iMessage Apps and Stickers, Part 1
Introducing Messages Apps and Stickers
Session 204

Bhaskar Sarma Messages Engineer
Lily Hashemi Messages Engineer
iMessage Apps
iMessage Apps

Write apps for Messages
iMessage Apps

Write apps for Messages

Three types of content
iMessage Apps

Write apps for Messages

Three types of content

• Interactive messages
iMessage Apps

Write apps for Messages

Three types of content

- Interactive messages
- Stickers
Write apps for Messages

Three types of content

- Interactive messages
- Stickers
- Other content—photos, videos, text, links, etc.
Messages App Store
Messages App Store in Messages
Messages App Store in Messages
Apps displayed in Messages App Drawer
Messages App Store in Messages
Apps displayed in Messages App Drawer
Inline app attribution
Messages App Store in Messages
Apps displayed in Messages App Drawer
Inline app attribution
Similar to existing iOS apps
Messages App Store

Messages App Store in Messages
Apps displayed in Messages App Drawer
Inline app attribution
Similar to existing iOS apps
• In-app purchase
Messages App Store

Messages App Store in Messages

Apps displayed in Messages App Drawer

Inline app attribution

Similar to existing iOS apps

- In-app purchase
- Apple Pay
Messages App Store

Messages App Store in Messages
Apps displayed in Messages App Drawer
Inline app attribution
Similar to existing iOS apps
  • In-app purchase
  • Apple Pay
  • Camera access
Supported Platforms
Supported Platforms

Runs on iOS 10
Supported Platforms

Runs on iOS 10

Content received on watchOS and macOS
Supported Platforms

Runs on iOS 10

Content received on watchOS and macOS

Can send recent Stickers from watchOS
Creating iMessage Apps
Creating iMessage Apps

Messages framework
Creating iMessage Apps

Messages framework
Creating a Sticker Pack application
Creating iMessage Apps

Messages framework
Creating a Sticker Pack application
Sticker file formats
Creating iMessage Apps

Messages framework
Creating a Sticker Pack application
Sticker file formats
Creating a custom Sticker experience
Creating iMessage Apps

Messages framework
Creating a Sticker Pack application
Sticker file formats
Creating a custom Sticker experience

iMessage Apps and Stickers, Part 2

Presidio Thursday 1:40PM
Messages Framework

Messages

Messages framework

iMessage app
Messages Framework

Built on top of app extensions
Messages Framework

Built on top of app extensions

Messages

Messages framework

iMessage app

Creating Extensions for iOS and OS X  WWDC 2014
One Key Difference…

Containing bundle

Messages.appex

Containing bundle optional

Messages.appex
One Key Difference...
One Key Difference...
Stickers
Stickers

Fun way to communicate
Stickers

Fun way to communicate

Regular message
Stickers

Fun way to communicate

Regular message

Attached to other messages
What Are Stickers?
What Are Stickers?
What Are Stickers?

Images
Animated or static
What Are Stickers?

Images

Animated or static

Great way to share your content
Creating Sticker Apps
Creating Sticker Apps

1. Sticker Pack application using Xcode
Creating Sticker Apps

1. Sticker Pack application using Xcode
2. Create a custom Sticker application using Messages framework
Demo

Creating a Sticker Pack application with Xcode
Demo Recap
Demo Recap

Sticker Pack application using assets only
Demo Recap

Sticker Pack application using assets only
APNG Sticker creation
Demo Recap

Sticker Pack application using assets only
APNG Sticker creation
Change the Sticker cell sizes
## Sticker File Format

<table>
<thead>
<tr>
<th>Category</th>
<th>Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Support Formats</td>
<td>PNG, APNG, JPEG, GIF</td>
</tr>
<tr>
<td>Animated Stickers</td>
<td>APNG, GIF</td>
</tr>
<tr>
<td>Max File Size</td>
<td>500 KB</td>
</tr>
</tbody>
</table>
Recommended File Format
Recommended File Format

PNG
Recommended formats—PNG and APNG

GIF
Recommended File Format

PNG
Recommended formats—PNG and APNG

GIF
Sticker Sizes

Small
100 x 100 pt @ 3x

Regular
136 x 136 pt @ 3x

Large
206 x 206 pt @ 3x
Creating a Custom Sticker Experience

Lily Hashemi
Creating a Custom Sticker Experience
Creating a Custom Sticker Experience

Customize UI of your application
Creating a Custom Sticker Experience

Customize UI of your application
Dynamically create stickers
Creating a Custom Sticker Experience

Customize UI of your application
Dynamically create stickers
Use camera
Creating a Custom Sticker Experience

- Customize UI of your application
- Dynamically create stickers
- Use camera
- In-app purchases
Using Messages Framework
Using Messages Framework

Building blocks for creating a Sticker application
Using Messages Framework

Building blocks for creating a Sticker application

Sticker Pack applications built through Xcode use this framework
Demo
A custom Sticker application
Demo Recap
Demo Recap

MSStickerBrowserViewController
Demo Recap

MSStickerBrowserViewController

MSStickerBrowserView  MSStickerBrowserViewDataSource
Demo Recap

MSMessagesAppViewController

MSStickerBrowserViewController

MSStickerBrowserView

MSStickerBrowserViewDataSource
Customizing Even Further...
Customizing Even Further...

Your application can add Sticker support using
Customizing Even Further…

Your application can add Sticker support using

- MSStickerView
Customizing Even Further…

Your application can add Sticker support using

• MSStickerView
• MSSticker
Customizing Even Further...

Your application can add Sticker support using

• MSStickerView
• MSSticker
Presentation Styles

- Compact
- Expanded
Demo

An even more customized experience
Demo Recap

UICollectionView
Demo Recap

MSStickerView
Presentation Styles

Compact

Expanded
# Sticker File Format

<table>
<thead>
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Summary

Introduced iMessage apps
Summary

Introduced iMessage apps
Introduced Messages framework
Summary

- Introduced iMessage apps
- Introduced Messages framework
- Creating Sticker Packs using Xcode
Summary

Introduced iMessage apps
 Introduced Messages framework
 Creating Sticker Packs using Xcode
 Programatically creating a custom Sticker application
Summary

Introduced iMessage apps
Introduced Messages framework
Creating Sticker Packs using Xcode
Programmatically creating a custom Sticker application
What’s next
Summary

Introduced iMessage apps
Introduced Messages framework
Creating Sticker Packs using Xcode
Programmatically creating a custom Sticker application
What’s next
• Creating applications that send interactive messages
More Information

https://developer.apple.com/wwdc16/204
## Related Sessions

<table>
<thead>
<tr>
<th>Session Title</th>
<th>Venue</th>
<th>Date/Time</th>
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<tbody>
<tr>
<td>iMessage Apps and Stickers, Part 2</td>
<td>Presidio</td>
<td>Thursday, 1:40PM</td>
</tr>
<tr>
<td>Labs</td>
<td>Frameworks Lab A</td>
<td>Time</td>
</tr>
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<td>----------------------------------</td>
<td>------------------</td>
<td>------------</td>
</tr>
<tr>
<td>iMessage Apps and Stickers Lab</td>
<td>Frameworks Lab A</td>
<td>Tuesday 12:30PM</td>
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<tr>
<td>iMessage Apps and Stickers Lab</td>
<td>Frameworks Lab A</td>
<td>Thursday 3:00PM</td>
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