

[Tutorial] LG Web_Implementing Functionality of Return / Back / Exit Key

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LGDEV-049

Home Entertainment Company
LG Electronics, Inc.

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About This Document

Revision History

| Document Version | Date | Comment |
|------------------|------------------|-----------------|
| 1.0 | October 12, 2011 | Initial Version |

Purpose

This document describes how to implement functionality of Return, Back, and Exit using Web open API.

Reference Documents

Refer to the following documents:

- LG Web Application Development Guide
- LG Web Open API Reference Guide

Conventions

Codes

Source code and examples are indicated in the `grey Courier New` font.

Note, Caution

Note and caution are used to emphasize information.
The following samples describe when each is used.

Note

Contains information about something that is helpful to you.

Caution

Contains important information about something that you should know.

Abbreviation

The following table defines the abbreviations used in this document.

| Abbreviation | Description |
|--------------|-----------------------------------|
| API | Application Programming Interface |

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1 Introduction

This chapter provides an overview of this application and needed APIs.

1.1 Overview

1.2 Needed APIs

Note

Sample applications are placed under the SDK installation folder.

- [SDK Installation Folder]\LG Smart TV SDK\WebSamples\WebAPI_Tutorial\

1.1 Overview

This application is designed to show how to implement the functionality of Return, Back, and Exit using Web open API.

This application shows which method is used to exit the application and move back to the MyApps menu or TV video in each page.

LG Smart TV SDK | Web Open API Tutorial

File : /netcast/app/returnbackexit.html

| Methods | Properties | Events |
|---|------------|--------|
| window.NetCastReturn(keycode) window.NetCastBack() window.NetCastExit() | | |

View Source

1. Press Red-key to test NetCastReturn(VK_PORTAL)
2. Press Green-key to test NetCastReturn(VK_BACK)
3. Press Yellow-key to test NetCastBack()
4. Press Blue-key to test NetCastExit()

objed method property event

BACK EXIT RETURN RETURN BACK EXIT

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[Figure 1] Application to implement the Return/Back/Exit Key

1.2 Needed APIs

This application uses following Web Open API:

[Table 1] Description of the Needed APIs

| API Class | Name | Description |
|-----------|-------------------------------|---|
| Method | Window.NetCastReturn(keycode) | Sets the corresponding function for Keycode value to operate the key. |
| | Window.NetCastExit() | This API is used to exit or quit the application. |
| | Window.NetCastBack() | This API is used to move back to the MyApps menu. |
| Property | N/A | N/A |
| Event | N/A | N/A |

For more information on these functions, refer to “LG Web Open API Reference Guide”.

Note

Log is used for checking the sequence of Web Open API; this will not be covered in the sample code description.



2 Creating Application

This chapter describes how to implement functionality of Return, Back, and Exit using Web open API.

2.1 Initializing the Page

2.2 Inputting Keys

2.3 Handling Keys

2.4 Source Code of returnbackexit.html

2.1 Initializing the Page

Use the **initPage** function to set the basic functions of the application.

- 04: Records the last visited page when running the application.
- 07: Initializes the page.
- 08: Gets the source code of the page using the XMLHttpRequest object.
- 09: Sets the page ID.
- 10: Initializes the Log function.
- 13-18: Registers an event handler which will be executed when the corresponding button is pressed.
- 20-23: Deletes the cookie related to the application if it has been saved.

Sample Code

```
01 : function initPage()
02 : {
03 :     //save page as last visited page
04 :     setLastVisitPage();
05 :
06 :     //common initialize function
07 :     commonInitialize();
08 :     requestSourceCode();
09 :     setPageID("Return, Back, Exit");
10 :     jsLog.initLG();
11 :
12 :     //add onclick event handler
13 :     addEventHandler(document.getElementById("btn_back"),"click", onClickHandler);
14 :     addEventHandler(document.getElementById("btn_red"),"click", onClickHandler);
15 :     addEventHandler(document.getElementById("btn_green"),"click",onClickHandler);
16 :     addEventHandler(document.getElementById("btn_yellow"),"click",onClickHandler);
17 :     addEventHandler(document.getElementById("btn_blue"),"click", onClickHandler);
18 :     addEventHandler(document.getElementById("btn_exit"),"click", onClickHandler);
19 :
20 :     if(readCookie("return_back_exit_test_status") != "")
21 :     {
22 :         //clear return_back_exit_test_status cookie if it have been set
23 :         deleteCookie("return_back_exit_test_status", "/");
24 :     }
25 : }
```

2.2 Inputting Keys

The **onUserInput** function is called by the **onClickHandler** function; it receives a key value as the **userInput** parameter from **onClickHandler** and creates the corresponding function for each key value to operate the key.

- 06: When the Back key is pressed, this code is executed.
- 07: When the Red key is pressed, this code is executed.
- 08: When the Green key is pressed, this code is executed.
- 09: When the Yellow key is pressed, this code is executed.
- 10: When the Blue key is pressed, this code is executed.

Sample Code

```
01 : //onUserInput function should be implemented
02 : function onUserInput(userInput)
03 : {
04 :     switch(userInput)
05 :     {
06 :         case VK_BACK : window.location.replace("../menu_netcast.html"); break;
07 :         case VK_RED : case 82 : processRedKey(); break;
08 :         case VK_GREEN : case 71 : processGreenKey(); break;
09 :         case VK_YELLOW : case 89 : processYellowKey(); break;
10 :         case VK_BLUE : case 66 : processBlueKey(); break;
11 :     }
12 : }
```

2.3 Handling Keys

The following functions are executed when each key of `onUserInput()` is pressed.

processRedKey

This function is called when the Red key is pressed.

- 06: Saves "return_back_exit_test_status" cookie.
- 08: Exits the application.
- 11: Shows the text on the screen if the browser of app is not a LG Browser.

processGreenKey

This function is called when the Green key is pressed.

- 19: Saves "return_back_exit_test_status" cookie.
- 21: Moves back to the MyApps menu.
- 24: Shows the text on the screen if the browser of app is not a LG Browser.

processYellowKey

This function is called when the Yellow key is pressed.

- 31-33: Gets the type and version of the browser through the navigator object.
- 37: Saves "return_back_exit_test_status" cookie.
- 39: Moves back to the MyApps menu.

processBlueKey

This function is called when the Blue key is pressed.

- 53: Exits the application.
- 56: Shows the text on the screen if the browser of app is not a LG Browser.

Note

If you open the main menu when "return_back_exit_test_status" cookie has been saved, you can move to the current application through a new popup window.

```
01 : function processRedKey()  
02 : {  
03 :   if(isThisLGEBrowser())  
04 :   {  
05 :       //set cookie which will be checked at main_menu.html  
06 :       writeCookie("return_back_exit_test_status", "under_testing", "/", 1  
    * 24 * 60 * 60 * 1000);  
07 :       jsLog.lgmethod('window.NetCastReturn(VK_PORTAL)');  
08 :       window.NetCastReturn(VK_PORTAL);  
09 :   }  
10 :   else  
11 :       setInnerTextById("result_1", "This is not a LG Browser");  
12 : }  
13 :  
14 : function processGreenKey()  
15 : {  
16 :   if(isThisLGEBrowser())  
17 :   {  
18 :       //set cookie which will be checked at main_menu.html  
19 :       writeCookie("return_back_exit_test_status", "under_testing", "/", 1  
    * 24 * 60 * 60 * 1000);  
20 :       jsLog.lgmethod('window.NetCastReturn(VK_BACK)');  
21 :       window.NetCastReturn(VK_BACK);  
22 :   }  
23 :   else  
24 :       setInnerTextById("result_2", "This is not a LG Browser");  
25 : }  
26 :  
27 : function processYellowKey()  
28 : {  
29 :   if(isThisLGEBrowser())
```

```

30 : {
31 :     var userAgentString = new String(navigator.userAgent);
32 :     var BrowserVer = userAgentString.substring(userAgentString.search(/LG Browser/) + 11);
33 :     BrowserVer = BrowserVer.split(" ", 1);
34 :     if(BrowserVer >= "3.0.23")
35 :     {
36 :         //set cookie which will be checked at main_menu.html
37 :         writeCookie("return_back_exit_test_status", "under_testing",
            "/", 1 * 24 * 60 * 60 * 1000);
38 :         jsLog.lgmethod('window.NetCastBack()');
39 :         window.NetCastBack();
40 :     }
41 :     else
42 :         setInnerTextById("result_3", "Need Version over 3.0.23");
43 : }
44 : else
45 :     setInnerTextById("result_3", "This is not a LG Browser");
46 : }
47 :
48 : function processBlueKey()
49 : {
50 :     if(isThisLGEBrowser())
51 :     {
52 :         jsLog.lgmethod('window.NetCastExit()');
53 :         window.NetCastExit();
54 :     }
55 :     else
56 :         setInnerTextById("result_4", "This is not a LG Browser");
57 : }

```

2.4 Source Code of returnbackexit.html

Source code of returnbackexit.html is as follows:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>App Template of API Unit Sample App</title>
<link rel="stylesheet" href="../../css/style.css">
<script language="javascript" src="../../js/keycode.js"></script>
<script language="javascript" src="../../js/common.js"></script>
<script language="javascript" src="../../js/menu.js"></script>

<script type="text/javascript" src="../../blackbirdjs/blackbird.js"></script>
<link type="text/css" rel="Stylesheet" href="../../blackbirdjs/blackbird.css" />

<script>

    //initialize page
    function initPage()
    {
        //save as last visited page
        setLastVisitPage();

        //common initialize function
        commonInitialize();
        requestSourceCode();
        setPageID("Return, Back, Exit");
        jsLog.initLG();

        //add onclick event handler

        addEventHandler(document.getElementById("btn_back"),"click",onClickHandler);

        addEventHandler(document.getElementById("btn_red"),"click",onClickHandler);
        addEventHandler(document.getElementById("btn_green"),"click",onClickHandler);

        addEventHandler(document.getElementById("btn_yellow"),"click",onClickHandler);

        addEventHandler(document.getElementById("btn_blue"),"click",onClickHandler);

        addEventHandler(document.getElementById("btn_exit"),"click",onClickHandler);

        if(readCookie("return_back_exit_test_status") != "")
        {
            //clear return_back_exit_test_status cookie if it have been set
            deleteCookie("return_back_exit_test_status", "/");
        }

        function onUserInput(userInput)
        {
            switch(userInput)
            {
                case VK_BACK : window.location.replace("../menu_netcast.html");
                break;

                case VK_RED : case 82 : processRedKey(); break;
                case VK_GREEN : case 71 : processGreenKey(); break;
                case VK_YELLOW : case 89 : processYellowKey(); break;
                case VK_BLUE : case 66 : processBlueKey(); break;
            }
        }

        function processRedKey()
        {
            if(isThisLGEBrowser())
            {
```

```

        //set cookie which will be checked at main_menu.html
        writeCookie("return_back_exit_test_status", "under_testing", "/",
1 * 24 * 60 * 60 * 1000);
        jsLog.lgmethod('window.NetCastReturn(VK_PORTAL)');
        window.NetCastReturn(VK_PORTAL);
    }
    else
        setInnerTextById("result_1", "This is not a LG Browser");
}

function processGreenKey()
{
    if(isThisLGEBrowser())
    {
        //set cookie which will be checked at main_menu.html
        writeCookie("return_back_exit_test_status", "under_testing", "/",
1 * 24 * 60 * 60 * 1000);
        jsLog.lgmethod('window.NetCastReturn(VK_BACK)');
        window.NetCastReturn(VK_BACK);
    }
    else
        setInnerTextById("result_2", "This is not a LG Browser");
}

function processYellowKey()
{
    if(isThisLGEBrowser())
    {
        var userAgentString = new String(navigator.userAgent);
        var BrowserVer =
userAgentString.substring(userAgentString.search(/LG Browser/) + 11);
        BrowserVer = BrowserVer.split("(", 1);
        if(BrowserVer >= "3.0.23")
        {
            //set cookie which will be checked at main_menu.html
            writeCookie("return_back_exit_test_status",
"under_testing", "/", 1 * 24 * 60 * 60 * 1000);
            jsLog.lgmethod('window.NetCastBack()');
            window.NetCastBack();
        }
        else
            setInnerTextById("result_3", "Need Version over 3.0.23");
    }
    else
        setInnerTextById("result_3", "This is not a LG Browser");
}

function processBlueKey()
{
    if(isThisLGEBrowser())
    {
        jsLog.lgmethod('window.NetCastExit()');
        window.NetCastExit();
    }
    else
        setInnerTextById("result_4", "This is not a LG Browser");
}
</script>
</head>

<body ondragstart='return false' onselectstart='return false'
onload="javascript:initPage();">

<!-- title -->
<div class='SuiteTitle'>LG Smart TV SDK | Web Open API Tutorial</div>

<!-- navigation -->
<div class='SuiteNavigation'>

```

```

        <div style="float:left;">File : /netcast/app/returnbackexit.html</div>
    </div>

    <div class='SuiteTitleLine'> </div>

    <!-- test contents -->

    <div id='content_body' class='ContentArea'>

        <div class='ApiListTitleArea'>API List</div>

        <div class='ApiListArea'>

            <div class='MethodTitleArea'>

                Methods

                <div class='MethodListArea'>

                    window.NetCastReturn(keycode)<br>
                    window.NetCastBack()<br>
                    window.NetCastExit()

                </div>

            </div>

            <div class='PropertyTitleArea'>

                Properties
                <div class='PropertyListArea'>

                </div>

            </div>

            <div class='EventTitleArea'>

                Events
                <div class='EventListArea'>

                <br>
                </div>

            </div>

        </div>

        <div class='ViewTitleArea'>
            <div id='tabViewArea' class='SelectedViewArea' style='float:left;'
onclick="showView();">View</div>
            <div id='tabCodeArea' class='UnselectedViewArea' style='float:right;'
onclick='showCode();'>Source</div>
        </div>

        <div id='view' class='ViewArea'>

            <table border="0" cellpadding="0" cellspacing="0">

                <tr height="50px">

                    <td width=500px align=left><div>1. Press Red-key to test
NetCastReturn(VK_PORTAL)</div></td>

                    <td width=200px align="left"><div id="result_1"></div></td>

                    <td width=100px align="left"></td>

                </tr>

```



```

        <tr height="50px">
            <td width=500px align=left><div>2. Press Green-key to test
NetCastReturn(VK_BACK)</div></td>
            <td width=200px align="left"><div id="result_2"></div></td>
            <td width=100px align="left"></td>
        </tr>

        <tr height="50px">
            <td width=500px align=left><div>3. Press Yellow-key to test
NetCastBack(</div></td>
            <td width=200px align="left"><div id="result_3"></div></td>
            <td width=100px align="left"></td>
        </tr>
        <tr height="50px">
            <td width=500px align=left><div>4. Press Blue-key to test
NetCastExit(</div></td>
            <td width=200px align="left"><div id="result_4"></div></td>
            <td width=100px align="left"></td>
        </tr>

    </table>

    <table border="0" cellpadding="0" cellspacing="0">
        <tr height="50px">
            <td align=left><div id="description"
class="blueColor"></div></td>
        </tr>

    </table>
</div>

    <div style="visibility: hidden" id='codeview'>
        <textarea class="SourceCodeArea" value="" id='sourcecode'></textarea>
    </div>
</div>

<!-- description -->
<div class='SuiteDescription' id='return_back_exit_test_description'></div>

<!-- button and copyright -->
<div class='SuiteButtonArea'>
    <!-- back key description -->
    <div id='btn_back' class='buttonDescription'>BACK</div>

    <!-- exit button -->
    <div id='btn_exit' class='buttonDescription'>EXIT</div>

    <!-- red key description -->
    <div id='btn_red' class='buttonDescription redColor'>RETURN</div>

    <!-- green key description -->
    <div id='btn_green' class='buttonDescription greenColor'>RETURN</div>

    <!-- yellow key description -->
    <div id='btn_yellow' class='buttonDescription yellowColor'>BACK</div>

    <!-- blue key description -->

```

```
<div id='btn_blue' class='buttonDescription blueColor'>EXIT</div>

<!-- copyright -->
<div class='copyright'>Copyright LG Electronics</div>
</div>

</body>
</html>
```