

[Tutorial] LG Web_ Activating or Deactivating Browser's Page Loading Icon

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LGDEV-048

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 activate or deactivate the browser's page loading icon 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

Contents

1	Introduction.....	6
1.1	Overview	7
1.2	Needed APIs	8
2	Creating Application.....	9
2.1	Initializing the Page	10
2.2	Inputting Keys.....	11
2.3	Handling Keys	12
2.4	Handling Events	13
2.5	Counting Time	14
2.6	Source Code of pageloadingicon.html	15

Tables

[Table 1] Description of the Needed APIs.....	8
---	---

Figures

[Figure 1] Application to Enable/Disable the Browser's Page Loading Icon.....	7
---	---



1 Introduction

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

1.1 Overview

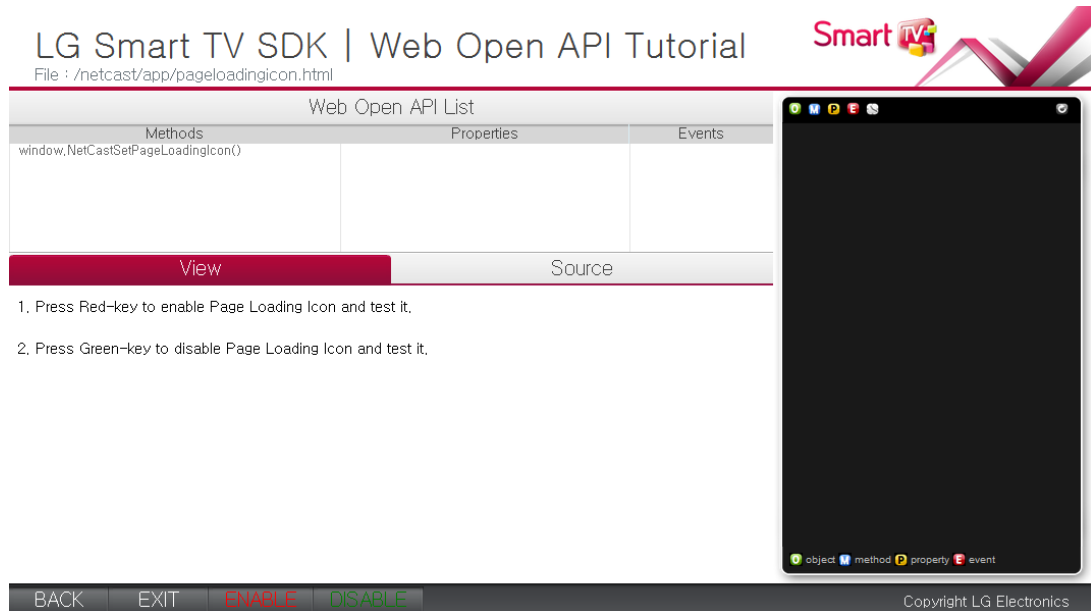
1.2 Needed APIs

1.1 Overview

It is recommended that application authors provide a “page loading icon” so that users are provided with an indication of the latency of data downloading from a server.

This application is designed to show how to activate or deactivate the “page loading icon” using the Web Open API of LG Smart TV.

This application shows which method is used to activate or deactivate the “page loading icon”.



[Figure 1] Application to Enable/Disable the Browser's Page Loading Icon

1.2 Needed APIs

This application uses following Web Open API:

[Table 1] Description of the Needed APIs

API Class	Name	Description
Method	window.NetCastSetPageLoadingIcon()	This API can be used by an LG Smart TV application author to activate or deactivate the browser's own page loading animation.
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 activate or deactivate the browser's page loading icon using Web open API.

- 2.1 Initializing the Page
- 2.2 Inputting Keys
- 2.3 Handling Keys
- 2.4 Handling Events
- 2.5 Counting Time
- 2.6 Source Code of pageloadingicon.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.
- 13-16: Registers an event handler which will be executed when the corresponding button is pressed.

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("Page Loading Icon");  
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_exit"),"click", onClickHandler);  
17 :  
18 : }
```

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.

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 :     }
10 : }
```

2.3 Handling Keys

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

processRedKey

This function is called when the Red (Enable) key is pressed.

- 05: Enables the page loading icon.
- 08: Shows on the screen that the page loading icon is enabled.
- 09: Maintains the text printed from code 10 through an alert until you press the [OK] button.
- 10: Reloads the page. When the page is reloaded, you can see the "Loading Icon" appearing on the screen.

processGreenKey

This function is called when the Green (Disable) key is pressed.

- 18: Calls the `setCountDown()` function.
- 19: Disables the page loading icon.
- 21: Shows on the screen that the page loading icon is disabled.

```
01 : function processRedKey()  
02 : {  
03 :   if(isThisLGEBrowser())  
04 :   {  
05 :       window.NetCastSetPageLoadingIcon('enabled');  
06 :       jsLog.lgmethod('window.NetCastSetPageLoadingIcon()');  
07 :  
08 :       setInnerTextById("description", "Loading Icon is enabled!");  
09 :       alert("Enable!");  
10 :       window.location.reload();  
11 :   }  
12 : }  
13 :  
14 : function processGreenKey()  
15 : {  
16 :   if(isThisLGEBrowser())  
17 :   {  
18 :       setCountDown();  
19 :       window.NetCastSetPageLoadingIcon('disabled');  
20 :       jsLog.lgmethod('window.NetCastSetPageLoadingIcon()');  
21 :       setInnerTextById("description", "Loading Icon is disabled!");  
22 :   }  
23 : }
```

2.4 Handling Events

The **setCountDown** function is called when the Green key is pressed.

- 07: Sets timerCount to 5 so it counts the remaining time of 5 seconds until the loading icon is disabled.
- 08: Calls the showLeftTime function every 1 second to display the remaining time until the loading icon is disabled. Set the timer.
- 09: Shows the text on the screen.

Sample Code

```
01 : var timer;  
02 : var timeCount = 5;  
03 :  
04 : // "GreenKey" click handler  
05 : function setCountDown()  
06 : {  
07 :   timeCount = 5;  
08 :   timer = setInterval(showLeftTime, 1000);  
09 :   setInnerTextById("description", "Loading Icon will be off after 5  
second");  
10 : }  
11 :
```

2.5 Counting Time

The following sample code counts and displays the remaining time until the “loading icon” is set to “disable”.

The **showLeftTime** function counts the remaining time until the loading icon is disabled.

- 04: Decreases timeCount by 1.
- 05-06: If timeCount is greater than 0, If timeCount is greater than 0, the message "This page will be reloaded after + “timeCount” + second" will be displayed on the id = "description" area.
- 09: If timeCount is 0, the clearInterval is called the setInterval function stops the specified timer.
- 10: Reloads the current page. When the page is reloaded, you can see the "Loading Icon" not appearing on the screen.

Sample Code

```
01 : //show left time
02 : function showLeftTime()
03 : {
04 :   timeCount--;
05 :   if(timeCount > 0)
06 :     setInnerTextById("description", "Loading Icon will be off after " +
      timeCount + " second");
07 :   else
08 :   {
09 :     clearInterval(timer);
10 :     window.location.reload();
11 :   }
12 : }
```

2.6 Source Code of pageloadingicon.html

Source code of pageloadingicon.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 page as last visited page
        setLastVisitPage();

        //common initialize function
        commonInitialize();
        requestSourceCode();
        setPageID("Page Loading Icon");
        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_exit"), "click",
onClickHandler);
    }

    //onUserInput function should be implemented
    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;
        }
    }

    function processRedKey()
    {
        if(isThisLGEBrowser())
        {
            window.NetCastSetPageLoadingIcon('enabled');
            jsLog.lgmethod('window.NetCastSetPageLoadingIcon()');

            setInnerTextById("description", "Loading Icon is enabled!");
            alert("Enable!");
            window.location.reload();
        }
    }

}
```

```

function processGreenKey()
{
    if(isThisLGEBrowser())
    {
        setCountDown();
        window.NetCastSetPageLoadingIcon('disabled');
        jsLog.lgmethod('window.NetCastSetPageLoadingIcon()');
        setInnerTextById("description", "Loading Icon is disabled!");
    }
}

var timer;
var timeCount = 5;

// "GreenKey" click handler
function setCountDown()
{
    timeCount = 5;
    timer = setInterval(showLeftTime, 1000);
    setInnerTextById("description", "Loading Icon will be off after 5
second");
}

// show left time
function showLeftTime()
{
    timeCount--;
    if(timeCount > 0)
        setInnerTextById("description", "This page will be reloaded
after " + timeCount + " second");
    else
    {
        clearInterval(timer);
        window.location.reload();
    }
}

</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/pageloadingicon.html</div>
</div>

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

<!-- test contents -->
<div id='content_body' class='ContentArea'>
    <div class='ApiListTitleArea'>Web Open API List</div>
    <div class='ApiListArea'>
        <div class='MethodTitleArea'>
            Methods
            <div class='MethodListArea'>
                window.NetCastSetPageLoadingIcon()<br>
            </div>
        </div>
        <div class='PropertyTitleArea'>
            Properties
            <div class='PropertyListArea'>

        </div>
    </div>
    <div class='EventTitleArea'>
        Events

```



```

        <div class='EventListArea'>

        </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'>
        <div class='ViewArea'>
            <table border="0" cellpadding="0" cellspacing="0">
                <tr height="50px">
                    <td width=500px align=left>1. Press Red-key to
enable Page Loading Icon and test it.</td>
                    <td width=200px align="left"><div
id="eachTestGuide"></div></td>
                    <td width=100px align="left"></td>
                </tr>
                <tr height="50px">
                    <td width=500px align=left>2. Press Green-key to
disable Page Loading Icon and test it.</td>
                    <td width=200px align="left"><div
id="eachTestGuide"></div></td>
                    <td width=100px align="left"></td>
                </tr>
            </table>
            <table border="0" cellpadding="0" cellspacing="0">
                <tr height="50px">
                    <td align=center><div
id="description"></div></td>
                </tr>
            </table>
        </div>
    </div>

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

<!-- button and copyright -->
<div class='SuiteButtonArea'>

    <!-- button -->
    <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'>ENABLE</div>

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

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

</body>
</html>

```