

Interface Device API Guide Program

Outline

Mobile Interface Device API Guide Program provides the developers with the guidelines of how to implement RESTful in data communication with the web servers built under eGov Standard Framework, using the runtime environment of Mobile Device API.

Feature

The Guide Program features **Send Data to Server, Receive Data in Device and Request Data Removal to Server.**

Preconditions

Category	Description
Local Device Environments	Xcode 6.3.2, PhoneGap 4.3.0
Server-side Developmental Environment	eGov Standard Framework Deveopment Environment 3.5
Works in sync with Mashup Open API	N/A
Test Device	iPhone4, iPhone6
Test Platform	iOS 7.1.2, iOS 8.3
Libraries Added	EGovComModuleAPI.js, EgovComModule.h, libEgovComModule.a, EgovInterface.h, EgovInterface.m, EgovStorageInfo.h, EgovStorageInfo.m

Restrictions

Supported devices and platforms

For iPhone devices, there may be issues due to device's processing power.

- Problem: PhoneGap error.
- Solution: delay PhoneGap loading sequence with setTimeout() function.

```
document.addEventListener('DOMContentLoaded', function () { setTimeout(loaded, 200); }, false);
```

- Problem: iScroll5 content height calculation error.
- Solution: use setTimeout() to ensure iscroll is generated after css application to contents is complete.

```
setTimeout(function()
```

```

    {
        myScroll = new iScroll(thisPage,
            {
                checkDOMChanges: true,
                onBeforeScrollStart:function(e)
                {
                }
            });
    },
    500);

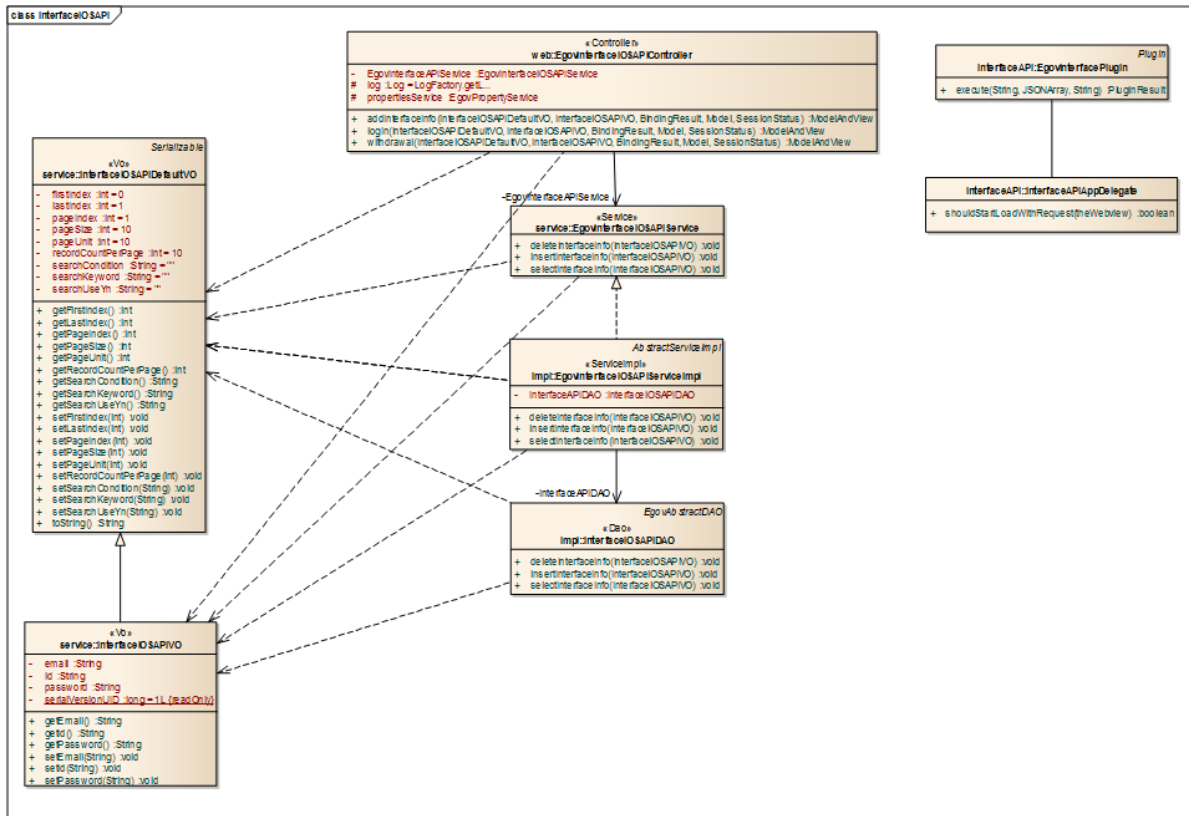
```

Problems may occur if alert() is included in Callback function. (phoneGap)

- Problem: error calling alert() message from Callback function saved in PhoneGap.
- Solution: Use asynchronous function or avoid using functions that use thread like alert().

Description

Related Class Diagram



Device Application

Source

Type	Target Source	Remark
CSS	www/css/egovframwork/mbl/hyb/InterfaceAPI.css	Notable Cascading Style Sheets for InterfaceAPI Guide Program

IMAGE	www/images/egovframework/mb1/hyb/	Notable Images for InterfaceAPI Guide Program
JS	www/js/egovframework/mb1/hyb/InterfaceAPI.js	Notable JavaScripts for InterfaceAPI Guide Program
JS	www/js/egovframework/mb1/hyb/messages_ko.js	JavaScript for Validate Message Processing
HTML	www/InterfaceAPI.html	InterfaceAPI Main Page
HTML	www/license.html	InterfaceAPI License Page
HTML	www/overview.html	InterfaceAPI Functional Description Page

APIs Used

window.plugins.EgovInterface.get

- Request HTTP GET Method to the eGovFramework Web Server Application.

```

window.plugins.EgovInterface.get(URI, acceptType, params, successCallback);
var param = {pid:'egovmobile'};
window.plugins.EgovInterface.get("/mylist.do", "xml", params, function(xmldata){
    alert(xmldata);
});

```

Option	Description	Remark
URI	URL requested	See Properties for more information.
acceptType	Configure Accept-Type of HTTP Header	json,xml
params	Input Parameter	Input Json Object

successCallback Function returned when GET Method is successful. JSON or XML data processing by acceptType.

window.plugins.EgovInterface.post

- Request HTTP POST Method to the eGovFramework Web Server Application.

```

window.plugins.EgovInterface.post(URI, acceptType, params, successCallback);
var param = {pid:'egovmobile'};
window.plugins.EgovInterface.post("/mylist.do", "xml", params, function(xmldata){
    alert(xmldata);
});

```

Option	Description	Remark
URI	URL requested	See Properties for more information.
acceptType	Configure Accept-Type of HTTP Header	json,xml
params	Input Parameter	Input Json Object

successCallback Function returned when GET Method is successful. JSON or XML data processing by acceptType.

```
window.plugins.EgovInterface.geturl
```

- Get SERVER_URL configured in the properties.

```
window.plugins.EgovInterface.geturl(successCallback);
window.plugins.EgovInterface.geturl(function(url){
    alert(url);
});
```

Option	Description	Remark
--------	-------------	--------

successCallback Function returned upon success String Type

Server Application

Source

Type	Target Source	Remark
Controller	egovframework.hyb.ios.itf.web.EgovInterfaceiOSAPIController.java	Classes for member information administration.
Service	egovframework.hyb.ios.itf.service.EgovInterfaceiOSAPIService.java	Service interface for member information administration.
VO	egovframework.hyb.ios.itf.service.InterfaceiOSAPIDefaultVO.java	VO Class for member administration.
VO	egovframework.hyb.ios.itf.service.InterfaceiOSAPIVO.java	VO Class for member administration.
DAO	egovframework.hyb.ios.itf.service.impl.InterfaceiOSAPIDAO.java	Data processing class for member administration.
DAO	egovframework.hyb.ios.itf.service.impl.EgovInterfaceiOSAPIServiceImpl.java	Class for processing services requested.
Query XML	X resources/egovframework/sqlmap/hyb/ios/itf/EgovInterfaceiOSAPIGuide_SQL_mysql.xml	Query file for member information administration.

Related Tables

Title	Table	Remark
Interface(eGov)	INTERFACE_EGOV	Administration of Interface(eGov) Information

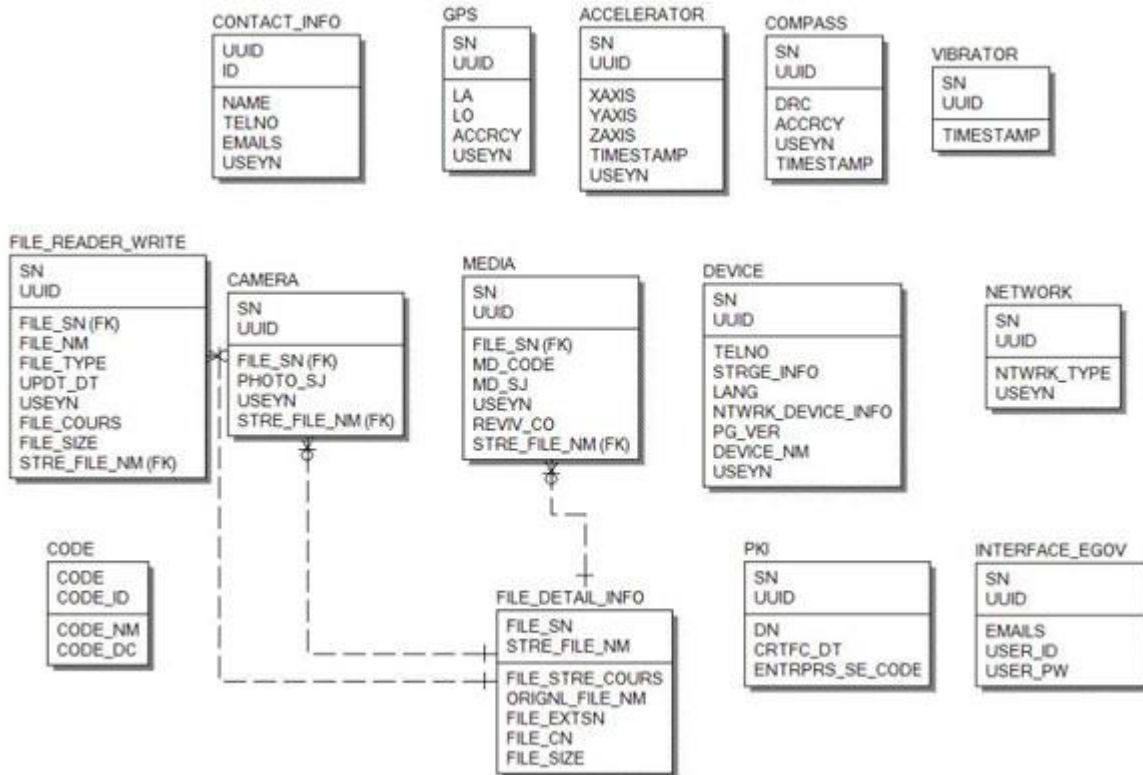
Table Definition

- Interface_egov

No	Column ID	Title of Column	Type	Length	Null
1	SN	Serial No.	NUMERIC	6	NotNull
2	UUID	UUID	VARCHAR	50	NotNull

3	EMAILS	Email	VARCHAR 50	Null
4	USER_ID	ID	VARCHAR 20	Null
5	USER_PW	Password	VARCHAR 200	Null

ERD



Configuration Settings

Interface Device properties required for use of Interface-related functions of Accelerator Device API Guide Program are as follows:

config.xml

```

<featurename="InterfaceAPI">
<paramname="ios-package" value="EgovInterface"/>
</feature>

</code>
    
```

[Project_Name]/eGovModule/EGovComModule.h

```

<!-- Server Directory for eGov Interface Device API Class -->
#define kSERVER_URL      @"Server_URL"
    
```

Server Application

resource/egovframework/sqlmap/sql-map-config_[DB_NAME].xml

```
<sqlMapresource="egovframework/sqlmap/hyb/ios/itf/EgovInterfaceiOSAPIGuide_SQL_[DB  
NAME].xml"/>
```

Related Features

The Guide Program features **Send Information Data to Server, Receive Information Data in Device and Request Information Data Removal to Server.**

Sending Information Data to Server

Business Logic

The membership information is sent out to the server to verify the response.

Related Code

```
function fn_signUp() {  
  
    var params = {    uuid :    device.uuid,  
                    userId : $("#signUpId").val(),  
                    userPw : $("#signUpPasswd").val(),  
                    emails : $("#signUpEmail").val()};  
  
    $.mobile.showPageLoadingMsg('a');  
    EgovInterface.submitAsynchronous(  
        [params, "/itf/addInterfaceiOSInfo.do"],  
        function(result) {  
            console.log("InterfaceAPIGuide fn_signUp  
Completed");  
  
            var s = JSON.stringify(result);  
            var str =  
'{resultState:'+result.resultState+',resultMessage:'+result.resultMessage+'}';  
            alert('Response Method:RESTful\n  
ResponseType:json, post\nParam:\n' + str);  
  
            $.mobile.hidePageLoadingMsg('a');  
            window.history.back();  
        },  
        function(error) {  
            console.log("InterfaceAPIGuide fn_signUp  
Failed");  
  
            var str = "";  
            for (myKey in result){  
                str += myKey + ' : ' + result[myKey] + '\n';  
            }  
            alert('Response Method:RESTful\n Response  
Type:json, post\nParam:\n' + str);  
  
            $.mobile.hidePageLoadingMsg('a');  
        }  
    );  
}
```

Related Screen and Implementation Manual

Function	URL	Controller	method	Display (HTML)
Sending Information Data to server	S /itf/addInterfaceInfo.do	EgovInterfaceInfoApiController	addInterfaceInfo	InterfaceAPI.html#signup

ID, PASSWD and E-Mail are used for input.



Click on Sign In to send the information data to the server.

Note, however, that you need to validate the input data. Error messages are out in the event of insufficient condition.

Signing-in: Provide ID, PASSWD and E-Mail to send the information data to the server and click on Sign in.

Back : Moves back to **Interface DeviceAPI Guide Program Menu**.

Receiving Information Data in Server

Business Logic

You can check the log-in is successful or not sending the log-in information to the server.

Related Code

```
function fn_login() {
    $.mobile.showPageLoadingMsg('a');
    alert('Send 방식:RESTful\nSendType:json, get\nURL:\n' + "/itf/logIniOS.do?userId=" +
$("#loginId").val() + "&userPw=" + $("#loginPasswd").val());
    EgovInterface.submitAsynchronous(
        ["/itf/logIniOS.do?userId=" + $("#loginId").val() +
"&userPw=" + $("#loginPasswd").val()],
        function(result) {
            console.log("InterfaceAPIGuide fn_login
Completed");
            var str =
'{"resultState:"+result.resultState+',resultMessage:'+result.resultMessage+'}';
            alert('Response
Method:RESTful\nResponseType:json, post\nParam:\n' + str);
            $.mobile.hidePageLoadingMsg('a');
            window.history.back();
        },
        function(error) {
            console.log("InterfaceAPIGuide fn_login Failed");
            var str = "";
            for (myKey in result){
                str += myKey + ': ' + result[myKey] + '\n';
            }
            alert('Response Method:RESTful\nSendType:json,
post\nParam:\n' + str);
            $.mobile.hidePageLoadingMsg('a');
        }
    );
}
```

Related Screen and Implementation Manual

Function	URL	Controller	method	Display (HTML)
Receiving Information Data in Server	/itf/logIn.do	EgovInterfaceiOSAPIController	logIn	InterfaceAPI.html#login



Click on "Log In" to send the information data to the server.

Note, however, that you need to validate the input data. Error messages are out in the event of insufficient condition.

Logging-in: Provide ID and PASSWD to send the information data to the server and click on "Log In"

Back : Moves back to **Interface DeviceAPI Guide Program Menu**.

Sending a data delete request to the server

Business Logic

Provide the server with ID and PASSWORD in order to verify the deletion of user account.

Related Code

```
function fn_withdrawal() {
```

```

var params = {  userId : $("#signDownId").val(),
               userPw : $("#signDownPasswd").val() };
$.mobile.showPageLoadingMsg('a');
EgovInterface.submitAsynchronous(
    [params, "/itf/withdrawaliOS.do"],
    function(result) {
        console.log("InterfaceAPIGuide fn_withdrawal
Completed");
        var str =
'{"resultState:"+result.resultState+',resultMessage:'+result.resultMessage+'}';
        alert('Response
Method:RESTful\nResponseType:json, post\nParam:\n' + str);
        $.mobile.hidePageLoadingMsg('a');
        window.history.back();
    },
    function(error) {
        console.log("InterfaceAPIGuide fn_withdrawal
Failed");
        var str = "";
        for (myKey in result){
            str += myKey + ' : ' + result[myKey] + '\n';
        }
        alert('Response
Method:RESTful\nResponseType:json, post\nParam:\n' + str);
        $.mobile.hidePageLoadingMsg('a');
    }
);
}

```

Related Screen and Implementation Manual

Function	URL	Controller	method	Display (HTML)
Sending a data delete request to the server	/itf/logIn.do	EgovInterfaceIOSAPICntrller	withdrawal	InterfaceAPI.html#secessionMber



Click on "Delete Account" in order to send a data deletion request to the server.
Note, however, that you need to validate the input data. Error messages are out in the event of insufficient condition.

Deleting Account: To send a data deletion request to the server, input ID and PASSWORD, then click on the "Delete Account."

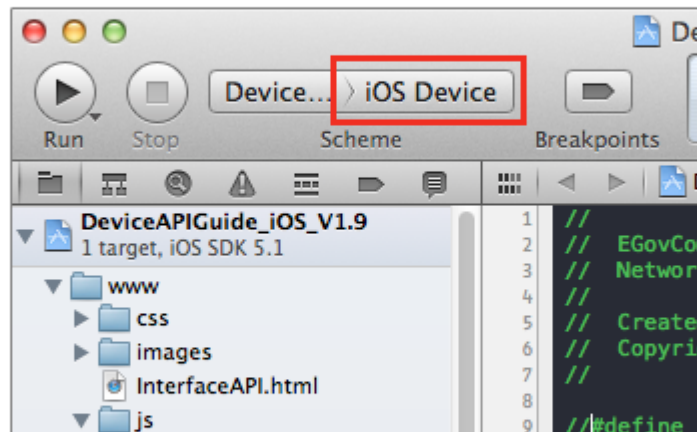
Back : Moves back to **Interface DeviceAPI Guide Program Menu**.

Compiling, debugging, distributing

Compiling

How to compile Interface Device Application

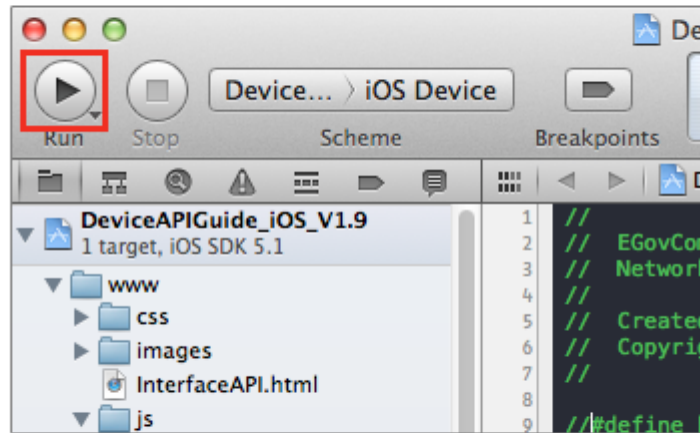
1. To execute on the device or simulator, click on red border area.



2. Select device or simulator.



3. Click on "Execute."



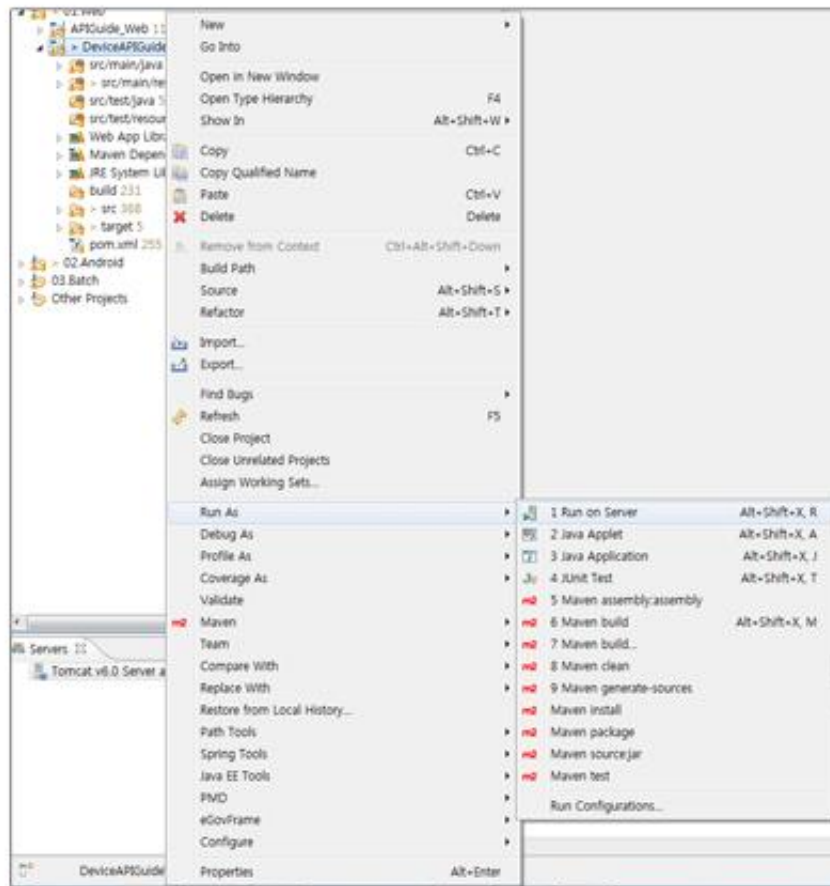
4. Check intro and main screen.



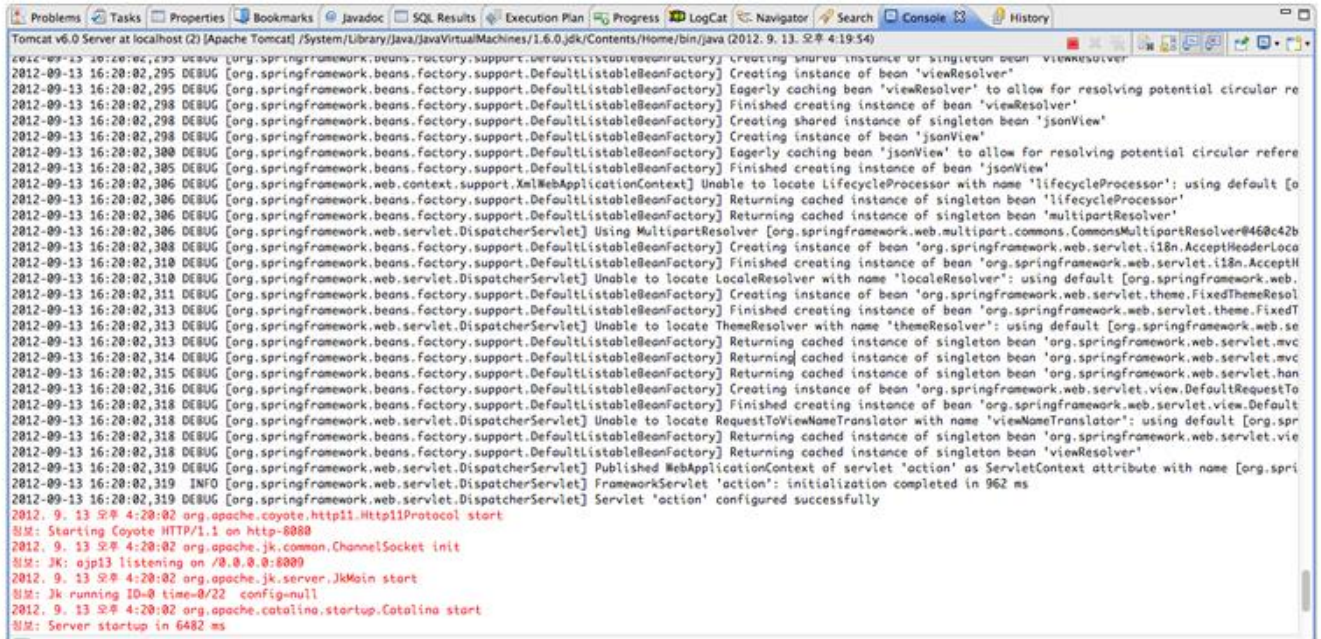


How to compile "InterfaceAPI Server Applicaton"

- Right-click on the project and click on Run As>Run On Server in order to run the InterfaceAPI server-side Guide Program.



- When the build is successfully completed, a message reading 'Server Startup in xxx ms' will display on the console window on the Eclipse.



Debugging

Use console.log in order to check the details on any errors on the device application, and to conduct debugging. Debug codes in console.log are available in JavaScript syntaxes that you can use in both Eclipse and Xcode.

- Example of actual console log

```

function fn_egov_network_check(doCheck)
{
    console.log('DeviceAPIGuide fn_egov_network_check');
    var networkState = navigator.network.connection.type;
    ...
}

```

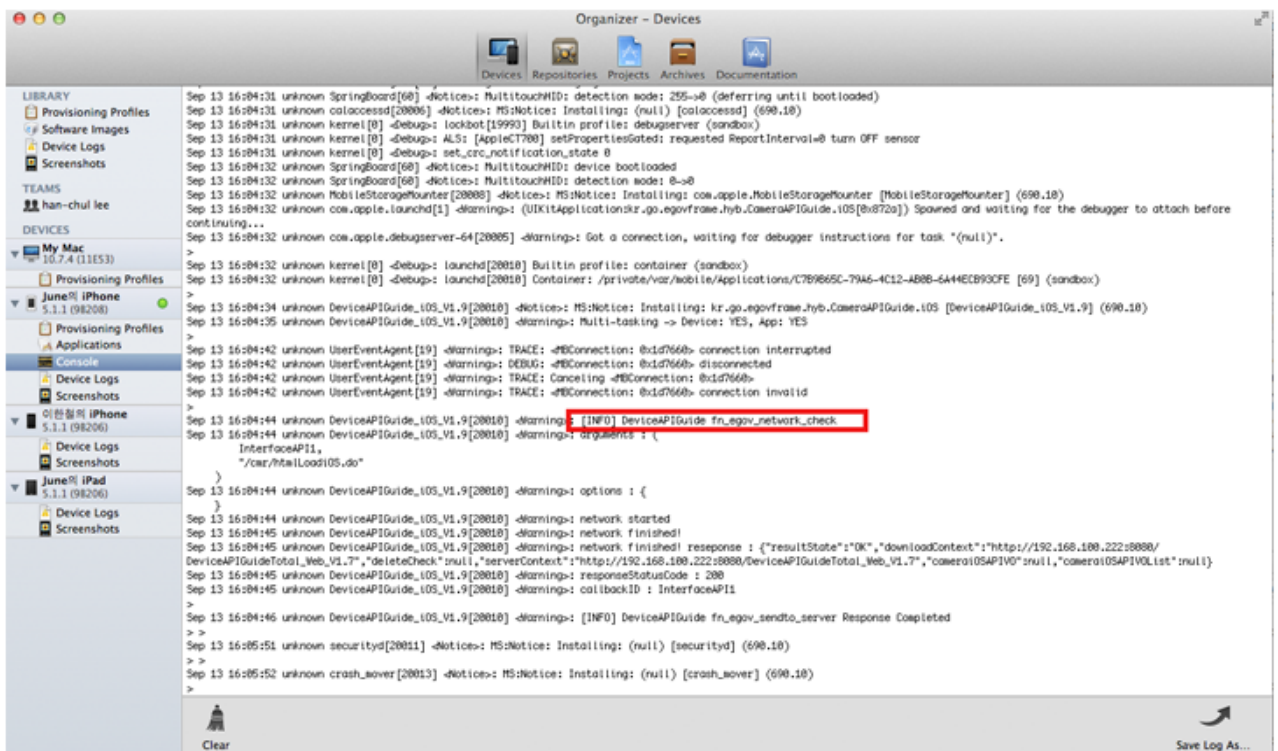
- xCode console window

```

DeviceAPIGuide_iOS_V1.9
All Output
2012-09-13 16:04:35.190 DeviceAPIGuide_iOS_V1.9[20010:707]
2012-09-13 16:04:44.329 DeviceAPIGuide_iOS_V1.9[20010:707] [INFO] DeviceAPIGuide_fn_egov_network_check
2012-09-13 16:04:44.744 DeviceAPIGuide_iOS_V1.9[20010:707]
InterfaceAPI1,
"/cmr/htmlLoadIOS.do"
}
2012-09-13 16:04:44.757 DeviceAPIGuide_iOS_V1.9[20010:707] options : {
}
2012-09-13 16:04:44.799 DeviceAPIGuide_iOS_V1.9[20010:707] network started
2012-09-13 16:04:45.350 DeviceAPIGuide_iOS_V1.9[20010:707] network finished!
2012-09-13 16:04:45.353 DeviceAPIGuide_iOS_V1.9[20010:707] network finished! reponse : {"resultState":"OK","downloadContext":"http://192.168.100.222:8080/DeviceAPIGuideTotal_Web_V1.7?","deleteCheck":null,"serverContext":"http://192.168.100.222:8080/DeviceAPIGuideTotal_Web_V1.7?","cameraIOSAPIV0":null,"cameraIOSAPIV0List":null}
2012-09-13 16:04:45.365 DeviceAPIGuide_iOS_V1.9[20010:707] responseStatusCode : 200
2012-09-13 16:04:45.373 DeviceAPIGuide_iOS_V1.9[20010:707] callbackID : InterfaceAPI1
2012-09-13 16:04:46.076 DeviceAPIGuide_iOS_V1.9[20010:707] [INFO] DeviceAPIGuide_fn_egov_sendto_server Response Completed

```

- Organizer log window



InterfaceAPI Guide Program will output the following console information for debugging.

Debug code	Debug information
InterfaceAPIGuide_fn_login request Completed	Successfully processed transfer to information data device.
InterfaceAPIGuide_fn_login request Failed	Failed to transfer to information data device.
InterfaceAPIGuide_fn_signUp request Completed	Send to information data device successful
InterfaceAPIGuide_fn_signUp request Failed	Failed to transfer to information data server.

InterfaceAPIGuide fn_withdrawal request Completed Data deletion request to server successfully processed

InterfaceAPIGuide fn_withdrawal request Failed Data deletion request to server failed

Distribution

Download Interface device API Guide: [Click](#)

References

- ASIHTTPRequest : <http://allseeing-i.com/ASIHTTPRequest>
- Apple Developer Library : <https://developer.apple.com/library/ios/navigation/>
- Phonegap 4.3.0 : <http://docs.phonegap.com/en/4.0.0/index.html>