

MATTHEW L ROTH
USER EXPERIENCE DESIGNER

LABEL RESEARCH

Problem: Compare Manage View v. View Manager

- * **Process:**
- * Identify General Guidelines:
 - * 20 characters or less (English)
 - * Verb/Noun or Noun/Verb
 - * Actions typically Verb/Noun
- * Considerations:
 - * Term meaning
 - * Term function
 - * Manage Views implies options to input
 - * Term effect on user
 - * Term appearance

Solution: Presentation, table, and graphics

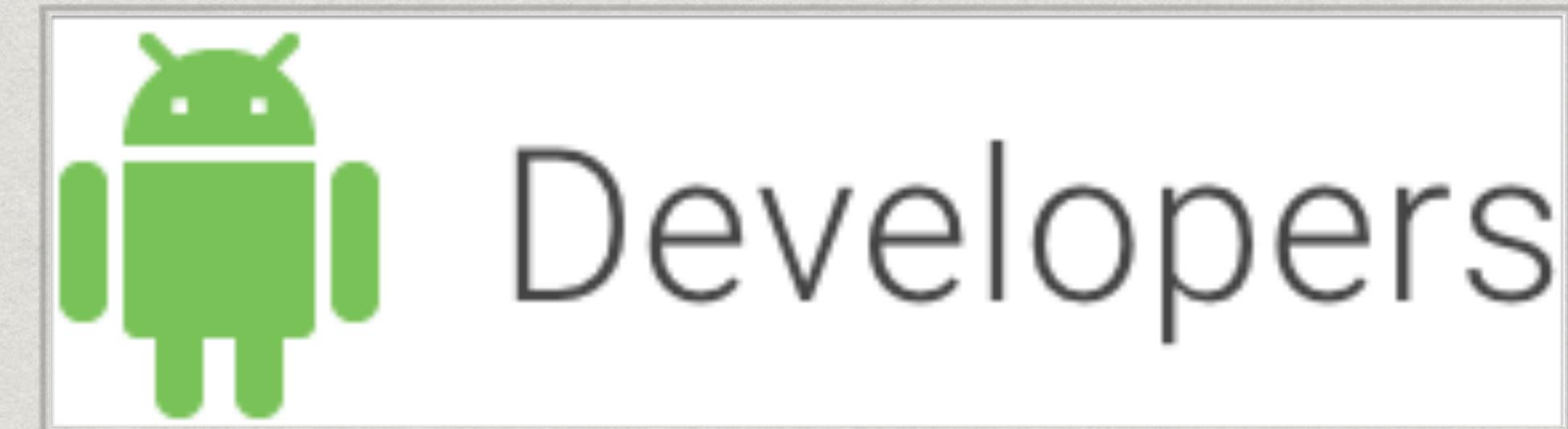
- * Compared and contrasted Manage Views v. View Manager by researching the words meanings and implied connotations respectively
- * Researched differences in appeal both visually and psychologically
- * Presented findings, guidelines, and recommendations in a team meeting using slides

▪ Manage Views v. View Manager	
	
Manage Views	View Manager
+ <u>Empowers User</u> : User have the ability to control the views them self and possess control	- <u>Aids User</u> : While functionality may be the same, View Manager gives idea of an assistant or controller.
+ <u>More Concise</u> : Exact meaning	- <u>More vague</u> : unclear on what the user is to expect, a step by step tool or a setting change.
+ - Confusing whether multiple or single view	+ allows single or multiple views

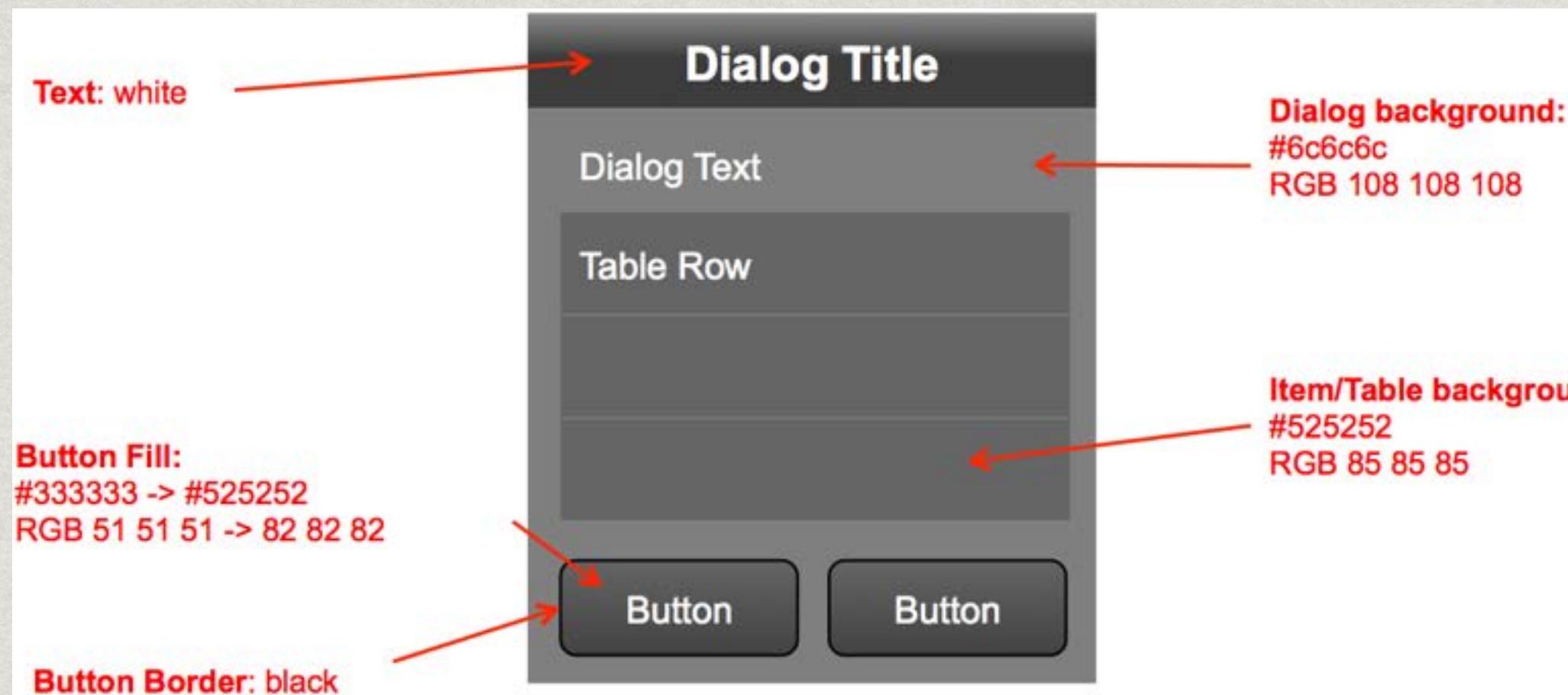
UX STANDARDS RESEARCH

Problem: Create in-house design standards

- * **Process:**
- * Identify Target Standards:
 - * Label Colors, Fonts, Alignment, Search on Mobile
- * Consult Existing References:
 - * Used Apple's iOS Human Interface Guidelines and respective guidelines from Google and Microsoft
- * Survey other Apps:
 - * Looked at common usages across existing apps and compared those to guides

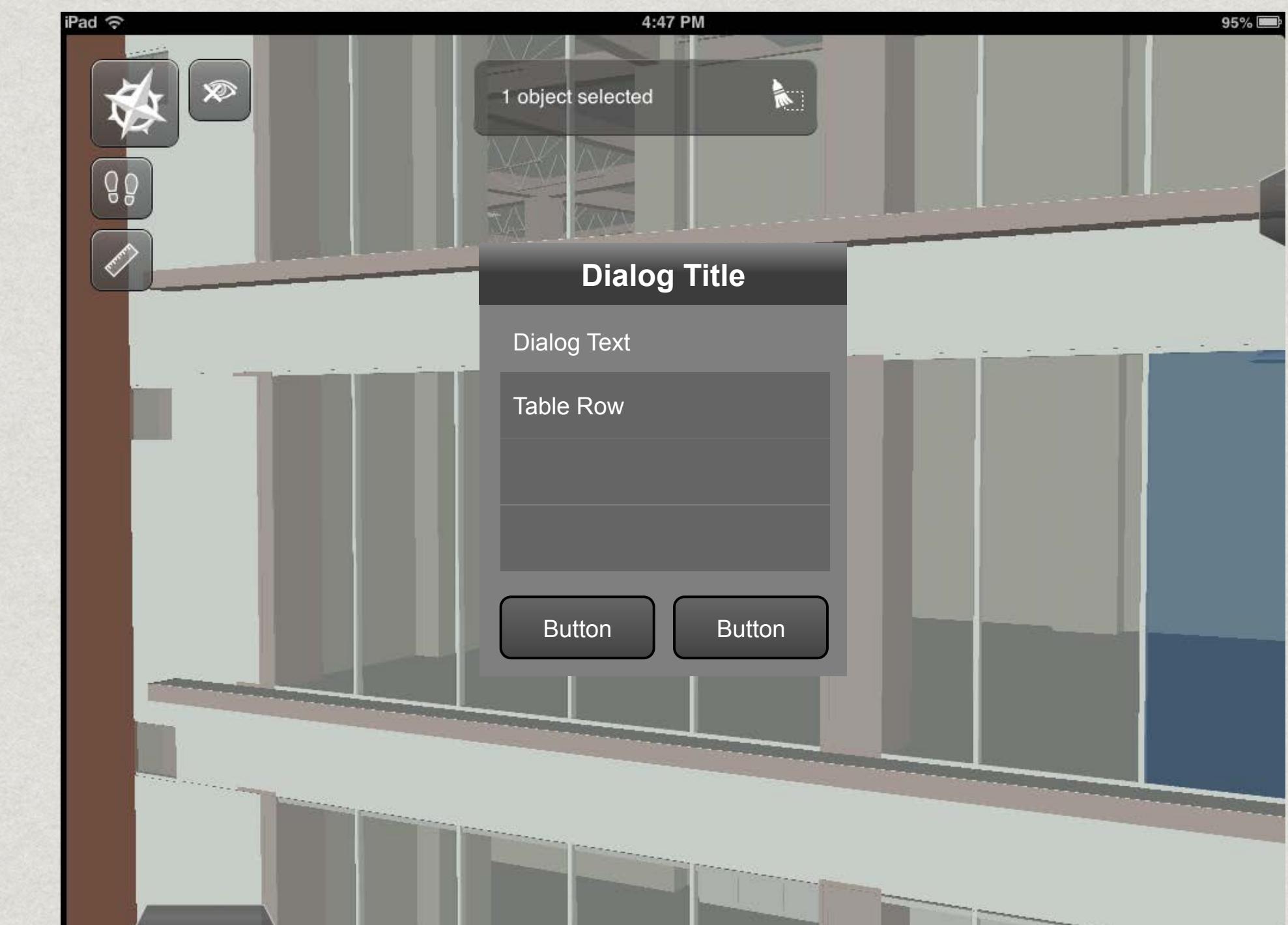
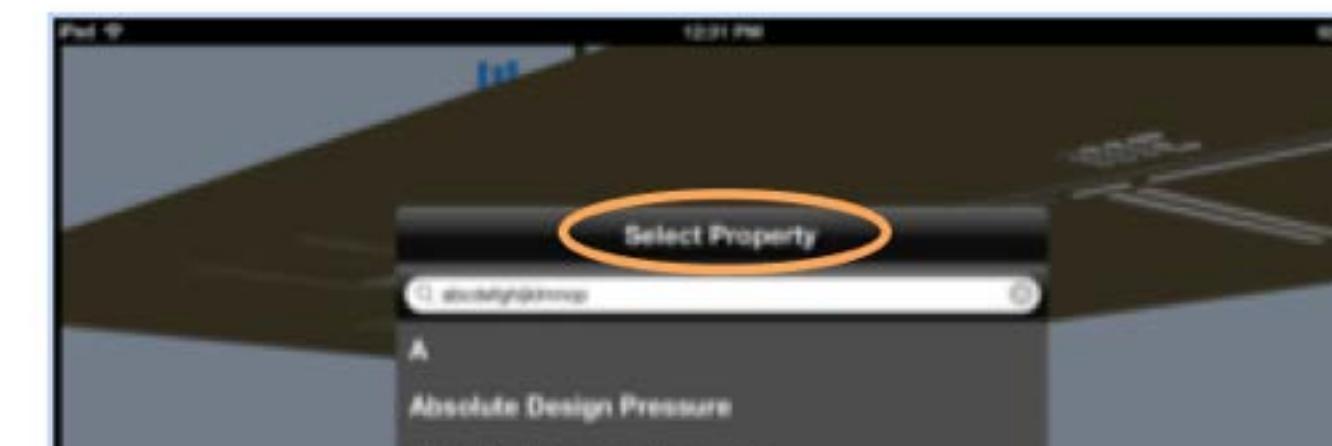


Solution: Created mockups using PowerPoint and Photoshop to demonstrate these standards

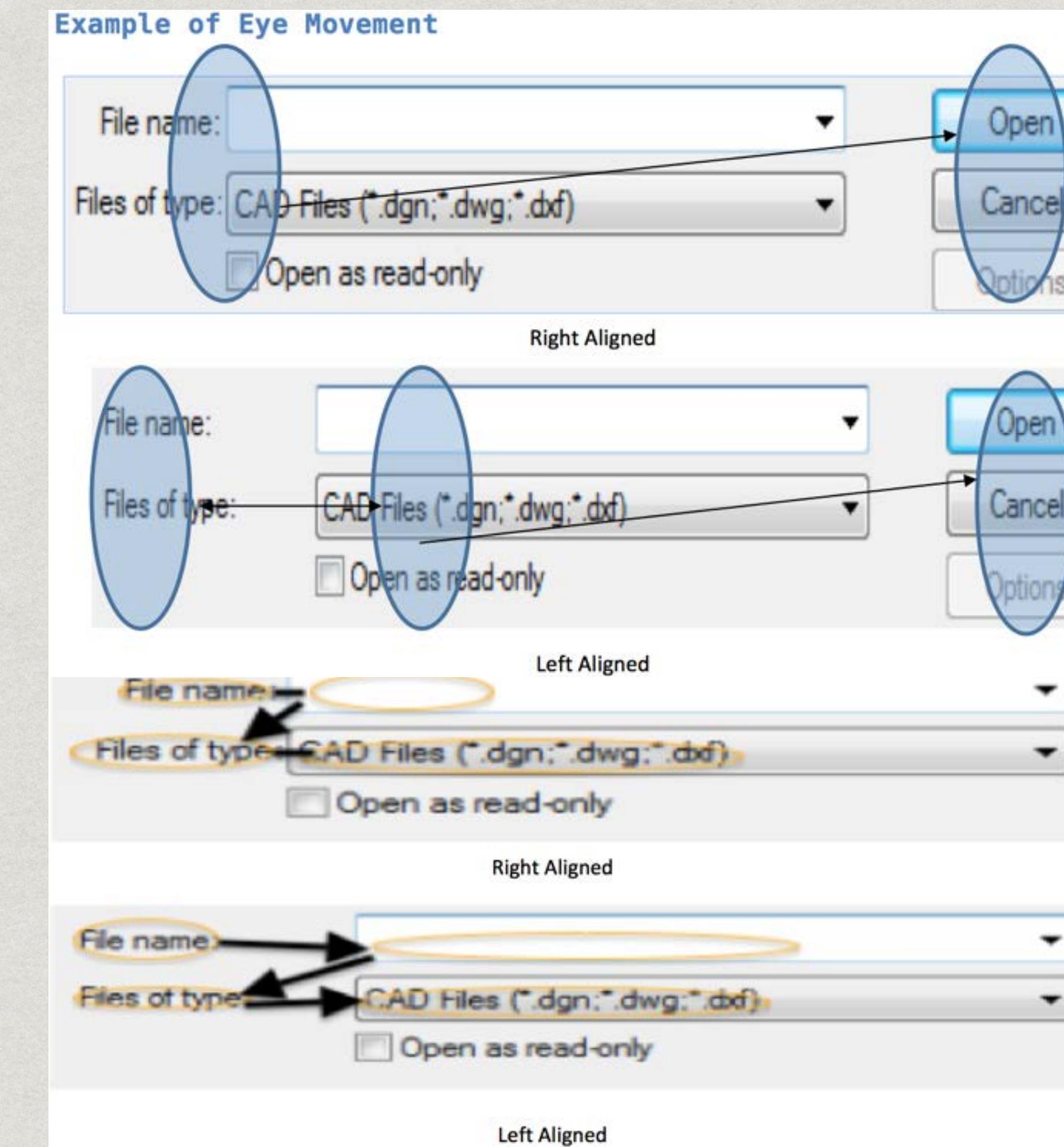
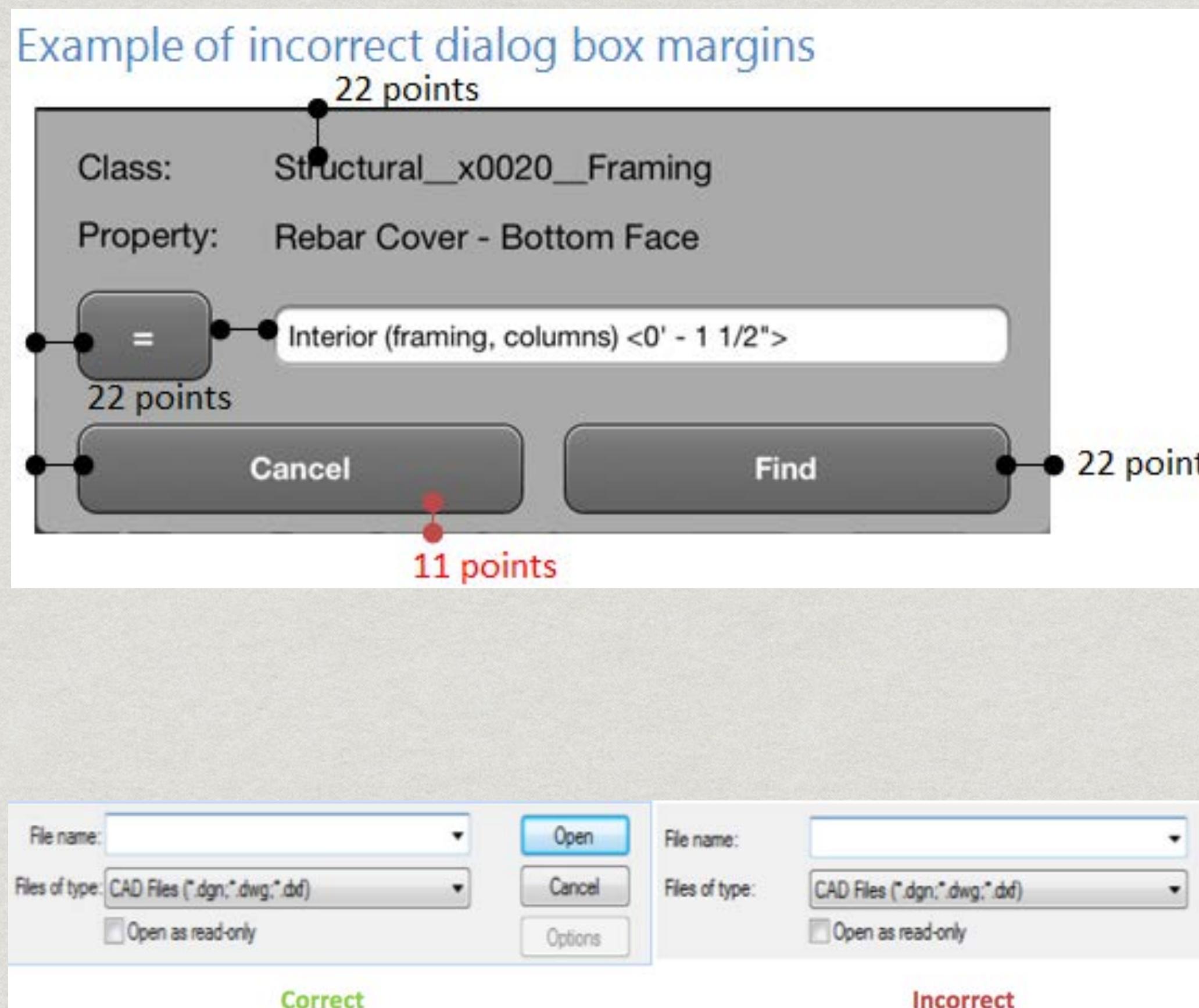


Dialog Box Fonts

Dialog Title text should use font Helvetica Bold at size 21.



Solution: Created mockups to show incorrect usage and explanations



LINKED FILES INTERFACE

Problem: Create in-house design standards

- * **Process:**
- * Researched methods of showing files and links
- * Sketched different interactions and interfaces
- * Selected few sketches and created mockups using Photoshop and PowerPoint
- * Presented and user tested each mockup and refined based on the feedback



Solution: Final end product implemented as a segmented control

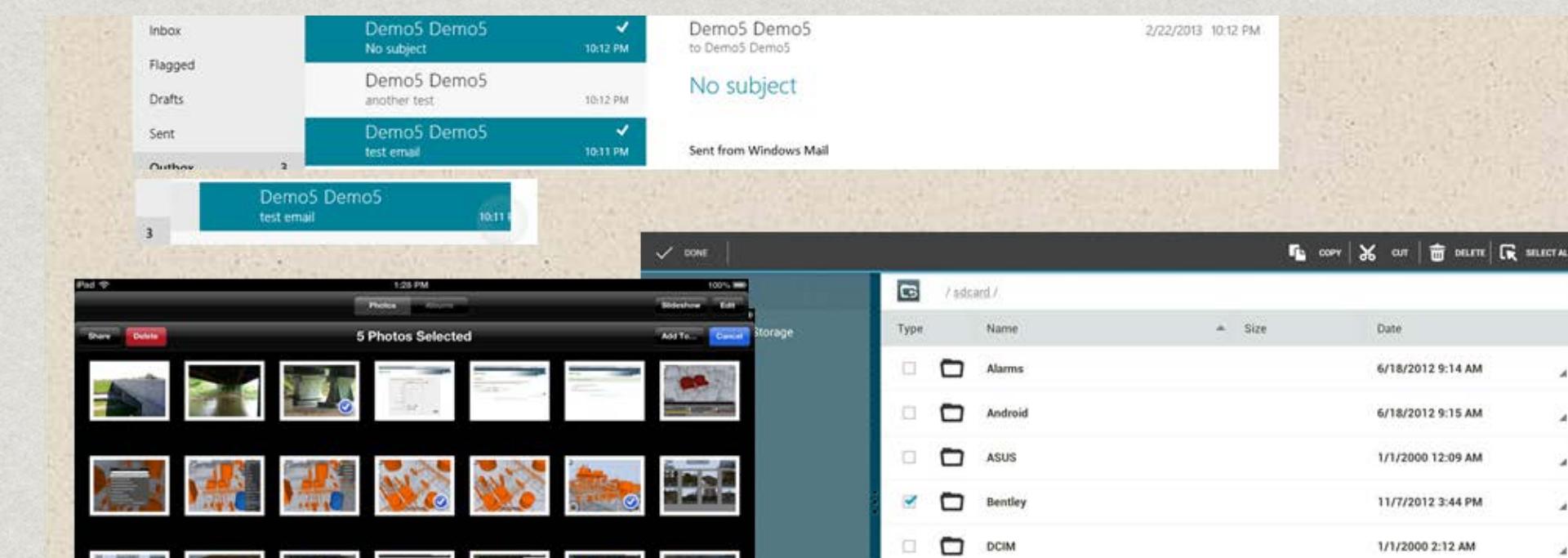


CROSS PLATFORM LIST EDITING

Problem: Create cross platform method of list editing

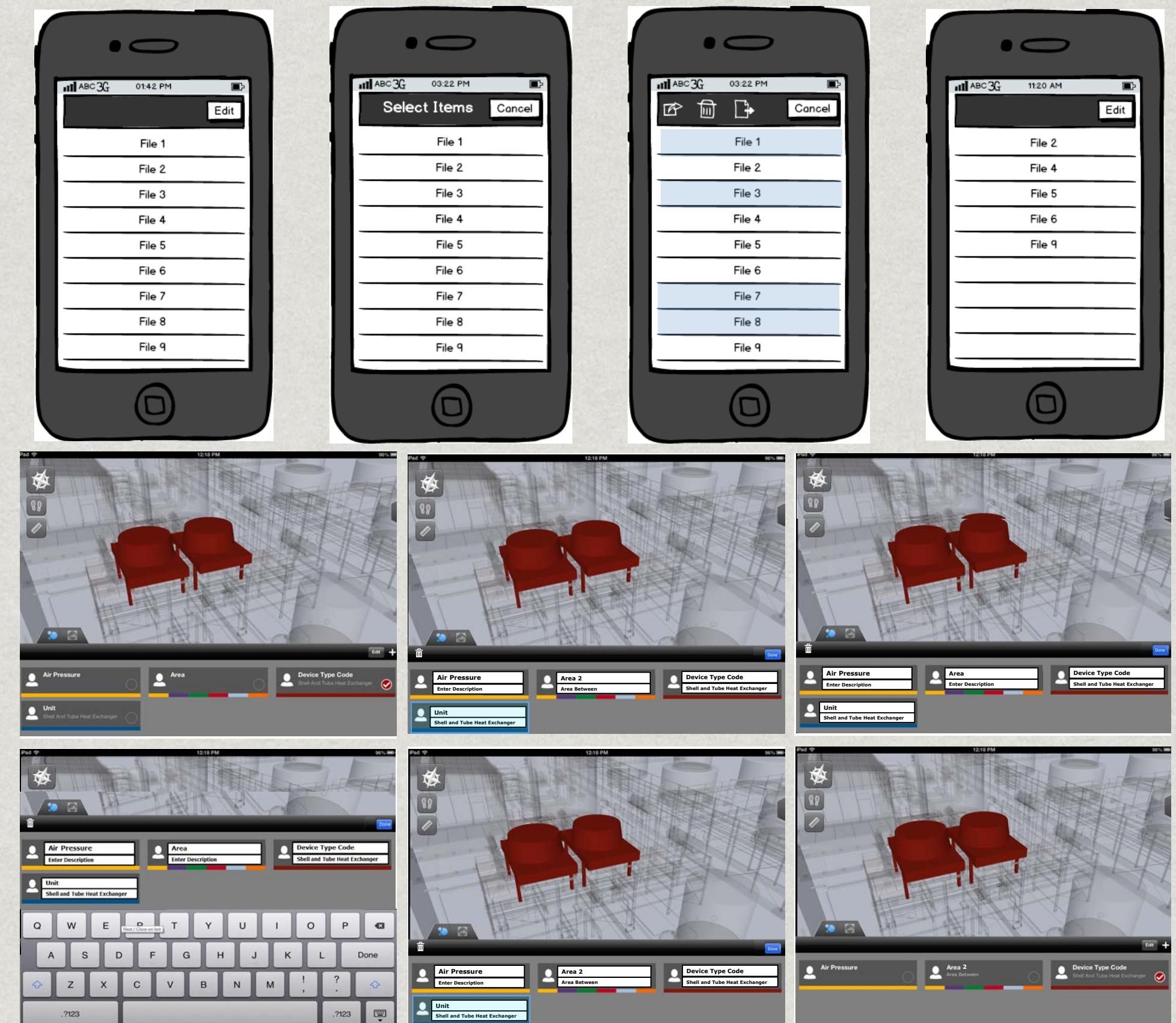
- * **Process:**
- * Researched methods of list manipulation across platforms in existing applications
- * Presented examples of existing cross platform applications
- * Presented list editing across apps with different functions by creating mockups using PowerPoint and Photoshop
- * Presented selection methods across platforms and applications by creating mockups with PowerPoint and Photoshop

	iOS	Android	Windows
Hold to select		X	X
Swipe to select			X
Swipe to delete	X		
Swipe up for options			X
Edit mode	X	X	X
Checkbox select	X	X	



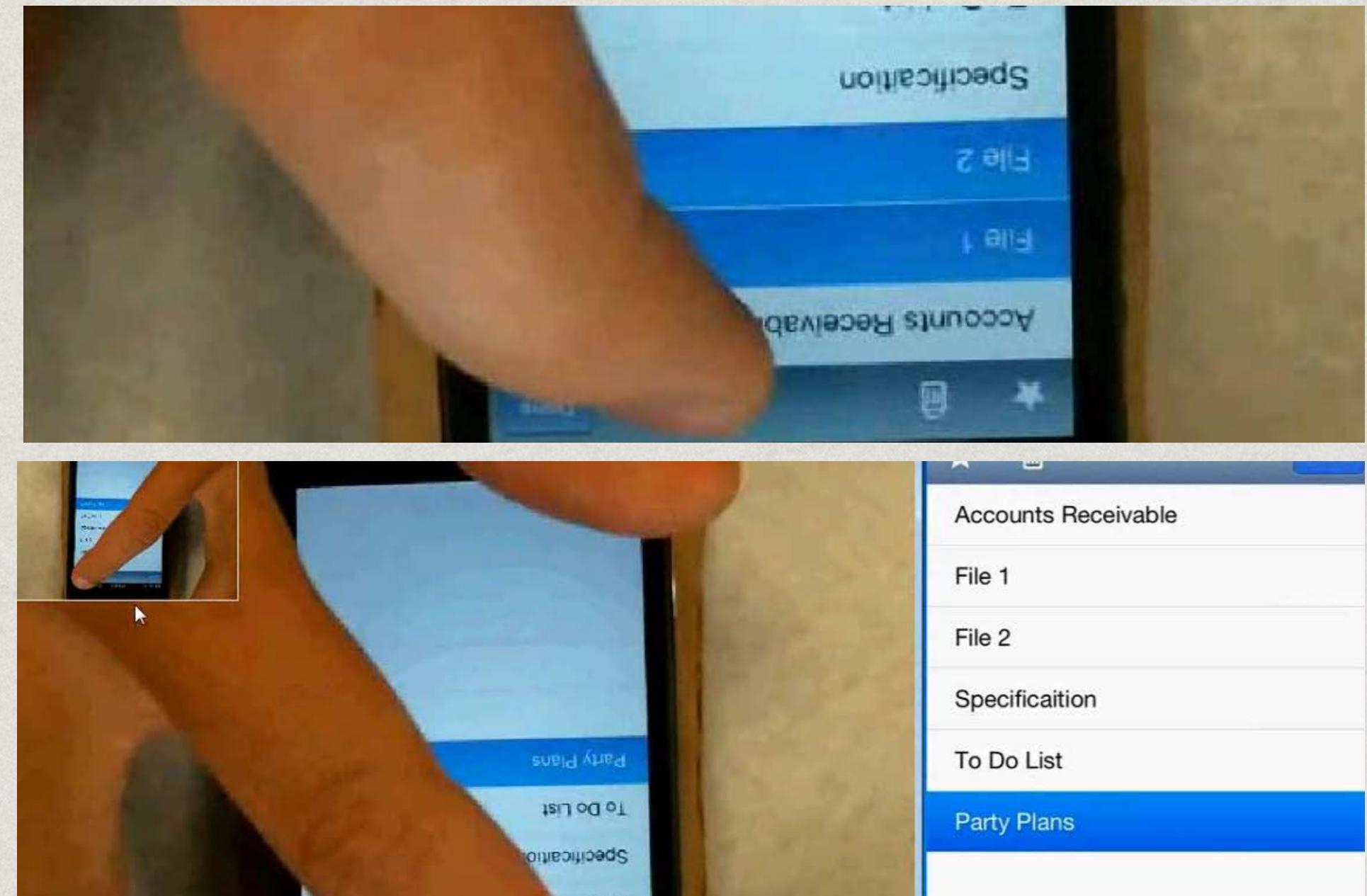
Solution: Design

- * Process:
- * Incorporated research to make a uniform method using common elements
- * Created a paper prototype of an interface of the method determined to be universal and user tested to get quick feedback
- * Created mockups and wireframes of workflow using Balsamiq on the second iteration of the workflow and Indigo Studio on the subsequent iteration



Solution: Testing/Validation

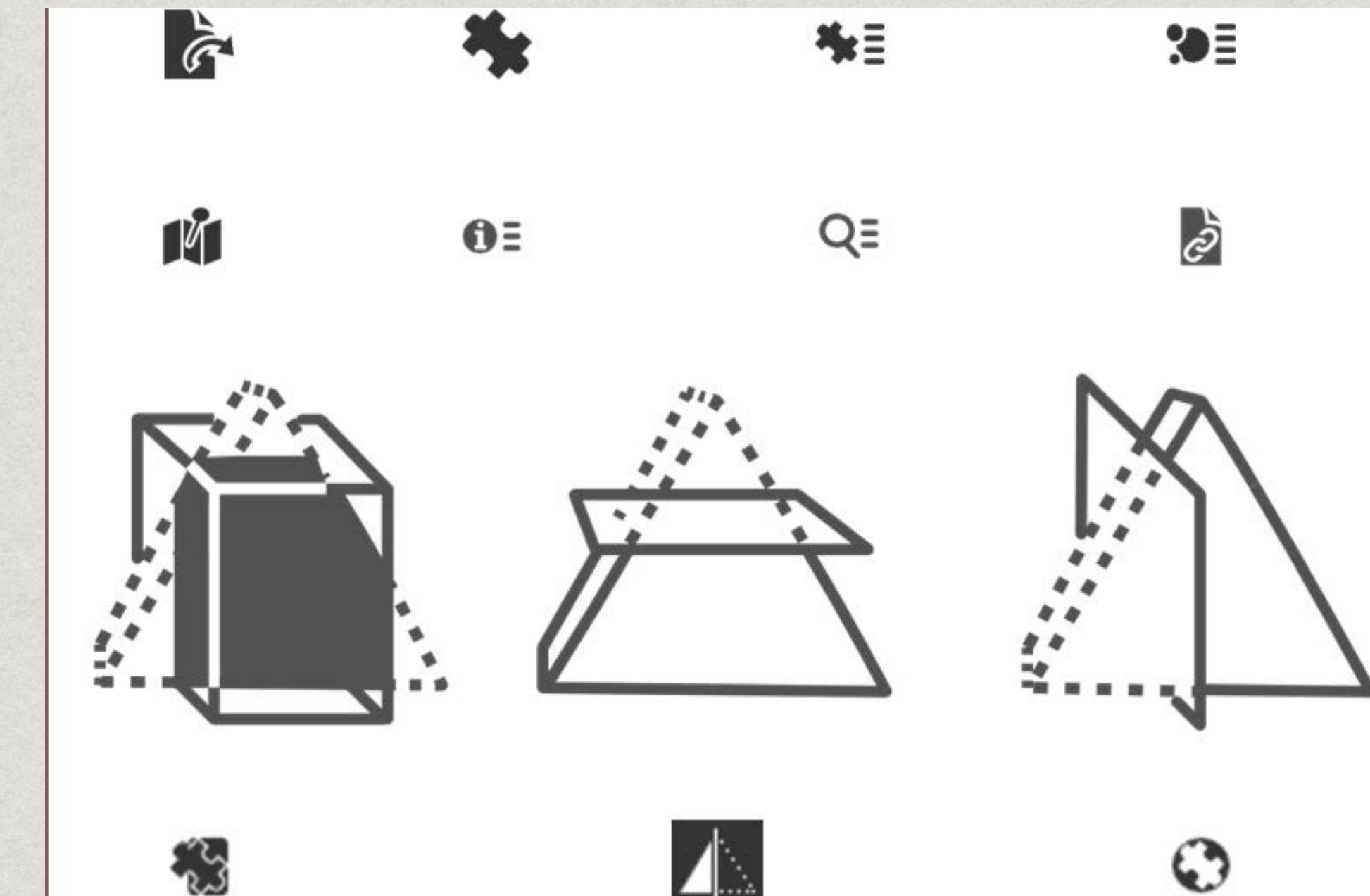
- * **Process:**
- * Created a Lab/script to test the functionality of the method
- * Rapid prototype / paper prototype using Balsamiq wireframes and Indigo Studio
- * Ran usability labs to observe interaction and usability of method designed using wireframes exported to a linked PDF
- * Ran final usability lab with high fidelity prototype written in native code with ten people



ICONS

Problem: Need flat icons to represent different functions and vocabulary

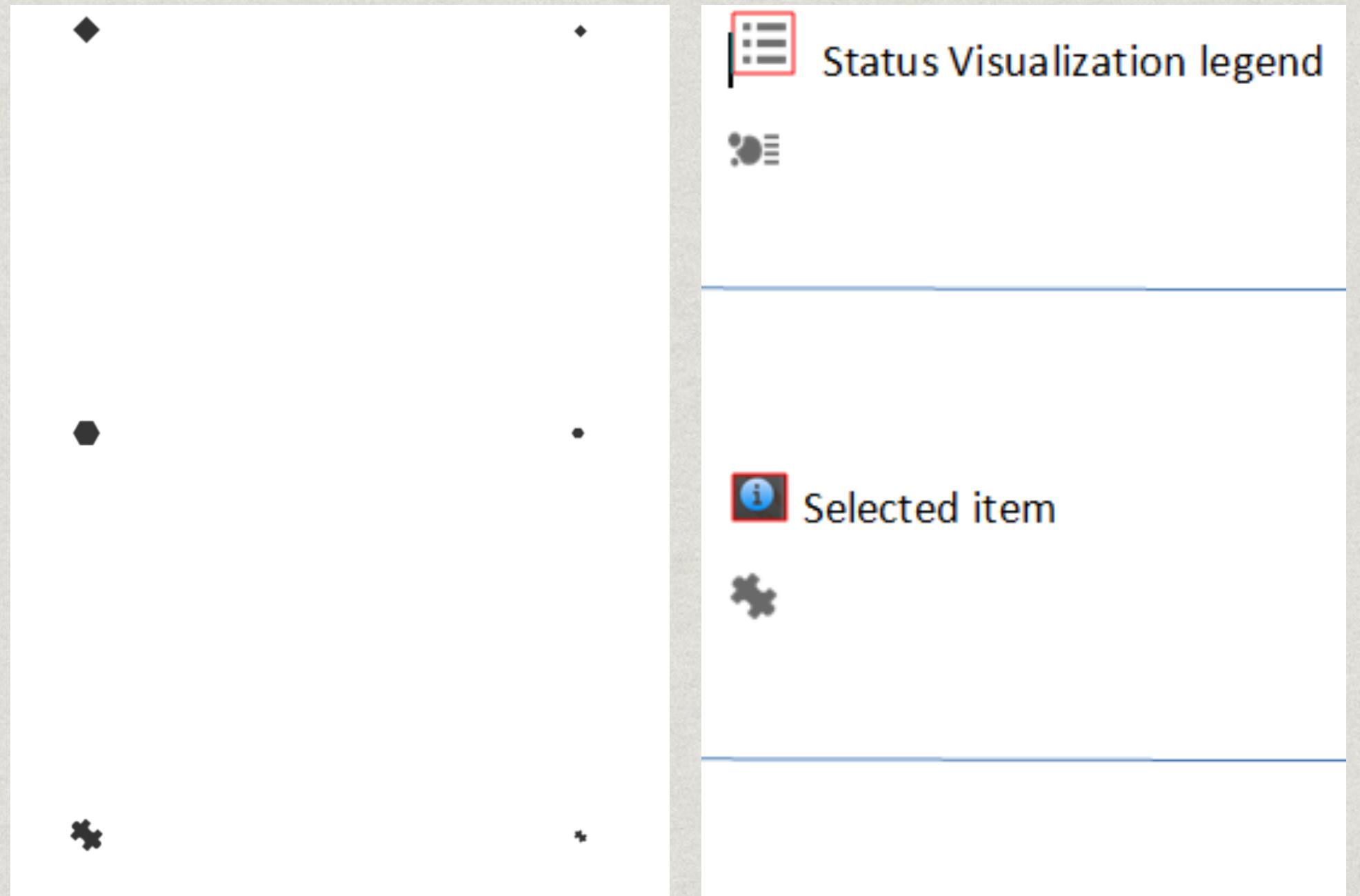
- * **Process and Solution:**
- * Created vector graphics to create icons using Inkscape and Illustrator
- * Research naming conventions
- * Designed within parameters as only 24 pixels and 1 color flat
- * Researched different ways of representing functions through icons
- * Utilized sketching
- * Researched and designed vocabulary for icons
- * Resized icon and made appropriate adjustments



Solution: Testing/Validation

- * **Process:**

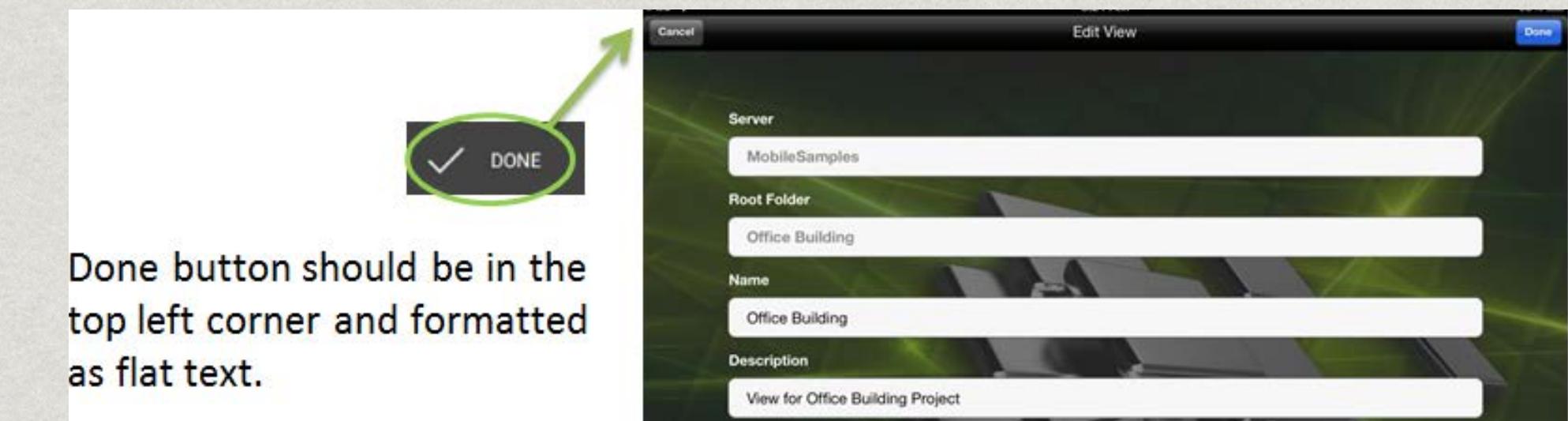
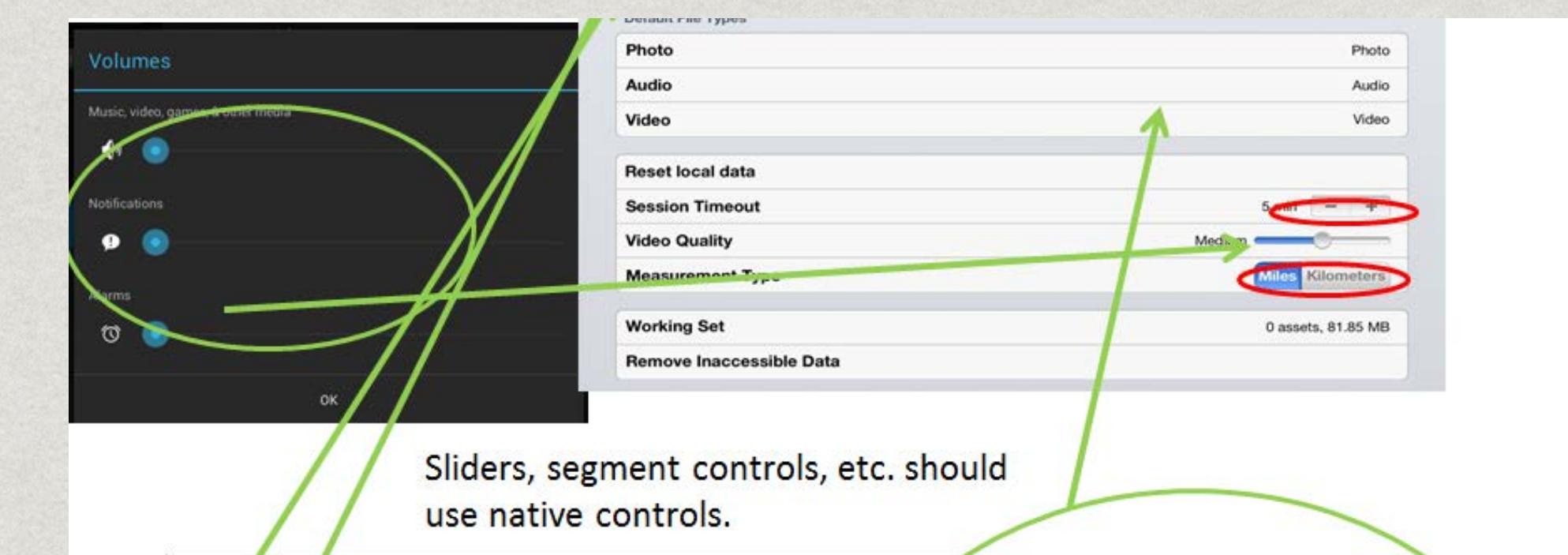
- * User tested see if icons are recognizable as the objects created using .png images of the icon
- * Tested users' assumptions of an icon's meaning
- * Iterated icons based on feedback from users
- * A/B Tested the scalability of shapes/icons



BENTLEY APPLICATIONS TO ANDROID

Problem: Need to find elements that require platform specific redesign

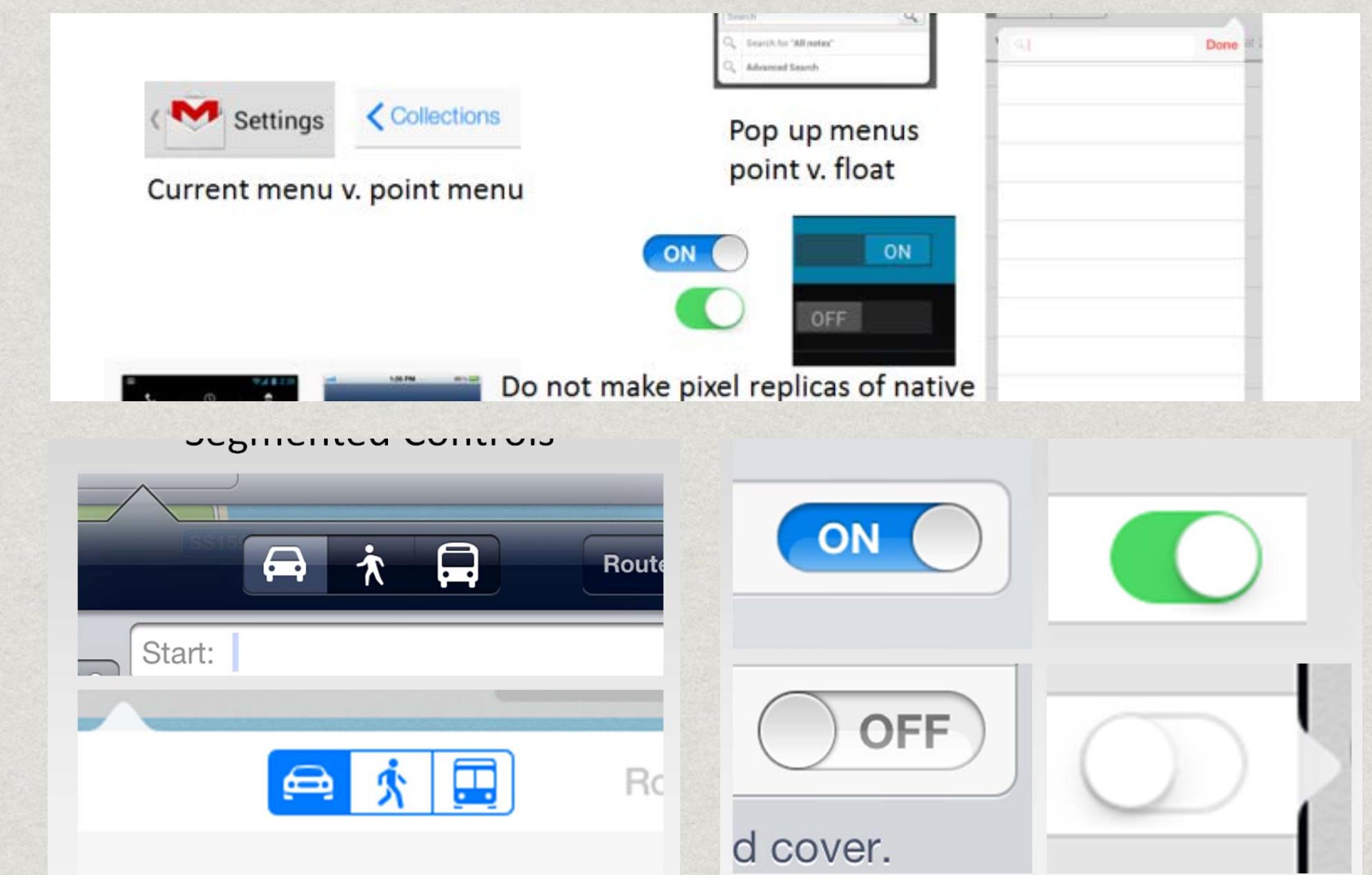
- * Process and Solution:
- * Researched which elements to change to make an iOS designed application to native android
- * Highlighted and presented platform specific changes
- * Researched methods for creating generic cross platform adaptations



IOS 7

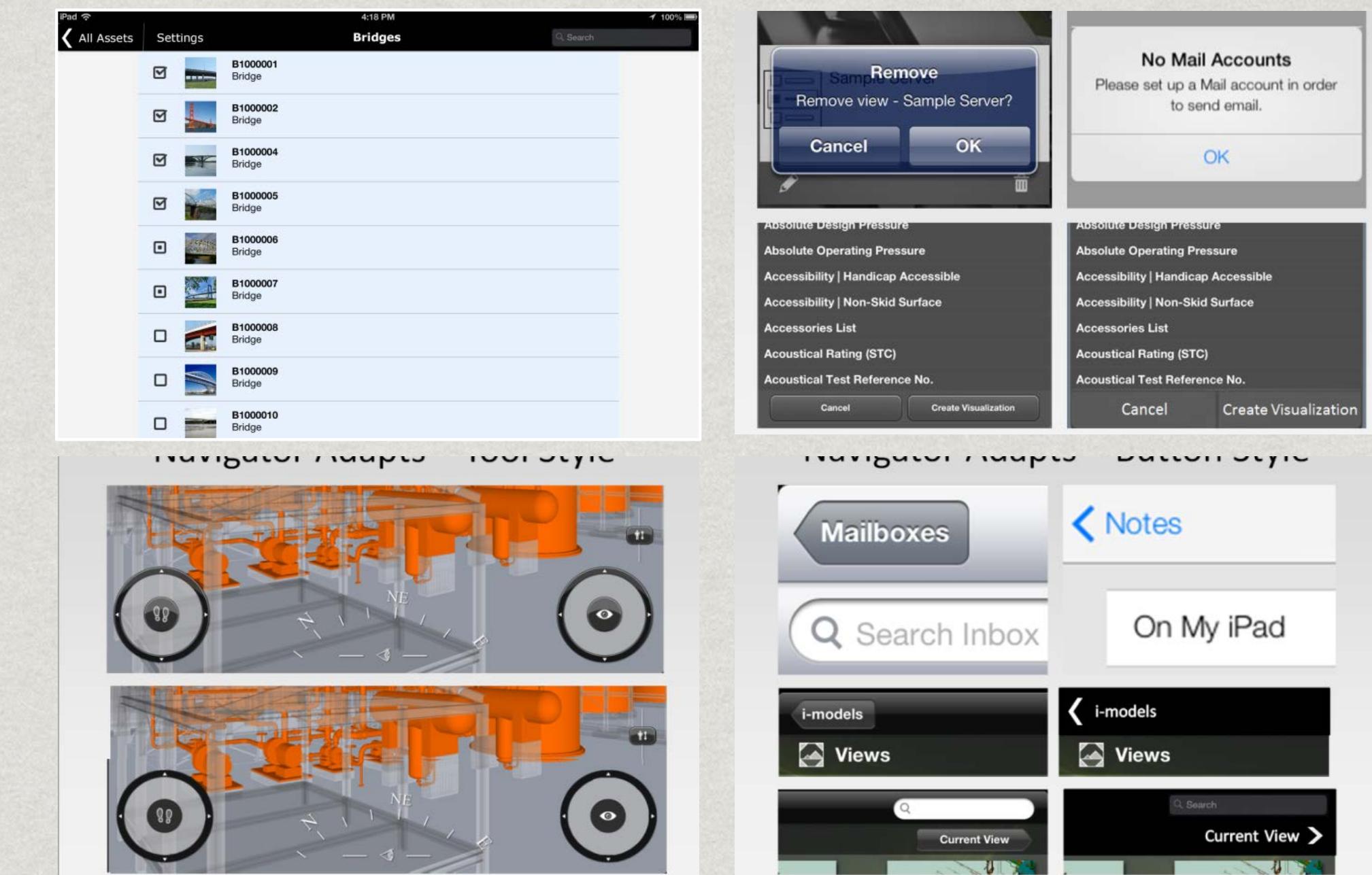
Problem: Recognize changes from iOS 6 to 7

- * Process:
- * Researched and documented:
 - * Changes to iOS 7
 - * Similarities of iOS 7 to Android
- * Noted changes from iOS 6
- * Created mockups of differences



Solution: Sample changes

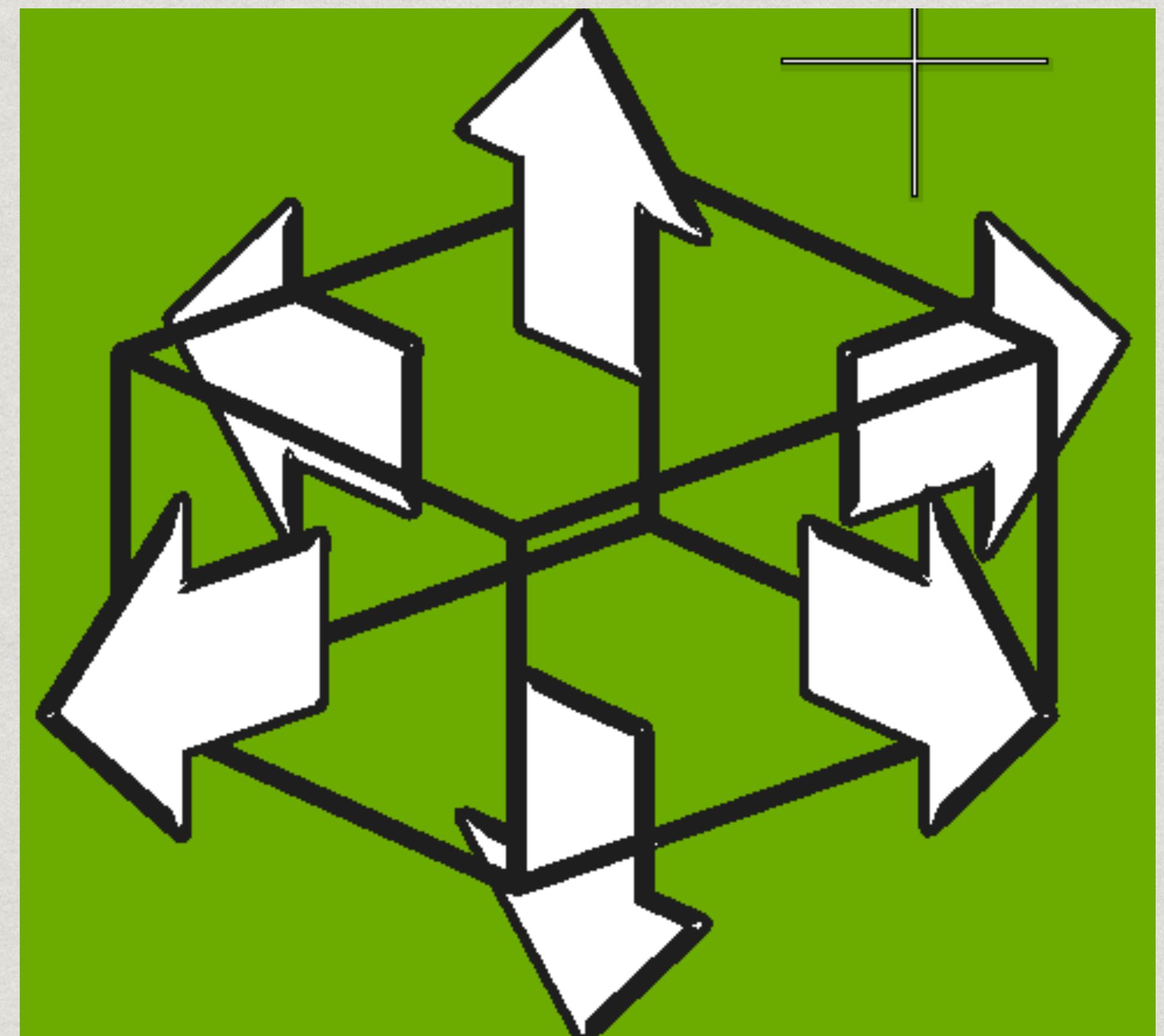
- * **Process:**
- * Researched elements that would need to be changed in iOS 7 currently in the apps
- * Made mockups of examples in Photoshop and PowerPoint



3D SELECTION TOOL

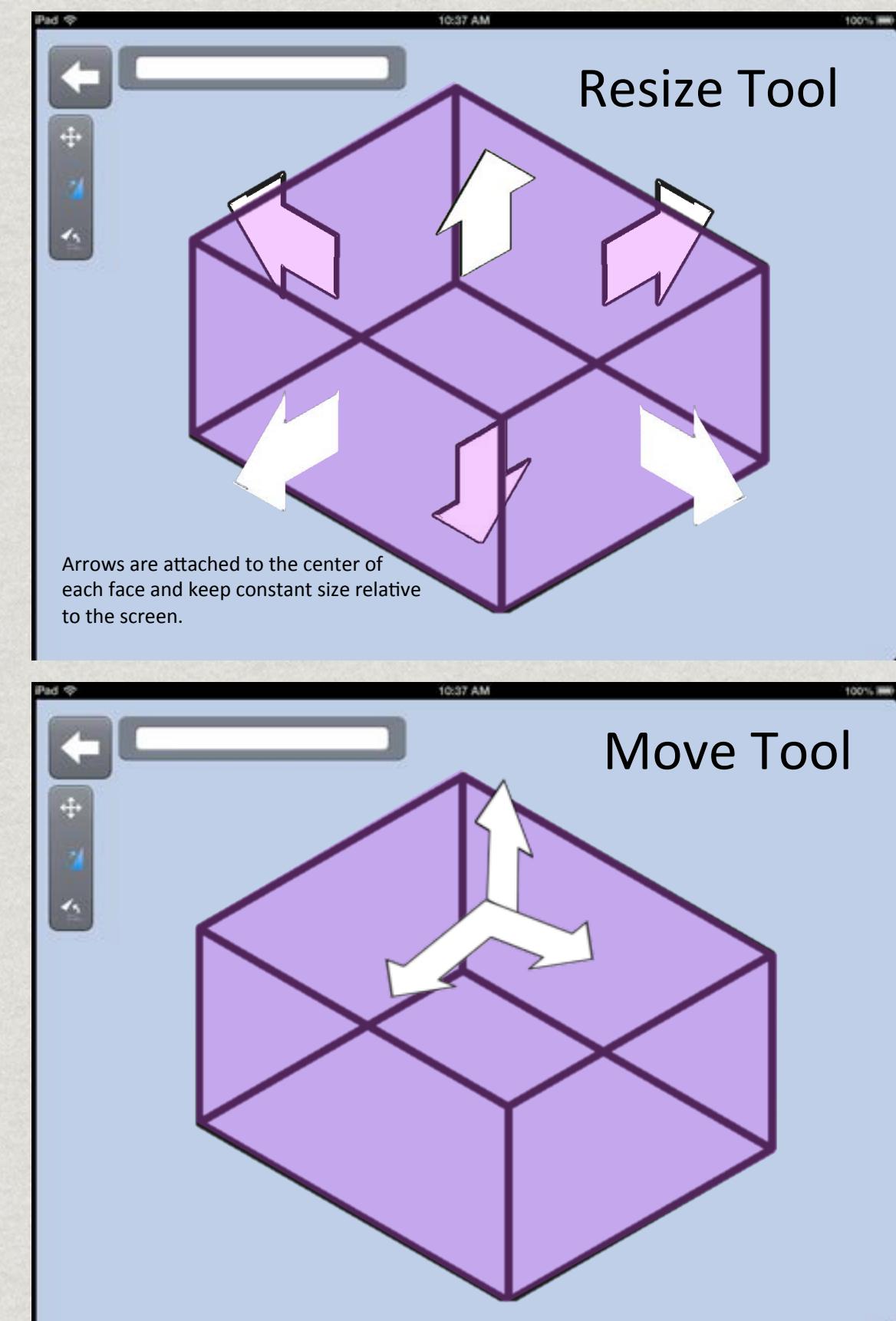
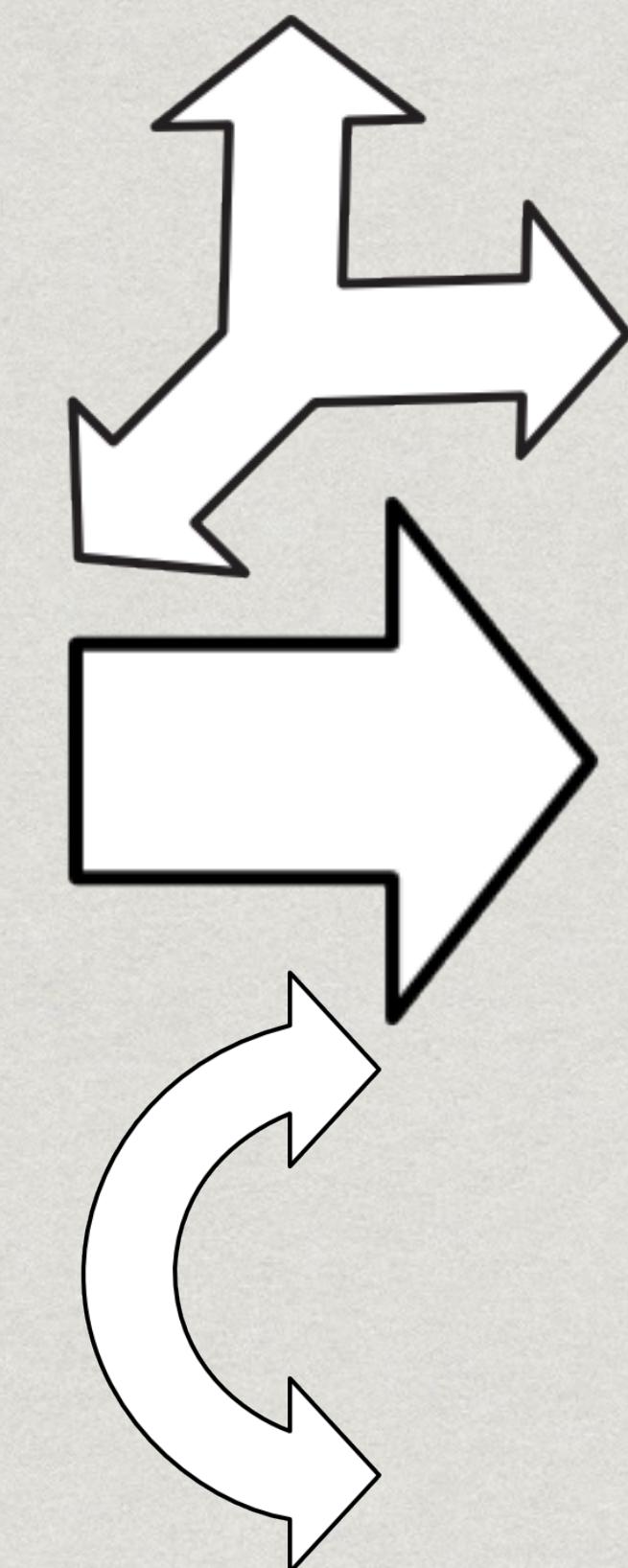
Problem: Create an interaction for manipulating a 3D selection

- * **Process:**
- * Research different applications that use widgets to alter 3D objects
- * Compiled lists showing all examples
- * Microstation Drawing of resize tool



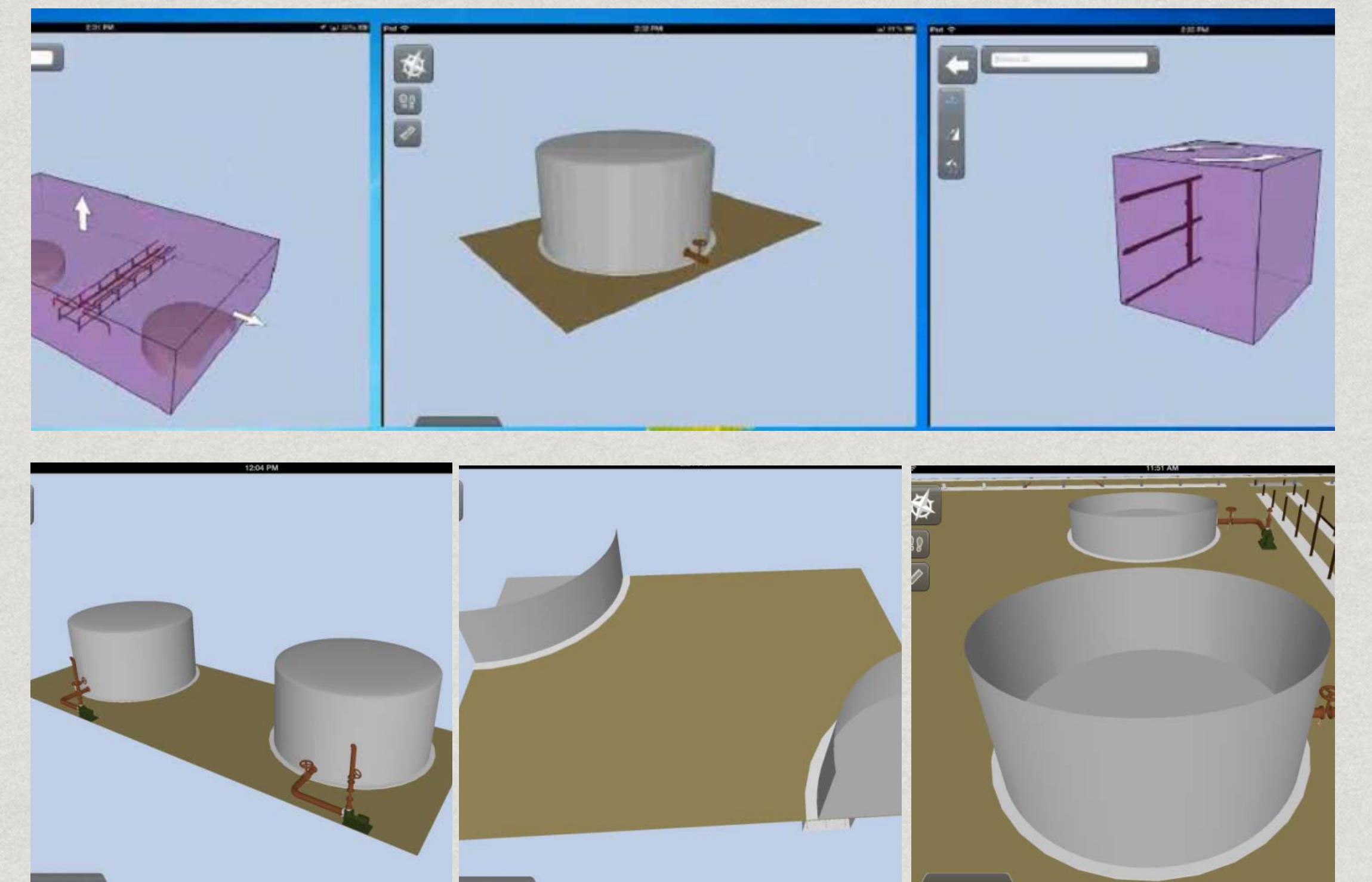
Solution: Redesigned manipulation

- * **Process:**
- * Represented different views at different box sizes and angles/perspectives
- * Sketched and mocked up different manipulation interactions
- * Deigned new control widgets/icons



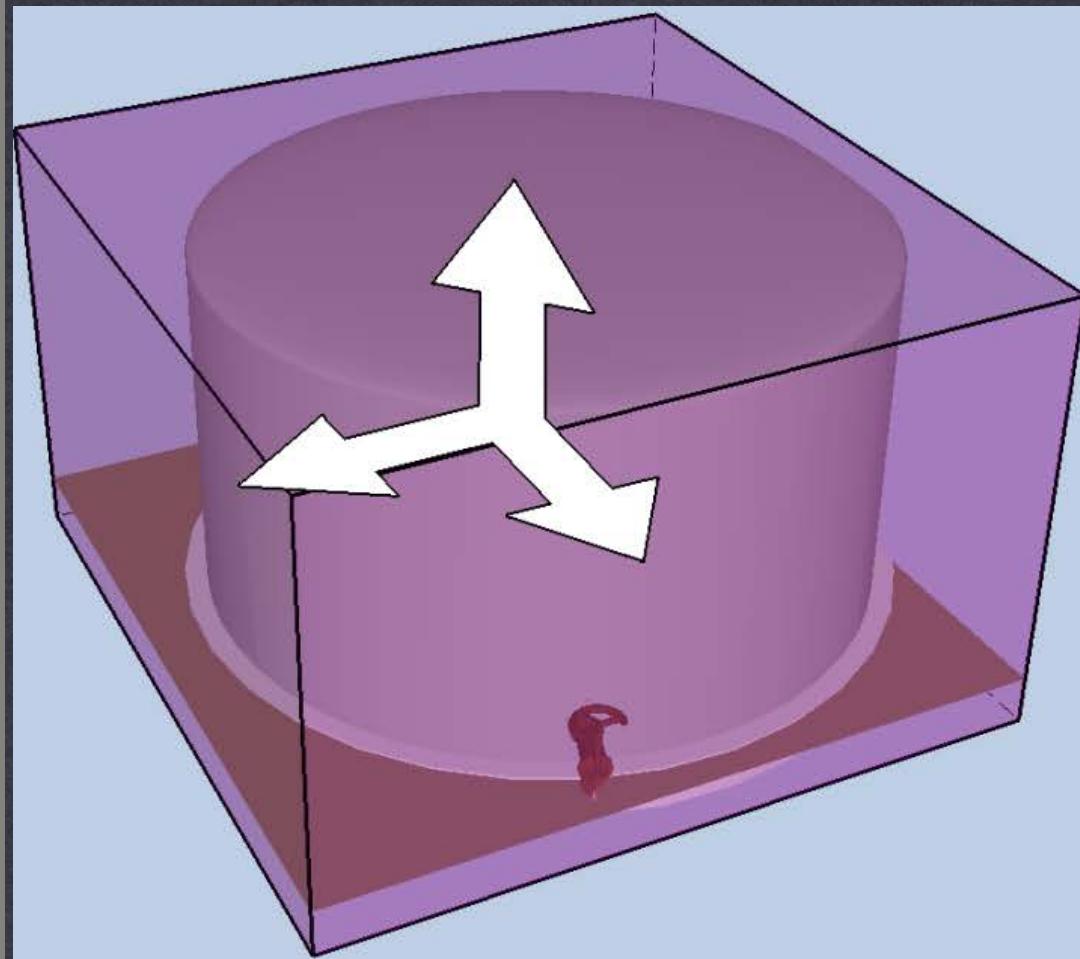
Solution: Navigator Section Tool Labs

- * **Process:**
- * Created lab script to test all three section tools
- * Recorded interactions with Reflector to record screen interactions
- * Conducted the lab on seven participants

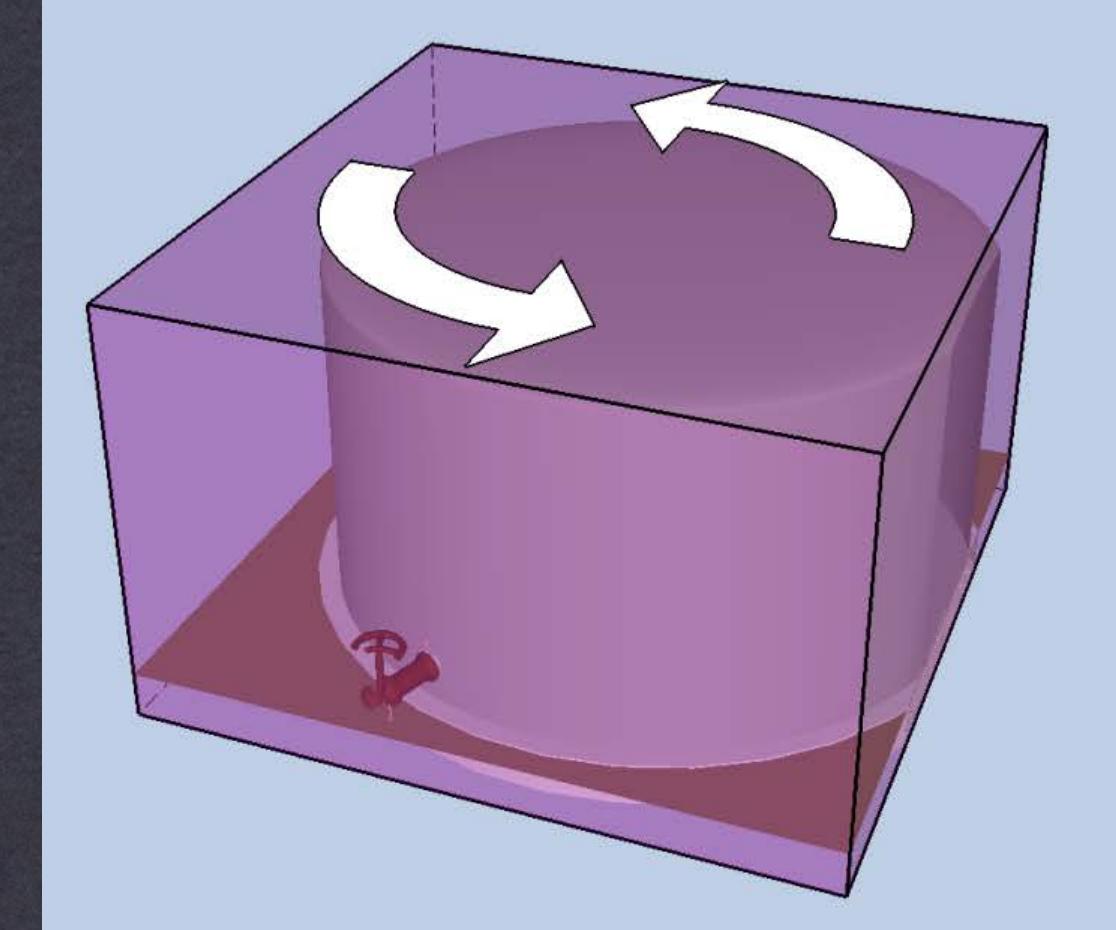
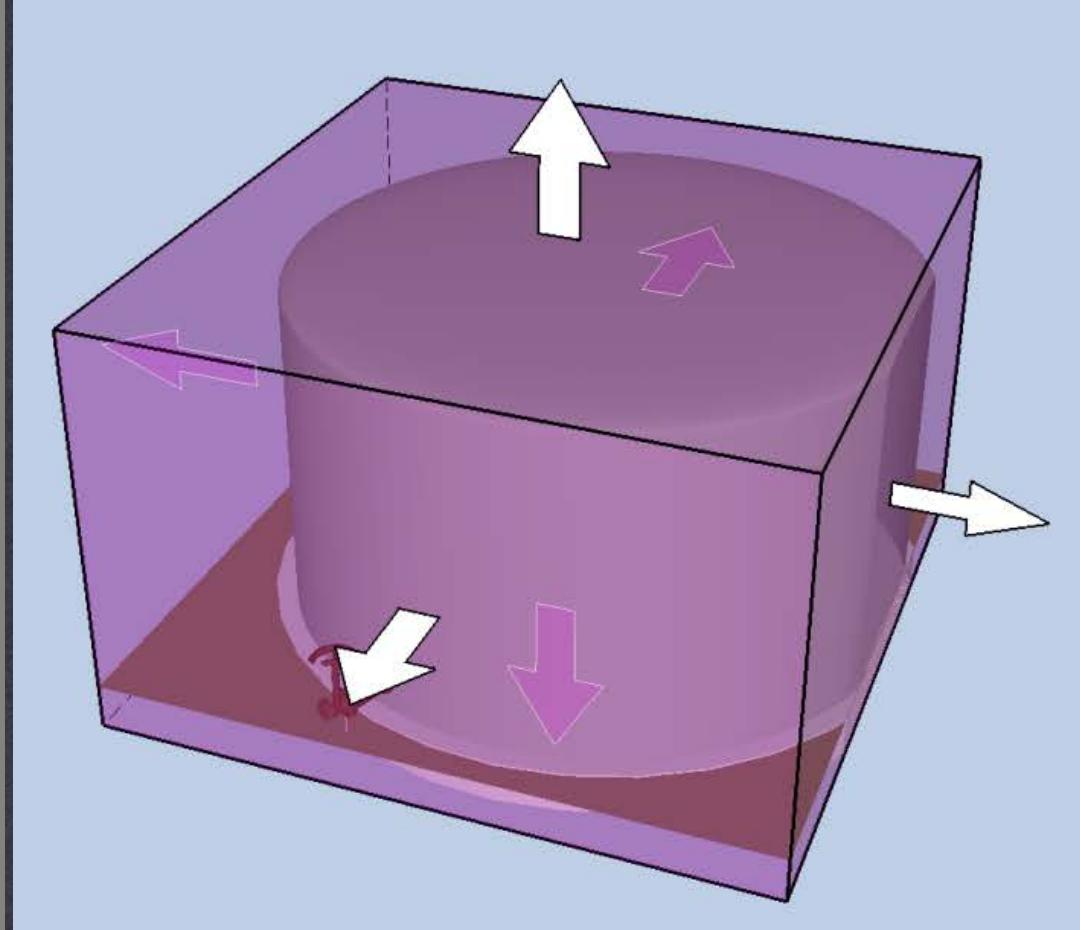




BENTLEY NAVIGATOR



Name
Section 00



BENTLEY FIELD SUPERVISOR

Par. Storage Tank
ST-T001

Design Geometry

Diameter
15000 mm

Height
8000 mm

Roof type
Dome

Roof height
725 mm

WORK IN RELEASED PRODUCTS

STARTUPS

Problem: Language learning

- * **Process:**
- * Followed Lean Startup Method
- * Created personas of potential customers
- * Researched assumption requirements by interviewing potential customers
- * Created Mockups and wireframes using PowerPoint and Indigo Studio and tested with potential customers

Solution: Agent Lang

- * An educational game series to teach adults new language through gameplay
- * Pilot language: English -> Swedish
- * Game play: Casual Role Playing / Adventure Game
- * Tasks: Simulate real life tasks in a foreign country



Agent Lang

Problem: SNCF's Use case to foster innovation inside the company

- * **Process:**
- * Followed Lean Startup Method
- * Created personas of potential customers
- * Bodystorming
- * Researched assumption requirements by interviewing potential customers
- * Created mockups and wireframes using PowerPoint and Indigo Studio and tested with potential customers



Solution: Game platform to make innovation fun and engaging

- * Provide a S.M.A.R.T Solution
 - * Specific, Measurable, Agreed, Realistic, and Timely
- * Unite workers from different sections of company for better collaboration
- * Encourages employees to be a part of the company rather than just ones job title



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