
override func viewDidLoad() {
    tableView.estimatedRowHeight = 0
    tableView.estimatedSectionHeaderHeight = 0
    tableView.estimatedSectionFooterHeight = 0
}
```
<table>
<thead>
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</table>
separatorInset.left = 30
<table>
<thead>
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</tbody>
</table>
separatorInset.left = 60
```swift
class MyViewController: UITableViewController {
    override func viewDidLoad() {
        tableView.separatorInsetReference = .fromCellEdges // default
    }
}
```
class MyViewController: UITableViewController {
    override func viewDidLoad() {
        tableView.separatorInsetReference = .fromAutomaticInsets
    }
}
Table Views and Safe Area

Automatic separator insets are relative to safe area insets

UITableViewCell and UITableViewHeaderFooterView inset their content view within the safe area

Use UITableViewHeaderFooterView for all headers and footers
Swipe Actions

New look-and-feel automatically for all table views

Supports full swipe-to-delete for iOS 11-linked apps

New features with API adoption

• Images
• Leading and trailing actions
• Completion handler and cancellation
Swipe Actions

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Demo

Raj Ramamurthy, iOS System Experience
Summary

Large navigation titles
New search experience
Layout margins
Safe area
Scroll views
Table views
Summary

Large navigation titles

New search experience

Layout margins

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More Information

https://developer.apple.com/wwdc17/204
# Labs

<table>
<thead>
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<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa Touch Lab</td>
<td>Technology Lab I</td>
<td>Wed 3:10PM–6:00PM</td>
</tr>
<tr>
<td>UIKit and Collection View Lab</td>
<td>Technology Lab B</td>
<td>Thu 10:00AM–12:30PM</td>
</tr>
</tbody>
</table>