UX/UI Controller Component

Summary

Through construction and operation of effective smart e-government foundation system in e-government, the service qualityUX layerof the e-government provides UI/UX Controller Components, JavaScript Module App Framework, HTML5 and CSS3 JavaScript Module App Framework service. The open source adopts JQuery Mobile that provides html5, CSS3 andJavascript. It uses the function of UI layers by customizing open source. The contents are as shown below. For flexible response to the UI/UX Controller Component Mobile Web User Environment (UX/UI), it provides the touch-optimized and required UI controller component. HTML5 is the markup language that can be used at the configuration of mobile web page and provides the mobile specialized tag and device API. CSS3 provides the function of showing suitable components depending on the mobile device and browser. In addition, it provides the javascriptandJsonstructure guaranteeing the efficiency of JavaScript Module App Framework UX/UI controller component.

Description

UX processing layer provides Button, Panel, Internal/External Link, Process Dialog/Bar, Menu, Date/Time Picker, Check, Radio, Label/Text, TABS, Form, Grid, List View ICon, Selector and Collapsible Block for configuring the screen with the layer that takes charge of a mobile environment screen. It also provides 16 specialized components in the mobile screen.

Declaration of Mobile Page

The jQuery Mobile should be declared as a doctype of HTML5 and can be used by importing CSS and JS(jQuery, jQueryMobile) used at the jQueryMobile.

The jQuery Mobile usesthe jQuery Core.

Mobile Page Header

Importsthe mobile execution environment to the Header'sdeclared part of the Page.

```
<!DOCTYPE html>
<html>
<head>
<title>eGovFrame</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">
<link rel="stylesheet" href="/css/egovframework/mbl/cmm/jquery.mobile-1.0b3.min.css"/>
<link rel="stylesheet" href="/css/egovframework/mbl/cmm/EgovMobile.css" />
<scriptsrc="/js/egovframework/mbl/cmm/jquery-1.6.2.min.js"></script>
<script src="/js/egovframework/mbl/cmm/jquery.mobile-1.0b3.min.js"></script>
<scriptsrc="/js/egovframework/mbl/cmm/EgovMobile.js"></script>
</head>
<body>
 ...
</body>
</html>
```

Mobile Page Body

The page structure of the jQuery Mobile is expressed using div and the structure is separated using 'data-*' property of html5.

```
<div data-role="page">
<div data-role="header">
</div>
<div data-role="content">
</div>
```

```
<div data-role="footer">
</div>
</div>
```

Mobile Page Link

The jQuery Mobile is managed with one page as <div data-role="page"> unit, and if there is several <div data-role="page"> in one HTML, recognize div pages at the top as the first page. Movement between these internal pages can be performed using #pageName in the link property. The jQuery Mobile intercepts the link of anchor tag when moving to the external pages, call relevant URL to Ajax, and get <div data-role="page">area of page called, and add the relevant contents to the DOM of HTML page called.

- Since it does not get CSS and JS of the page called to Ajax, the called Page should contain JS and CSS of the page called.
- Use data-ajax="false" if you don't want the ajax communication at the time of movement to external page.

UX Component

Component		Available Function
Button	Description	Provide the component used for command execution, option selection and opening of other dialog
	Form	Round type (radius: 1em), Square type (radius: 0em)
	Layout	vertical group, horizontal group
	Color	Black, blue, gray, white, yellow, red, green
	Height	normal(39px), small (28px)
	Area	Fit to Screen, Fit to Text
Panel	Description	Element that forms the page with Header/footer
	Pattern	Provide Grid FormPattern
	Color	Black, gray, light gray, white, yellow, red, green
Internal / External Link	Description	Provide standardLinkFunction and Link type using Ajax by default
	Link	Page internal link, domain internal link, external link, e-mail link, phone link, error page link
Label / Text	Description	Provide the guide that can designate Color, Layout, Size,Font
	Color	Green, Red, Blue
	Layout	Left, Middle, Right
	Size	15px, 25px, 30px
	Font	helvetica, verdana, tahoma
Tabs	Description	Used in Header and footer and provide the function to move between documents with tab button
	Form	round tab(radius: 0.250em), normal tab(radius: 0em)
	Layout	1, 1/2, 1/3, 1/4, 1/5, 1/2 Multiple Line tab
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Form	Description	Provide HTML Form Element by optimizing it to mobile environment
	Element	Text inputs, Search inputs, Sliders, Switches, Radio buttons, Check boxes, Selectors
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Menu	Description	Provide menu configuration function using Dialog, Grid, List, Collapsible component
	Effect	slide, slideup, slidedown, pop, fade, flip
	Form	Dialog, Grid, List, Collapsible
	Color	Black, Blue, Gray, White, Yellow, Red, Green

Processing Dialog / Bar	Description	Provide Progress Dialog/Bar that can check the progress status between page transition
	Form	Processing Dialog, Processing Bar
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Dialog	Description	Provide Dialog Function that can interact with users
	Form	Dialog, Action Sheet, Overlay, Alert, Prompt, Confirm
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Grid View	Description	Provide the component that can arrange the contents with Grid Form
	Layout	1/2, 1/3, 1/4, 1/5, Variable Grid View
Table / List View	Description	Provide the component that can arrange the contents with Table/List Form
	Form	Read-only list, Link list
	Function	Nested List, Numbered List, Split Button, List Divider, Count Bubble, Thumbnail, List icon, Content Formatting, Search Filter Bar
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Date / Time Picker	Description	Provide Picker that can select the date and time
	Form	Android Date Picker, Popup Calendar, Android Time Picker
Check/ Radio	Description	Provide the function that can select the items with Check/Radio Form
	Layout	vertical group, horizontal group
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Icon	Description	Provide the icons that are most frequently used in mobile application
	Form	arrow-l, arrow-r, arrow-u, arrow-d, delete, plus, minus, check, gear, refresh, forward, back, grid, star, alert, info, search, home, phone, mail
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Selector / Switch	Description	Provide the function that can select the item with Selector/Switch Form
	Effect	pop-up, list
	Function	Multiple select, Single select
	Form	Round type(radius: 1em)? Square type(radius: 0em)
	Area	Fit to Screen, Fit to Text
	Effect	Apply Shadow, Remove ?Shadow
	Form	Non-group, Group
	Color	Black, Blue, Gray, White, Yellow, Red, Green
Collapsible Block	Description	Provide the control function that can fold and unfold the area of contents
	Form	normal, Group, Nested
	Color	Black, Blue, Gray, White, Yellow, Red, Green

Browser Compatibility Compliance Guideline per UX Component

1. Ground Standards: The Ministry of Public Administration and Security Notice "No. 2010-40
2. Reason of Revision: specify the matters that the public organization should comply with for improvement of accessibility for supply of mobile e-government service
3. Contents of Main Revision
   o Recommend the mobile 'web' type rather than the mobile 'app' type so that people can use various kinds of mobile devices.
   o Technology standard instruction for mobile web type development
     ▪ Provide equal service at 3 types of web browsers at minimum
     ▪ Regulate the mandatory use of standard provided by international standardization organization
4. Principle of providing e-government mobile service
   o Recommend mobile web type development so that various smart phone users can obtain all benefits
   o Refer to support browser (compatibility) per mobile common component

Support Browser per UX Component (Compatibility)

Test Devices

갤럭시S 갤럭시S2 아이폰4 갤럭시탭 아이패드2

Test Browsers

크롬 사파리 파이어폭스 오페라

Specification of browsersto support the Mobile Standard Framework User Experience (UX)

▮ 지원 플랫폼

컴포넌트				
지원버전	4.3 ↑	2.3 ↑	5.0 ↑	11.50 ↑
Button	O	O	O	O
Panel	O	O	O	O
Internal/External Link	O	O	O	O
Label/Text	O	O	O	O
Tabs	O	O	O	O
Form	O	O	O	O
Menu	O	O	O	O
Processing Dialog / Bar	O	O	O	O
Dialog	O	O	O	O
Grid View	O	O	O	O
Table / List View	O	O	O	O
Date / Time Picker	O	O	O	O
Check/ Radio	O	O	O	O
Icon	O	O	O	O
Selector / Switch	O	O	O	O
Collapsible Block	O	O	O	O

Reference

- Guide for the SupportingFunction of the [Mobile Execution Environment User Experience(UX)](#)