Software Developer Guide

SigPlusWeb NPAPI Plug-In

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SigPlusWeb.js

Topaz's SigPlusWeb NPAPI plugin is reliant upon the SigPlusWeb.js file. This can be linked to easily by adding this <SCRIPT> tag to your page:

```
<script type="text/javascript" src="http://www.topazsystems.com/Software/SigPlusWeb.js"></script>
```

Alternately, you can host the JS file on your own server and link to it instead. If you take this approach, simply copy the SigPlusWeb.js file from the following URL, which will always contain the latest version: **www.topazsystems.com/Software/SigPlusWeb.js**

SigPlusWeb Dependencies

npSigPlusWebPlugin.dll and SigPlus.ini (WIN dir)

Important Notice

These guidelines or any/all additional documentation or examples do not constitute a warranty about the performance, security, or legal acceptability of SigPlusWeb software in any specific use or implementation. To the extent that SigPlusWeb is used to achieve regulatory or other specific objectives within an industry, you must consult competent experts or regulatory officials together with your own plan to achieve your desired business objectives using the Topaz tools.

Functions

initSigPlusWebPlugin (string name)

Function: Initializes the SigPlus Web plug-in

Argument:
Pass in the name of the SigPlusWeb object as defined in the <OBJECT> tag.

Return Value:
none

Remarks:
Call this in the page load.

bitMapBufferWrite(short penWidth)

Function: Creates a bmp file in memory

Argument:
Pass in a 5 for the penWidth.

Return Value:
none

Remarks:

Three methods are used to execute the creation of a buffered BMP:
bitMapBufferWrite(),bitMapBufferSize(),bitMapBufferByte(Idx).

bitMapBufferSize()

Function: Returns size of the bmp buffer

Argument:

none

Return Value:

long

Remarks:

Use to determine the size of the byte array necessary

bitMapBufferByte(Idx)

Function: Returns the buffer byte at Idx

Argument:

none

Return Value:

short

Remarks:

Use to return the byte at particular location

clearSignature()

Function: Causes the control to clear the current signature, and begin a new one. The display is cleared as well as the signature.

Argument:

none.

Return Value:

none

newTopazImage (int dest, int mode, int xPos, int yPos, string imgURL)

Function: Creates an instance of the JPG located at imgURL.

Arguments:

dest - 0 (foreground), 1 (background memory in tablet)
mode - 0 (use with dest 1 to clear the background), 1 (merge with existing

contents), 2 (opaque), 3 (transparent)
xPos - Location in LCD coordinates (upper left - 0,0).
yPos - Location in LCD coordinates (upper left - 0,0).
imgURL - Location of image on the Internet.

Return Value: none

Remarks:
Must be a JPG. After creating the image, write it out to the pad using send().

send()

Function:
Write out the image created with newTopazImage to the pad.

Argument:
None

Return Value:
None

Remarks:
Must create the image with newTopazImage first.

textToTablet (int xPos, int yPos, int size, string text, string font)

Function:
Creates an instance of the JPG located at imgURL.

Arguments:
xPos - Location in LCD coordinates (upper left - 0,0).
yPos - Location in LCD coordinates (upper left - 0,0).
size – Size of text. Make this slightly larger than the pixel size.
text - Text to write out to the LCD.
font - Font pixel size and name. Ex: "12px sans-serif"

Return Value:
none

Remarks:
none

clearSigWindow (int location)

Function:
Clears pen data from the portion of the control specified by location. Use this specifically to clear out the hot spot buffer (argument 1) of points in a pen event.

Argument:

Location - 0 (inside the sig window), 1 (outside the sig window)

Return Value:

None

Remarks:

The sig window is the entire control unless it has been defined using setSigWindow.

setSigWindow (int coords, int xPos, int yPos, int xSize, int ySize)

Function:

Defines the portion of the SigPlus Web object that allows inking.

Arguments:

coords - 0 (logical tablet coordinates), 1 (LCD coordinates). Always use LCD coords.
xPos - Location in LCD coordinates (upper left - 0,0).
yPos - Location in LCD coordinates (upper left - 0,0).
xSize - Size in logical tablet pixels.
ySize - Size in logical tablet pixels.

Return Value:

None

Remarks:

None

lcdSigWindow (int xPos, int yPos, int xSize, int ySize)

Function:

Defines the portion of the LCD that allows inking.

Arguments:

xPos - Location in LCD coordinates (upper left - 0,0).
yPos - Location in LCD coordinates (upper left - 0,0).
xSize - Size in LCD pixels.
ySize - Size in LCD pixels.

Return Value:

None

Remarks:

The minimum size you may pass in is 1 (X and Y). Do not pass in a 0.

lcdRefresh (int mode, int xPos, int yPos, int xSize, int ySize)

Function:

Refreshes the LCD at the specified location in the manner defined by the mode.

Arguments:

mode - 0 (clear the contents), 1 (merge with existing contents), 2 (background content overwrites foreground content), 3 (background content is transparently added to foreground content)
xPos - Location in LCD coordinates (upper left - 0,0).
yPos - Location in LCD coordinates (upper left - 0,0).
xSize - Size in LCD pixels.
ySize - Size in LCD pixels.

Return Value:

None

Remarks:

This function can only occur on horizontal 8 LCD-pixelboundaries on the LCD tablet unit (non-color pads).

keyPadAddHotSpot (int index, int coords, int xPos, int yPos, int xSize, int ySize)

Function:

Defines in software the location of a tablet HotSpot in LCD coordinates with (0,0) being the upper left-most pixel.

Arguments:

index - identifier in list (index) of hotspots
coords - 0 (logical tablet coordinates), 1 (LCD coordinates)
xPos - Location in LCD coordinates (upper left - 0,0).
yPos - Location in LCD coordinates (upper left - 0,0).
xSize - Size in LCD pixels.
ySize - Size in LCD pixels.

Return Value:

None

Remarks:

1. Make the HotSpot larger than the image/text representing it. This eliminates "hunting and tapping" on the part of the user.
2. Make all HotSpots no smaller than 10 pixels on the X and Y axes.

keyPadClearHotSpotList ()

Function:

Clears the control's internal list of HotSpots created using keyPadAddHotSpot().

Argument:

none

Return Value:

none

Remarks:

none

keyPadQueryHotSpot (int index)

Function:

Queries the data points currently in the control against the coordinates mapped by the hotspot indicated by index. Used to check if a hot spot has been tapped by the user.

Argument:

index - The specific hotspot coordinates to use.

Return Value:

Int – The number of points within the specified hotspot.

Remarks:

None

Properties

antilAiliasLineScale

Function: Sets the depth of the spots from the line, used for anti-aliasing the signature.

Data Type: float Defaults to 0.7.

antiAliasSpotSize

Function: Sets the actual size of the spots from the line, used for anti-aliasing the signature.

Data Type: float Defaults to 1.0.

captureMode

Function: This property sets the current LCD Mode for the tablet, the tablet is put into the mode as well. Current implementation is for Mode 1 only.

Mode 1 - Capture Default. Clears the tablet and sets capture mode to be active with Autoerase in the tablet.

Mode 2 - Capture Ink Puts the tablet in persistent ink capture mode where the tablet does not automatically clear the display. Coming in a future release.

Remarks:

For simple capture the mode must be set to 1.

compressionMode

Function:

Sets the current compression mode for the sigString.

Argument:

short integer value as follows:

0	No compression (default)
1	Lossless compression with compacted data format.
2-8	Compression ratio of signature stored in .sig file “2” = 1KB typ. “4” = 500 byte typ. “8” = 250 byte typ.

Remarks:

When loading a sigString file, the compression mode must be set to the same value that was used when the sigString was created.

imageXSize

Function:

Sets the current Image file width in pixels.

short integer number of pixels desired in the image. Must be set before calling bitMapBuffer functions.

imageYSize

Function:

Sets the current Image file height in pixels.

short integer number of pixels desired in the image file. Must be set before calling bitMapBuffer functions.

justifyMode

Function:

Sets Justification mode.

short	Mode
5	Justify and zoom signature (center of control)

penWidth

Function:

Sets pen width for the displayed signature, in pixels.

short integer value for display pen width

sigString

Function:

Gets sig data from the control as a hexadecimal string.

Remarks: Can be used to load the sigString back into SigPlusWeb.

tabletState

Function:

Set the capture state of the SigPlusWeb. When the SigPlusWeb is active, pen data is captured and added to the current signature.

Short	State
1	Active Opens the port and starts accepting data.
0	Inactive. Closes the port and stops accepting data. Default state is 0.

Remarks:

Only one tablet control can be active on a given serial/USB port at any point in time.

totalPoints

Function:

Returns the total number of points in the current signature. Can be used to detect if a signature is present, or not.

Return Value: short Number of points in the signature.