Apple Tech Talks NYC
Jan 12, 2016

Apple TV Focus Model

Move focus in the expect direction, offset, except when using fullscreen content. Then just offset, don't change focus.

5 States:
- Unselected
- Focused (increased size, add/change label, shadow, "advance towards user", uses parallax.)
- Highlighted (after clicking, but in focus; like CSS "active" pushback)
- Selected (activated, not currently in focus, semitransparent shaded background)
- Disabled (cannot be activated or focused, ghosted version)

Make focus obvious - super important.

Alternated standard focused style: Animation (bouncing, like Badland, dramatic animation like in a kids game)

Remember to place ample space between objects. See HIG for recommended values.

Don't try to recreate Parallax. Just use standard control or find alternates.

In most cases, use click and not tap as the primary gesture for interactions.

Supporting Focus Model

1. Interpret finger movement on the remote
2. Determine the next view in focus
3. Detect which views are focusable
4. Animate focus changes
5. Provide appearance for focused views
6. Calculate and render parallax effect.
7. Etc…
8. etc…

…Or just use the Focus Engine

Basics
UIKit view hierarch
Focusable View
Always one in Focus
Parallax for subtle animation

Focus API

Define which views can become in focus: *canBecomeFocused() -> Bool*
UIFocusEnvironment: Provide default focus view.

TableView and CollectionView contain focusable and initial focus helper methods based on index paths.
Can ask UIScreen for the the *focusedView*. (Read only.)

Ambiguous cases:
• When the currently focused view is removed.
• When a new view controller is presented or dismissed.
• A table or collection view that reloaded its data.

All of these cases request a focus update. Traverse the focus chain again, and update focus. Use *canBecomeFocused* and *preferredFocusedView*. Call *setNeedsFocusedView*.

Best Practices

Use default controls.
By default, collection views do not implement any appearance. Tell UIImageView to *adjustsImageWhenAncestorFocused* which enables parallax. *false* by default. (Also works in interface builder.

UIMotionEffect for custom effects.

Don't use fixed animation timings with focus changed animations. Use *UIFocusEnvironment*'s *didUpdateFocuseInContext(context:UIFocusUpdateContext, withAnimationCoordinator: UIFocusAnimationCoordinator)* to coordinate developer animation's with 's.

Using Focus Guides: *UIFocusGuide* useful when there's a dangling element that users might expect a focusable view.

Debugging Focus: breakpoints, context?

Handling Button Press:
UIPressType

• Physical Button: Select, Menu, PlayPause
• Directions: UpArrow, LeftArrow, RightArrow, DownArrow

UIResponder:

PressesBegan, PressesChanged, etc.

GCMicroGamePad:
• Polling and callback mechanisms for touch pad on remote.
• DPAD Windowing: Affects the centering of the d-pad. Touch start defenses 0,0. Subsequent values relative to start. Can be disabled with *reportsAbsoluteDpadValues* (set to *true*)
• Rotation values reported in portrait.
• *allowsRotation : Bool* is *false* by default, if *true* fixes orientation so y is always up, x is right.

Game Controller Framework, the menu button triggers pause handler instead of back.

Game needs a way to turn off Focus Engine handling of menu button. The magic class is GCEventViewController.

> **Marco:** Patronage count on server. Count last purchase date, expiration date, initial purchase date. If only a few people have become patrons, expand scope. (N this week, month, year.) Query iTunes API for review by version number for version numbers.

Game Technologies

- On-Demand Resources (ODR): System level service for dynamically loaded content.
  - Better install experience
  - More apps ready to run faster
  - Greater content, up to 20GB.

Special Tag Categories:
- Initial Install Tags:
  - Avoid initial loading
  - Downloaded along with the app.
  - Up to 2GB
  - Included in total size of the app on App Store
- Prefetch Tags
  - Download immediately after install.
  - Up to 4GB - size of initial install tagged content.
  - For stuff right after download, but not necessary for
- Other (On Demand)

NSBundleResourceRequest Downloads asset packs.

Temporary Storage:
NSCachesDirectory
NSTemporaryDirectory

Mike Stern on UX

Avoid blank screens.

Authentication:
- Delay until necessary
- Collect minimal information
- Use the email field
- Refer people to the web
- Create a companion app
- Include fast profile switching
- Make restore purchases easy

Onboard:
- Anything people need to know to get started?
- Get out of the way

- Show controls on screen.
- Use appropriate language (click the touchpad, press most other buttons)
- Teach gradually and in context (Alto's Adventure, show scoring as the game progresses)
  People learn differently.

Performance
Reduce lunch time
Reduce memory footprint
Optimizing resource usage
Ensuring smooth animation
Building responsive UI

Ryan Olsen
App Store

Business Models
1. Free: 73% iOS, 38% tvOS
2. Paid: 18% iOS, 47% tvOS
3. Freemium: 8% iOS, 12%
4. Paymium: 1% iOS, 3% tvOS

Path to success is engagement.

Reach, revenue or both (free has fewer barriers, but less revenue)
Price thoughtfully - research competition. Don't assume iOS model will work on tvOS.
Target Market expectations: differences in experiences in the living room vs mobile. tvOS won't like frequent prompts.
Periodic vs lasting value. Lasting value might argue for freemium model.
Consider your business model early in the product development.

Universal Purchase: Allows customers purchase content once and enjoy it on both iOS and tvOS. Allows discovery across both platforms.

across platforms.
- Apps share name, price (price is visible on both platforms App Stores.)
- Share country availability
- In-app purchase

Customers don't like to pay twice for similar experiences.

Global Expansion:
100+ Apple TV countries.
Think global to local
Consider the top markets:
- US
- Japan
- China
- UK
- Australia
- Canada
- Germany
- France
- Korea
- Taiwan

Start with English speaking, then Europe. Then Japan. tv has seen initial success in: Sweden, Netherlands, and Norway.

Leverage Data: iTC analytics.

Localize app content, name, description, and screenshots.

Product Page:
- Icon: More than any element on the product page, the icon. (Play Kids)
- App Name:
  - Make it memorable.
  - Match the uniqueness and the great value.
  - Keep it short. Avoid including Apple shortcuts.
- Screenshots: Tell a story. Don't add copy unless you need to offer context. Don't put in a TV frame.
- App Description: First 3-4 sentences are most important. Differentiate between iOS and tvOS version
- Keywords
  - Use all 100 characters
  - Separate commes, no spaces
  - don't include name
  - don't include plurals - "we do that for you"
  - don't include trademarks unless you use service/API or have rights

Marketing:

Use an approved TV image.
Include the download on the App Store badge.
Direct users towards search. "search by name"
Add the icon imagery so that users recognize your app.

Getting Featured:
Make a great app
Understand our process
Let us know

Make it great
Create something unique to excite users. Know your target market.
Engaging living room experience. On tvOS we might judge based on how well it brings people together.
Intuitive use of Siri remote.
Fantastic first-time users. Avoid login screens until necessary.
Performance matters. Review notices loading speed, and crashes.
Think about design for Apple TV.

Understand our Process
Refreshed every Thursday.
Themes and holidays. (Health app at New Years, Cooking at Thanksgiving.)
Preference for Localized apps.
Focus on initial launch and significant updates.

Let Us Know
Product details. App ID, category, feature overview. Spend time talking about what makes your app special. Include link on iOS.
Share your roadmap.

Include marketing and PR plan. Press outreach, secured coverage already. Contact App Review 3-4 times before release.

Send us an email: appstorepromotion@apple.com

If you are featured, you might get a request for separate artwork.

Takeaways:
Make great designed app
Choose right business model
Consider Universal Purchase
Think Global, be local
Create a compelling product page
Market your app
Let us know

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