

SigniCom

Signature ActiveX

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Table of Context

TABLE OF CONTEXT.....	2
INTRODUCTION	3
SUPPORTED TABLETS	3
FUNCTIONS SUMMERY	4
EVENTS SUMMERY	4
SIGINICOM ACTIVE X FUNCTIONS	5
<i>StartSign</i>	5
<i>StartKeyPad</i>	5
<i>Stop</i>	6
<i>ClearTablet</i>	6
<i>WriteSignImage</i>	7
<i>IsTabletConnected</i>	7
<i>IsTabletActive</i>	8
<i>GetNumOfStrokes</i>	8
<i>GetNumOfStrokePoints</i>	9
<i>GetPointXCoord</i>	10
<i>GetPointYCoord</i>	10
<i>GetPointPressure</i>	11
<i>GetDpi</i>	11
<i>SetDpi</i>	12
<i>GetOutXRange</i>	12
<i>SetOutXRange</i>	13
<i>GetOutYRange</i>	13
<i>SetOutYRange</i>	14
<i>GetTabletPressureRange</i>	14
<i>GetOutPressureRange</i>	15
<i>GetImageWidth</i>	16
<i>GetImageHeight</i>	16
<i>GetKeyPadString</i>	17
SIGINICOM ACTIVE X EVENTS	17
<i>StopEvent</i>	17
APPENDIX A – SIGINICOM INSTALLATION AND REGISTRATION	18
<i>Installing the SigniCom</i>	18
<i>Installing the device driver</i>	18
<i>Obtaining the full SigniCom package</i>	18
APPENDIX B – CONSTANT DEFINITIONS.....	19
<i>SigniCom constants</i>	19

Introduction

The SigniCom is an ActiveX that gives your application an easy way to get data from tablets. Using the ActiveX, the integrator can activate the tablet, get the signature data, and save the signature image to a file.

Supported tablets

The SigniCom can retrieve data from:

- SigniShell 3x4 tablet
- SigniShell 3x4 LCD tablet
- SigniShell 1x5 LCD tablet

Functions summery

Name	Type	Functionality
StartSign	Function	Activate the tablet in signature mode
StartKeyPad	Function	Activate the tablet in keypad mode
Stop	Function	Deactivate the tablet
ClearTablet	Function	Clear the current signature or keypad string and start new one
WriteSignImage	Function	Save the current signature image to a file
IsTabletConnected	Function	Check if tablet is connected
IsTabletActive	Function	Check if tablet is in active mode
GetNumOfStrokes	Function	Return the number of strokes in the current signature
GetNumOfStrokePoints	Function	Return the number of points in the specified stroke
GetPointXCoord	Function	Return the X coordinate of the specified point
GetPointYCoord	Function	Return the Y coordinate of the specified point
GetPointPressure	Function	Return the pressure of the specified point
GetDpi	Function	Get the signature image DPI
SetDpi	Function	Set the signature image DPI
GetOutXRange	Function	Get the output X coordinate range
SetOutXRange	Function	Set the output X coordinate range
GetOutYRange	Function	Get the output Y coordinate range
SetOutYRange	Function	Set the output Y coordinate range
GetTabletPressureRange	Function	Get the tablet pressure range
GetOutPressureRange	Function	Get the output pressure range
SetOutPressureRange	Function	Set the output pressure range
GetImageWidth	Function	Get the signature image width
GetImageHeight	Function	Get the signature image height
GetKeyPadString	Function	Get the current keypad string

Events summery

Name	Type	Functionality
StopEvent	Event	Fired when control is deactivated

Properties and Methods

SigniCom ActiveX Functions

StartSign

Format

```
short StartSign();
```

Return

Error code, see list in appendix B.

Remarks

Use this function to start new signature. In this mode the user can draw a signature on the tablet, the control will display the signature on real-time. If the control is already active, the function will return error.

StartKeyPad

Format

```
short StartKeyPad()
```

Return value

Error code, see list in appendix B.

Remarks

Use this function to activate the tablet in keypad mode. In this mode the tablet draws a keypad and the user can enter keys, the control will draw the keys on real-time. If the control is already active, the function will return error. The tablets that support this mode:

- SigniShell 1x5 LCD tablet

Stop

Format

short Stop()

Return value

Error code, see list in appendix B.

Remarks

This function deactivates the tablet and the ActiveX control. The tablet will be cleared. The control will display the current signature/key.

ClearTablet

Format

short ClearTablet()

Return

Error code, see list in appendix B.

Remarks

This function clears the tablet and the control and start new signature/keypad session.

The tablets that support this mode:

- SigniShell 1x5 LCD tablet

WriteSignImage

Format

short WriteSignImage(LPCTSTR [strFileName](#))

Parameters [in] [strFileName](#) – Null terminated string that holds the full path of the signature image.

Return

Error code, see list in appendix B.

Remarks Save signature image to a file. The image DPI can be set by *SetDpi* function. The image dimensions:

Tablet type	Image Width	Image Height
SigniShell 3x4	4 * X Dpi	3 * Y Dpi
SigniShell 3x4 LCD	4 * X Dpi	3 * Y Dpi
SigniShell 1x5 LCD	5 * X Dpi	1 * Y Dpi

SigniCom supports the following image file formats: BMP, JPG, TIFF, EMF, and WMF.

IsTabletConnected

Format

short IsTabletConnected(BSTR* [strName](#))

Parameters

[out] [strName](#) – Null terminated string that will hold the connected device name.

Return 0 - Device is disconnected. 1 - Device is connected.

Remarks Use this function to get the device connection status and the connected device name.

IsTabletActive

Format

```
short IsTabletActive()
```

Return

0 - Device is idle. 1 -
Device is active.

Remarks

Use this function to get the device mode: active or idle.

GetNumOfStrokes

Format

```
short GetNumOfStrokes(short* nStrokes)
```

Parameters

[out] [nStrokes](#) – Will return the number of strokes in the current signature.

Return

Error code, see list in appendix B.

Remarks

Use this function to get the number of strokes in the current signature

GetNumOfStrokePoints

Format

short GetNumOfStrokePoints(short **iStrokeIdx**, short* **nPoints**, short* **bPenUp**)

Parameters [in] **iStrokeIdx** – The stroke index. [out] **nPoints** – Will return the number of points in the specified stroke. [out] **bPenUp** – Will return the pen status of this stroke: 0 – Pen down 1 – Pen up

Return

Error code, see list in appendix B.

Remarks Use this function to get the number of points and the pen status of the specified stroke.

GetPointXCoord

Format

```
short GetPointXCoord(short iStrokeIdx, short iPointIdx, float* X)
```

Parameters

[in] **iStrokeIdx** – The stroke index. [in] **iPointIdx** – The point index.
 [out] **X** – Will return the X coordinate of the specified point

Return

Error code, see list in appendix B.

Remarks

Use this function to get the X coordinate of the specified point. The X coordinate range can be set using the *SetOutXRange* function. The X value is scaled according to the output range.

GetPointYCoord

Format

```
short GetPointYCoord(short iStrokeIdx, short iPointIdx, float* Y)
```

Parameters

[in] **iStrokeIdx** – The stroke index. [in] **iPointIdx** – The point index.
 [out] **Y** – Will return the Y coordinate of the specified point

Return

Error code, see list in appendix B.

Remarks

Use this function to get the Y coordinate of the specified point. The Y coordinate range can be set using the *SetOutYRange* function. The Y value is scaled according to the output range.

GetPointPressure

Format

```
short GetPointPressure (short iStrokeIdx, short iPointIdx, FAR* fPressure)
```

Parameters

[in] **iStrokeIdx** – The stroke index. [in] **iPointIdx** – The point index. [out] **fPressure** – Will return the pressure of the specified point

Return

Error code, see list in appendix B.

Remarks

The pressure range can be set using the *SetOutPressureRange* function. The pressure value is scaled according to the output range. The tablets that support pressure reading:

- SigniShell 3x4 tablet
- SigniShell 3x4 LCD tablet

GetDpi

Format

```
short GetDpi(long FAR* X, long FAR* Y)
```

Parameters

[out] **X** – Will return the internal image X DPI.
[out] **Y** – Will return the internal image Y DPI

Return

Error code, see list in appendix B.

Remarks

Use this function to get the internal image DPI. The DPI is used to define the internal image dimension as described in *WriteSignImage* function.

Default values are X DPI = 500, Y DPI = 500

SetDpi

Format

```
short SetDpi(long X, long Y)
```

Parameters

[in] **X** – Internal image X DPI
 [in] **Y** – Internal image Y DPI

Return

Error code, see list in appendix B.

Remarks

Use this function to set the internal image DPI. The DPI is used to define the internal image dimension as described in *WriteSignImage* function.

GetOutXRange

Format

```
short GetOutXRange (float FAR* fMinX, float FAR* fMaxX)
```

Parameters [out] **fMinX** – Will return the minimum value of X coordinate. [out] **fMaxX** – Will return the maximum value of X coordinate.

Return

Error code, see list in appendix B.

Remarks

Use this function to get X coordinate output range.

The output range will affect the values returned by *GetPointXCoord* function.

SetOutXRange

Format

```
short SetOutXRange (float fMinX, float fMaxX)
```

Parameters

- [in] **fMinX** – The minimum value of X coordinate.
- [in] **fMaxX** – The maximum value of X coordinate.

Return

Error code, see list in appendix B.

Remarks

Use this function to set X coordinate output range. The output range will affect the values returned by *GetPointXCoord* function.

GetOutYRange

Format

```
short GetOutYRange (float FAR* fMinY, float FAR* fMaxY)
```

Parameters [out] **fMinY** – Will return the minimum value of Y coordinate. [out] **fMaxY** – Will return the maximum value of Y coordinate.

Return

Error code, see list in appendix B.

Remarks

Use this function to get Y coordinate output range. The output range will affect the values returned by *GetPointYCoord* function.

SetOutYRange

Format

```
short SetOutYRange (float fMinY, float fMaxY)
```

Parameters

- [in] **fMinY** – The minimum value of Y coordinate.
- [in] **fMaxY** – The maximum value of Y coordinate.

Return

Error code, see list in appendix B.

Remarks

Use this function to set Y coordinate output range. The output range will affect the values returned by *GetPointYCoord* function.

GetTabletPressureRange

Format

```
short GetTabletPressureRange (float FAR* fMinPressure, float FAR* fMaxPressure)
```

- Parameters** [out] **fMinPressure** – Will return the tablet minimum pressure value
 [out] **fMaxPressure** – Will return the tablet maximum pressure value

Return

Error code, see list in appendix B.

Remarks

Use this function to get table pressure range.

GetOutPressureRange

Format

```
short GetOutPressureRange (float FAR* fMinPressure, float FAR* fMaxPressure)
```

Parameters

- [out] [fMinPressure](#) – Will return the output minimum pressure value
- [out] [fMaxPressure](#) –Will return the output maximum pressure value

Return

Error code, see list in appendix B.

Remarks

Use this function to get the pressure output range. The output range will affect the values returned by *GetPointPressure* function.

SetOutPressureRange

Format

```
short SetOutPressureRange (float fMinPressure, float fMaxPressure)
```

- Parameters** [in] [fMinPressure](#) – The output pressure minimum value
[in] [fMaxPressure](#) – The output pressure maximum value

Return

Error code, see list in appendix B.

Remarks

Use this function to set the pressure output range. The output range will affect the values returned by *GetPointPressure* function.

GetImageWidth

Format

```
short GetImageWidth (short FAR* iWidth)
```

Parameters

[out] *iWidth* – Internal image width in pixels.

Return

Error code, see list in appendix B.

Remarks

Use this function to get the internal image width in pixels. The image dimension setting described in *WriteSignImage* function.

GetImageHeight

Format

```
short GetImageHeight (short FAR* iHeight)
```

Parameters

[out] *iHeight* – Internal image height in pixels.

Return

Error code, see list in appendix B.

Remarks

Use this function to get the internal image height in pixels. The image dimension setting described in *WriteSignImage* function.

GetKeyPadString

Format

```
short GetKeyPadString (BSTR FAR* strKey)
```

Parameters

[out] [strKey](#) – Will return the key string that the user entered in keypad mode

Return

Error code, see list in appendix B.

Remarks

Use this function to get the key string that the user entered in keypad mode

SigniCom ActiveX Events

StopEvent

Format

```
void StopEvent();
```

Remarks

The event is fired when the control is deactivated. The control will become deactivate by the following methods: -*Stop* function was called while the control was active. -The signature drawing is paused for a period of 1 second. Use this notification to query the current signature data or save it to a file.

Appendix A – SigniCom installation and Registration

Installing the SigniCom

The SigniCom files are packed in a single setup file (*SigniCom_setup.exe*). Installing the setup file extract the following file list:

File name	Destination directory	Functionality
SigniCom.ocx	SigniCom destination directory	ActiveX object Image analyzer Demo application
OCR_PreProc.dll	SigniCom destination directory	This document file
SigniDemo.exe	SigniCom destination directory	
SigniCom.doc	SigniCom destination directory	

Manual registration:

Additional method to register SigniCom.ocx is to open a shell command prompt and in the SigniCom files destination directory and type the following command:

```
REGSVR32.EXE SigniCom.ocx
```

Installing the device driver

The SigniCom setup includes device driver for the supported tablets:

Tablet type	File name	Functionality
SigniShell 3x4	SigniShell_Tablet.exe	Device driver setup
SigniShell 3x4 LCD	cssn_wintab.exe	Device driver setup
SigniShell 1x5 LCD		Connect device to launch 'New Hardware Wizard'.

Obtaining the full SigniCom package

The full SigniCom package includes the setup file, documentation, and VC++ sample code can be obtained from:

<http://www.id-reader.com/FTP/Applications/SigniCom>

Appendix B – Constant Definitions

The following values are used as constants:

SigniCom constants

SigniCom error types

Error Type	Value	Description
SIGN_NO_ERROR	0	Success, no error
SIGN_ERR_BUSY	-1	Previous request is still processing
SIGN_ERR_OPEN_PORT	-2	Open com port failed
SIGN_ERR_LOAD_LIB	-3	Load library failed
SIGN_ERR_OPEN_THREAD	-4	Open thread failed (internal error)
SIGN_ERR_OPEN_WND	-5	Open window failed (internal error)
SIGN_ERR_CREATE_CONTROL	-6	Create control failed (internal error)
SIGN_ERR_ACTIVATE_TABLET	-7	Activate tablet failed
SIGN_ERR_NOT_CONNECTED	-8	Tablet not connected
SIGN_ERR_NOT_SUPPORTED	-9	Feature not supported for the connected tablet
SIGN_ERR_NOT_INSTALLED	-10	Tablet driver not installed
SIGN_ERR_NOT_ACTIVE	-11	Tablet not activate
SIGN_ERR_OPEN_FILE	-12	Open image file failed
SIGN_ERR_WRITE_FILE	-13	Write to image file failed
SIGN_ERR_INVALID_INDEX	-14	The stroke or point index is invalid