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# GAMEPAD NAVIGATION

# DESCRIPTION

Available on [Unity Asset Store](#)

MUST HAVE for Console Developers (and other pointer less platforms).

This package allows you to :

- ▶ Create keyboard/joystick navigable scroll views
- ▶ Create enterable sub-selections of Selectable Objects
- ▶ Associate keyboard keys and joystick buttons with Selectable Objects
- ▶ Generate custom Animator Controllers for Scroll Views
- ▶ Add Unity Actions to Unity Events of Scroll Views and Selection Groups
- ▶ Add listeners to C# Events of Scroll Views and Selection Groups
- ▶ Handle Custom Inputs & Keycodes on Selected UI object

# FEATURES

- ▶ Fully Documented Source  
Implements full context documentation, tooltips and comments.
- ▶ Samples Provided  
Includes samples with code based initialisation.
- ▶ Programmers and Artists friendly  
Unity Events and Animator Triggers allow artists to fully customise all events, while C# Events allow programmers to subscribe to all events.
- ▶ Mouse Pointer/Scroll and Touch Device Compatible  
Although the components are tailored to work with keyboards and game controllers, they are compatible with click and touch.

## DOCUMENTATION

### ▶ [Selection Groups](#)

Turns off all selectable objects but its content when entered, and vice versa.  
Plays well with Selection Scroll Views.

### ▶ [Selectable Keycode](#)

Associate any Selectable (Buttons, Toggle, etc) with a keyboard key or game controller button.

### ▶ [Custom Inputs](#)

Handle any Keycode/Input on selected UI object with a simple interface.

### ▶ [Selectable Custom](#)

Passes navigation to custom events.

### ▶ [Selection Scroll Views](#)

Turns a Scroll View into a Non Selectable Object that receives navigation events from its content. Allows Random selection to be made in the content.  
Implements Unity Events, C# Events and Custom Animator Triggers.

### ▶ [Navigable Scroll Views](#)

Turns a Scroll View into a Selectable Object. Navigation is rerouted to Selectables (or custom non selectable elements).  
Implements Unity Events, C# Events and Custom Animator Triggers.

### ▶ [Scrolling Alignment](#)

Align selection of Selection ScrollViews and Scrolling Lists with a RectTransform guide.

POINTER LESS UI TOOLS

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# SELECTION GROUPS

# SIMPLIFYING NAVIGATION

Situation : when several Selectable elements are interact-able at the same time, the navigation system will have the user go through all of them



Automatic Navigation can become quite unpredictable in scenarios with many selectable elements.

# SIMPLIFYING NAVIGATION

Selection Groups will automatically set their content to non interact-able.



This allows the user to by-pass Selection Group content when navigating through the screen with keyboard / game controllers.

# DEFAULT SELECTION

When entered, Selection Group Elements are made interact-able, and other Selectable elements in the scene are made non interact-able, thus limiting the navigation to the group content.

ENTER

Selection Groups can “Enter on Select” to make navigation easier.

Selection Groups have a default selection, so that when entered, the default selection is automatically selected.

Selection Group



EXIT

Selection Groups can “Auto Exit” when navigating to an empty area.



# NAVIGATIONS JUMPS

Selection Group Component

ENTER

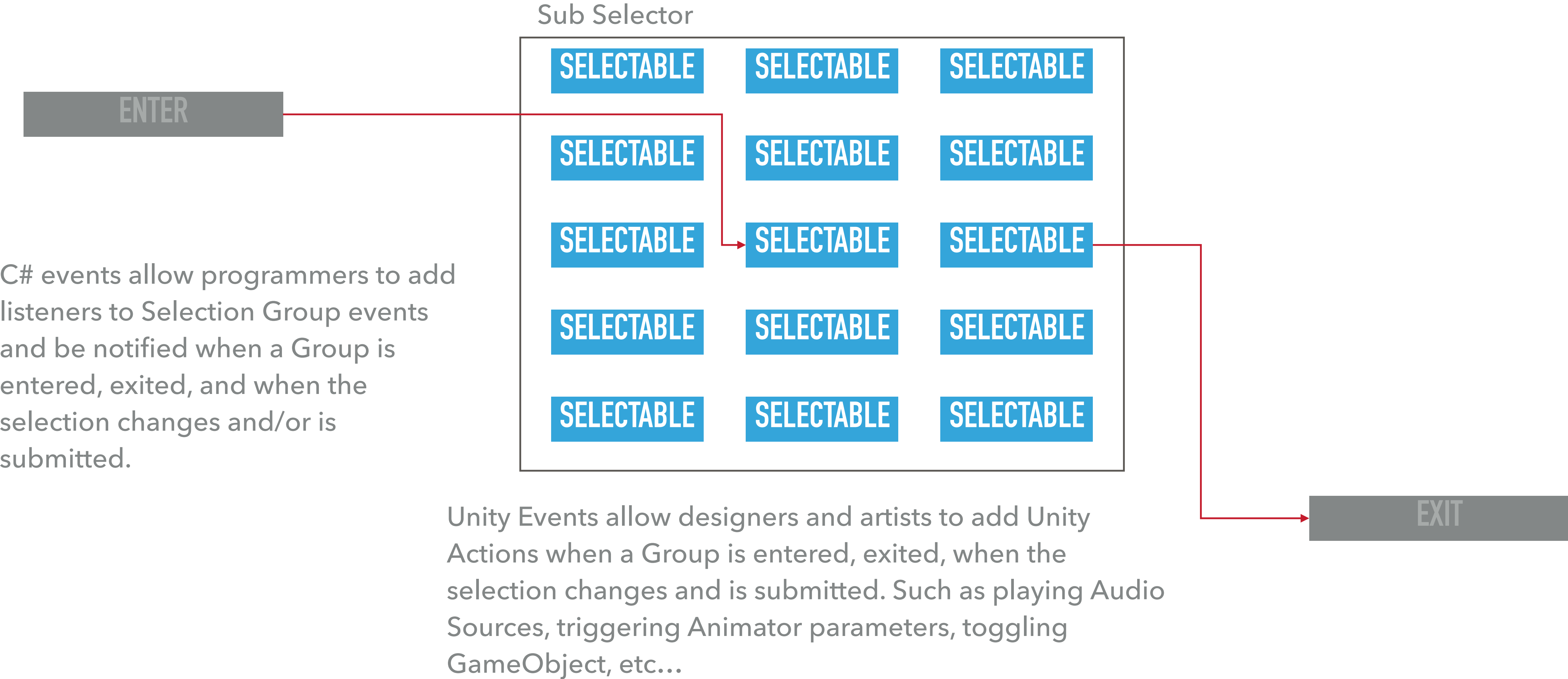
Selection Group Content

SELECTABLE	SELECTABLE	SELECTABLE
SELECTABLE	SELECTABLE	SELECTABLE
SELECTABLE	SELECTABLE	SELECTABLE
SELECTABLE	SELECTABLE	SELECTABLE
SELECTABLE	SELECTABLE	SELECTABLE

Selection Group component can point to another Content object.

This is useful when the content is not simply the children of the Selection Group Transform, like when using Scroll Views.

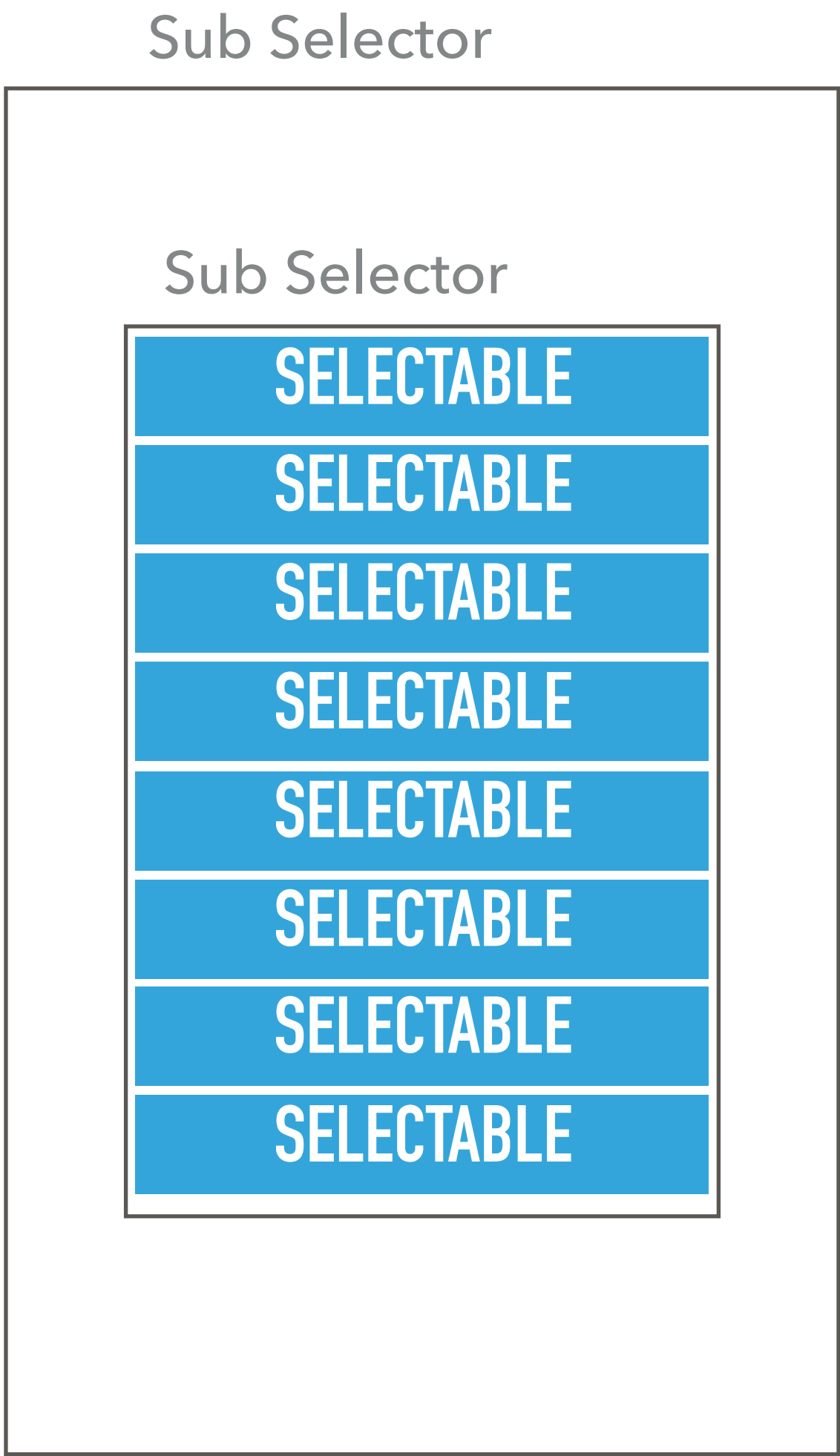
EVENT HANDLING



# USE CASES

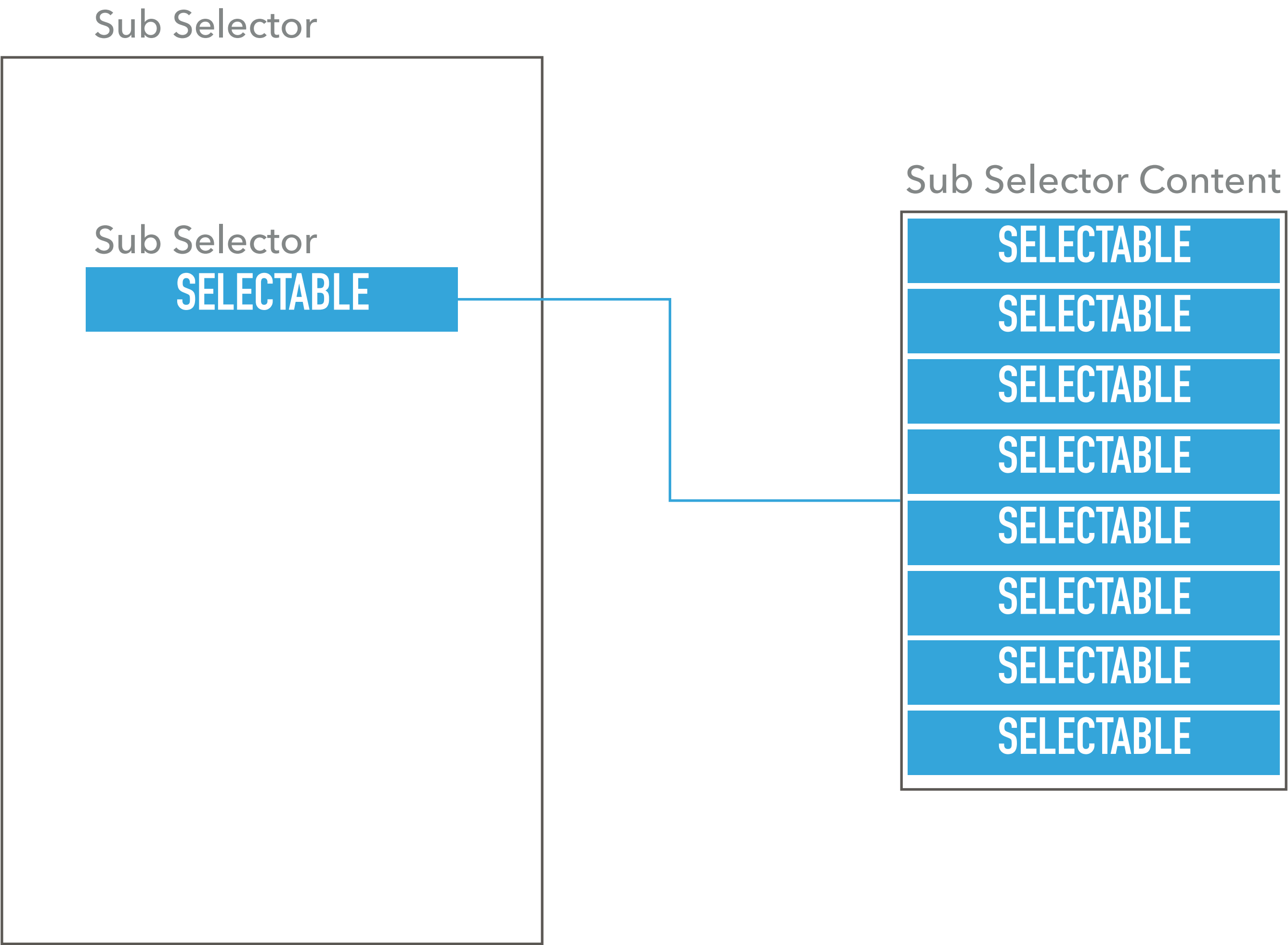
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NESTING SELECTION GROUP  
IS CURRENTLY NOT SUPPORTED



# USE CASES

NESTING SELECTION GROUP  
IS CURRENTLY NOT SUPPORTED



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**SELECTABLE** *KEYCODE*

# SHORTCUTS

Situation : when using keyboard or game controllers, some sub-selection may have default shortcuts, such as numbers or console controllers buttons.

Group

7	8	9
4	5	6
1	2	3
#	0	.
CANCEL	CLEAR	OK

The Selectable Keycode component will execute the selectable submit handler when the keycode is pressed.

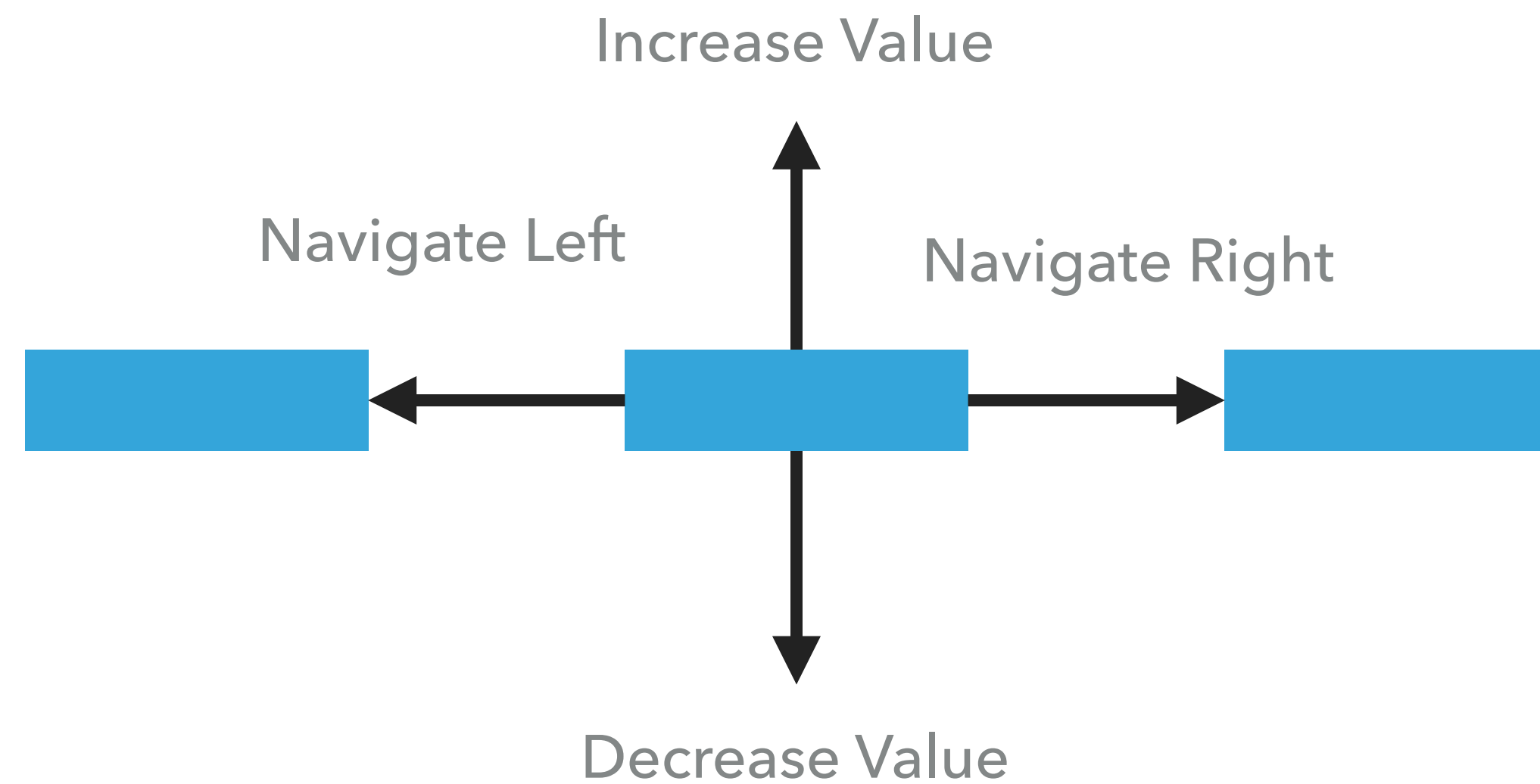
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**SELECTABLE CUSTOM**

# SELECTABLE CUSTOM NAV EVENTS

Situation : some navigation can be used not to navigate but interact with an object.



The Selectable Custom component passes navigation data (vector, direction, axis) to custom events.



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**CUSTOM INPUTS**

# CUSTOM INPUTS

Situation : when using keyboard or game controllers, interact-able objects may have to handle custom inputs on top of simple Cancel/Submit actions.

CustomInputEventHandler : UIBehaviour, ICustomKeycodeHandler, ICustomInputHandler



SELECTABLE

The ICustomKeycodeHandler and ICustomInputHandler interfaces allow to tell which keycode/input is supported by the object, and trigger a custom action when the keycode/input is received while the object is selected.

This requires a CustomInputEventManager in the scene.

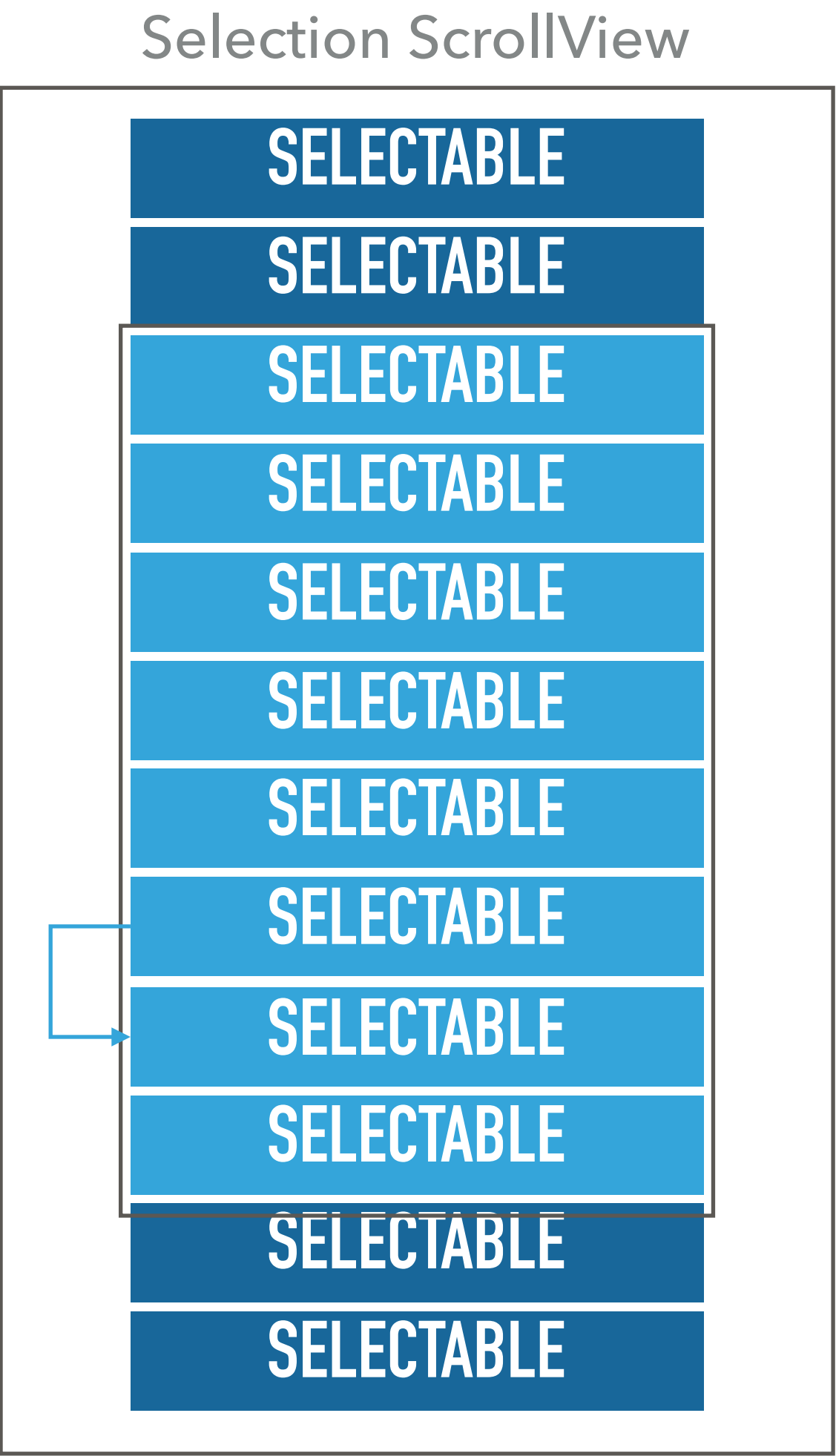
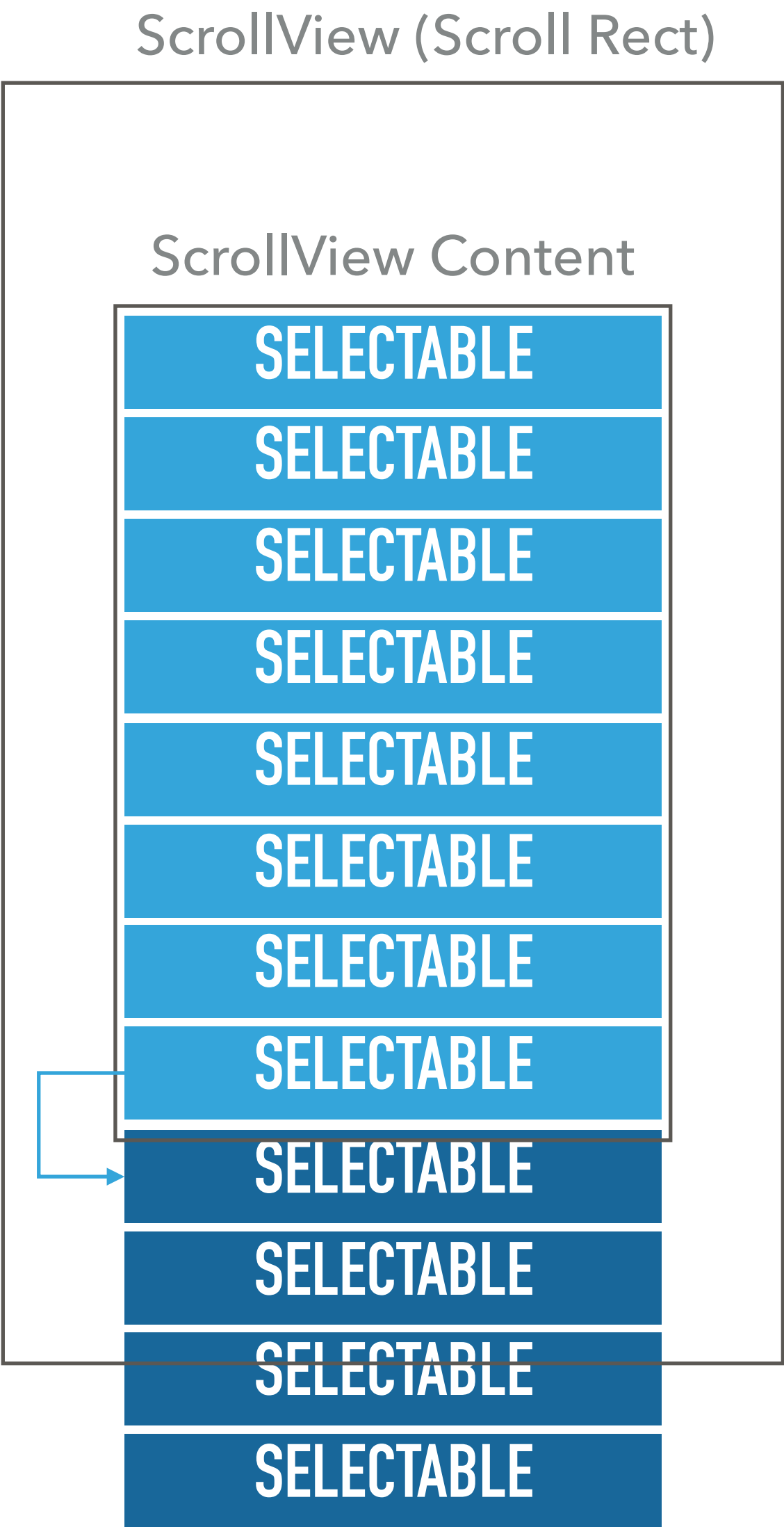
POINTER LESS UI TOOLS

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**SELECTION SCROLL VIEWS**

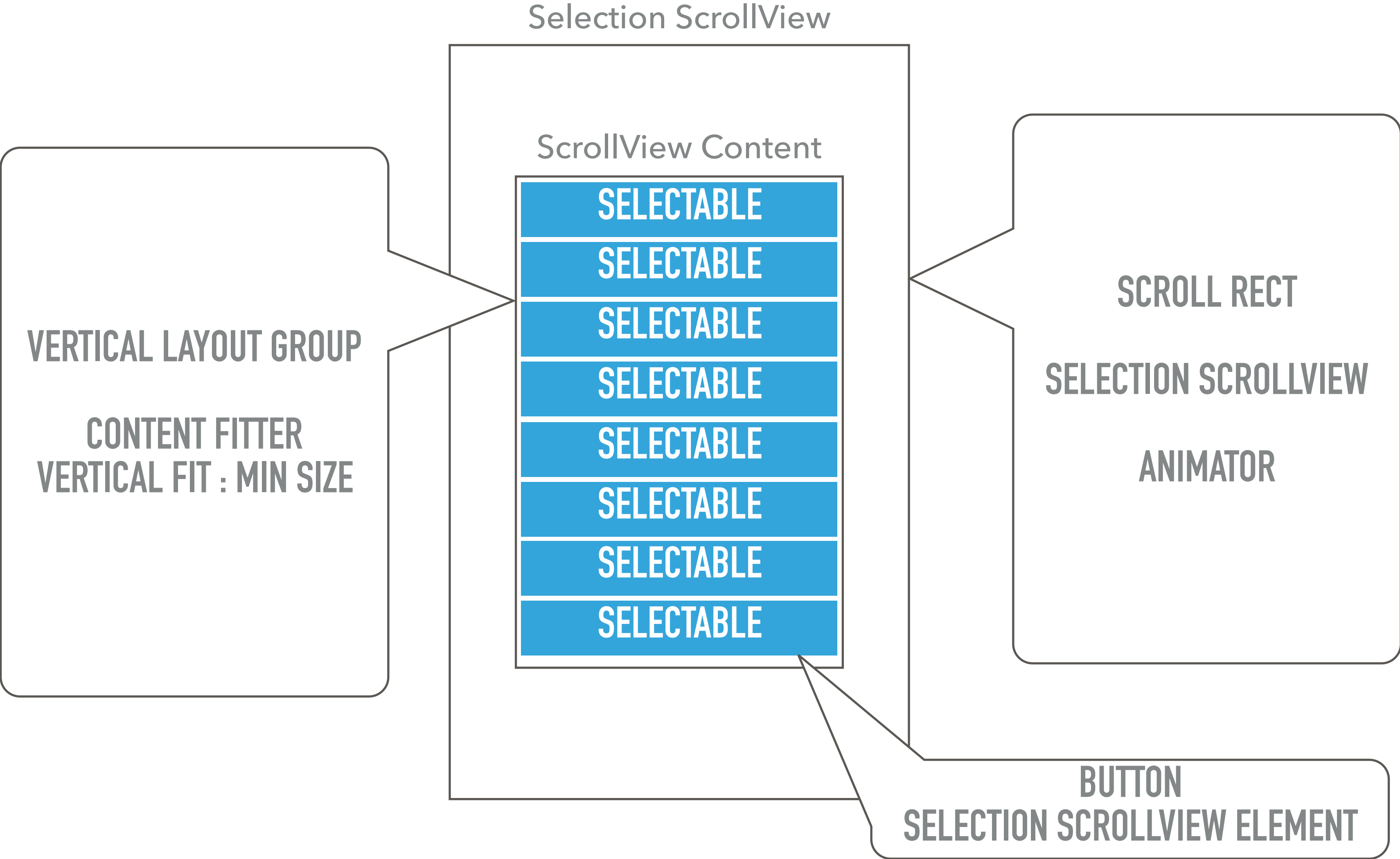
# AUTO SCROLL VIEW TO SELECTED CONTENT

When scrolling through selectable elements of a Scroll View (Scroll Rect component), using the keyboard or game controller, the scrollview will not scroll to reveal the selected element.



Selection Scroll Views will automatically scroll to reveal the selected object in the list, using a set time and animation curve.

# RANDOM ACCESS SCROLL VIEW



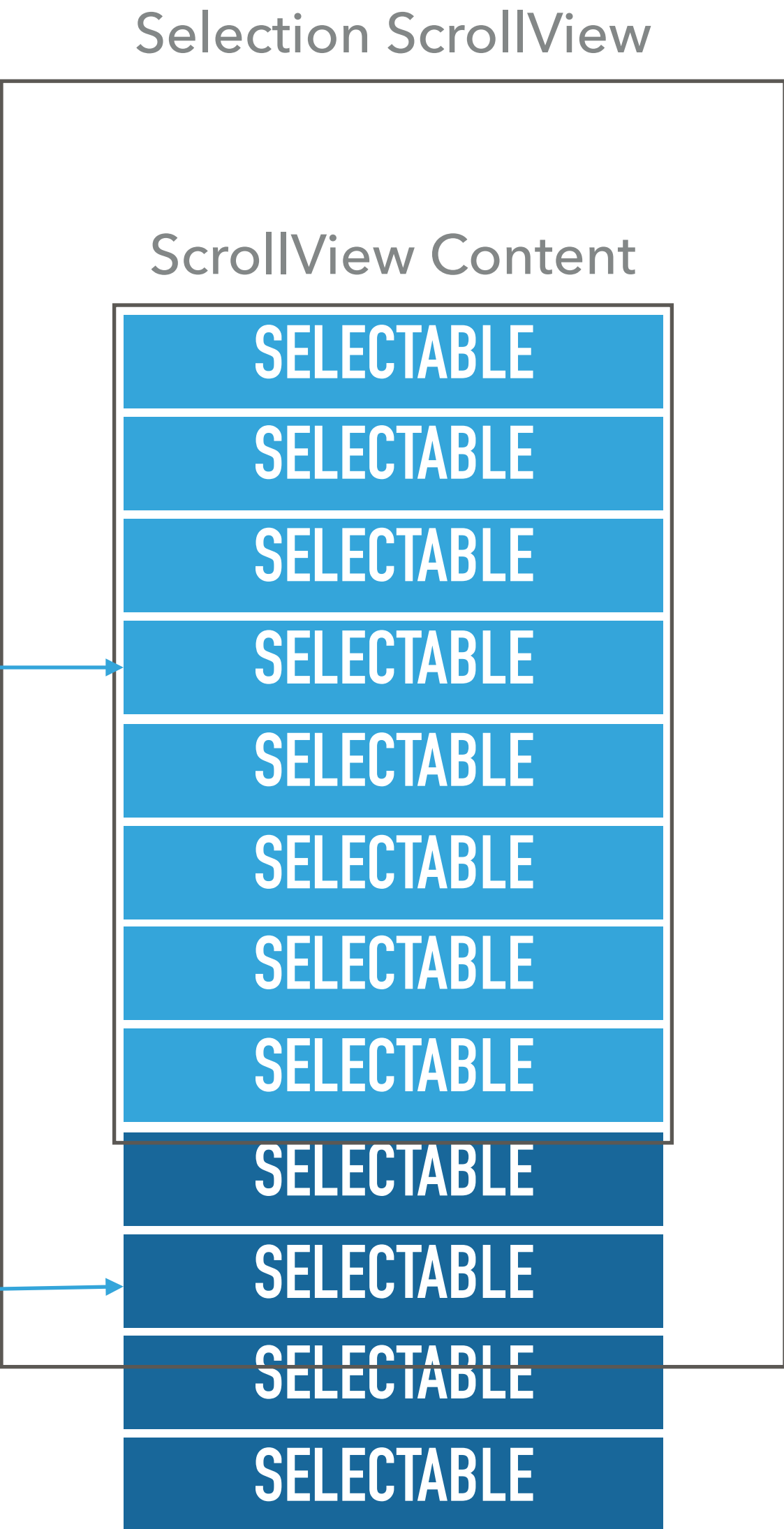
# RANDOM ACCESS SCROLL VIEW

Pros : allows random access to the ScrollView Content  
Any other Selectable in the Canvas will navigate to the ScrollView Content unless Navigation constraints are set.

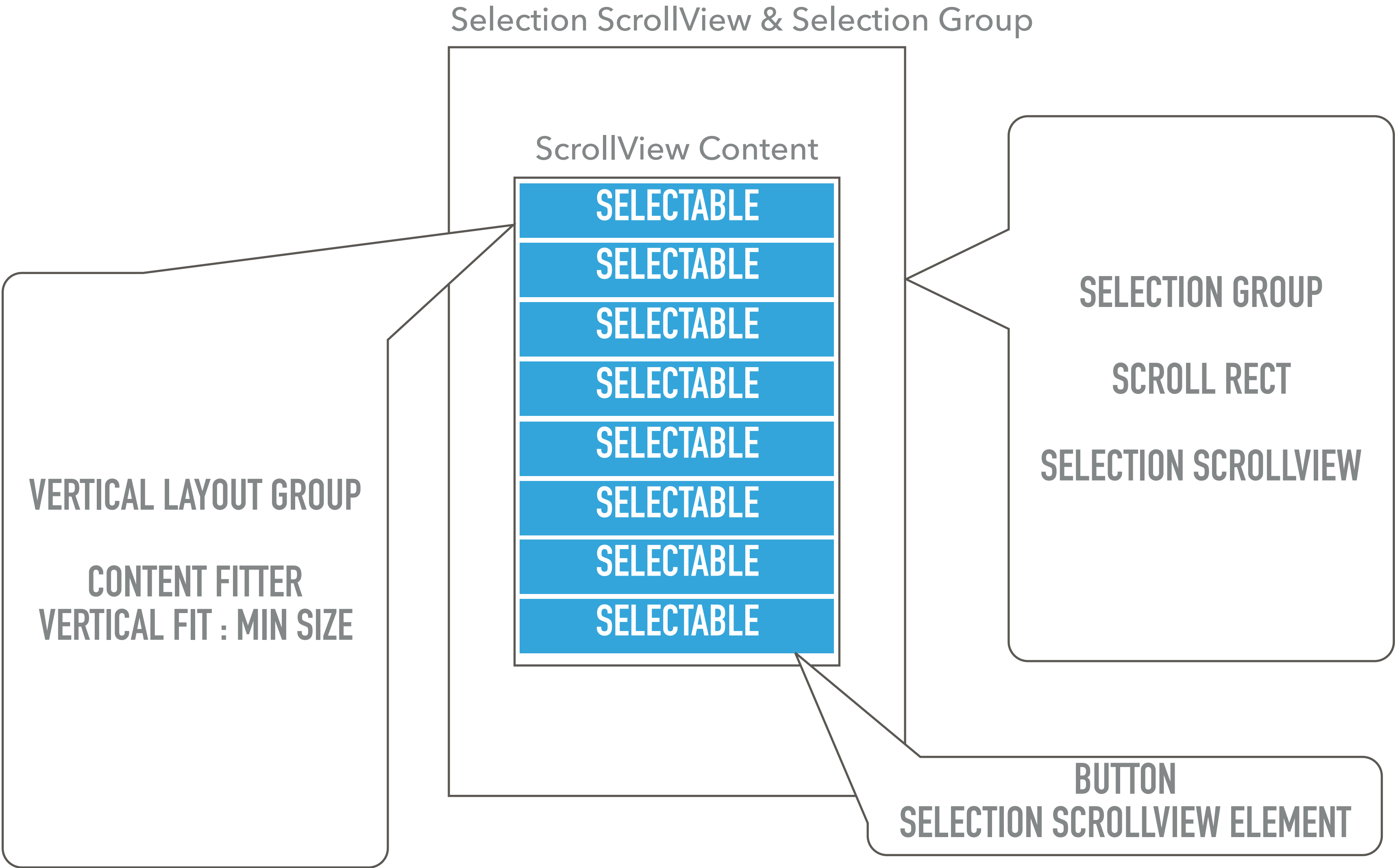
SELECTABLE

Cons : other Selectable may navigate to ScrollView Content that is out of the Scroll Rect Window.

SELECTABLE

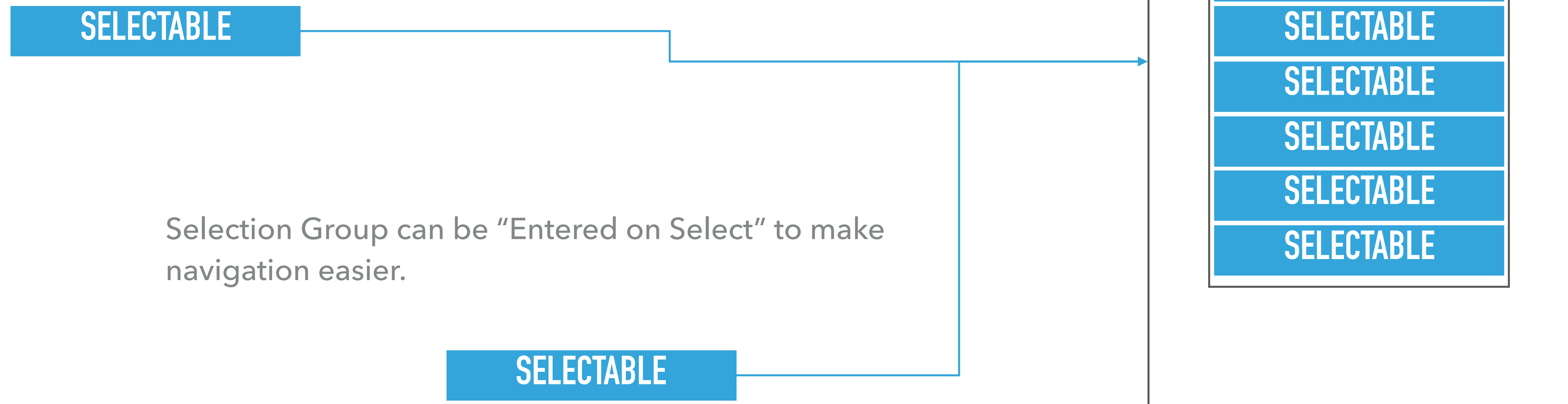


# SELECTION GROUP SCROLL VIEW



# SELECTION GROUP SCROLL VIEW

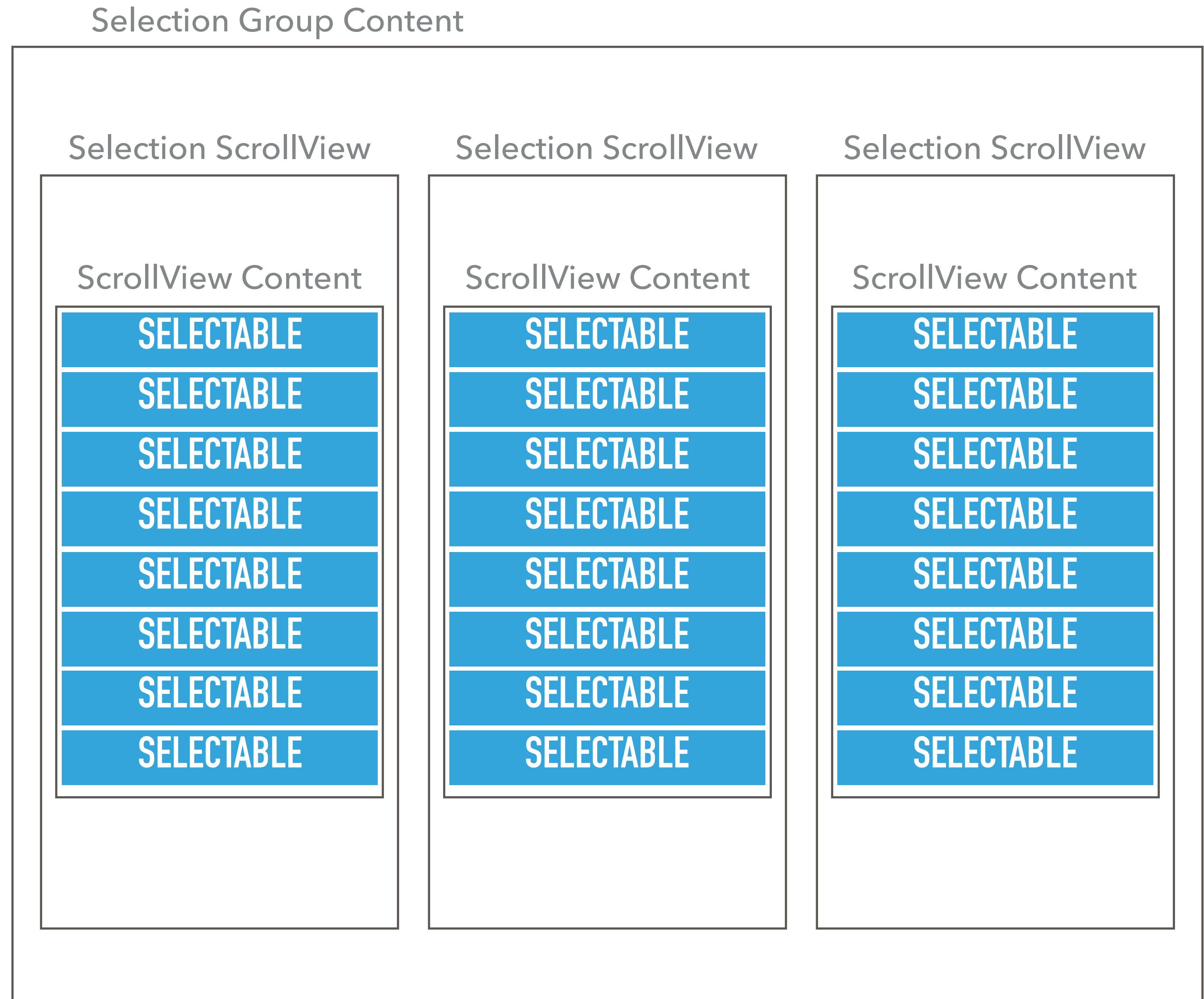
Pros : prevents random access to the ScrollView Content  
Any other Selectable in the Canvas will have to go through the Selection Group before ScrollView Content becomes interact-able.





## SELECTION GROUP SCROLL VIEW

A Selection Group component can be on the same game object as the Selection ScrollView, or on a Panel that contains several Selection ScrollViews.



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# SCROLLING LIST VIEWS

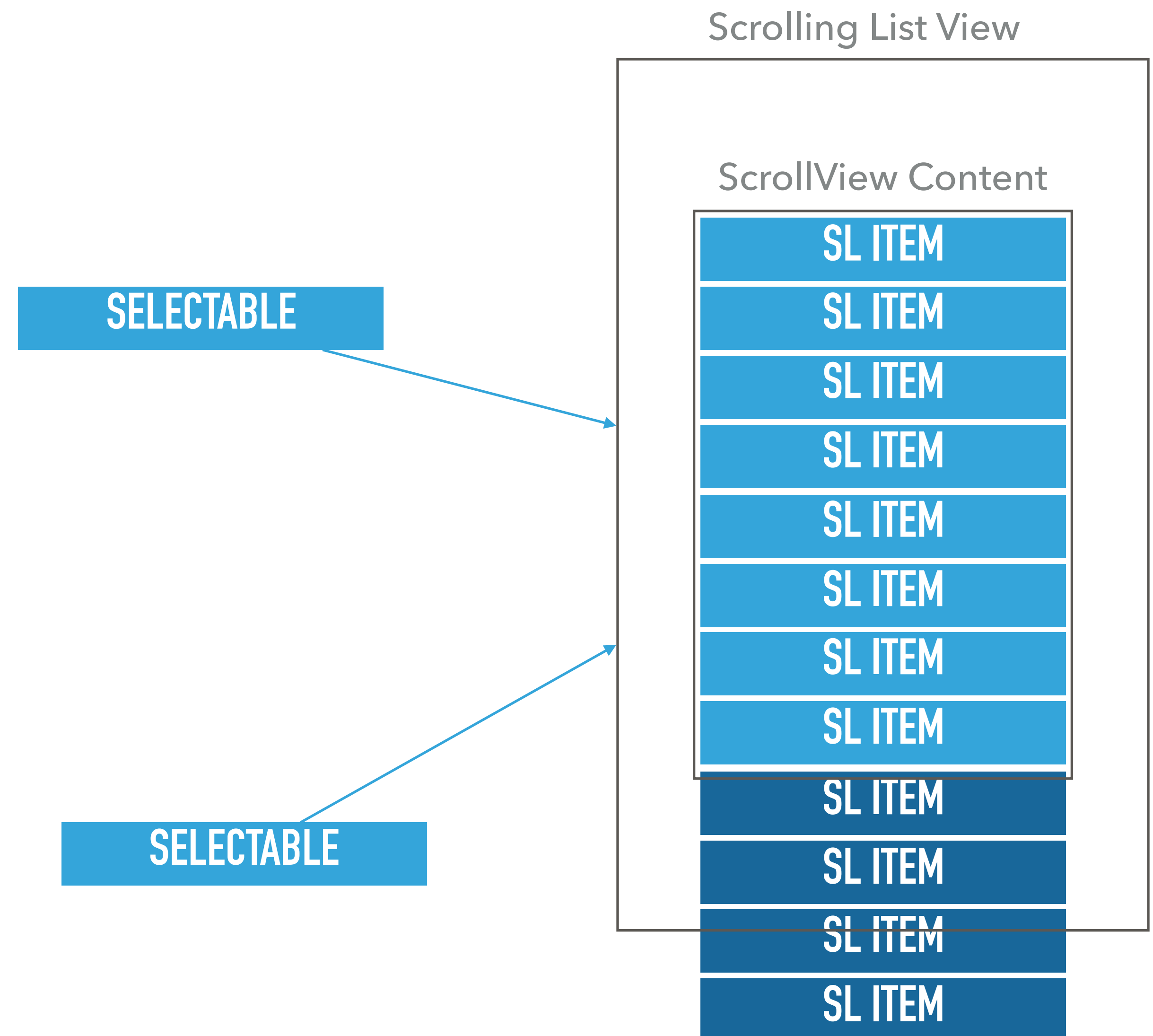
## SCROLLING LIST VIEW

A Scrolling List View provides features similar to a Selection Scroll View, with a few differences :

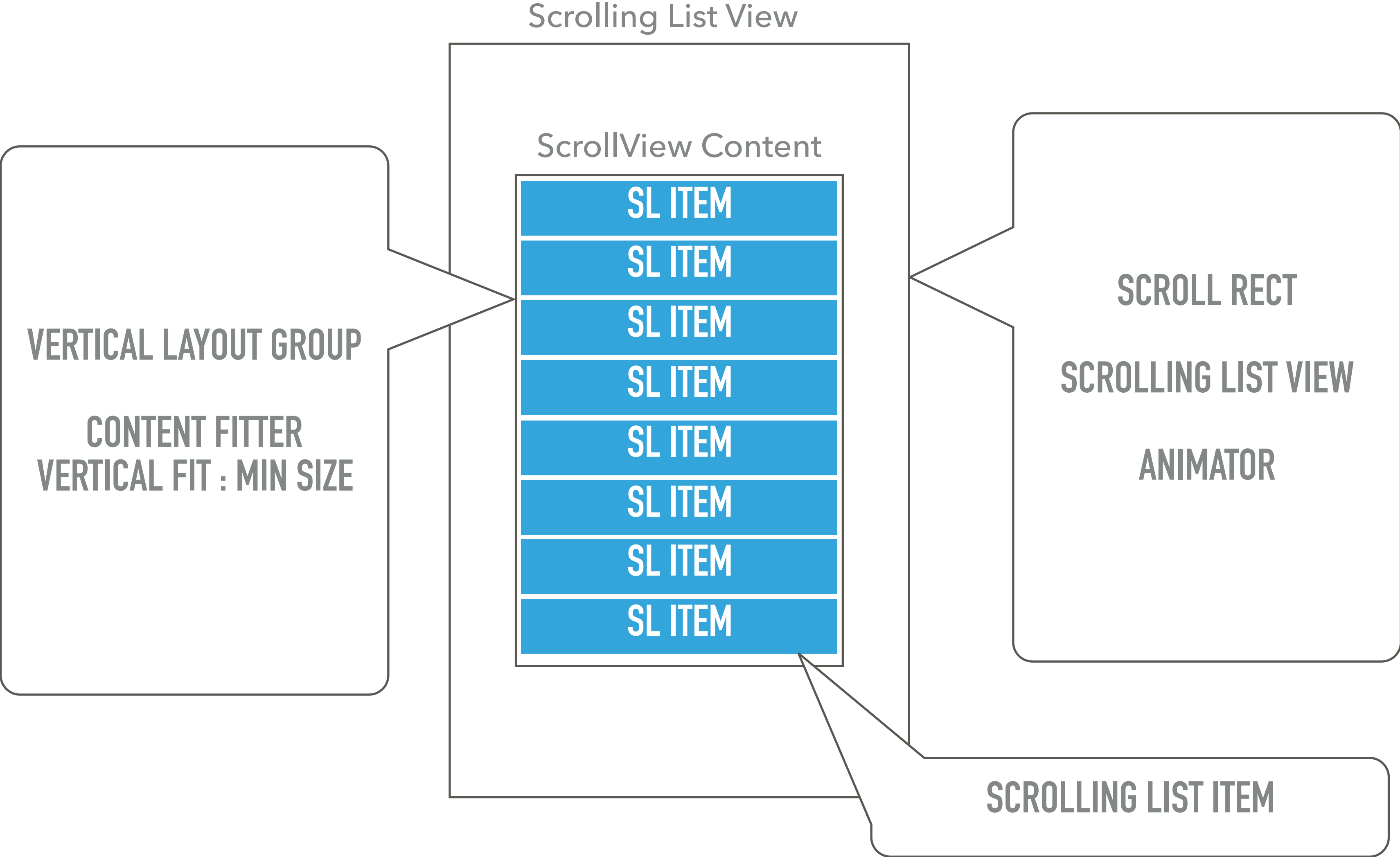
- ▶ it is a Selectable itself.
- ▶ it receives and handles navigation events (select, move, etc.).
- ▶ by default, its items are not selectable objects, but custom Scrolling List Items, that mimic a Selectable, but cannot be navigated.

Pros : it's like a Selection Scroll View with a Sub Selector.  
It prevents random access to its content. It remembers its selection.

Cons : no random access to content possible.



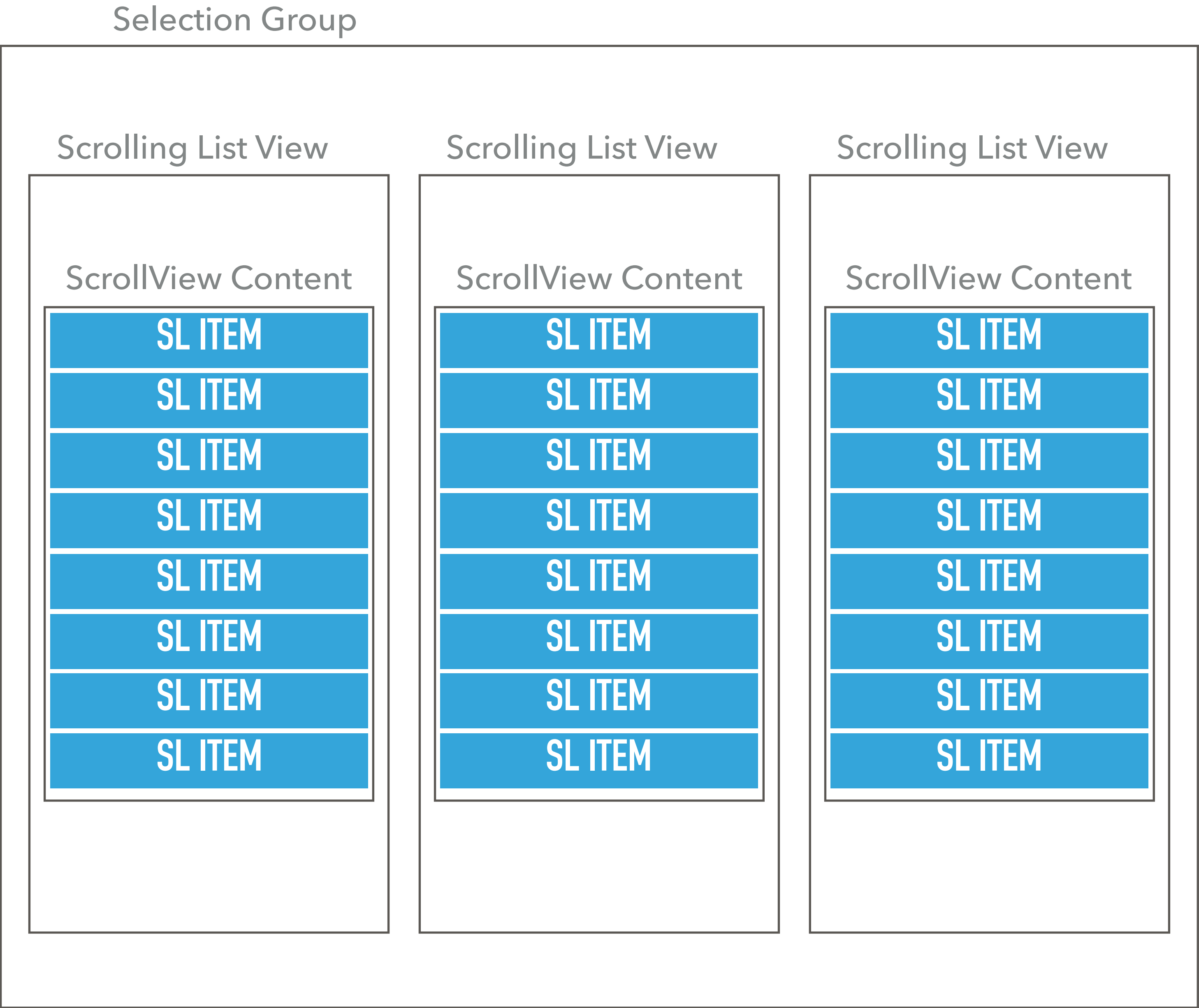
# RANDOM ACCESS SCROLL VIEW



# USE CASES

## SELECTION GROUP & SCROLLING LIST VIEWS

A Selection Group can contain  
Scrolling List Views.



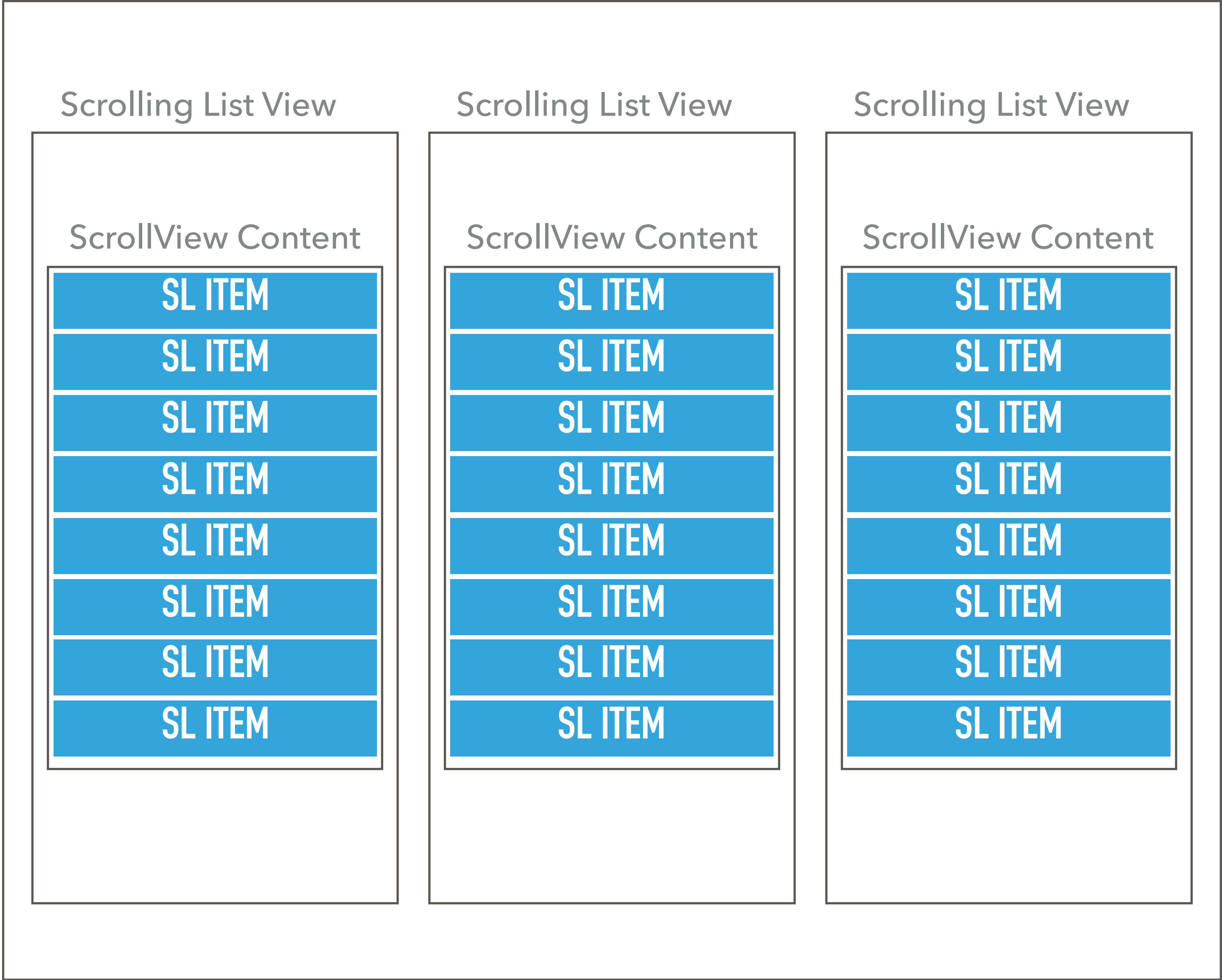
# USE CASES

## SCROLLING LIST VIEWS & SELECTION SCROLL VIEWS

A Selection Scroll View can contain Scrolling List Views as selectable items.

This allows nesting Scroll Views.

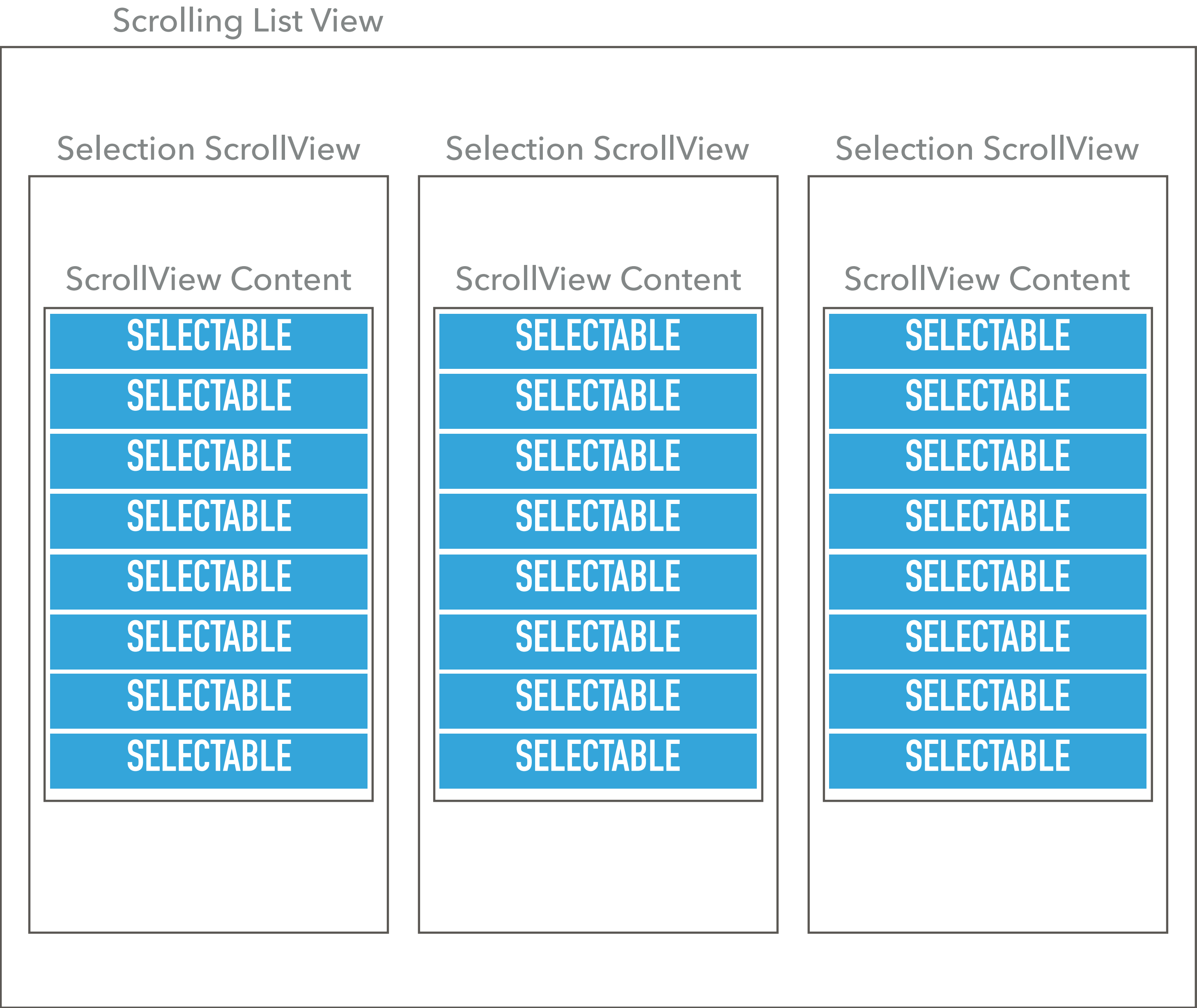
Selection Scroll View (& optional Selection Group)



# USE CASES

## SCROLLING LIST VIEWS & SELECTION SCROLL VIEWS

A Scrolling View cannot contain Selection ScrollViews as selectable items.



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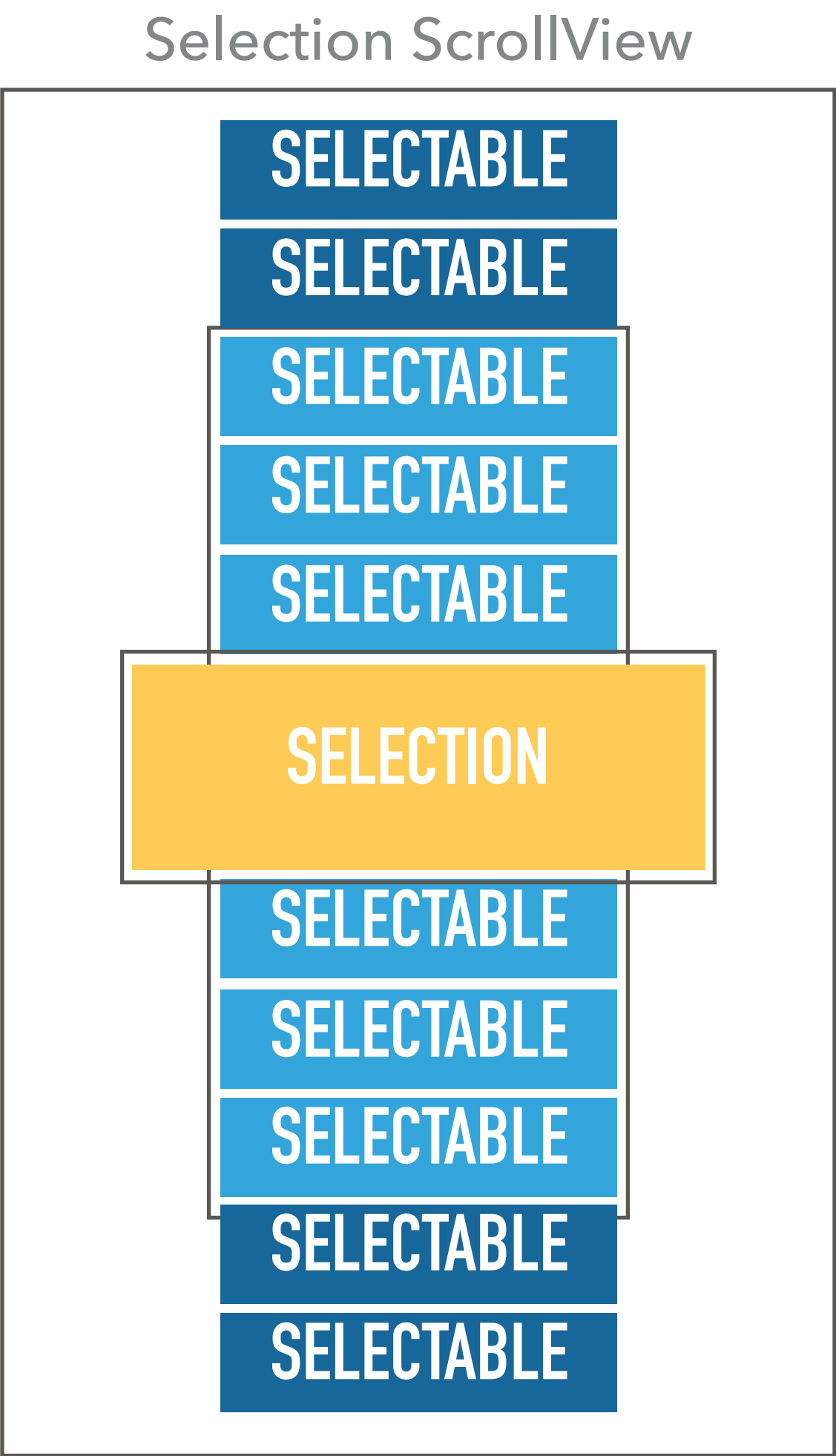
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# SCROLLING ALIGNMENT



# ALIGNING SELECTION TO A CUSTOM POSITION AND SIZE

Selection Scroll Views and Scrolling Lists will position and resize selected element to a target guide location and size.



Alignment  
Min, Center, Max, Pivot

Guide  
RectTransform used as target

Force Scrolling  
When content already fits the ScrollRect, scrolling is forced to update.

Update Transforms  
Use when objects animated during transitions.

Always Update  
Use when objects animated all the time.

## GET IN TOUCH

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