

# How-To Guide SigIDp ASP Demo

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### **Table of Contents**

Overview	3
The Code	9





### Overview

NOTE: SigIDp SDK is no longer a supported Topaz SDK. Please use SigIDp1: <u>www.topazsystems.com/sigidp1.html</u>.

This demo is for use with the <u>TF-LBK463-HSB-R</u> and the <u>TF-LBK464-HSB-R</u>.



Welcome to the Topaz SigIDp Verification System Demo. This demonstration captures a fingerprint in a database and verifies

your fingerprint upon request. This is a demo only and should be used as a blueprint for creating your ID verification applications.

Download the demo at: www.topazsystems.com/software/download/web/sigidp\_asp\_demo.zip

Begin by opening "sigidpstart.htm" It will be located in the .zip file you downloaded from the Topaz website. You will see the screen below.

🚰 SigIDp Fingerprint Verification System - Microsoft Internet Explorer		
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Demo:		
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SigIDp Fingerprint Verification		
Please choose to create a new fingerprint template, or to validate an existing template.		
New Fingerprint Template		
Validate Saved Fingerprint		

To create a new entry in the database, press "New Fingerprint Template".



This will bring up another page. Please enter your name and press "Capture Fingerprint".



If at any time while running this demo you see the prompt below, click yes.



A fingerprint ID interface will appear. Place your finger against the pad to capture your fingerprint. To get an accurate scan of your finger, the procedure needs to be repeated four times. Please Note: it is important that the swirl of your finger is fairly centered on the ID capture device. Also be sure to use the same finger every scan.

### SigIDp Demo (ASP)



#### Second Time: First Time: Third Time: **Final Time:** Fingerprint Capture Fingerprint Capture × Fingerprint Capture × × Fingerprint Capture x 2 fingers left 3 fingers left 4 fingers left 1 finger left

When the program has sufficient data to create an entry, you will see the screen below. If you didn't have a chance to capture the fingerprint 4 times, you should try the process again. Otherwise, click "Update Database" to save your ID to file.

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Y! - ∅- 💭 🔽 search Web - 🖉 🕁 -			
http://www.topazsystems.com/			
Capture and Store Your Fingerprint Template			
Please Enter Your Name: E A Smith			
Capture Fingerprint			
Update To Database			
1			

You will now receive a number to correspond to your identity. In order to later validate your identity, you will need to either memorize or write your assigned number down. Once you know your number, click "Return to SigID Main" to validate your identity.



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Demo: SigIDp Fingerprint Verification		
New Engowavist Topolate		
New Fingerprint Template		
Validate Saved Fingerprint		

This will navigate you back to the main menu. You have

already created a template, so now we want to instead validate the ID you just saved. Click on "Validate Saved Fingerprint".



Type in the ID number you received after creating your fingerprint template in the box.

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http://www.topazsystems.com/		
Return Fingerprint Template		
Enter your existing ID here to return the fingerprint template for validation:		
15		
Submit		



After you enter your identification number, your name will be displayed, and you will be prompted to validate your fingerprint ID. Visually verify that the name is correct, and click "Validate".

🚈 Update - Microsoft Internet Explorer		
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Address 🗃 http://www.topazsystems.com/sigidp/validatefingerprintidp.asp		
Y! - ∅- Search Web		
Update Add Tab		
Validate Fingerprint		
Hello, E A Smith		
Please click 'Validate' to match your fingerprint.		
Validate		

You will see the screen below. Press the same finger you used to enroll against the ID scanner to validate your identity.

Fingerprint Capture	×
	_



If the scanned fingerprint matches the one saved in the database, you will receive this message.



If however they do not match, you will receive a message stating that they do not. If you think you received this message in error, try to validate your ID again, and be sure to center your finger on the fingerprint scanner.

VBScript:	No Match 🛛 🗶
⚠	Fingerprint does not match
	ОК

### The Code

First we will look at the code behind "**SigIDpStart.htm**". When you click on the button "New Fingerprint Template", function on New takes you to capture fingerprintidp.asp.

```
function OnNew() {
    location.replace("http://www.topazsystems.com/sigidp/capturefingerprintidp.asp");
}
```

When you click on the button "Validate Saved Fingerprint", function onRetrieve takes you to returnfingerprintidp.asp.

The code below creates the form you see, including buttons "New Fingerprint Template" and the "Validate Saved Fingerprint" button.

```
<FORM NAME="NoName">
<DIV STYLE="position:absolute; top:60px; left:10px;">
<br><br><b>Please choose to create a new fingerprint template, or to validate an existing template.
<BR><BR>
```





<input id="SignBtn" name="NewBtn" type="button" value="New Fingerprint Template"
language="VBScript" onclick="OnNew" style="BACKGROUND-COLOR: #666699;
COLOR: white; FONT: bold 8pt verdana"
onmouseout="window.event.srcElement.style.background = '#6666699'"
onmouseover="window.event.srcElement.style.background = '#AFAFAF'">&nbsp;&nbsp;

<BR><Br> <input id="button1" name="RetrieveBtn" type="button" value="Validate Saved Fingerprint" language="VBScript" onclick="OnRetrieve" style="BACKGROUND-COLOR: #666699; COLOR: white; FONT: bold 8pt verdana" onmouseout="window.event.srcElement.style.background = '#6666699'" onmouseover="window.event.srcElement.style.background = '#AFAFAF'"><br>

```
</DIV>
</FORM>
```

### Next we will explore the code that is part of "**capturefingerprintidp.asp**". The code below creates an instance of SigIDp.

```
<OBJECT classid=clsid:F79E8EA0-A08E-44B0-BB42-58FDB7E4B49D height=50
id=SigIDp1 name=SigIDp1
style="HEIGHT: 1px; LEFT: 0px; TOP: 0px; WIDTH: 1px" width=1
VIEWASTEXT>
<PARAM NAME="_Version" VALUE="131095">
<PARAM NAME="_ExtentX" VALUE="131095">
<PARAM NAME="_ExtentX" VALUE="1323">
<PARAM NAME="_ExtentY" VALUE="1323">
<PARAM NAME="_StockProps" VALUE="0">
</OBJECT>
```

Sub OnCapture gets the fingerprint string and passes it to the variable strFinTemp. If strFinTemp contains no data, and therefore no fingerprint data, then the user is forced to enroll. Otherwise, it sets the SigIDFieldp field to equal the fingerprint string. When the form is submitted, the fingerprint is sent along with the SigIDField.

```
Sub OnCapture
Dim strFinTemp
strFinTemp = SigIDp1.GetFingerprintString
'MsgBox strFinTemp
If strFinTemp = "3" Then
       'user canceled capture
       MsgBox "Fingerprint string capture canceled", vbOKOnly + VBExclamation,
"Canceled"
Elself myFString = "4" Then
       'user mixing fingers during capture
       MsgBox "Please use only one finger to enroll", vbOKOnly + VBExclamation,
       "Multiple Fingers Placed"
Else
       'capture successful!!
       document.FORM1.SigIDpField.value = strFinTemp
SigIDp1.CloseDevice
End If
end Sub
```



SubInitSigIDp is the initialize code that runs as soon as the page opens. The sensor is turned on, and based on the return value, it either continues (intAns =0), reports that the tablet is unplugged (intAns=1), or reports that the tablet has already been opened (intAns = 2). If some other value is returned, an "Unhandled exception" error is displayed.

```
Sub InitSigIDp
Dim intAns
intAns = SigIDp1.InitDevice
If intAns = 0 Then
'MsgBox "Initialization successful"
Elself intAns = 1 Then
MsgBox "Check to see if device is plugged in"
goHere
Elself intAns = 2 Then
MsgBox "Already initialized"
Else
MSgBox "Unhandled exception"
End If
end Sub
```

The code below sets it up so that when the page is submitted, it goes to the updatesigidp.asp. Also, the InitSigIDp function is called when the page is loaded. InitSgIDp is used to initialize the fingerprint device. The input field called "name field" is used to collect the person's name.

```
<BODY onLoad=InitSigIDp>
<FORM action="updatesigidp.asp" id=FORM1 method=post name=FORM1>
Please Enter Your Name:  
<INPUT id=NameField name=NameField></h4></P>
```

# These input fields are used to create the "Capture Fingerprint" button and the "Update to Database" button.

```
<INPUT id=SignBtn name=CaptureBtn type=button value="Capture Fingerprint" language
="VBScript" onclick=OnCapture style="BACKGROUND-COLOR: #666699; COLOR:
white; FONT: bold 8pt verdana" onmouseout="window.event.srcElement.style.background =
'#666699'" onmouseover="window.event.srcElement.style.background =
'#AFAFAF'"><br>>
<INPUT id=button1 name=DoneBtn type=button value="Update To Database" language
="VBScript" onclick=OnDone style="BACKGROUND-COLOR: #666699; COLOR: white;
FONT: bold 8pt verdana" onmouseout="window.event.srcElement.style.background =
'#666699'" onmouseover="window.event.srcElement.style.background =
'#666699'" onmouseover="window.event.srcElement.style.background =
'#666699'" onmouseover="window.event.srcElement.style.background =
'#AFAFAF'">   &nbsp
<INPUT type=hidden id=SigIDpField name=SigIDpField>
```



Sub OnDone first checks to make sure that the user entered something in the name field. If not, a "MsgBox" prompts the user to do so. Then, it checks to see if a fingerprint template has been captured. If not, the user is prompted to create a template. If they have entered their name and enrolled their fingerprint, then the form will be submitted.

```
Sub OnDone

If document.FORM1.NameField.value= "" Then

MsgBox "Please enter a name before continuing!"

Exit Sub

End If

If document.FORM1.SigIDpField.value= "" Then

MsgBox "Please capture a fingerprint before continuing!"

Exit Sub

Else

document.FORM1.Submit

End If

end sub

//-->
```

Now, we will go through the ASP for "**updatesigidp.asp**", where the fingerprint is sent back to the server and placed into the database. This page is the page the user is directed to after capturefingerprintidp.asp. The code assembles all of the input data from the client page (this includes username and fingerprint template). This data is put into the SigIDp database. The name field from the client page is assigned to the strName variable. Additionally, the SigIDp field is assigned to the StrFingerprintIDp variable. Next, we open the SigIDp.mdb database and open the record set. We then add the strName and strFingerprint variables and update the database. There are three fields in the database: the name field, the fingerprint data, and an auto-number. This auto number is used as a primary key in the database and is provided to the user at the time of fingerprint capture. The user will later have to provide this number to get their fingerprint back for verification.

<%

```
Dim strName, strFingerprint

strName = Request.Form("NameField")

strFingerprint = Request.Form("SigIDpField")

'Response.Write strName

'Response.Write strFingerprint

Dim cnSignature

Dim cnSignature

Set cnSignature = CreateObject( "ADODB.Connection" )

Set rsSignature = CreateObject( "ADODB.Recordset" )

With cnSignature

.Provider = "Microsoft.Jet.OLEDB.4.0"

.ConnectionString = "Data Source =" & Server.MapPath ("/sigidp/sigidp.mdb")

.Open

End With
```



```
rsSignature.CursorType = 1
rsSignature.LockType = 3
```

rsSignature.Open "SELECT \* FROM Contracts", cnSignature, 1, 3

rsSignature.AddNew rsSignature( "NameField" ) = strName rsSignature( "FingerprintField" ) = strFingerprint rsSignature.Update %>

## The code below is used to provide the auto-number assignment to the user so they know which record is theirs. As you can see, the ID field is the auto-number.

```
<FONT COLOR='#666699'><h2>
Your template has been added to the database.</h2></FONT><BR>
<h3>Here's your ID, <%= Request.Form("NameField")%>&nbsp;:&nbsp;&nbsp;
<%=rsSignature( "ID" )%>&nbsp;
<BR><BR>
Use this ID to access your fingerprint template for validation.</h3>
<BR><BR>
```

The return button is used to take the user back to the SigIDpStart.htm page where the user can choose to capture another fingerprint or look up an existing fingerprint in the database.

**returnfingerprintidp.asp** simply creates a text box called IDpField and uses this to allow the user to enter their ID number, which will in turn bring back their particular record from the database allowing fingerprint validation.

```
<BODY>
<FORM action="validatefingerprintidp.asp" id=FORM1 method=post name=FORM1>
<FONT COLOR='#666699'><h2>Return Fingerprint Template</h2></Font><BR><BR>
<h4>Enter your existing ID here to return the fingerprint template for validation:&hbsp;&hbsp;</h4>
<INPUT id=IDField name=IDField></P>
<INPUT id=button1 name=DoneBtn type=button value=Submit language ="VBScript"
onclick=OnDone style="BACKGROUND-COLOR: #666699; COLOR: white; FONT: bold
8pt verdana" onmouseout="window.event.srcElement.style.background = '#666699'"
onmouseover="window.event.srcElement.style.background = '#AFAFAF'">&hbsp;&hbsp;&hbsp;&hbsp;&hbsp
</FORM>
```



If the user does not type in their ID number, they are kicked out and made to do so before they can continue; otherwise, the form is submitted and takes them to the validatefingerprintidp.asp page.

```
Sub OnDone

If document.FORM1.IDField.value= "" Then

MsgBox "Please enter your ID before continuing!"

Exit Sub

Else

If IsNumeric(document.FORM1.IDField.value) = True Then

document.FORM1.Submit

Else

MsgBox "ID must be numeric!"

Exit Sub

End If

End If

end sub

//-->
```

Finally we will view the ASP code for "validatefingerprintidp.asp".

The code below creates an instance of SigIDp.

```
<OBJECT classid=clsid:F79E8EA0-A08E-44B0-BB42-58FDB7E4B49D height=50
id=SigIDp1 name=SigIDp1
style="HEIGHT: 1px; LEFT: 0px; TOP: 0px; WIDTH: 1px" width=1
VIEWASTEXT>
<PARAM NAME="_Version" VALUE="131095">
<PARAM NAME="_ExtentX" VALUE="131095">
<PARAM NAME="_ExtentX" VALUE="1323">
<PARAM NAME="_ExtentY" VALUE="1323">
<PARAM NAME="_StockProps" VALUE="0">
</OBJECT>
```

The code below creates 3 variables: strName, strFingerprint, and valID. These are used to extract the auto-number, the name, and the fingerprint template from the database. The appropriate record is pulled based upon the ID number provided by the user on the previous page.

```
<%
Dim valID, strName, strFingerprint
valID = Request.Form("IDField")
'Response.Write valID
Dim cnSignature
Dim rsSignature
Set cnSignature = CreateObject( "ADODB.Connection" )
Set rsSignature = CreateObject( "ADODB.Recordset" )
With cnSignature
.Provider = "Microsoft.Jet.OLEDB.4.0"
```

#### SigIDp Demo (ASP)



.ConnectionString = "Data Source =" & Server.MapPath ("/sigidp/sigidp.mdb") .Open

End With

rsSignature.CursorType = 1 rsSignature.LockType = 3

rsSignature.Open "SELECT \* FROM Contracts WHERE ID=" & valID, cnSignature, 1, 3

If rsSignature.RecordCount > 0 Then rsSignature.MoveFirst strName = rsSignature( "NameField" ) strFingerprint = rsSignature( "FingerprintField" )

#### Three session variables are used to hold the ID, Name, and fingerprint template data.

Session("strNameS")=strName Session("strFingerprintS")=strFingerprint Session("strIDS")=strID

Else

Response.Write "That ID does not exist!" Response.Redirect <u>http://www.topazsystems.com/sigidp/returnfingerprintidp.asp</u> End If <FONT COLOR='#6666699'><h2>Validate Fingerprint</h2></FONT><BR><BR> <h4>Hello, <%=Session("strNameS")%>

<BR><BR> Please click 'Validate' to match your fingerprint.</h4> <BR><BR>

#### Below, a few buttons are created to allow the user to perform the validation.

```
<FORM id=FORM1 name=FORM1>
<INPUT id=ValidateBtn name=ValidateBtn type=button value=Validate language
="VBScript" onclick=OnValidate style="BACKGROUND-COLOR: #666699; COLOR:
white; FONT: bold 8pt verdana" onmouseout="window.event.srcElement.style.background =
'#666699'" onmouseover="window.event.srcElement.style.background = '#AFAFAF'">
</FORM>
```

# When you click "Validate", first the software checks to ensure the ID device is plugged in to your computer.

```
Sub InitDevice
Dim intAns
intAns = SigIDp1.InitDevice
If intAns = 0 Then
'MsgBox "Initialization successful"
Elself intAns = 1 Then
MsgBox "Check to see if device is plugged in"
Elself intAns = 2 Then
MsgBox "Device is already initialized"
Else
```

SigIDp Demo (ASP)



'unhandled exception End If End Sub

Sub UninitDevice SigIDp1.CloseDevice End Sub

Sub OnValidate

Then, to validate the ID, the current fingerprint string in the Text box is compared to the saved fingerprint identity using SigIDp1.ValidateFingerprintString. If the SigIDp1 function ValidateFingerprintString, which is set to equal intVal, equals 0, then the fingerprint matches the one stored to record. If it equals 1, then it does not match the fingerprint record. 2 denotes that there was an error in validating, and 3 denotes that the user cancelled validation.

...... 'Validate a captured SigIDpString (ASCII hex string) of fingerprint Dim intVal intVal = SigIDp1.ValidateFingerprintString("<%=Session( "strFingerprintS" )%>") 'this example validates a new fingerprint against the 'current fingerprint string in the Text box If intVal = 0 Then MsgBox "Fingerprint matches", vbOKOnly + vbInformation, "Match" Elself intVal = 1 Then MsgBox "Fingerprint does not match", vbOKOnly + vbExclamation, "No Match" Elself intVal = 2 Then MsgBox "Error loading file", vbOKOnly + vbExclamation, "Error Loading File" Elself intVal = 3 Then MsgBox "User canceled operation", vbOKOnly + vbExclamation, "User Canceled" End If end Sub

//-->