



CAPH : Tizen TV Web UI Framework

Yang Yang

Samsung Electronics

- **Overview**
- Key Navigation
- Scrollable Grid & List
- Demo

What is CAPH ?

CAPH: a Web UI Framework

Easy and quick development of web apps for Samsung Tizen TV

- Custom made for TV
- High performance
- Rich UI components



System Metaphor

CAPH Web UI Framework

CAPH Modules

Key Navigation

Scrollable Grid & List

UI Components

(Button, Dialog, Checkbox,
Input, Dropdown Menu, ...)



jQuery

AngularJS



Velocity.js
(Fast Animation)

Lodash
(Utility)

Tizen TV SDK

CAPH Package

Sample & Tutorial

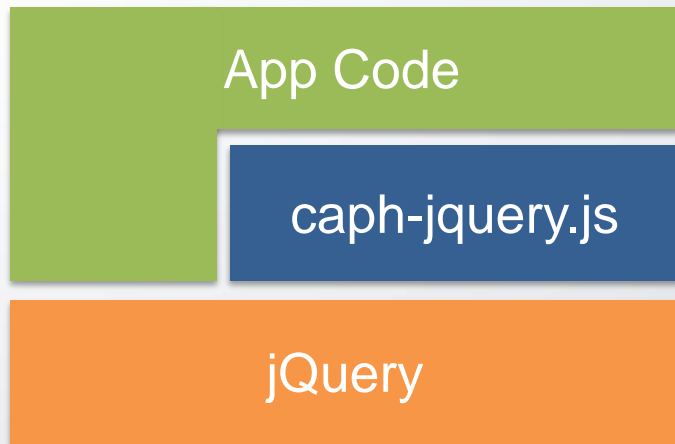
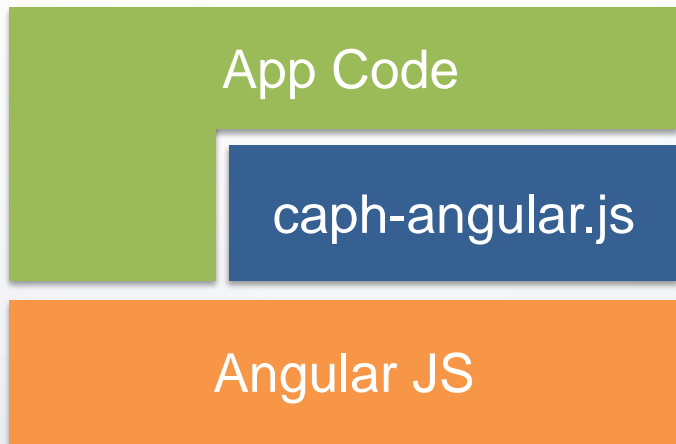
API Documents

TC & Test suite

Web App
Scaffolding

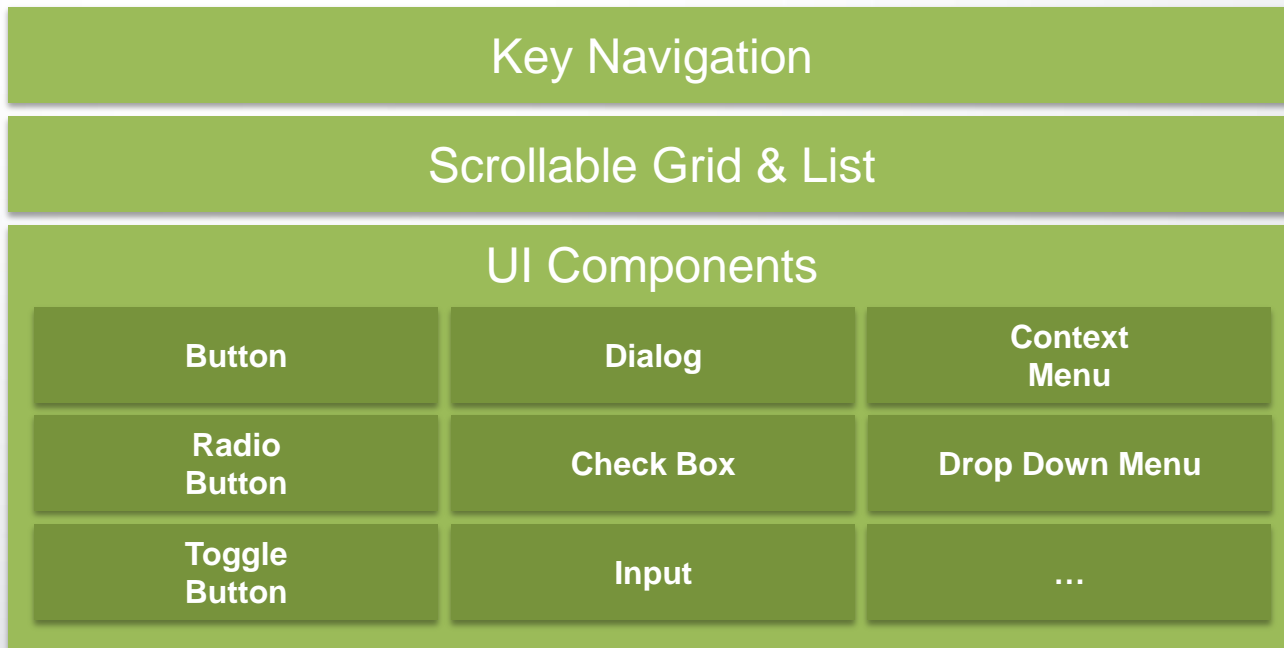
With Open Source Frameworks

- Based on popular frameworks (Presently jQuery and Angular JS)
- Support more frameworks in the future



CAPH Modules

- All modules support AngularJS and jQuery
- All modules work with Key Navigation
- All UI Components are customizable



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Key Navigation

- Handle the focus of UI elements easily by arrow keys of remote controller
- An attribute 'focusable' which represents the focusable element
- Support Mouse, Keyboard as well

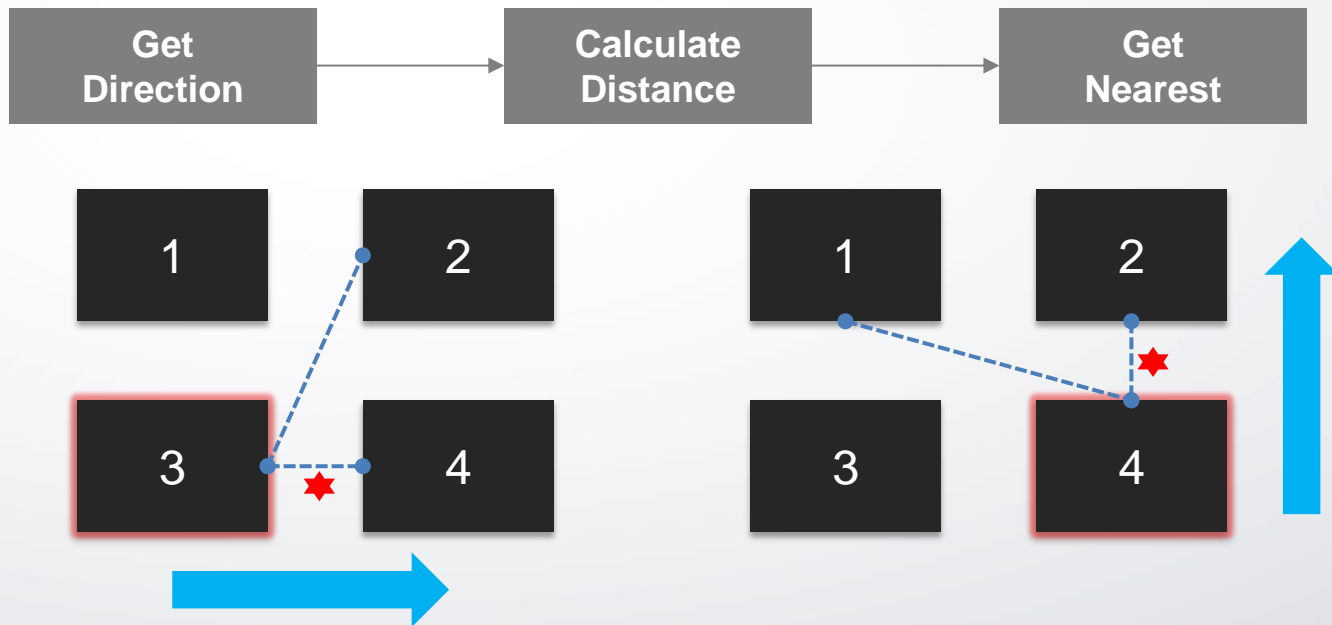
```
<div focusable></div>
```



Find the nearest focusable element automatically

Nearest Focusable Finder

- Find the nearest focusable element automatically



- Support custom distance calculation strategy

Properties

- Properties : depth, group, name
- By default, depth : 0 , group : 'default', name : 'focusable-0'
- Can be changed as below

```
<div focusable="{depth: 1, group: 'test', name: 'focus1'}"></div>
```

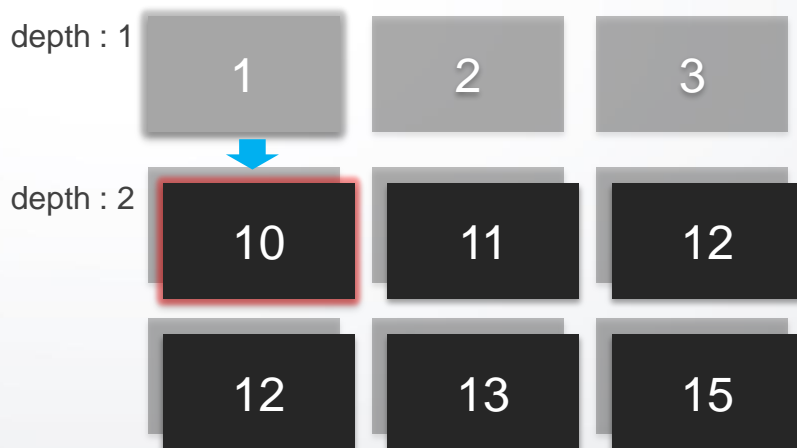
Focusable option object

or

```
<div focusable data-focusable-depth="1"  
data-focusable-group="test"  
data-focusable-name="focus1"></div>
```

Property - depth

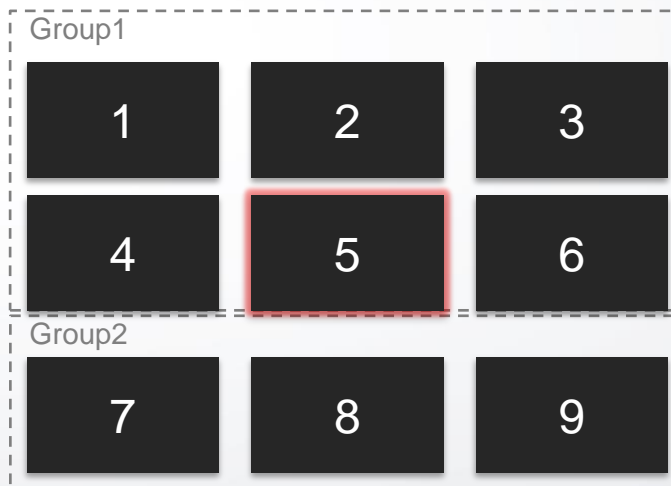
- Used when moving focus to another focusable element
- Focus only changed between the same depth



- Change the depth by calling focus controller's 'setDepth' API

Property - group

- Separate focusable area semantically
- Focus can be changed if each depth is same



You can manage each group's previous focusable element history by calling focus controller's 'setGroup' API

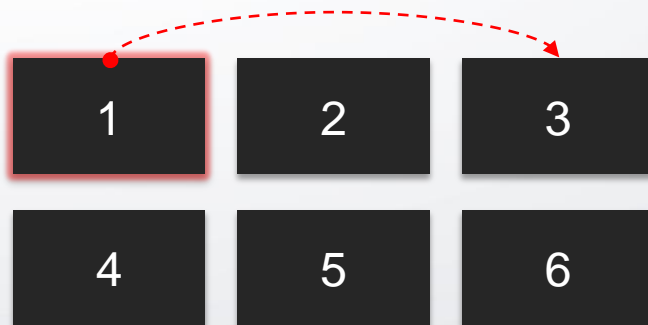
- Change the group easily by concatenating 'group:' prefix and option value

```
<div focusable data-focusable-group="test1" data-focusable-next-focus-down="group:test2"></div>  
<div focusable data-focusable-group="test2" data-focusable-next-focus-up="group:test1"></div>
```

Property - name

- Used when setting the next focus to the specific element
- Each name should be an unique value

```
<div focusable="{name: 'focus1', nextFocus: {right: 'focus3'}}"></div>  
<div focusable="{name: 'focus2'}"></div>  
<div focusable="{name: 'focus3'}"></div>
```



Event Handler

- on-focused
- on-blurred
- on-selected

```
<div focusable on-focused="focus($event, $originalEvent)"  
on-blurred="blur($event, $originalEvent)"  
on-selected="select($event, $originalEvent)"></div>
```

or

```
$('#[focusable]').on('focused blurred selected', function(event) {  
    // your code here  
});
```

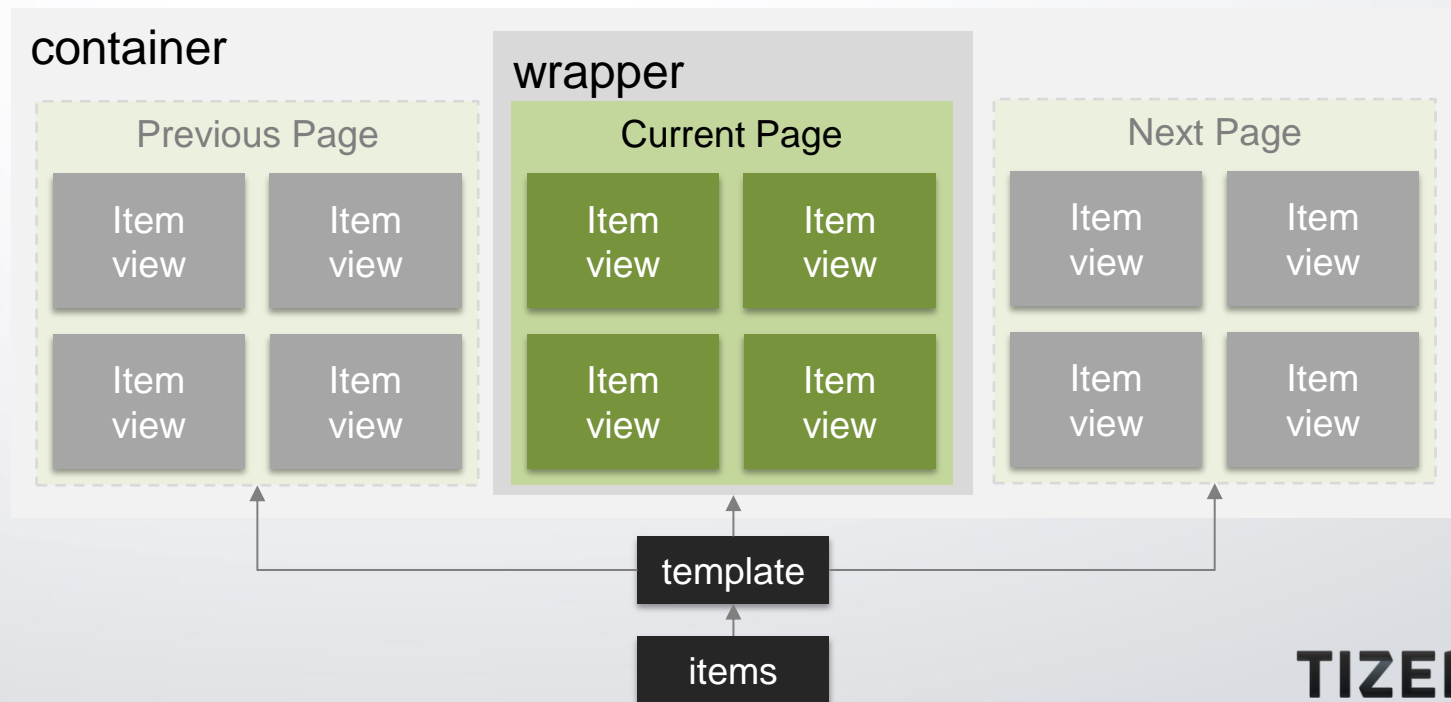
Focus Controller Provider

- **initial depth**
- **initial group of each depth**
- **key map reset**
- **keydown handler (before/after)**
- **disabled element focusing**

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Scrollable Grid & List

- High performance scrollable component.
- Setting options & template view



Basic usage - AngularJS

- Create by caphList directive, add list data on the scope

```
<caph-list items="item in items" direction="vertical">  
  <div class="item" focusable>{{$index}}</div>  
</caph-list>
```

Template

items - variable in expression

variable: the user defined loop variable

expression: a scope expression giving the collection to enumerate

{{\$index}}

\$first \$last \$even \$odd are also available

direction

By default, the scroll direction is 'horizontal'

Basic usage - jQuery

- Define a template view to decorate the items in the list

```
<!-- container element -->
<div id="list1"></div>

<!-- template view -->
<script id="template1" type="text/template">
    <div class="item" focusable><%= index %></div>
</script>
```

- Create a 'caphList' using the prepared resources

```
$('#list1').caphList({
    items: items,
    template: 'template1'
});
```

```
jQuery('caph-list').eq(0).trigger('resize');
```

Event	Description
resize	If you change the list size manually, you should send this event. The window's resize event is processed automatically.
reload	Update the entire item views. By default, when appending new data to collection or removing the existing data from the tail of collection, the visible item views will be updated only if necessary. So if you change the all or some(excluding default case) data of collection, you should call this method to update item views.
moveup	Move to the up item.
moveright	Move to the right item.
moveleft	Move to the left item.
movedown	Move to the down item.

Properties

Object[] **items**

string **direction**

string **container-class**

string **wrapper-class**

string **duration**

string **ease**

number **delay**

boolean **loop**

number **initial-item-index**

number **mouse-scroll-area-size**

Function **on-decorate-item-view**

Function **on-focus-item-view**

Function **on-reach-start**

Function **on-reach-end**

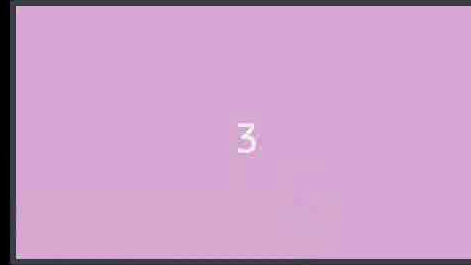
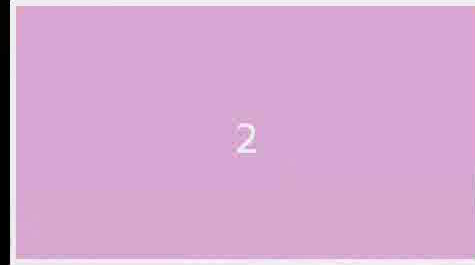
Function **on-scroll-start**

Function **on-scroll-finish**

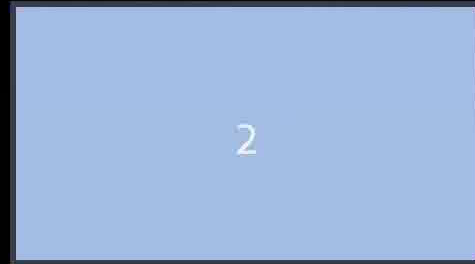
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CAPH Showcase

GROUP 1



GROUP 2



GROUP 3

