

TIZEN™ DEVELOPER CONFERENCE MAY 7-9, 2012



Making Web Application using Tizen Web UI Framework

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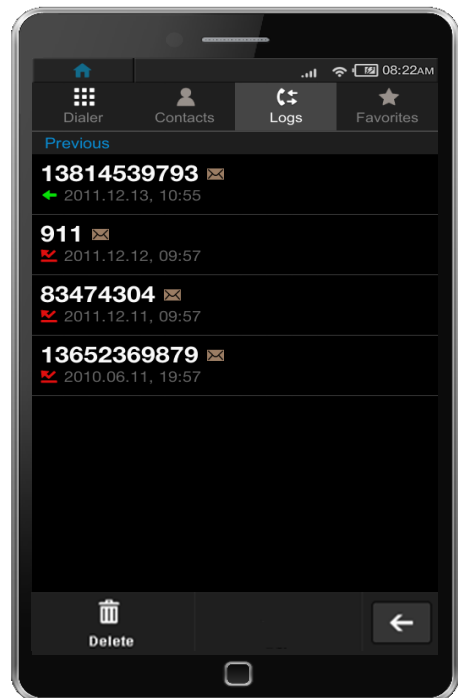
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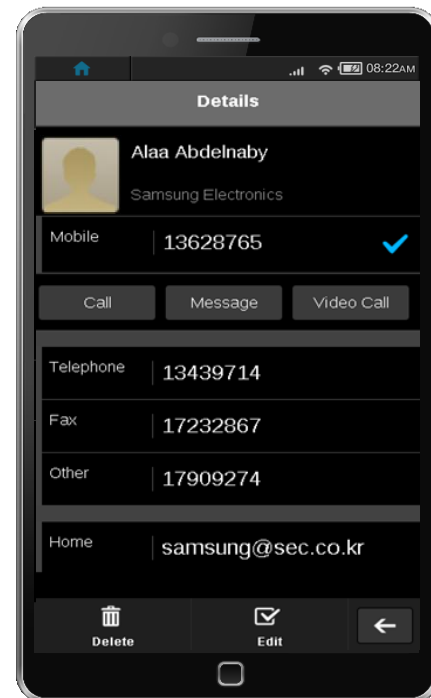
Overview Tizen Web applications using Web Framework



- Tizen Time module
- Tizen Application module

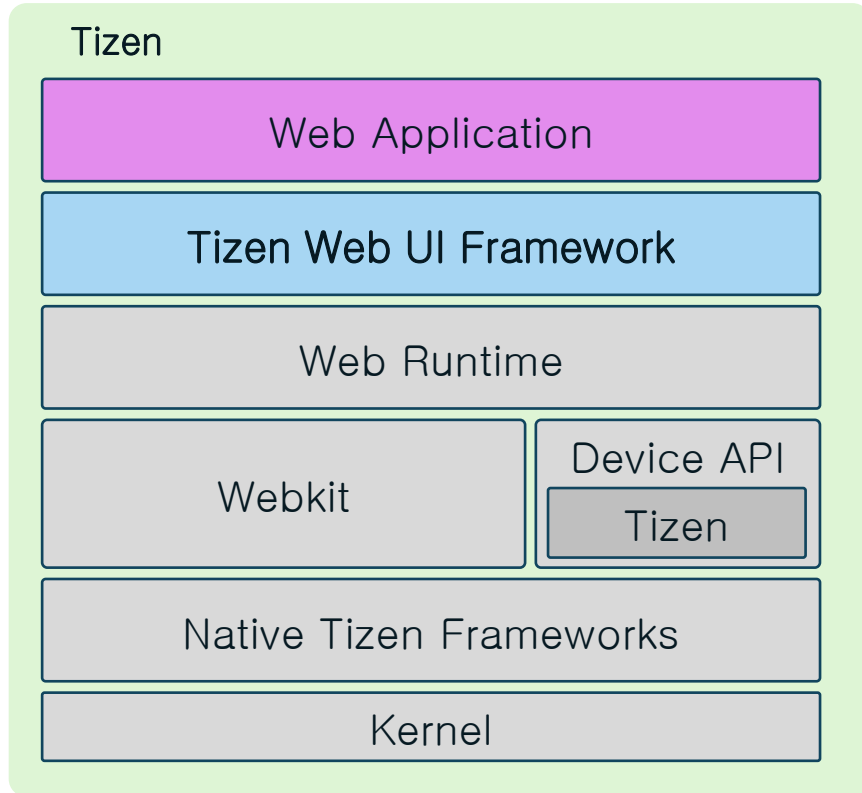


- Tizen Callinfo module
- Tizen Callhistory module
- Tizen Application module



- Tizen contact module
- Tizen application module
- Tizen messaging module

Tizen Web UI Framework



- **jQueryMobile based UI Framework**
 - Markup driven framework
- **Tizen UX & Animation**
 - Apply Tizen UX in easy and simple way
- **Support Localization**
- **Scaling**
 - Auto scale to screen size
- **Use Web Standards**

Tizen Web UI Framework submodules

Tizen Web UI Framework

Tizen Web winsets

Popup

Controlbar

ColorPicker

VirtualList

OptionHeader

.....

Tizen Web Themes

Tool – Application template

Loader

Opensource libs

jQueryMobile

jQuery

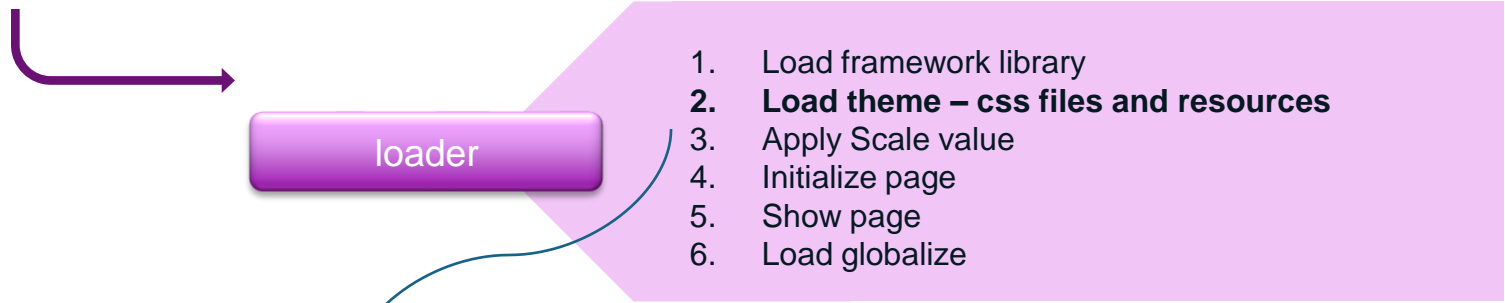
Globalize

Web UI Framework Launching Flow (1/2)

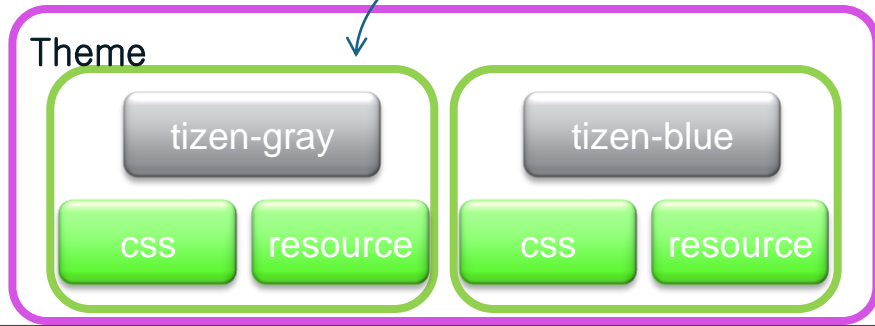
```
<DOCTYPE html>
<html>
  <head>
    <script src="web-ui-fw/0.1/js/framework.js"></script>
    <script src="web-ui-fw/0.1/js/web-ui-fw.js"
      data-framework-theme="CSS"></script>
  </head>
  <body>
    <div data-role="page" id="template-page">
      <div data-role="header" data-position="fixed">
        <h1>Sample app</h1>
      </div>
      <div data-role="content">
        <div data-role="button" data-theme="blue">Button</div>
      </div>
    </div>
  </body>
</html>
```

User html Doc

```
<script src="tizem-web-ui-fw/0.1/js/tizen-web-ui-fw-libs.js"></script>
<script src="tizem-web-ui-fw/0.1/js/tizen-web-ui-fw.js"
  data-framework-theme="tizen-gray"
  data-framework-viewport-scale="false">
</script>
```



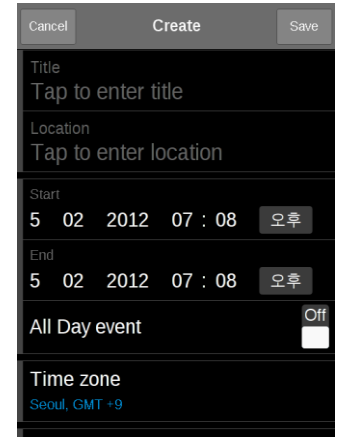
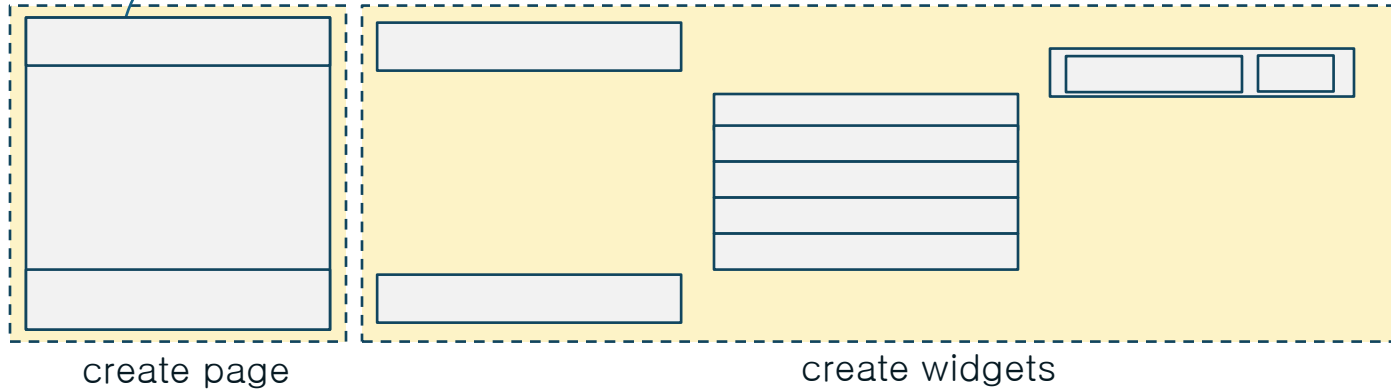
1. Load framework library
2. **Load theme – css files and resources**
3. Apply Scale value
4. Initialize page
5. Show page
6. Load globalize



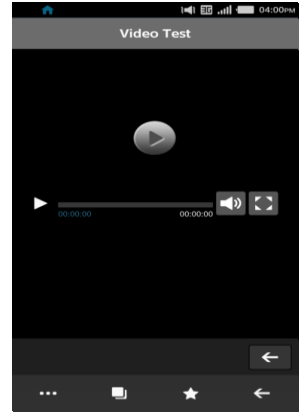
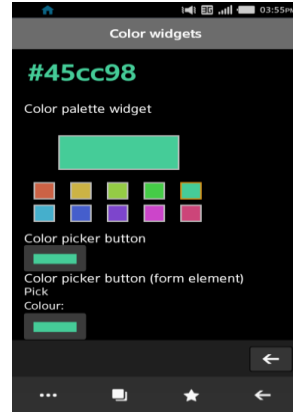
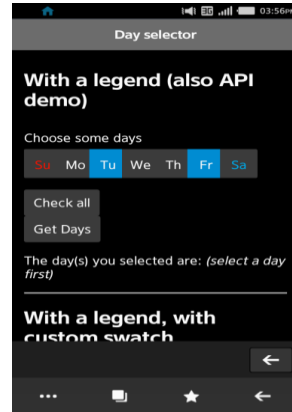
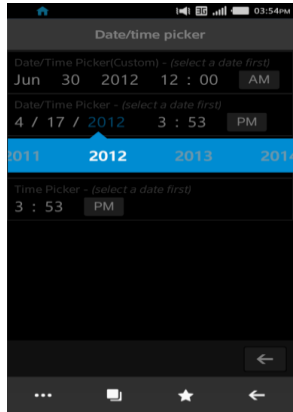
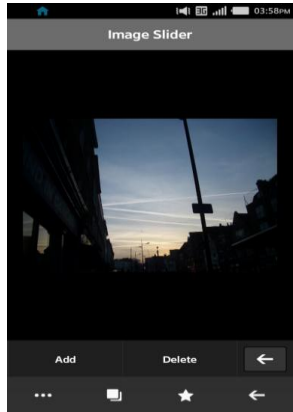
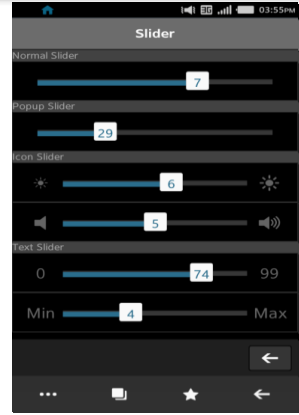
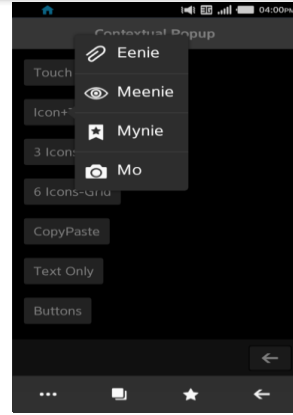
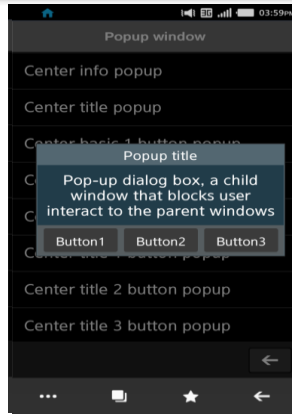
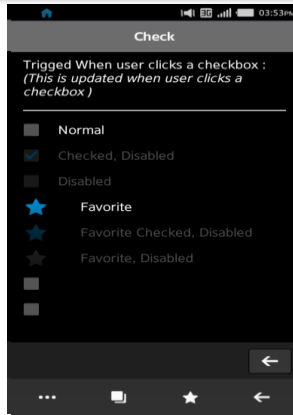
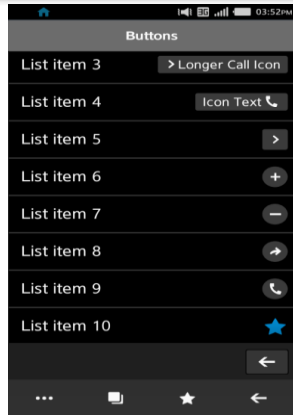
Web UI Framework Launching Flow (2/2)

loader

1. Load framework library
2. Load theme – css files and resources
3. Apply Scale value
4. **Initialize page**
5. Show page
6. Load globalize



Web Winsets in Tizen



Making Web Application Tool - IDE

The screenshot displays the Tizen Web IDE interface. The main workspace is divided into several panels:

- Project Explorer:** Shows the project structure for 'multipage.wgt', including 'navigation', 'JavaScript Resources', 'css', 'js', 'tizen-web-ui-fw', 'WebContent', 'config.xml', 'icon.png', 'index.html', 'navigation.wgt', 'section1.html', 'section2.html', 'samplemaster', 'JavaScript Resources', and 'css'.
- Design Preview:** Displays a visual representation of the 'Navigation Application' page. It features a header with the title 'Navigation Application', a list of items (Classic, 2012 Hit song, In the gym, For baby, My favorite), a 'Play List' link, and a 'Music' link. Below this is another section with the same title and a list of items (Classic, 2012 Hit song, In the gym, For baby, My favorite).
- Code Editor:** Shows the HTML code for the application. The code includes a listview, a footer, a navbar, and a content area with links to 'index.html', 'section1.html', and 'section2.html'. The code is as follows:

```
<ul data-role="listview">
<li><a class="ui-li-text-main">Classic</a></li>
<li><a class="ui-li-text-main">2012 Hit song</a></li>
<li><a class="ui-li-text-main">In the gym</a></li>
<li><a class="ui-li-text-main">For baby</a></li>
<li><a class="ui-li-text-main">My favorite</a></li>
</ul>
</div><!-- /content -->

<div data-role="footer" data-id="persist" data-position="fixed">
<div data-role="controlbar" data-style="tabbar">
<ul>
<li><a href="index.html" data-icons="scribbar-playlists" class="ui4">
<li><a href="#section1" data-icons="scribbar-music_albums">Mu
<li><a href="section2.html" data-icons="scribbar-artist">Artist</a>
</li>
</ul>
</div><!-- /navbar -->
</div><!-- /footer -->
</div><!-- /page -->

<div data-role="page" id="section1">
<div data-role="header" data-position="fixed">
<h1>Navigation Application</h1>
</div><!-- /header -->

<div data-role="content">
<ul data-role="listview">
<li><a class="ui-li-text-main" href="index.html">All I Want For Chri
<li><a class="ui-li-text-main" href="index.html">Baby(Feat.Ludacris
<li><a class="ui-li-text-main" href="index.html">Baby I Love You</
<li><a class="ui-li-text-main" href="index.html">Because Of You</
<li><a class="ui-li-text-main" href="index.html">Glee: In The Pink</
<li><a class="ui-li-text-main" href="index.html">Hangover (Feat. B
<li><a class="ui-li-text-main" href="index.html">I'm Yours</a></li>
</ul>
</div><!-- /content -->
```
- Outline:** Shows the DOM tree of the application, including elements like 'div data-role=page', 'div data-role=header', 'div data-role=content', 'div data-role=footer', 'div data-role=controlbar', and 'div id=section1'.
- HTML Preview:** Shows a visual representation of the application's content, including a list of items and a footer with navigation links.
- Console:** Displays the JavaScript log console output for the emulator, showing messages like 'Run globalize culture: tizen-web-ui-fw/0.1/js/cultures/globalize.culture.en-US.js' and 'Viewport argument value "device-dpi" for key "width" not recognized. Content ignored.'

Making Web Application Tool - Command line

- **Support command line tools to make user application.**

Usage: `./web-ui-fw-generate-app.sh <--copylib> <--type=[w3c|tizen]> <app-name>
<install-dir>`

app-name : Your application name. If whitespace is contained, wrap it by quote mark.

install-dir : Directory which the template code directory with name of app-name is created in.

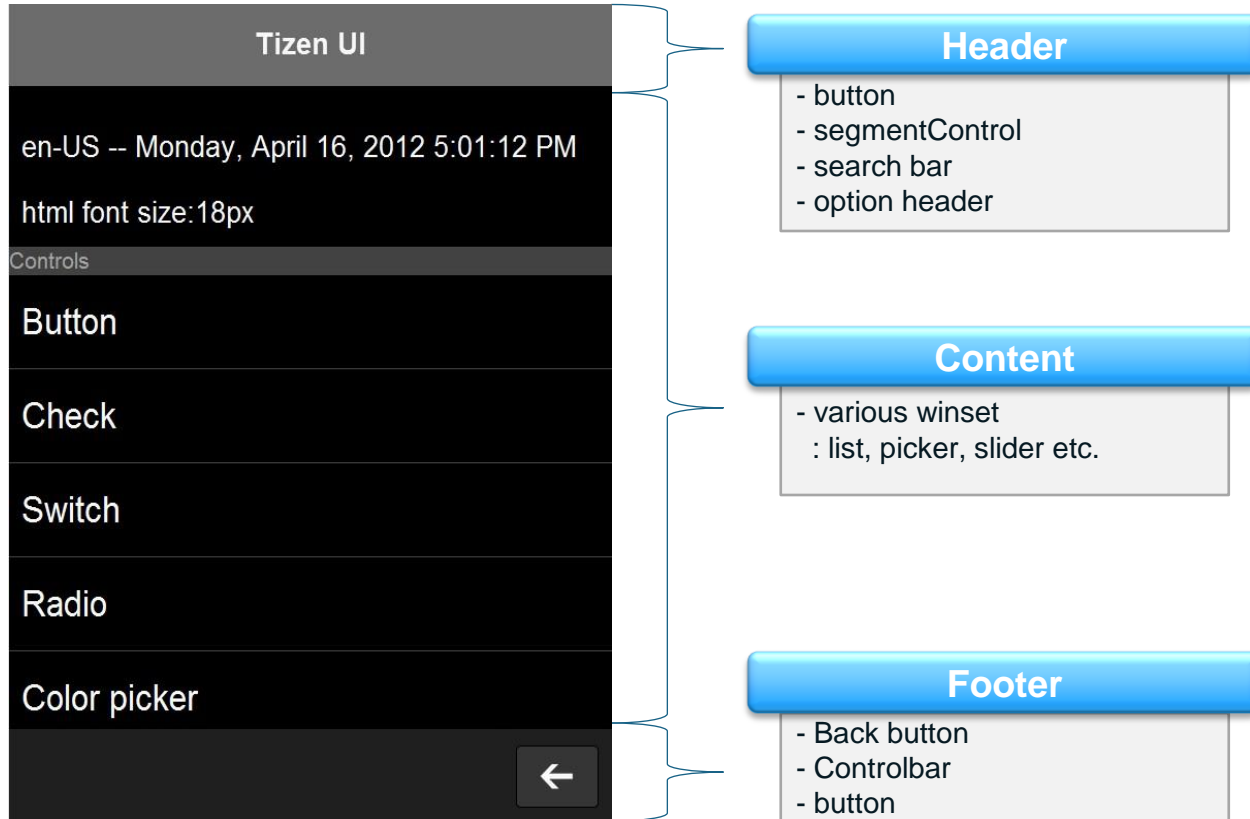
`<install-dir>/<app-name>/` directory will be created.

--copylib : When this option is used, all libs and resources will be copied into template directory, and all templates will refer those copied libs.

--type=[w3c|tizen]

Set type of application template. If no `--type=` option is given, only default app template files will be copied.

Making Web Application Application Layout



Making Web Application Application Layout

Header

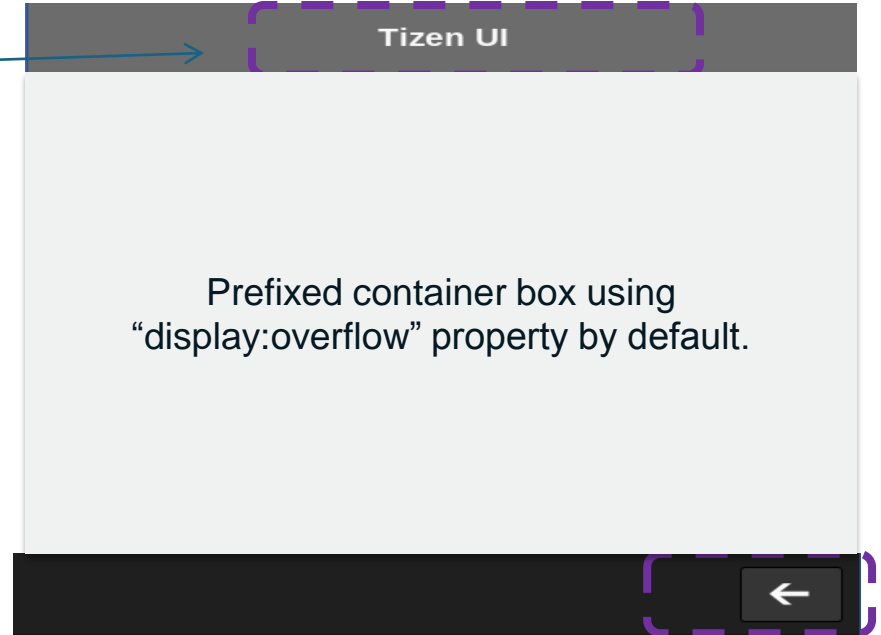
```
<div data-role="header" data-position="fixed">  
  <h1>Tizen UI</h1>  
  <!-- header description here -->  
</div>
```

Content

```
<div data-role="content">  
  <!-- content description here -->  
</div>
```

Footer

```
<div data-role="footer" data-position="fixed">  
  <!-- footer description here -->  
</div>
```



Making Web Application Basic

Contents

HTML

```
<div data-role="page" id="checkbox-demo">
  <div data-role="header" data-position="fixed">
    <h1>Check</h1>
  </div>
  <div data-role="content">
    <p> Triggerd When user clicks a checkbox :
      <span class="triggered-check">
        <em>(This is updated when user clicks a checkbox )</em>
      </span>
    </p>
    <hr/>
    <fieldset data-role="controlgroup">
      <input type="checkbox" name="checkbox-1" id="checkbox-1"/>
      <label for="checkbox-1">Normal</label>
      <input type="checkbox" name="checkbox-2" id="checkbox-2"
checked="checked" disabled="disabled"/>
      <label for="checkbox-2">Checked, Disabled</label>
      <input type="checkbox" name="checkbox-3" id="checkbox-3"
disabled="disabled"/>
      <label for="checkbox-3">Disabled</label>
    </fieldset>
  </div><!--/content -->
</div>
```

Design

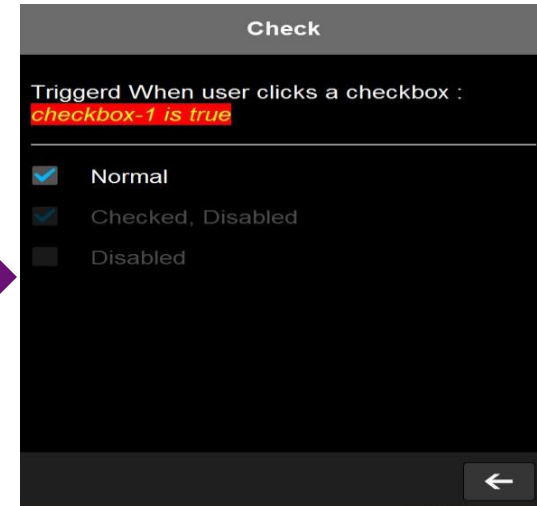
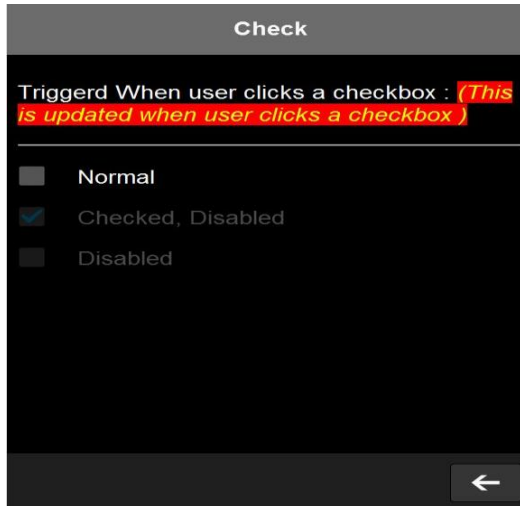
CSS

```
.triggered-check {
  background: red;
  color: yellow;
  border: 2px;
}
```

Control

JavaScript

```
$( "#checkbox-demo" ).live("pagecreate", function () {
  $("input[type=checkbox]").bind( "change",
    function(event, ui) {
      $( ".triggered-check" ).text( this.id + " is " +
        this.checked );
    }
  );
});
```

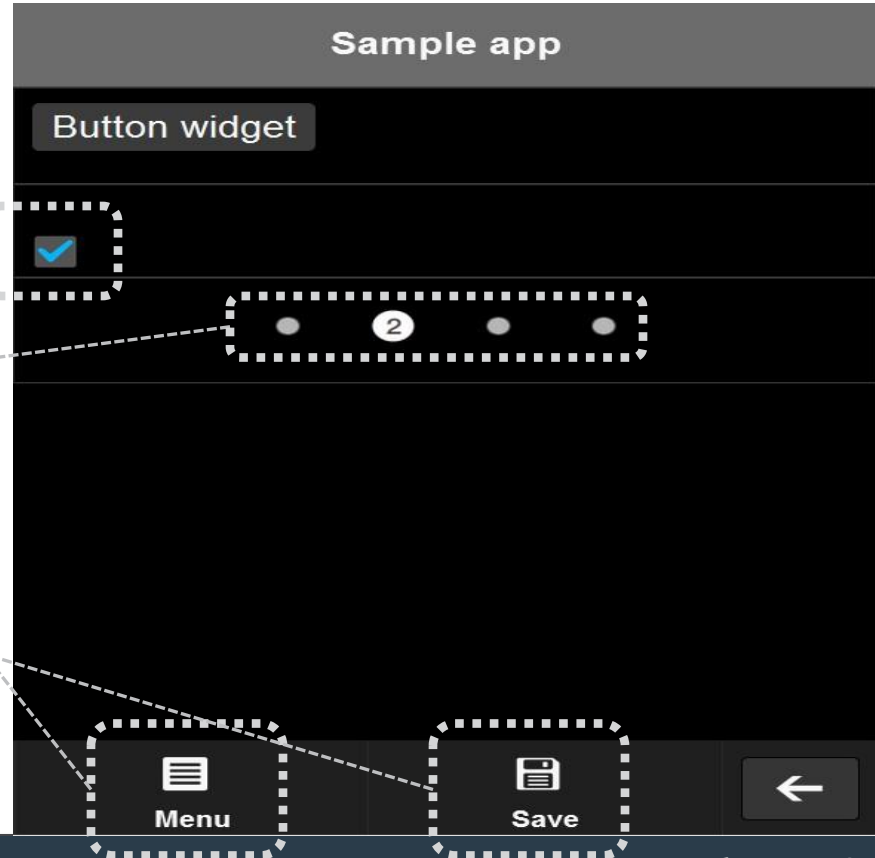


Making Web Application Using Winsets

```
<div data-role="page" id="template-page">
  <div data-role="header" data-position="fixed">
    <h1>Sample app</h1>
  </div>
  <div data-role="content">
    <ul data-role="listview">
      <li> <div data-role="button" data-
inline="true">Button widget</div> </li>

      <li> <input type="checkbox" id="checkbox1"
data-style="onoff" /> </li>
      <li> <div data-role="pagecontrol" data-max="4"
data-initVal="2"></div> </li>
    </ul>
  </div> <!-- /content -->
  <div data-role="footer" data-position="fixed">
    <div data-role="controlbar" data-style="toolbar" >

      <ul> <li><a href="#" data-icon="ctrlbar-menu"
class="ui-btn-active">Menu</a></li>
      <li><a href="#" data-icon="ctrlbar-save" >
Save</a> </li>
      </ul>
    </div><!-- /navbar -->
  </div> <!-- /footer -->
</div> <!-- /page-->
```



Making Web Application Consider order of layers

- **Several Tizen Web Winsets has special z-orders!**

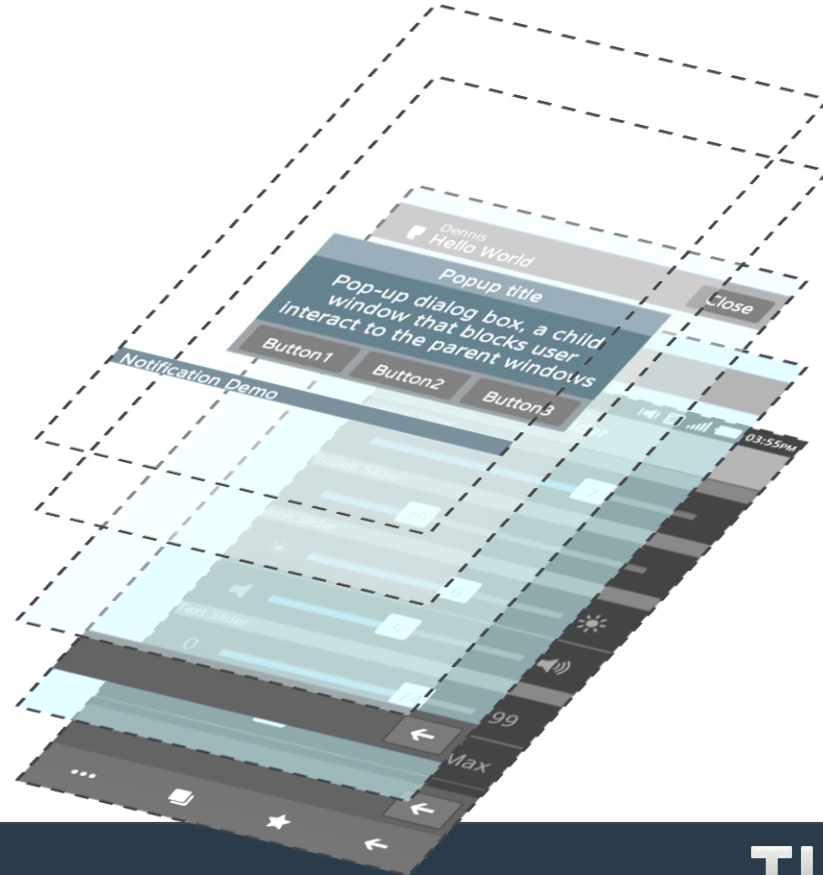
TickerNoti : Highest layer

Popup : 1200

SmallPopup : 1100

Header / Footer : 1000

Default z-index : 0



Making Web Application with Multilingual Codes

- **Use Globalize!**

- Set string translation table

```
Globalize.addCultureInfo("de", {
  messages: {
    "hello" : "hallo",
    "please" : "bitte"
  }
});
```

- Get translated strings by keywords with Globalize.localize()
 - Automatic language selection (Current system language)

```
var hello_string = Globalize.localize("hello");
```

- Manual language selection

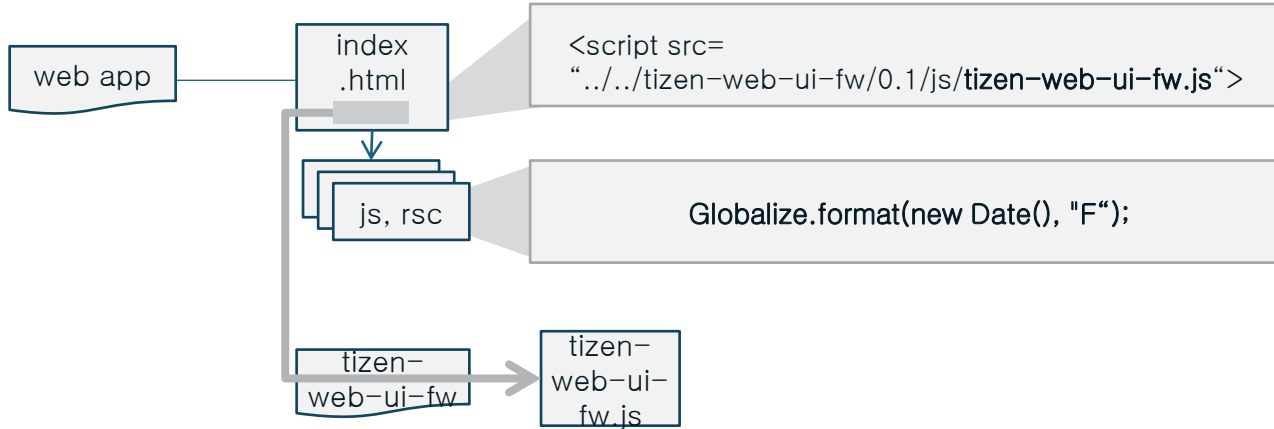
```
var hello_string_de = Globalize.localize("hello", "de");
```

- **Application's default language can be FIXED in index.html**

```
<!DOCTYPE html>
<html lang="de">
.....
```


Making Web Application Support System Language

- Localization Support



- [Tizen] System > Language ?

Globalize.format(new Date(), "F")

English -> Friday, January 2012 4:14:43 PM

French -> vendredi 20 janvier 2012 16:14:43

Note

- **Not support jQueryMobile theme and swatch.**
- **Not fully support for old version browser.**
 - Runs on browsers supporting HTML5/CSS3 standards.
- **Browser default zoom does not work.**
- **Base winset size is optimized to HD dpi targets.**
 - On low resolution targets, it scales down.
- **Find It More**
 - Tutorial
 - <http://developer.tizen.org/documentation>

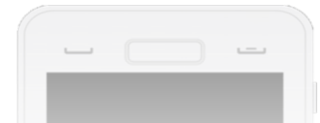
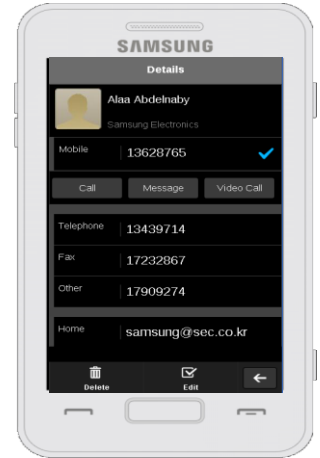
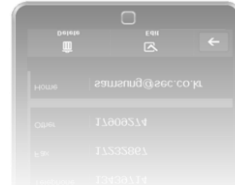
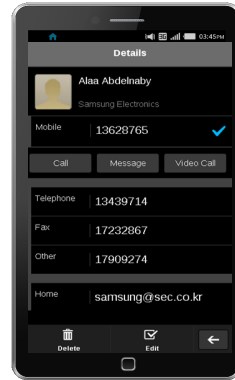
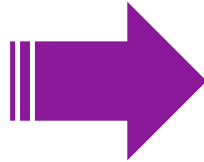
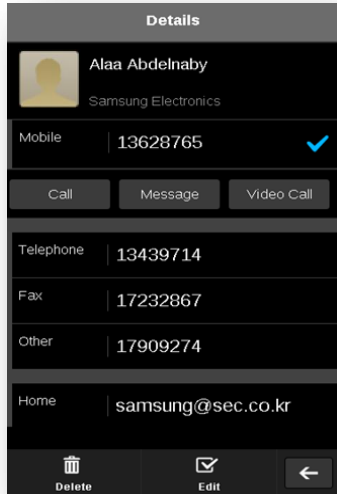
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Appendix

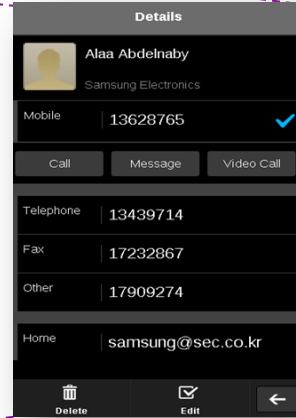
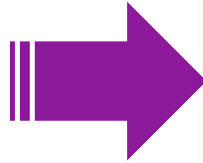
ONE app, ALL devices?



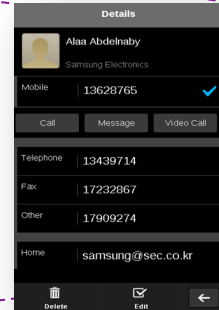
Scaling Viewport Scaling

```
<script src="tizen-web-ui-fw.js"  
data-framework-viewport-scale="true">
```

720px width device



480px width device
→ viewport scale : 0.67



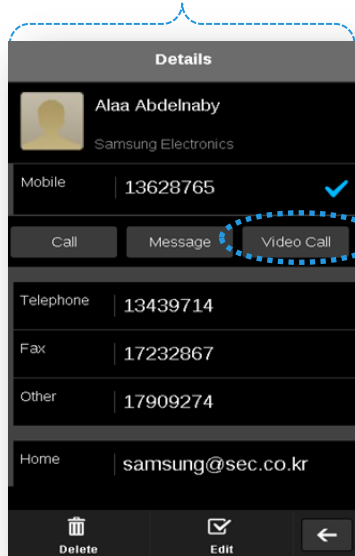
360px width device
→ viewport scale : 0.5

Scaling REM Scaling

- Adjust base font-size
- All widgets are scaled in proportion to the font size
 - with 'rem' unit instead of 'px' for fixed length

```
<script src="tizen-web-ui-fw.js"  
data-framework-viewport-scale="false">
```

Original page : 720px width



Screen width	Original 720px	480px	360px
font-size (px)	36	24	18
Button width	2.78 rem	2.78 rem	2.78 rem
Button width (Calculated value)	100px Video call	67px Video call	50px Video call
Viewport scale	1.0		

Supported Winset List (1/2)

Name	Origin	Description
Checkbox	JQM	Normal checkbox
Radio Button	JQM	Radio buttons
Button	JQM	Basic buttons
Searchbar	JQM	Input form for text search
Segment Control	JQM	Set of buttons appearing as a single button
Selection Info	JQM	Day of the week selector
Slider	JQM	Set values as drag the handle
Progressbar	jQuery UI	Bar showing progress
Lists	JQM	List of items
Extendable List	New	List that can be extended
Swipe List	New	List item that can be swiped out
Virtual List	New	List with dynamic data management
Virtual Grid	New	Grid with dynamic data management
Toggle Switch	New	Simple two-state switch

Supported Winset List (2/2)

Name	Origin	Description
Popup	New	Pop-up window
Context Popup	New	Small pop-up containing a list
Notification	New	Small pop-up indicating accidental events
Image Slider	New	Image collection (gallery)
Page Control	New	Indicator button with page number
Control Bar	New	Grouped button in the header or footer
Day Selector	New	Grouped button supporting weekday selection
Date Time Picker	New	Date and time picker
Color	New	Color palette and color picker
No Contents	New	Displayed when a list has no items
Handler	New	Touch-friendly scroll bar
Multi Button Entry	New	Button containing a text entry
Multimedia View	New	Video and audio player

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