Archived:Communicating with Flash Lite from JavaScript in a widget (WRT)

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We do not recommend Flash Lite development on current Nokia devices, and all Flash Lite articles on this wiki have been archived. Flash Lite has been removed from all Nokia Asha and recent Series 40 devices and has limited support on Symbian. Specific information for Nokia Belle is available in Flash Lite on Nokia Browser for Symbian. Specific information for OLD Series 40 and Symbian devices is available in the Flash Lite Developers Library.

Requirements:

- Knowledge of Flash Lite from Adobe and JavaScript.

21 Sep 2008

Flash Lite

Steps:

1) Create a Flash file.

In Frame 1 (ActionScript layer):

Define the following variables in the ActionScript window.

```
var total_ram;
var free_ram;
```

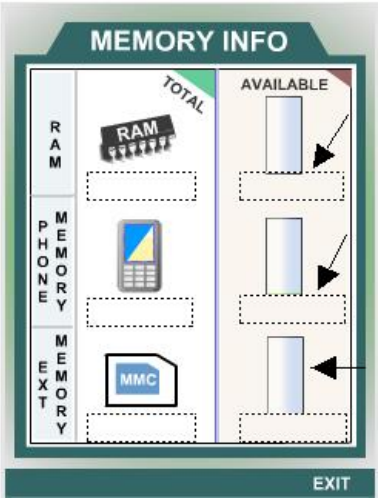
In Frame 5:

Create a new layer that holds the textboxes on the screen (objects layer).

Create two textboxes on the screen in a separate layer and assign the following variables in 'var' for the textboxes.

```
Total_ram_txt
Free_ram_txt
```

Next, create a movie clip to indicate the memory level on the screen.



Note: When converting to symbol, set the registration as shown in bottom the picture.

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In Frame 5 (ActionScript layer):

```
    //Set the Interval of updating text boxes on the screen.
    var intervalId = setInterval( updateScreen, 1000 ); //1 Second
    function updateScreen()
    {
       if(total_ram != undefined && free_ram != undefined )
       {
           total_ram_txt = total_ram + " M";  //set Total ram in textfield
           free_ram_txt  = free_ram + " M";   //set Free ram in textfield
           _root.mem_lvl_mc._height = (free_ram*50/total_ram); //Update Level on the
screen
       }
    }
```

The `SetInterval()` function is a built-in ActionScript function that periodically calls a piece of code or function after the set interval.

The Flash part is now ready. Publish the .swf file and name it `memInfo.swf`.

Main HTML

Now create a .html file with the following content.

```
  <?xml version="1.0" encoding="UTF-8"?>
  <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
  <html xmlns="http://www.w3.org/1999/xhtml/">
  <head>
      <title>Memory Info</title>
      <script language="javascript">AC_FL_RunContent = 0;</script>
      <script src="AC_RunActiveContent.js" language="javascript"></script>
  </head>
  <BODY BGCOLOR="#FFFFFF" onload = "load();">
      <embed id="systeminfo" type="application/x-systeminfo-widget"
hidden="yes"></embed>
      <script language="javascript">
     if (AC_FL_RunContent == 0) {
   alert("This page requires AC_RunActiveContent.js.");
     } else {
   AC_FL_RunContent(
   'codebase',
'[http]://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=7,0,0,0',
   'width', '240',
   'height', '320',
   'src', 'network_signal240x320',
   'quality', 'high',
   'pluginspage', 'http://www.macromedia.com/go/getflashplayer',
   'align', 'middle',
   'play', 'true',
   'loop', 'true',
```

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```
    'scale', 'showall',
    'wmode', 'window',
    'devicefont', 'false',
    'id', 'memInfo',
    'bgcolor', '#ffffff',
    'name', 'memInfo',
    'menu', 'true',
    'allowFullScreen', 'false',
    'allowScriptAccess','sameDomain',
    'movie', 'memInfo',
    'salign', ''
    ); //end AC code
  }
         </script>
         <noscript>
         <OBJECT
       CLASSID="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
              'codebase',
  'http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=7,0,0,0',
       ID=memInfo align="middle">
       <param name="allowScriptAccess" value="sameDomain" />
       <param name="allowFullScreen" value="false" />
       <param name="movie" value="memInfo.swf" />
       <param name="quality" value="high" />
       <param name="bgcolor" value="#ffffff" />
     <embed
        src="memInfo.swf"
        quality="high" bgcolor="#ffffff"
        width="240"
        height="320"
        name="memInfo"
        align="middle"
        allowScriptAccess="sameDomain"
        allowFullScreen="false"
        type="application/x-shockwave-flash"
               pluginspage="http://www.macromedia.com/go/getflashplayer" />
          </OBJECT>
          </noscript>
          </div>
          </BODY>
          </HTML>
```

Note: `{{{1}}}` is used to allow the widget to gain access to system attributes such as battery level, signal level, available memory, and so on. This value needs to be defined under the <body> tag.

The value inside the ‘name’ property (for example, “memInfo”) of the Flash embedded object will be used by JavaScript to communicate with Flash.

JavaScript

In the JavaScript file:

```
    //USER DEFINED VARIABLES
    var sysinfo = null;
```

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```
var drives = 0;
var totalRamSize;
var freeRamSize;
var space;
var loop = 0;

//---USER FUNCTIONS
function load()
{
   sysinfo = document.embeds[0]; //Must for accessing system attributes
   Runtimer();
}

function Runtimer()
{
//Calls itself every 2 second and calls AC_communicateWithFlash() function
t=setTimeout("Runtimer()",2000); //2 Second
if(loop != 0)
{ AC_communicateWithFlash();}
  loop = 1;
}

function checkRamSpace()
{
  // get total RAM size in bytes
  totalRamSize = sysinfo.totalram;
  space = Number(Number(totalRamSize) /  Number(1048576));  //MB
  totalRamSize = space.toFixed(2);
  // get free RAM size in bytes
  freeRamSize = sysinfo.freeram;
  space = Number(Number(freeRamSize) / Number(1048576));  //MB
  freeRamSize = space.toFixed(2);    //Display 2 Decimal Place
}

function getFlashMovieObject(movieName)
{
  if (window.document[movieName])
  {
   return window.document[movieName];
  }
  if (navigator.appName.indexOf("Microsoft Internet")==-1)
  {
    if (document.embeds && document.embeds[movieName])
     return document.embeds[movieName];
  }
  else // if (navigator.appName.indexOf("Microsoft Internet")!=-1)
  {
    return document.getElementById(movieName);
  }
}

function AC_communicateWithFlash()
{
//this function checks for Current Ram Space and Drives Space
//and sets the values inside flash.
 checkRamSpace();
//memInfo defined in HTML file used for referencing flash Object
```

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```
    var flashMovie=getFlashMovieObject("memInfo");
    //following steps assigns the JAVASCRIPT variables values to flash variables placed
on
      the root timeline.
    flashMovie.SetVariable("/:total_ram",totalRamSize);
    flashMovie.SetVariable("/:free_ram",freeRamSize );
    }
```

Download

Download the source code Media:MemInfo.zip.

The package contains the Flash source file, the JavaScript file, and other related material.

See also

- How to package Flash content in a Widget

Author

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