# Perceptive Intelligent Capture

Scripting Guide

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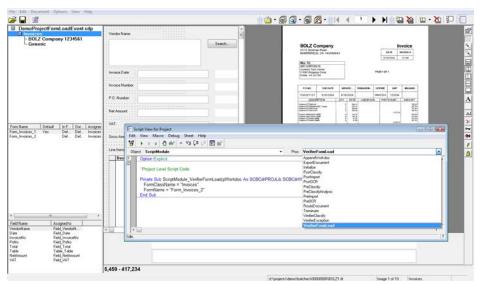


## Script Event Reference

## Description - VerifierFormLoadEvent

To implement the script handler of this event, complete the following steps.

- 1. Start the Perceptive Intelligent Capture Designer application.
- 2. Load the project file.
- 3. Select the project node in **Definition** mode, open the **Script Editor**, select the **Script Module** object, and click the new **VerifierFormLoad** item in the **Proc** drop-down list.

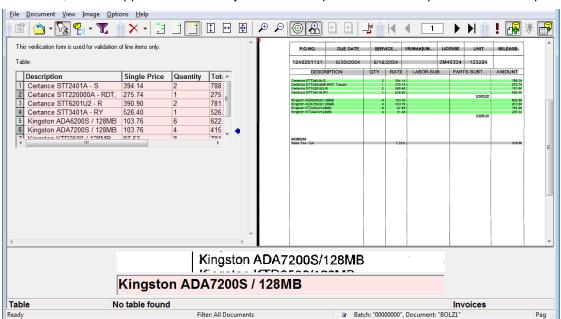


For example, the following simple implementation of the <code>VerifierFormLoad</code> event, (in this simple case non-optionally) replaces the standard form <code>Form\_Invoices\_1</code> with a custom <code>Form\_Invoices\_2</code> defined for the same document class.

#### **Example**

```
Option Explicit
'Project Level Script Code
Private Sub ScriptModule_VerifierFormLoad(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc,
FormClassName As String, FormName As String)
   FormClassName = "Invoices"
   FormName = "Form_Invoices_2"
End Sub
```





As a result, Verifier application will always load the simple second form specified in the script.

If the script modifies the form and the form's class references incorrectly, a warning message displays to the Verifier user. For example, an incorrect script modification can occur when a reference is made to a non-existing verification form of a class or when the form does not exist in the specified class.

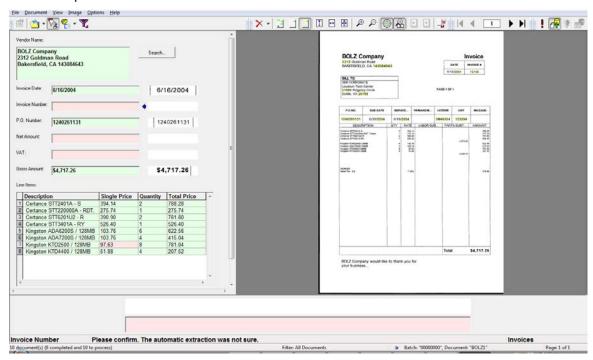
#### **Example**

```
Private Sub ScriptModule_VerifierFormLoad(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc,
FormClassName As String, FormName As String)
   FormClassName = "Non-existing class name"
   FormName = "Non-existing form name"
End Sub
```

The Verifier application displays the following warning message



Then the application loads the standard verification form, the one that the application would load anyway if the script handler of VerifierFormLoad event did not exist, instead of the wrong one proposed by the custom script.



**Note** The new event is fired from within the Perceptive Intelligent Capture Verifier application only and cannot be tested in the Perceptive Intelligent Capture Designer application.

As another relevant extension, the former document class level FocusChanged event is extended with a new Reason called CdrBeforeFormLoaded. The event is now also fired right before the desired verification form is about to load but after the VerifierFormLoad event described above.

Below is an example of a script that shows how you can implement the handler of this extended reason in the Perceptive Intelligent Capture custom script.

#### Example

```
Private Sub Document_FocusChanged(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal
Reason As SCBCdrPROJLib.CdrFocusChangeReason, ByVal OldFieldIndex As Long,
pNewFieldIndex As Long)
   If Reason = CdrBeforeFormLoaded Then
        MsgBox "The form has not been loaded yet"
   End If

End Sub
```



## Usage

You can use the features described in this section for many different purposes, including the following examples.

- To optionally load a non-standard verification form in accordance with some parameters of the processed document.
- To translate the content of verification forms dynamically into a different language or simply to load the required verification form in accordance with the current system Regional settings.
- To display a specific page of a document instead of the first one.

## ScriptModule

## Cedar ScriptModule Event Interface

Project events are specific for one Perceptive Intelligent Capture Project. However, within a Perceptive Intelligent Capture Project, all documents and fields share the same implementation of these events. This means that they are document class (DocClass) independent. As the Project events belong to the "sheet" ScriptModule, all events start with the prefix ScriptModule.

## **Methods and Properties**

## AppendWorkdoc

This event is fired when processing a document separation workflow step in RTS. It can be used to append a given Workdoc after the last Workdoc on the base of CdrMPType.

Description	Definition	
Syntax	ScriptModule_AppendWorkdoc (pLastWorkdoc As ISCBCdrWorkdoc, pCurrentWorkdoc As ISCBCdrWorkdoc, pAppendType As CdrMPType)	
Parameters	pLastWorkdoc	Last Workdoc
	pCurrentWorkdoc	Current Workdoc
	pAppendType	Defines the possible results of the multipage classification. For example, CdrAttachmentPage would mean that the engine has classified the page as an attachment or CdrFirstPage would mean that the engine has classified this page as the start of a new document.



#### BatchClose

This event launches when the Verifier user exits a batch in one of the following methods.

- When verifying a batch and selecting Return to batch list.
- · Batch Verification Completion.
- Partial Batch verification completion.
- The user quits the verifier applications while in a batch.

The event is triggered in the Verifier Thick Client and the Web Verifier applications.

Description	Definition	
Syntax	ScriptModule_BatchClose(ByVal UserName As String, ByVal BatchDatabaseID As Long, ByVal ExternalGroupID As Long, ByVal ExternalBatchID As String, ByVal TransactionID As Long, ByVal WorkflowType As SCBCdrPROJLib.CDRDatabaseWorkflowTypes, BatchState As Long, BatchReleaseAction As SCBCdrPROJLib.CDRBatchReleaseAction)	
Parameters	UserName:	The currently logged in user name who has closed the batch.
	BatchDatabaseID:	The unique Batch ID within the database. For the File System, this batch ID is not used.
	ExternalGroupID:	The Group ID that can be assigned to a batch.
		The Group ID that can be used with the Scripting security methods that enable the developer to assign a batch to a security group. Only those users belonging to the same Group ID are able to access batches.
		For example, a batch belonging to Group ID 80 is only accessible by a user who is assigned to group 80.
		Read or Write Parameter that can be modified to any long value.
	ExternalBatchID:	The External Batch ID can be assigned to a batch.
		The External Batch ID allows the developer to synchronize a newly created batch of documents with another external system. For example, an archiver or a storage box ID.
		Read or Write Parameter that can be modified to any long value.



Description	Definition	
	TransactionID:	The Transaction ID can be assigned to a batch.
		The Transaction ID allows the developer to synchronize a newly created batch of documents with another external system, such as an archiver or a storage box ID.
		Read or Write Parameter that can be modified to any long value.
	WorkflowType:	Corresponds to CDRDatabaseWorkflowTypes data type.
	BatchState:	The current status of the batch being opened, such as status 550 (Extraction Verification).
	BatchReleaseAction:	Batch Release Action represents the action taken when the last document of the batch has been verified. The parameter can be set or read from script. By default, it is always set to CDRBatchReleaseActionUserDefined (as the user always makes a selection). If registry value is used to hide the batch release dialog box in Verifier thick client, then the last action taken prior to the dialog box being hidden is the one showing in this parameter.
		The scripter can set an override value to this parameter, such as every time batch verification completes, always goes to the next invalid batch.
		CdrBatchReleaseActionCancel –return to current batch and last document verified.
		CdrBatchReleaseActionReturnToList – return to batch list.
		CdrBatchReleaseActionUndefined – unknown.
		CdrBatchReleaseActionUserDefined – default, user makes a selection on next action to take on batch release.
		CdrBatchReleaseActionVerifyNextInvalidBatch – open next batch to verify.
		CdrBatchReleaseActionVerifyNextInvalidState – open current batch to verify in the next invalid state.
Example	Private Sub ScriptModule_BatchClose(ByVal UserName As String, ByVal BatchDatabaseID As Long, ByVal ExternalGroupID As Long, ByVal ExternalBatchID As String, ByVal TransactionID As Long, ByVal WorkflowType As SCBCdrPROJLib.CDRDatabaseWorkflowTypes, BatchState As Long, BatchReleaseAction As SCBCdrPROJLib.CDRBatchReleaseAction)	
	Call LogMessage(Batch "C:\EventTrace.Log")	DatabaseID & "," & UserName,
	End Sub	



For additional information, refer to BatchOpen, Project Event, PostImportBatch, and CDRDatabaseWorkflowTypes

## BatchOpen

This event triggers when the user opens a batch.

Description	Definition	
Syntax	BatchDatabaseID As ExternalBatchID As	nOpen(ByVal UserName As String, ByVal s Long, ByVal ExternalGroupID As Long, ByVal s String, ByVal TransactionID As Long, ByVal CBCdrPROJLib.CDRDatabaseWorkflowTypes,
Parameters	UserName:	The Username currently logged in who has opened the batch.
	BatchDatabaseID:	The unique Batch ID within the database. For the File System, this batch ID is not used.
		The Batch ID displays as a numeric value. For example, Batch 00000061the value 61is returned.
	ExternalGroupID:	The Group ID that can be assigned to a batch.
		The Group ID thata can be used with the Scripting security methods that enable the developer to assign a batch a security group. Only those users belonging to the same Group ID are able to access batches.
		For example, a batch belonging to Group ID 80 is only accessible by a user who is assigned to group 80.
		Read or Write Parameter that can be modified to any long value.
	ExternalBatchID:	The External Batch ID can be assigned to a batch.
		The External Batch ID allows the developer to synchronize a newly created batch of documents with another external system, such as archive ID or a storage box ID.
		Read or Write Parameter that can be modified to any long value.
	TransactionID:	The Transaction ID can be assigned to a batch.
		The Transaction ID allows the developer to synchronize a newly created batch of documents with another external system. For example, an archive ID or a storage box ID.
		Read or Write Parameter that can be modified to any long value.
	WorkflowType:	Corresponds to CDRDatabaseWorkflowTypes data type.



Description	Definition	
	BatchState:	The current status of the batch being opened, such as status 550 (Extraction Verification).
Example	The following example logs the Batch ID and User name that opened a batch with date and time.	
	LogMessage is a custom for as a prefix.	unction that writes a text line into a log file with Date/Time
	ByVal BatchDatabasel ByVal ExternalBatchl	odule_BatchOpen(ByVal UserName As String, ID As Long, ByVal ExternalGroupID As Long, ID As String, ByVal TransactionID As Long, As SCBCdrPROJLib.CDRDatabaseWorkflowTypes,
	Call LogMessage(Ba	atchDatabaseID & "," & UserName,
	End Sub	

For additional information, refer to BatchClose,  $Project\ Event$ , PostImportBatch, and CDRDatabaseWorkflowTypes.

#### ExportDocument

ExportDocument allows you to implement a customer specific export of all extracted data.

Description	Definition		
Description	Provides the ability to	Provides the ability to implement a customer-specific export of all extracted data.	
Syntax	ScriptModule_ExportDocument (pWorkdoc As ISCBCdrWorkdoc, ExportPath As String, pCancel As Boolean)		
Parameters	pWorkdoc	pWorkdoc Workdoc that should be exported	
	ExportPath	Export path, which was configured within the Runtime Server settings ( no changes possible)	
	pCancel	Set this variable to TRUE to cancel the export.	

#### ForceClassificationReview

In the application, the PostClassify event is extended so that it can force a manual classification review even if the classification succeeded.

Description	Definition
Attribute	Read/Write



Description	Definition
Example	The following script sample shows how the manual classification process can be forced from custom script event PostClassify.
	Private Sub ScriptModule_PostClassify(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc)
	If pWorkdoc.DocClassName = "VeryImportantClass" Then pWorkdoc.ForceClassificationReview = True
	End If
	End Sub

For additional information, refer to PostClassify.

#### Initialize

The initialize event is called when a batch is opened for processing.

Description		Definition	
Syntax	ScriptModule_Initialize (ModuleName As String)		
Parameters	ModuleName:	ModuleName: Name of the current module, allowed values: 'Server', 'Designer', 'Verifier', Thin Client Verifier.	
Example	DBname=Proj DBname=Left ''InvoiceBest	riptModule_Initialize(ByVal ModuleName As String) ect.Filename (DBname,InStrRev(DBname,''\'')) & ellNo.mdb'' Database(DBname)	

MoveDocumentThis event is launched when the Verifier / Web Verifier User places a document in Exception and the document is moved out of the batch.

The ScriptModule provides the following event information: Old Batch ID, New Batch ID, Reason, Document state. For the event to be triggered, the condition must be set within the application settings that a new exception batch is created when a user places a document to exception.

The event triggers for each document that is placed into exception within a single batch.

After placing a document to Exception, the event is triggered if:

- Batch Verification is completed and all other documents have been verified or placed in exception.
- The user returns to the batch list after placing the document into Exception.



Description	Definition	Definition	
Syntax	pWorkdoc As SCBCd ByVal OldBatchID ByVal NewBatchID	ScriptModule_MoveDocument( pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc,  ByVal OldBatchID As String,  ByVal NewBatchID As String,  ByVal Reason As SCBCdrPROJLib.CDRMoveDocumentReason)	
Parameters	pWorkdoc:	The Workdoc Object that is being used. No changes can be made to the workdoc within this event.	
	OldBatchID:	The batch ID to which the document belonged prior to placing a document to exception.	
	NewBatchID:	The new batch ID to which the document is moving after the document is placed in Exception.	
	Reason:	The reason the event is triggered. The only reason implemented at this point is for the document moved to exception(CDRMoveDocumentToExceptionBatch).	
	DocState:	The workflow state of the document	
Example	The following example logs a general message for each document placed into exception, showing the old batch ID and the new batch ID.  Private Sub ScriptModule_MoveDocument(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal OldBatchID As String, ByVal NewBatchID As String, ByVal Reason As SCBCdrPROJLib.CDRMoveDocumentReason)  If Reason = CDRMoveDocumentToExceptionBatch Then		
		Monitoring, " Document [" & pWorkdoc.Filename & "] om Verifier batch [" & OldBatchID & "] to exception	
	CDRSeveritySystem	ScriptMessageEx CDRTypeInfo, Monitoring, " Current document state is [" & rentBatchState) & "]"	
	End If		
	End Sub		

For more information, refer to ProjectEvent.



## PostClassify

The PostClassify event is called after all defined classification methods are executed by the Cedar Project.

Descriptio n	Definition	
Syntax	ScriptModule_PostClassify (pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc)	
Parameter s	pWorkdoc:	Workdoc object that has been classified
Example	Private Sub ScriptModule_PostClassify(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc)	
	Dim imgDocument As SCE	3CroImage
	Dim lngTagCount As Lor	ng
	'Imprint number is sto code extracts the Tiff	red as a Tifftag in the image file - the following tag
	'information and sets	the field value.
	'NOTE: this will only modification for more!	work if there is a single Tifftag - would require
	Set imgDocument = pWor	kdoc.Image(0)
	lngTagCount = imgDocum	ment.TiffTagCount
	'Check that there is a	t least 1 tifftag.
	If (lngTagCount > 0) T	'hen
	Dim intImageCount As I	nteger
	Dim intImageCounter As	s Integer
	intImageCount=pWorkdoo	.PageCount'Get the number of pages in TIF
	Dim imgCollection() As	s SCBCroImage
	ReDim imgCollection(in store all the pages of	tImageCount) 'Set an image collection variable to the image
	'Store all pages of TI	F image onto a temporary image collection array
	For intImageCounter=0	To intImageCount-1
	Set imgCollection(intI	mageCounter)=pWorkdoc.Image(intImageCounter)
	Next	
	Dim strTag As String	
	strTag = CStr(Format(N to place into TIF Tag	Iow(), "yyyymmddhhMMss")) & "123456" 'Set the Info
	imgCollection(0).TiffT	agClearAll 'Clear All TIF Tags
	imgCollection(0).TiffT	agAddASCII 33601, strTag 'Add the TIF Tag
	1	'ile(pWorkdoc.DocFileName(0)) 'Save modified image and overwrite existing image



Descriptio n	Definition
	'Reset the collection to the new image in workdoc
	For intImageCounter=1 To intImageCount-1
	<pre>imgCollection(intImageCounter).AppendToMultiImageFile(pWorkdoc.DocFileName    (0))</pre>
	Next
	<pre>MsgBox("Tag = " &amp; imgDocument.TiffTagString(lngTagCount)) 'Message box to show TIF Tag</pre>
	Else
	' If there is no Tifftag, can set the field to false - no Tifftag means that something
	' has gone wrong with scanning. Generate a new Doc ID.
	MsgBox("No Tag")
	End If
	End Sub
Example	Private Sub ScriptModule_PostClassify(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc) Dim imgDocument As SCBCroImage
	Dim lngTagID as long
	lngTagID = 12345
	Get in December 1712 in Transport
	Set imgDocument = pWorkdoc.Image(0)
	Call fnCreateTiffTag(imgDocument, kngTagID, "Test")
	End Sub

## PostImportBatch

This is an event that is triggered by the Runtime Server after it has finished importing the batch. Use this event to set batch properties such as batch name and external group ID.

Description	Definition	
Syntax	ScriptModule_PostImportBatch( ByVal BatchDatabaseID As Long, BatchName As String, Priority As Long, State As Long, ExternalGroupID As Long, ExternalBatchID As String, TransactionID As Long, TransactionType As Long)	
Parameters	BatchDatabaseID:	The unique Batch ID from the database. This would be a numeric ID corresponding to the BatchID within the database tables. Read Only Parameter that cannot be modified.



Description	Definition	
	BatchName:	The Batch Name that is assigned by the Runtime Server instance. The name is taken from the Import settings of the Runtime Server instance.
		Read or Write Parameter that can be modified to any string value.
	Priority:	The Batch priority that is assigned by the Runtime Server instance. The priority is taken from the Import settings of the Runtime Server instance.
		Read or Write Parameter that can be modified to any long value between 1 to 9.
	State:	The Batch State that is assigned by the Runtime Server instance. The status is taken from the Workflow settings of the Runtime Server instance – Import Success.
		Read or Write Parameter that can be modified to any long value between 100 and 999.
	ExternalGroupID:	The Group ID that can be assigned to a batch.
		The Group ID can be used with the new Scripting security methods that enable the developer to assign a batch to a security group. Only those users belonging to the same Group ID are able to access batches.
		For example, a batch belonging to Group ID 80 is only accessible by a user who is assigned to group 80.
		Read or Write Parameter that can be modified to any numeric value.
	ExternalBatchID:	The External Batch ID can be assigned to a batch.
		The External Batch ID allows the developer to synchronize a newly created batch of documents with another external system. For example, and archiver or a storage box ID.
		Read or Write Parameter that can be modified to any numeric value.
	TransactionID:	The Transaction ID can be assigned to a batch.
		The Transaction ID allows the developer to synchronize a newly created batch of documents with another external system. For example, an archive ID or a storage box ID.
		Read or Write Parameter that can be modified to any long value.
	TransactionType:	The Transaction Type can be assigned to a batch.
		The Transaction Type allows the developer to synchronize a newly created batch of documents with another external system. For example, an archiveID or a storage box ID.
		Read or Write Parameter that can be modified to any long value.



Description	Definition	
Example	The example below updates batch priorities after import has been done. It changes the name, state and add a group ID as well as transaction type and ID.	
	Private Sub ScriptModule_PostImportBatch(ByVal BatchDatabaseID As Long, BatchName As String, Priority As Long, State As Long, ExternalGroupID As Long, ExternalBatchID As String, TransactionID As Long, TransactionType As Long)	
	`Set batch priorities after import	
	BatchName = "AP Batch_" & CStr(BatchDatabaseID)	
	Priority = 2	
	State = 102	
	ExternalGroupID = 777	
	TransactionType = 10	
	TransactionID = 2	
	End Sub	

For additional information, refer to ScriptModuleEvents, SecurityUpdateStart, SecurityUpdateAddUserGroup and SecurityUpdateCommit.

## **PreClassify**

This event is called before any defined classificataion method is executed by the Cedara Project. During this event, it is possible to apply an existing name of a DocClass to the Workdoc.

Description	Definition		
Syntax	ScriptModul	ScriptModule_PreClassify (pWorkdoc As SCBCdrWorkdoc)	
Parameters	pWorkdoc:	pWorkdoc: Workdoc object that should be classified	
Example	Private Sub ScriptModule_PreClassify(pWorkdoc As SCBCdrWorkdoc)  if ( DoSomeMagic(pWorkdoc) = TRUE ) then  'assign "Invoice" as result of the classification  pWorkdoc.DocClassName = "Invoice"  else  'do nothing and continue with normal classification  end if		
	End Sub		



#### **PreClassifyAnalysis**

This event is fired between the PreClassify and PostClassify events that identify the beginning and end of the classification workflow step for a particular document. Using this event the custom script can clean-up and extend classification results before the final decision is made by the system and before the final classification matrix is built.

#### **ProcessBatch**

The ProcessBatch event is launched when the RTS instance begins processing during the Custom Processing workflow step.

Description	Definition		
Syntax	ScriptModule_ProcessBatch(pBatch As SCBCdrPROJLib.ISCBCdrBatch, ByVal InputState As Long, DesiredOutputStateSucceeded As Long, DesiredOutputStateFailed As Long)		
Parameters	pBatch:	The Batch Object that is being processed.	
	InputState:	The input state of the batch when Custom Processing was activated on it.	
	DesiredOutputStateSucceeded:	The output state of the batch if the workflow step succeeds.	
	DesiredOutputStateFailed:	The output state of the batch if the workflow step failed.	
Example	The following script should be added to the very beginning of the ProcessBatch event: This script helps to stop a indefinite looping process of state 0 batches.		
	This script does not set batches to special state 987. The script repairs a batch and stops loopin of the custom processing step. Note that it is not possible to set the batch state to something other than zero for a batch with no documents because batch state is by definition the lowest state of all enclosed documents. If the number of documents is zero, the application just uses the default value, which is zero.		



Description	Definition
(Continued)	Enhanced recovery script sample:
	Private Sub ScriptModule_ProcessBatch(pBatch As SCBCdrPROJLib.ISCBCdrBatch, ByVal InputState As Long, DesiredOutputStateSucceeded As Long, DesiredOutputStateFailed As Long)
	Dim lFolderIndex As Long
	Dim lDocIndex As Long
	Dim theWorkdoc As SCBCdrWorkdoc
	Dim vLoadingCompletenessStatus As Variant
	Dim 1Status As Long
	Dim bNeedSafetyRestart As Boolean
	Dim strWorkdocName As String
	Dim theImage As SCBCroImage
	On Error GoTo LABEL_ERROR
	pBatch.BatchPriority = 3 '[AE] [2012-03-27] Boost priority for state zero documents
	Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "ScriptModule_ProcessBatch starting, batch <" & CStr(pBatch.BatchID) & ">, new state <" & CStr(DesiredOutputStateSucceeded) & ">"
	If ScriptModule.ModuleName <> "Server" Then Exit Sub
	For lFolderIndex = pBatch.FolderCount - 1 To 0 Step -1
	If pBatch.FolderDocCount (lFolderIndex) = 0 Then
	Project.LogScriptMessageEx CDRTypeWarning, CDRSeveritySystemMonitoring, "Removed folder with zero documents from batch [ " & pBatch.BatchID & "]"
	pBatch.DeleteFolder(lFolderIndex, False)
	End If
	Next lFolderIndex
	If pBatch.FolderCount = 0 Then
	Project.LogScriptMessageEx CDRTypeWarning, CDRSeveritySystemMonitoring,
	"Detected batch with zero folders: [" & pBatch.BatchID & "]"
	pBatch.BatchState = 987
	End If
	On Error Resume Next
	For lFolderIndex = 0 To pBatch.FolderCount-1 Step 1
	For lDocIndex = pBatch.FolderDocCount(lFolderIndex) - 1 To 0 Step -1
	If pBatch.FolderDocState(lFolderIndex, lDocIndex) = InputState Then
	Err.Clear
	bNeedSafetyRestart = False
	strWorkdocName = pBatch.FolderWorkdocFileName (lFolderIndex, lDocIndex, False)
	Set theWorkdoc = pBatch.LoadWorkdoc(lFolderIndex, lDocIndex)
	Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Loading of zero state Workdoc [" & strWorkdocName & "] proceeded with error number [" & CStr(Err.Number) & "] and error description [" & Err.Description & "]"
	"Detected batch with zero folders: [" & pBatch.BatchID & "]"
	pBatch.BatchState = 987
	End If
	On Error Resume Next



Description	Definition
(Continued)	For lDocIndex = pBatch.FolderDocCount(lFolderIndex) - 1 To 0 Step -1     If pBatch.FolderDocState(lFolderIndex, lDocIndex) = InputState Then Err.Clear bNeedSafetyRestart = False strWorkdocName = pBatch.FolderWorkdocFileName (lFolderIndex, lDocIndex, False) Set theWorkdoc = pBatch.LoadWorkdoc(lFolderIndex, lDocIndex) Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Loading of zero state Workdoc [ " & strWorkdocName & " ] proceeded with error number [ " & CStr(Err.Number) & " ] and error description [ " & Err.Description & " ] "
	<pre>lStatus = 1001 If Err.Number = 0 Then</pre>
	For lFolderIndex = 0 To pBatch.FolderCount-1 Step 1
	<pre>If Err.Number &lt;&gt; 0 Or 1Status &gt; 0 Then</pre>
	End If
	Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "PreErrorChecks: Loading return code is {" & CStr(Err.Number) & "} and loading status is {" & CStr(IStatus) & "}"
	If (lStatus > 0 And lStatus <= 700) Then ' if this value is > 700 but <= 790, then re-OCR is required, if it is greater than 790, then re-importing is needed - extend the script below to set a different output state, other than the standard "DesiredOutputStateSucceeded" one
	Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Loading return code is {" & CStr(Err.Number) & "} and loading status is {" & CStr(lstatus) & "}" Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Ignoring
	internal error when loading Workdoc [" & theWorkdoc.Filename & "]"  Err.Clear
	theWorkdoc.DocClassName = "" theWorkdoc.Fields.Clear theWorkdoc.RebuildBasicObjects If Err.Number <> 0 Then
	Project.LogScriptMessageEx CDRTypeWarning, CDRSeveritySystemMonitoring,  "Recovery script: RebuildBasicObjects failed with error code [" & CStr(Err.Number) & "] and error description [" & Err.Description & "]"  Err.Clear
	Project.LogScriptMessageEx CDRTypeWarning, CDRSeveritySystemMonitoring, "Recovery script: Proceeding with attempt to redirecting document to re-OCR state" ' [AE] [2012-02-27] DesiredOutputStateSucceeded = 100 ' [AE] [2012-02-27]
	theWorkdoc.DocState = CDRDocStateHaveDocs ' [AE] [2012-02-28] This call internally triggeres invoking of ".InternalClear(false,true)  End If
	pBatch.FolderDocState(lFolderIndex, lDocIndex) = DesiredOutputStateSucceeded



Description	Definition
(Continued)	If Err.Number <> 0 Then Project.LogScriptMessageEx CDRTypeError, CDRSeveritySystemMonitoring, "Recovery script: put_FolderDocState failed with error code [" & CStr(Err.Number) & "] and error description [" & Err.Description & "]" Err.Clear End If
	<pre>pBatch.UpdateDocument(theWorkdoc, lFolderIndex, lDocIndex) If Err.Number &lt;&gt; 0 Then     Project.LogScriptMessageEx CDRTypeError, CDRSeveritySystemMonitoring,     "Recovery script: UpdateDocument failed with error code [" &amp;     CStr(Err.Number) &amp; "] and error description [" &amp; Err.Description &amp; "]"     Err.Clear End If</pre>
	End If
	If Err.Number <> 0 Or (lStatus > 700 And lStatus <= 790) Then ' if this value is > 700 but <= 790, then re-OCR is required, if it is greater than 790, then re-importing is needed - extend the script below to set a different output state, other than the standard "DesiredOutputStateSucceeded" one
	Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Loading return code is {" & CStr(Err.Number) & "} and loading status is {" & CStr(lStatus) & "}"  Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Ignoring internal error when loading Workdoc [" & theWorkdoc.Filename & "]"  Err.Clear
	DesiredOutputStateSucceeded = 100 theWorkdoc.DocState = CDRDocStateHaveDocs ' [AE] [2012-02-28] This call internally triggeres invoking of ".InternalClear(false,true) pBatch.FolderDocState(lFolderIndex, lDocIndex) = DesiredOutputStateSucceeded If Err.Number <> 0 Then     Project.LogScriptMessageEx CDRTypeError, CDRSeveritySystemMonitoring,     "Recovery script: put_FolderDocState failed with error code [" &     CStr(Err.Number) & "] and error description [" & Err.Description & "]"     Err.Clear End If
	<pre>pBatch.UpdateDocument(theWorkdoc, lFolderIndex, lDocIndex) If Err.Number &lt;&gt; 0 Then     Project.LogScriptMessageEx CDRTypeError, CDRSeveritySystemMonitoring,     "Recovery script: UpdateDocument failed with error code [" &amp;     CStr(Err.Number) &amp; "] and error description [" &amp; Err.Description &amp; "]"     Err.Clear</pre>
	End If End If
	<pre>' [AE] [2012-03-05] Test that recovery has been succeeded and the Workdoc can now be loaded with no issues. This is one extra safety solution: "Load document one more time to "test" and recover for (from) real document file corruptions". If lStatus &gt; 0 And lStatus &lt;= 790 Then     Set theWorkdoc = Nothing     Err.Clear     Set theWorkdoc = pBatch.LoadWorkdoc(lFolderIndex, lDocIndex)     vLoadingCompletenessStatus =     theWorkdoc.NamedProperty("LoadingCompletenessStatus")     lStatus = vLoadingCompletenessStatus     If Err.Number &lt;&gt; 0 Or lStatus &gt; 0 Then         lStatus = 799     End If End If</pre>

one  Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Loading return code is (" & CStr(Err.Number) & ") and loading status is (" & CStr(IStatus) & ")*  Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Ignoring internal error when loading Morkdoc (" & theWorkdoc Filename & ")"  Project.LogScriptMessageEx CDRTypeWarning, CDRSeverityEmailMotification, "Document (" & strWorkdocName & ") with stream exit code (" & CStr (IStatus) & ") will be redirected to manual processing state"  Err.Clear  DesiredOutputStateSucceeded = 850 pBatch.FolderDocState([FolderIndex, lDocIndex) = DesiredOutputStateSucceeded If Err.Number <> 0 Then  Project.LogScriptMessageEx CDRTypeError, CDRSeveritySystemMonitoring, "Recovery script: put_FolderDocState failed with error code (" & CStr(Err.Number) & ") and error description (" & Err.Description & ")"  Err.Clear  End If  [AE] [2012-03-27] Do not call update document in case of 850 type recovery - just update the document state via the call above  pBatch.UpdateDocument(theWorkdoc, lFolderIndex, lDocIndex)  if Err.Number <> 0 Then  pProject.LogScriptMessageEx CDRTypeError, CDRSeveritySystemMonitoring, "Recovery script: UpdateDocument failed with error code (" & CStr(Err.Number) & ") and error description [" & Err.Description & "]"  End If  End If  End If  Set theWorkdoc = Nothing  [AE] [2012-03-05] Auto-apply the RTS instance restart after recovering every single case of true document loading failure. This is to ensure that corruption's side effects are not cumulated across multiple auto-recovered documents and clean documents are not negatively affected by attempts to load a corrupted one.  If bNeedSafetyRestart = True Then  Project.PerformScriptCommandRTS(1, 0, 0, "Applying safety recovery restart")  GoTO LABEL_SUCCESS  End If	Description	Definition
restart") GoTo LABEL_SUCCESS End If	· · · · · · · · · · · · · · · · · · ·	[AE] [2012-03-27] Additional check for consistency of loaded document files
FUG II		restart") GoTo LABEL_SUCCESS



Description	Definition
(Continued)	Next lDocIndex Next lFolderIndex
	LABEL_SUCCESS: Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "ScriptModule_ProcessBatch finished sucessfully, batch <" & CStr(pBatch.BatchID) & ">, new state <" & CStr(DesiredOutputStateSucceeded) & ">, old state <" & CStr(InputState) & ">" Exit Sub  LABEL_ERROR: Project.LogScriptMessageEx CDRTypeError, CDRSeveritySystemMonitoring, "ScriptModule_ProcessBatch, finished with Error: " & Err.Description  End Sub
	Use the corresponding Terminate Event script instead to delete these empty batches. Do not use both scripts within one project, because the Terminate Event script will make it impossible to load
	the ProcessBatch script.

For additional information, refer to Project Event.

## RouteDocument

This event is launched when a document has been extracted.

Definition	Description	
Syntax	ScriptModule_RouteDocument (pWorkdoc As ISCBCdrWorkdoc, State As Single)	
Parameters	pWorkdoc:	Workdoc object that was classified and extracted
	State:	This parameter contains the current state that is assigned to the Workdoc.  Value can be changed from the script.

Definition	Description	
Example	Private Sub ScriptModule_RouteDocument(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, State As Integer)	
	<pre>If pWorkdoc.Fields("Field1").Valid = FALSE then   'route to 500 if Field1 is not valid   State = 500   Exit sub End if</pre>	
	<pre>If pWorkdoc.Fields("Field2").Valid = FALSE then   'route to 520 if Field2 is not valid   State = 520   Exit sub</pre>	
	End if	
	'else use default state End Sub	
	For example, in an environment where the Batch folder is shared between multiple organisations (either country groups, or departments), it is possible to allocate verifiers their own workflow configurations.	
	The following script automatically sets the Batch status after extraction to a status that is country based (such as, GB is status 550, Germany is status 551).	
	Private Sub ScriptModule_RouteDocument(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, State As Integer)	
	'If the batch state is 550 and document is not in verifier  If State = 550 And Not fnIsVerifier() Then 'Check country code and	
	set batch status Select Case CountryCode	
	Case "GB"	
	State = 550 Case "DE"	
	State = 551	
	Case "BENL"	
	State = 552	
	Case "IE"	
	State = 553 Case "RU"	
	State = 554	
	Case "US"	
	State = 555	
	Case Else	
	State = 550 End Select	
	'Save the work doc after changing document status	
	pWorkdoc.Save(pWorkdoc.Filename, "")	
	End If	
	End Sub	

#### SecurityUpdateAddUserGroup and SecurityUpdateAddUserGroupPwd

This method is used to update or add the database security credentials. This script call is used in creating or updating the Perceptive Intelligent Capture users, roles, and groups.

When updating the security policy of Perceptive Intelligent Capture through a custom script, only the database tables are updated. The project security is not modified after a script update.

Use the SecurityUpdateAddUserGroupPwd method to import user accounts with predefined passwords.

Use this method between SecurityUpdateStart and SecurityUpdateCommit.

**Note** If a user existing in the DB is NOT presented in SecurityUpdate, then the user is considered as being deleted from the system and marked as "**deleted = true**".

The user would be recovered and marked as "**deleted = false**" as soon as the user is present in SecurityUpdate.

The password is updated only at creation or recovering of a user. If an administrator needs to change the password for a script imported user, he would need to first exclude the user from the SecurityUpdate call so the user is deleted, and then re-add him with a new password into the next iteration of SecurityUpdate.

Definition	Description	
Syntax	SecurityUpdateAddUserGroup (UserName As String, ExternalGroupID As Long, UserRole As String,UserDomain String)	
		wd (UserName As String, UserPassword as String, Role As String,UserDomain String)
Parameters	UserName:	The Username to create or update within the database. These are the user credentials to enter to log into the system. If Domain is populated, the user must enter MyDomain\UserName for logging into the verification application.
	UserPassword	This password is applied only when creating or recovering a user. For those auto-imported users that were previously imported into Perceptive Intelligent Capture, the password remains unchanged.
		Use case rules:
		Auto-imported users with empty password are required to change their password upon first login.
		Auto-imported users with NON-empty password are NOT required to change their password upon first login.
		Auto-imported users who already changed their password upon first login will not be required to change their password anymore.
	ExternalGroupID:	The external group ID security number. A batch and a user can be assigned a group ID that enables the user to verify only batches that fall under the same group ID assigned to that user.



Definition	Description	Description	
	UserRole:	The user role assigned to the Verifier user. The role can be one or a logical combination of the following text strings:	
		SET – Can access settings.	
		VER - Verifier user.	
		SLV - Verifier supervisor (learnset nomination)	
		SLM - Learnset Manager (global learnset manager)	
		ADM - Administrator.	
		FLT - Filtering	
	UserDomain:	The user domain is left blank if no Windows Authentication is used. Or when using Windows Authentication, populated with the Domain name the Windows user belongs to.	
	The following combinations of I	roles are possible:	
	Project. SecurityUpdateAddUserGroup "User2", 999, "VER FLT", "BDomain"> This creates a user with Verifier and Filter roles, but with no SET role  Project. SecurityUpdateAddUserGroup "User2", 999, "VER SET FLT", "BDomain"> This creates a user with Verifier, Settings and Filter roles		
		AddUserGroup "User2", 999, "VER", "BDomain" rifier role only, with no SET and FLT role	
	There is no need to combine S FLT and SET roles by default.	ET/FLT roles with ADM, SLV, or SLM as these already contain	
Example		e database user security on a regular basis. The script can be and update the Perceptive Intelligent Capture user table.	
	Private Sub ScriptModul String)	.e_UpdateSystemSecurity(ByVal InstanceName As	
	Project.SecurityUpda	ateStart	
	Project. SecurityUpo "BDomain"	dateAddUserGroup "User1", 777, "VER  <b>SET</b> ",	
	Project. SecurityUpo	dateAddUserGroup "User1", 999, "VER  <b>SET</b> ",	
	Project. SecurityUpd	dateAddUserGroup "User10", 777, "ADM", "BDomain"	
	Project. SecurityUpdate	eAddUserGroupPwd ("User2", "pass", 777,	
	Project.SecurityUpda	ateCommit	
	End Sub		

For additional information, refer to SecurityUpdateStart, SecurityUpdateCommit, UpdateSystemSecurity, and PostImportBatch



#### SecurityUpdateCommit

This method completes the security update process. This script call is required to complete updating the Perceptive Intelligent Capture users, roles, and groups.

When updating the security policy of Perceptive Intelligent Capture through a custom script, only the database tables are updated. The project security is not modified after a script update.

Definition	Description
Syntax	Project.SecurityUpdateCommit
Parameters	There are no parameters for this method.
Example	The example below updates the database user security on a regular basis. The script can be updated to lookup users/roles and update the Perceptive Intelligent Capture user table.
	Private Sub ScriptModule_UpdateSystemSecurity(ByVal InstanceName As String)
	Project.SecurityUpdateStart
	Project. SecurityUpdateAddUserGroup "User1", 777, "VER", "BDomain"
	Project. SecurityUpdateAddUserGroup "User2", 999, "SLV", "BDomain"
	Project. SecurityUpdateAddUserGroup "User3", 111, "VER", "BDomain"
	Project. SecurityUpdateAddUserGroup "User4", 888, "SLM","BDomain"
	Project. SecurityUpdateAddUserGroup "User5", 222, "SET", "BDomain"
	Project. SecurityUpdateAddUserGroup "User6", 777, "VER FLT", "BDomain"
	Project. SecurityUpdateAddUserGroup "User10", 777, "ADM", "BDomain"
	Project.SecurityUpdateCommit
	End Sub

For additional information, refer to SecurityUpdateStart, SecurityUpdateAddUserGroup, UpdateSystemSecurity, and PostImportBatch.

#### SecurityUpdateStart

This method instantiates the security update process. This script call is required in order to begin updating the Perceptive Intelligent Capture users, roles, and groups.

When updating the security policy of Perceptive Intelligent Capture through a custom script, only the database tables are updated. The project security is not modified after a script update.

Defintion	Description
Syntax	Project.SecurityUpdateStart
Parameters	There are no parameters for this method.
Example	The example below updates the database user security on a regular basis. The script can be updated to lookup users/roles and update the Perceptive Intelligent Capture user table.
	Private Sub ScriptModule_UpdateSystemSecurity(ByVal InstanceName As String)
	Project.SecurityUpdateStart
	Project. SecurityUpdateAddUserGroup "User1", 777, "VER", "BDomain"
	Project. SecurityUpdateAddUserGroup "User2", 999, "SLV", "BDomain"
	Project. SecurityUpdateAddUserGroup "User3", 111, "VER", "BDomain"
	Project. SecurityUpdateAddUserGroup "User4", 888, "SLM", "BDomain"
	Project. SecurityUpdateAddUserGroup "User5", 222, "SET", "BDomain"
	Project. SecurityUpdateAddUserGroup "User6", 777, "VER FLT", "BDomain"
	Project. SecurityUpdateAddUserGroup "User10", 777, "ADM", "BDomain"
	Project.SecurityUpdateCommit
	End Sub

For more information, refer to SecurityUpdateCommit, UpdateSystemSecurity, and PostImportBatch.

#### SecurityUpdateUserParameter

This method establishs default group settings in WVC for script imported users that do not have the SET role so that they are able to load projects and jobs.

With this method implemented, the corresponding group is found and assigned to the user as the PrimaryUserGroup.

If the group (or the user) cannot be found, a corresponding error message is shown.



This method works with auto-imported users as well as with normal users.

This method needs to be called between SecurityUpdateStart and SecurityUpdateCommit.

The group settings need to be configured in Web Verifier settings page by an administrator.

Definition	Description	
Syntax	SecurityUpdateUserParameter (BSTR UserName, BSTR UserDomain, BSTR ParameterName, VARIANT Param1, VARIANT Param2)	
Parameters	ParameterName	PrimaryGroupID
		This parameter can have two variants:
		Param1: "GroupName" with Param2 as String that represents the group name displayed in the Web Verifier administrator group settings.
		"ExternalGroupID" with Param2 as Integer that represents the ExternalGroupID that was added in SecurityUpdateAddUserGroup or SecurityUpdateAddUserGroupPwd.
Example		Add user A to two groups (100 and 101) and set his primary group for settings to be group 100.
		Add user Domain\B to one group and set his primary group for settings to be Autoimport_100. This is the displayed name of the group 100 in the Web Verifier administrator group settings.
		Private Sub ScriptModule_UpdateSystemSecurity(ByVal InstanceName As String)
		Project.SecurityUpdateStart
		Project.SecurityUpdateAddUserGroupPwd("A", "pass", 100, "VER FLT", "")
		Project.SecurityUpdateAddUserGroupPwd("A", "pass", 101, "VER FLT", "")
		Project.SecurityUpdateUserParameter("A", "", "PrimaryGroupID", "ExternalGroupID", 100)
		Project.SecurityUpdateAddUserGroup("B", 100, "VER", "Domain")
		Project.SecurityUpdateUserParameter("B", "Domain", "PrimaryGroupID", "GroupName", "AutoImport_100")
		Project.SecurityUpdateCommit
		End Sub

#### **Terminate**

The Terminate event is called before a batch is closed after processing.

Description	Definition	
Syntax	ScriptModule_Terminate (ModuleName as String)	
Parameters	ModuleName	Name of the current module, values: "Designer","Verifier" or "Server"



Description	Definition	
Example	Private Sub ScriptModule_Terminate(ByVal ModuleName As String)	
	DB.Close	
	Set DB = nothing	
	End Sub	
	This script can be added to one of the real projects, triggering the Terminate event in RTS. This script will erase all state 0 batches that contain zero folders. Do not use this script piece together with the corresponding ProcessBatch Event Script within one project, because this Terminate Event script will make it impossible to load the ProcessBatch script:	
	Private Sub ScriptModule_Terminate(ByVal ModuleName As String)	
	On Error GoTo LABEL_ERROR	
	Project.LogScriptMessageEx CDRTypeInfo, CDRSeveritySystemMonitoring, "Processing ScriptModule_Terminate event"	
	Dim i As Long	
	Dim pBatchRoot As New SCBCdrBATCHLib.SCBCdrBatchRoot	
	pBatchRoot.ActivateSupport = True	
	pBatchRoot.SetConnectionProperties("Version 5.4 SP1 Job", "Zero Folder Batch Terminator", False)	
	pBatchRoot.Connect("Version 5.4 SP1 Job", "", "LOGIN_AS_CURRENT", "", "Zero Folder Batch Terminator")	
	pBatchRoot.SetFilter(0)	
	For i = 0 To pBatchRoot.BatchCount - 1 Step 1	
	If pBatchRoot.FolderCount(i) = 0 Then	
	Project.LogScriptMessageEx CDRTypeWarning, CDRSeveritySystemMonitoring, "Zero Folder Batch Terminator detected batch with zero folders: [" & pBatchRoot.BatchID(i) & "]"	
	pBatchRoot.DeleteBatch(pBatchRoot.BatchID(i), False, 0, 0)	
	End If	
	Next i	
	Exit Sub	
	LABEL_ERROR:	
	Project.LogScriptMessageEx CDRTypeWarning, CDRSeveritySystemMonitoring, "Zero Folder Batch Terminator failed to search for zero folder batches. Error description: " & Err.Description	

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End Sub

#### **UpdateSystemSecurity**

This event is triggered when the Runtime Server is configured to run with security updates.

Only one Runtime Server instance should be configured to update system security. The frequency of the security update is determined via the Runtime Server instance properties.

Description	Definition		
Syntax	ScriptModule_Upo	dateSystemSecurity(ByVal InstanceName As String)	
Parameters	InstanceName	The Runtime Server instance name that is calling the UpdateSystemSecurity event.	
Example	0	le updates the database user security on a regular basis. The script can be sers/roles and update the Perceptive Intelligent Capture user table.	
	Private Sub ScriptModule_UpdateSystemSecurity(ByVal InstanceName As String)		
	Project.Secui	rityUpdateStart	
	Project.The	following example "User1", 777, "VER", "BDomain"	
	Project.The	following example "User2", 999, "SLV", "BDomain"	
	Project.The	following example "User3", 111, "VER", "BDomain"	
	Project.The	following example "User4", 888, "SLM", "BDomain"	
	Project.The	following example "User5", 222, "SET", "BDomain"	
	Project.The	following example "User6", 777, "VER FLT", "BDomain"	
	Project.The	following example "User10", 777, "ADM", "BDomain "	
	Project.Secui	rityUpdateCommit	
	End Sub		

For additional information, refer to ScriptModule Events, and SecurityUpdateStart. You can also reference the examples for SecurityUpdateCommit and PostImportBatch.

## VerifierClassify

This event occurs only in Verifier when a document is manually classified.

Description	Definition		
Syntax	ScriptModule_VerifierClassify (pWorkdoc As ISCBCdrWorkdoc, Reason As CdrVerifierClassifyReason, ClassName As String)		
Parameters   pWorkdoc   Reference		Reference to the currently processed document.	
	Reason	The reason why the script routine decided to reject or accept the document.	
	ClassName	The name of the document class to which it is classified manually.	



#### VerifierFormLoad

This event is triggered before the Verifier form is loaded. It enables the script to switch verification forms between different types of classes or to default the Verifier application to display a certain page instead of the first one (Refer to the DisplayPage feature for additional information). It can also be used to modify the form before it gets displayed to the user. This event is not triggered in Designer application.

Description	Definition				
Syntax	ScriptModule_VerifierFormLoad (pWorkdoc As ISCBCdrWorkdoc, FormName As String, FormClassName As String)				
Parameters	pWorkdoc	Reference to the currently processed document.			
	FormName	A string value that contains the current form name that Verifier application is going to load. The name can be modified in the custom script to initiate loading of a different form when required.			
	FormClassName:	A string variable that contains the current class name of the verification form is to be loaded from. This name can be changed from within the Perceptive Intelligent Capture custom script to point to a different document class, in case the desired verification form is located in this different class.			
Example	Private Sub ScriptModule_VerifierFormLoad(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, FormClassName As String, FormName As String)				
	Select Case UCase(FormClassName)				
	Case "BASH"				
	FormClassName = "Invoices"				
	FormName = "Form_Invoices_2"				
	Case "CONTACT"				
	FormClassName = "Invoices"				
	FormName = "Form_Invoices_1"				
	End Select				
	End Sub				

#### **Document Events**

#### Cedar DocClass Event Interface.

Document events are specific for each Cedar DocClass instance. Each DocClass has its own script module and implementation of script events.

## FocusChanged

This event is fired each time before the focus inside the verification form is changed. It is possible to influence the focus change by modifying the pNewFieldIndex parameter. It is possible to write a different field index into that parameter, which causes the Verifier to change to a specified field instead of the originally selected field.

Description	Definition		
Syntax	Document_FocusChanged (pWorkdoc As ISCBCdrWorkdoc, Reason As CdrFocusChangeReason, OldFieldIndex As Long, pNewFieldIndex As Long)		
Parameters	pWorkdoc:	Reference to the currently displayed workdoc.	
	Reason:	Reason of the current focus change, which can be TAB key, ENTER key, mouse click, or initial loading.	
	OldFieldIndex:	Index of the current select field. In case of initial loading this -1.	
	pNewFieldIndex:	Index of the field that should be selected now. This parameter can be modified during the script event to keep the focus in the previous field or set it to another field.	



Description	Definition	
Example	Private Sub Document_FocusChanged(pWorkdoc As SCBCdrWorkdoc, Reason As CdrFocusChangeReason, OldFieldIndex As Long, pNewFieldIndex As Long)	
	'Below you can find the sample of script code that helps to skip table	
	'data validation in Verifier (for a table with 2 columns):	
	Dim theEmptyTable As SCBCdrPROJLib.SCBCdrTable	
	Dim theEmptyTableField As SCBCdrPROJLib.SCBCdrField	
	'Initializes table and field references	
	Set theEmptyTable = _	
	<pre>pWorkdoc.Fields("EmptyTable").Table(pWorkdoc.Fields("EmptyTable").ActiveTableI ndex)</pre>	
	Set theEmptyTableField = pWorkdoc.Fields("EmptyTable")	
	'Makes table object valid	
	theEmptyTable.CellValid(0,0) = True	
	theEmptyTable.CellValid(1,0) = True	
	theEmptyTable.RowValid(0) = True	
	theEmptyTable.TableValid = True	
	'Makes table field valid	
	'(table object is a part of more generic field object) theEmptyTableField.Valid = True	
	theEmptyTableField.Changed = False	
	the supply labier leid. Changed - Paise	
	'Releases references	
	Set theEmptyTable = Nothing	
	Set theEmptyTableField = Nothing	
	End Sub	

#### **OnAction**

This event is triggered if any of the configured actions was caused by the user. Actions have to be configured in the Verifier design mode. Actions can either be caused if a user pressed a button or any of the configured keyboard short cuts.

Definition	Description		
Syntax	Document_OnAction (	pWorkdoc As ISCBCdrWorkdoc, ActionName As String)	
Parameters	pWorkdoc:	pWorkdoc: Reference to the currently displayed workdoc.	
	ActionName:	Name of the action that was assigned to the pressed button or short cut key.	
Example	Sub Document_OnAction(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal ActionName As String)  If ActionName = "ShowBestSuppliers" Then  Call fnShowBestSuppliers(pWorkdoc,pWorkdoc.Fields(FIELDNAME),"", "", "")		
	End If End Sub		
	ActionName As String)  If ActionName = "ShowBestSuppliers" Then  Call fnShowBestSuppliers(pWorkdoc,pWorkdoc.Fields(FIELDNAME),"", "", "")  End If		

#### **PostExtract**

The PostExtract event is called after all defined analysis or evaluation methods are executed by the Cedar DocClass. During this event, it is possible to examine and change the results of one or more fields of the document.

You can also use this event in combination with generic Designer settings to establish multiple classifications. In Designer, establish a default classification result. Then set "pWorkdoc.DocClassName" to a different class in this event. This technique enables you to keep the generic extraction pointed toward the default class while moving the validation script to a different class.

Description	Definition	
Syntax	Document_PostExtract (pWorkdoc As ISCBCdrWorkdoc)	
Parameters	pWorkdoc Current Workdoc object	



Description	Definition	
Example	Private Sub Document_PostExtract(pWorkdoc As SCBCdrWorkdoc)	
	Dim Number as string	
	Dim Name as string	
	'get fields name and number	
	Number = pWorkdoc.Fields("Number")	
	Name = pWorkdoc.Fields("Name")	
	End Sub	

#### **PreExtract**

The PreExtract event is called before any defined analysis or evaluation method is executed by the Cedar DocClass.

Description	Definition		
Syntax	Document_Pre	Extract (pWorkdoc As ISCBCdrWorkdoc)	
Parameters	pWorkdoc	pWorkdoc Current Workdoc object	
Example	<pre>pWorkdoc</pre>		

#### PreVerifierTrain

ThePreVerifierTrain event has been added to control SLW training in Verifier, Learnset Manager, and Designer.

This event is called at the point when an application starts learning for a document in the supervised learning workflow (SLW).

Definition	Description
Syntax	Document_PreVerifierTrain(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, pMode As Long)



Definition	Description	
Parameters	pMode	It is reserved for for further use and should not be used in the present software version.
Example	The following script example demonstrates how the new script event can be used in order to apply a substitution of the primary Associative Seach Engine field with another result referring to a different pool.  Private Sub Document_PreVerifierTrain(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, pMode As Long)  If pWorkdoc.DocClassName = "NotGoodForPrimaryASEField" Then Project.AllClasses.ItemByName("Invoices").ClassificationField = "SecondaryAseField"	
	End If	
	End Sub	

#### Validate

Use the Validate event to perform validation on document level. At this point, the validation of all single fields is executed. If one of the fields is still invalid, pValid is FALSE. During the Document\_Validate event, it is possible to implement validation rules combining several fields. This may cause some fields to be invalid again. Do not make the document invalid if all fields are valid because the Verifier needs an invalid field for focus control. If you want to keep the document invalid, always set at least one field to an invalid state.

It is also possible to make invalid fields valid during document validation. Therefore, you must set the Valid property of the appropriate fields to TRUE.

Description	Definition	
Syntax	Document_Valid	ate (pWorkdoc As ISCBCdrWorkdoc, pValid As Boolean)
Parameters	pWorkdoc: Current Workdoc object	
	pValid:	Parameter containing the current valid state of the Workdoc

Description	Definition
Example	Private Sub Document_Validate(pWorkdoc As SCBCdrWorkdoc, pValid As Boolean)  Dim Number as string  Dim Name as string  'get fields name and number and make a database lookup  Number = pWorkdoc.Fields("Number")  Name = pWorkdoc.Fields("Name")  if LookupDBEntry(Name, Number) = FALSE then  'the Name/Number pair is NOT in the database  'set the document state to invalid  pValid = FALSE  'make both fields invalid and provide an error description
	<pre>pWorkdoc.Fields("Number").Valid = FALSE pWorkdoc.Fields("Number").ErrorDescription = "Not in database" pWorkdoc.Fields("Name").Valid = FALSE pWorkdoc.Fields("Name").ErrorDescription = "Not in database" end if</pre>
	End Sub



#### VerifierTrain

After a document processed in self-learning Verifier has been checked whether it is supposed to be automatically trained for the local project, the Verifier has to fire an event that adds a document to the local learnset.

Description	Definition	
Syntax	Document_VerifierTrain (pWorkdoc As ISCBCdrWorkdoc, ProposedClassName As String, WillTrain As Boolean, VerifierReason As CdrLocalTrainingReason, ScriptReason As String)	
Parameters	pWorkdoc: Contains the reference to the currently processed document	
	ProposedClassName As String	The proposed class name
	WillTrain:	Boolean value for the current learning state. True, when the document is going to be learnt and False when it will not be learned
	VerifierReason:	Contains the reason why the document was taken for training or why it was rejected. The reason parameter should be one of the predefined enumerated values for CdrLocalTrainingReason.
	ScriptReason:	Contains the reason why the script routine decided to reject or accept the document.

# <Field<sub>n</sub>> (Cedar FieldDef Event Interface)

Field events are specific for each Cedar field of each DocClass. Field events appear within the script sheet of their DocClass. That means all events for the field "Number" of the document class Invoice must be implemented within the script sheet of the DocClass Invoice.

Within the script the name of the fields will appear as specifier for the field. That means the Validate event for the field "Number" will appear as method "Number\_Validate." During this documentation, <Fieldn> is used as a placeholder for the name of the field. The Validate event is named here as <Fieldn>\_Validate.

#### CellChecked

This event occurs when a check box cell of the table is checked or uncheckedby the user.

Description	Definition	
Syntax	<pre><fieldn>_CellChecked (pTable As ISCBCdrTable, pWorkdoc As ISCBCdrWorkdoc, Row As Long, Column As Long, Checked As Boolean)</fieldn></pre>	
Parameters	pTable:	Current Table object.
	pWorkdoc:	Current Workdoc object.
	Row:	This parameter contains the index of the current row on which the user clicked.
	Column:	This parameter contains the index of the current column on which the user clicked.
	Checked:	Boolean value that is TRUE when the cell is checked, otherwise its value is FALSE.
Example	Private Sub Table_CellChecked(pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Row As Long, ByVal Column As Long, ByVal Checked As Boolean)  If Checked = True Then  'The cell (Row, Column) has been checked  End If  End Sub	



# CellFocusChanged

This event occurs each time the focus inside the verification table is going to be changed or can be changed potentially.

Description	Definition	
Syntax	<pre><fieldn>_CellFocusChanged (pTable As ISCBCdrTable, pWorkdoc As ISCBCdrWorkdoc, Reason As CdrTableFocusChangeReason, OldRow As Long, OldColumn As Long, pNewRow As Long, pNewColumn As Long)</fieldn></pre>	
Parameters	pTable:	Current Table object.
	pWorkdoc:	Current Workdoc object.
	Reason:	Parameter that contains the kind of focus change that has occurred
	OldRow:	This parameter contains the index of the derivation row.
	OldColumn:	This parameter contains the index of the derivation column.
	pNewRow:	This parameter contains the index of the destination row. This value can be changed (set back to OldRow value), to forbid an action, such as double-clicking on the special column.
	pNewColumn:	This parameter contains the index of the destination column. This value can be changed (set back to OldColumn value), to forbid an action, such as double-clicking on the special column.



(pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc Val Reason As Reason, ByVal OldRow As Long, ByVal OldColumn umn As Long)
's picture, e.g., on check-box image of a
n a table cell. Could be useful if it ' is
x-up, etc by double clicking on a cell.
ord that is linked to one of the cells in image
ard focus to the corresponding table cell.
umns.
m.
ed, i.e. cell (table) validation is activated.
sa, i.e. cell (table) validation is activated.
eshes a table.
to verify is loaded.
mouse click.
and roll
one row.
nt table candidate.
to another cell by arrow keys or TAB keys.
reason.
rom the script:
as to the first cell
1
com the script: do not allow selection of first
nd Reason = CdrTfcrMouseClicked Then



#### **Format**

The Format event can be used to reformat the content of a Field, for example to unify a date or amount format or removing prefixes and suffixes. This event can be used to prepare the field data for validation. Be reminded that the content of pField. Text is normally used for learning within the Scripting Guide engines. If the user wants to change the output format for the fieldscontent rather use the script event FormatForExport.

Description	Definition			
Syntax	<fieldn>_Format (pField As ISCBCdrField)</fieldn>			
Parameters	pField: Field object			
Example	Private Sub Amount_Format(pField As SCBCdrField)  Dim NewAmount as string  if MyReformatAmount(pField, NewAmount) = TRUE then  'reformatting of the text field is successful to prepare a field for validation  pField.Text = NewAmount  end if  End Sub			

### FormatForExport

The FormatForExport event can be used to reformat the content of a field, for example to unify a date or amount format or removing prefixes and suffixes and to keep this additional information within pField.FormattedText rather than to change pField.Text. This text is normally used for learning within the Scripting Guide engines. This formatted text can also be used for Export.

Description	Definition			
Syntax	<fieldn>_FormatFor</fieldn>	rExport (pField As ISCBCdrField)		
Parameters	pField:	DField: Current field.		
Example	Dim NewAmount as stiff MyReformatAmount 'reformatting is suffields' content.  'Use the pField.Form	<pre>(pField, NewAmount) = TRUE then ccessful to generate a unified output format for the mattedText to save the reformatted information. e pField.FormattedText also for the Export, instead of</pre>		



### **PostAnalysis**

The PostAnalysis event is called after the analysis step is performed. It is possible to examine the list of all candidates and to add further candidates to the Field.

Description	Definition		
Syntax	<pre><fieldn>_PostAnalysis (pField As ISCBCdrField, pWorkdoc As ISCBCdrWorkdoc)</fieldn></pre>		
Parameters	pField: Object containing the Field		
	pWorkdoc:	Current Workdoc object	
Example	pWorkdoc As SCBCdrW Dim cindex as long, 'add a new candidat if pWorkdoc.Wordcou 'use the 42th word count = 1'wordcount id = 0 'rule-id pField.AddCandidate	Private Sub MyField_PostAnalysis(pField As SCBCdrField, pWorkdoc As SCBCdrWorkdoc) Dim cindex as long, count as long, id as long 'add a new candidate to the field if pWorkdoc.Wordcount > 42 then 'use the 42th word as new candidate count = 1'wordcount of new candidate id = 0 'rule-id for later backtracing pField.AddCandidate 42, count, id, cindex 'cindex is the new index of the candidate end if	

#### PostEvaluate

The PostEvaluate event is called after the evaluation step is performed. It is possible to examine the list of all candidates and to change their weights.

Desceription	Definition	
Syntax	<pre><fieldn>_PostEvaluate (pField As ISCBCdrField, pWorkdoc As ISCBCdrWorkdoc)</fieldn></pre>	
Parameters	pField: Object containing the Field	
	pWorkdoc:	Current Workdoc object
Example	Private Sub MyField_PostEvaluate(pField As SCBCdrField, pWorkdoc As SCBCdrWorkdoc)  'set the weight of the first candidate to 1  if pField.CandidateCount > 0 then  pField.Candidate(0).Weight = 1  end if	
	End Sub	



#### **PreExtract**

The PreExtract event is called before any defined analysis or evaluation method for this Field is executed by the Cedar DocClass.

Description	Definition			
Syntax	<pre><fieldn>_PreExtract (pField As ISCBCdrField, pWorkdoc As ISCBCdrWorkdoc)</fieldn></pre>			
Parameters	pField: Object containing the Field			
	pWorkdoc:	Current Workdoc object		
Example	Private Sub Today_PreExtract(pField As SCBCdrField, pWorkdoc As SCBCdrWorkdoc) 'the field Today should contain the processing date of the document Dim today as date today = Date pField = Format(date, "yyyymmdd") End Sub			

### **SmartIndex**

The SmartIndex eventis be called for the Field where the smart indexing was defined. This field usually provides the key for the select statement.

Description	Definition		
Syntax	<pre><fieldn>_SmartIndex (pField As ISCBCdrField, pWorkdoc As ISCBCdrWorkdoc)</fieldn></pre>		
Parameters	pField: Object containing the current Field		
	pWorkdoc:	Current Workdoc object	
Example	Private Sub CustomerNo_SmartIndex(pField As SCBCdrPROJLib.SCBCdrField, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc)  'avoid validation for the Name field if filled by smart indexing pWorkdoc.Fields("Name").Valid = TRUE  End Sub		

#### **TableHeaderClicked**

This event occurs when a user clicks on one of the table header buttons. There are three different table header buttons: Row Header button, the Column Header button, and Table Header button.

Description	Definition	
Syntax	<pre><fieldn>_TableHeaderClicked (pTable As ISCBCdrTable, pWorkdoc As ISCBCdrWorkdoc, ClickType As CdrTableHeaderClickType, Row As Long, Column As Long, pSkipDefaultHandler As Boolean)</fieldn></pre>	
Parameters	pTable:	Current Table object
	pWorkdoc:	Current Workdoc object
	ClickType:	The click type of the mouse depends on the place where the click occurred either for the Column Header, Row Header, or Table Header and the type of click that occurred, such as a single click, double-click, or right-click.
	Row:	This parameter contains the index of the current row on which the user clicked.
	Column:	This parameter contains the index of the current column on which the user clicked.
	pSkipDefaultHandler:	The default value is False. When the user wants to skip the default handling it has to be set to True.



Description	Definition
Example	Private Sub Table_TableHeaderClicked(pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal ClickType As SCBCdrPROJLib.CdrTableHeaderClickType, ByVal Row As Long, ByVal Column As Long, pSkipDefaultHandler As Boolean)
	Select Case ClickType
	Case CdrColumnHeaderClicked
	'Table column header button has been clicked - 'define your message handler here
	Case CdrColumnHeaderDoubleClicked
	'Table column header button has been double clicked - 'define your message handler here
	Case CdrColumnHeaderRightButtonClicked
	'Right mouse button has been clicked on table column header - 'define your message handler here
	Case CdrRowHeaderClicked
	'Table row header button has been clicked - 'define your message handler here
	Case CdrRowHeaderDoubleClicked
	'Table row header button has been double clicked - 'define your message handler here
	Case CdrRowHeaderRightButtonClicked
	'Right mouse button has been clicked on table row header - 'define your message handler here
	Case CdrTableHeaderClicked
	'Table header button has been clicked - 'define your message handler here
	Case CdrTableHeaderDoubleClicked
	'Table header button has been double clicked - 'define your message handler here
	Case CdrTableHeaderRightButtonClicked
	'Right mouse button has been clicked on table header - 'define your message handler here
	End Select
	'Skip default handler of the table header clicked event '(handler implemented in the Verifier component)
	pSkipDefaultHandler = True
	End Sub



#### Validate

The field Validate event can be used to perform project specific validation rules. Use the pValid parameter to return the validation decision. So if the parameter remains unchanged or if the event is not implemented, the document state gets valid if all fields are valid.

Description	Definition		
Syntax		<pre><fieldn>_Validate (pField As ISCBCdrField, pWorkdoc As ISCBCdrWorkdoc, pValid As Boolean)</fieldn></pre>	
Parameters	pField:	Object containing the current Field	
	pWorkdoc:	Current Workdoc object	
	pValid: Parameter containing the current valid state of the Field		
Example	Private Sub Number_Validate(pField As SCBCdrField, pWorkdoc As SCBCdrWorkdoc, pValid As Boolean) 'check result of standard validation if pValid = FALSE then 'standard validation returns invalid, stop here exit sub end if 'perform additional check for number format if IsValidNumber(pField) = FALSE then pValid = FALSE pField.ErrorDescription = "Field is not a valid number" end if  End Sub		

### ValidateCell

This event method is called for each cell of the Table. Here you can implement validation checks specific for a single cell.

Definition	Description			
Syntax	_	idateCell (pTable As ISCBCdrTable, pWorkdoc As oc, Row As Long, Column As Long, pValid As Boolean)		
Parameters	pTable:	Current Table object		
	pWorkdoc:	Current Workdoc object		
	Row:	Given Row of the Table		
	Column:	Given column of the Table		
	pValid: Parameter containing the current valid state of the Table cell.			
Example	Private Sub MyTableField_ValidateCell(pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Row As Long, ByVal Column As Long, pValid As Boolean)  Select Case Column Case 0: 'check date in column 0 if CheckDate(pTable.CellText(Column, Row)) = FALSE then pValid = FALSE pTable. CellValidationErrorDescription(Column, Row) = "Invalid date" end if Case 2: 'check order number in column 2 if CheckOrderNumber(pTable.CellText(Column, Row)) = FALSE then pValid = FALSE			
	<pre>pTable. CellValidationErrorDescription(Column, Row) = "Invalid order number" end if End Select End Sub</pre>			

### ValidateRow

Implement validation rules, which combine two or more cells of a row.

Description	Definition		
Syntax	_	<pre><fieldn>_ValidateRow (pTable As ISCBCdrTable, pWorkdoc As ISCBCdrWorkdoc, Row As Long, pValid As Boolean)</fieldn></pre>	
Parameters	pTable:	Table Object for which row is to be validated	
	pWorkdoc:	Current Workdoc object	
	Row:	Given row of the Table to be validated	
	pValid:	Parameter that contains the current valid state of the row	
Example	pWorkdoc As SCBCdrP 'check if quantity Dim quantity as lon Dim s_price as doub  'all cells must alr quantity = CLng(pTa s_price = CLng(pTab t_price = CLng(pTab if quantity*s_price pValid = TRUE else pValid = FALSE	Private Sub MyTableField_ValidateRow(pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Row As Long, pValid As Boolean) 'check if quantity * single price = total price  Dim quantity as long  Dim s_price as double, t_price as double  'all cells must already have a valid format quantity = CLng(pTable.CellText("Quantity", Row)) s_price = CLng(pTable.CellText("Single Price", Row)) t_price = CLng(pTable.CellText("Total Price", Row)) if quantity*s_price = t_price then pValid = TRUE else pValid = FALSE pTable.RowValidationErrorDescription(Row) = "Invalid quantity or amounts"	

### ValidateTable

Implements a validation rule for the entire Table.

Description	Definitition	
Syntax	<pre><fieldn>_ValidateTable (pTable As ISCBCdrTable, pWorkdoc As ISCBCdrWorkdoc, pValid As Boolean)</fieldn></pre>	
Parameters	pTable: Table object	
	pWorkdoc:	Current Workdoc object
	pValid:	Parameter containing the current valid state of the Table
Example	Private Sub MyTableField_ValidateTable (pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, pValid As Boolean)  'calculate the sum of all amounts and compare with the net amount fields Dim tablesum as double, netamount as double Dim cellamount as double Dim row as long For row = 0 to pTabler.RowCount-1 cellamount = CLng(pTable.CellText("Total Price", Row)) tablesum = tablesum + cellamount Next row  'now compare sum with the content of the net amount field netamount = CDbl(pWorkdoc.Fields("NetAmount").Text if netamount = tablesum then pValid = TRUE else pValid = FALSE pTable.TableValidationErrorDescription = "Sum of table amounts and field net amount are different" end if End Sub	

# Workdoc Object Reference (SCBCdrWorkdocLib)

### **SCBCdrWorkdoc**

## **Description**

The Cedar Workdoc object stores all data of one Document. The amount of data grows during the processing steps of OCR, classification and extraction.

# **Type Definitions**

# CdrEdgeSide

This the definition that determines the type of alignment or edges.

Available Types	Description
CDREdgeLeft	Chooses left alignment (left edges) in analysis.
CDREdgeRigth	Chooses right alignment (right edges) in analysis.

#### CDRHighlightMode

This definition is the highlighting mode for the workdoc that displays for the user, such as highlight candidates, highlight fields only, and so on.

Available Types	Description
CDRHighlightAttractors	Attractor highlighting
CDRHighlightBlocks	Block highlighting
CDRHighlightCandidates	Candidates highlighting
CDRHighlightCandidatesAdvanced	Highlights only candidates but according to their advanced highlighting type, also fires all mouse events for all words
CDRHighlightCheckedWords	Verified words highlighting
CDRHighlightCheckedWordsAndCandidates	Verified words and candidate highlighting
CDRHighlightCheckedWordsAndField	Verified words and field highlighting
CDRHighlightCheckedWordsAndFields	Verified words and fields highlighting
CDRHighlightFields	Fields highlighting
CDRHighlightNothing	No highlighting



Available Types	Description
CDRHighlightParagraphs	Paragraph highlighting
CDRHighlightRectangles	Variable rectangle highlighting
CDRHighlightTables	Table highlighting
CDRHighlightTablesAdvanced	Highlights checked words and selected table cell, also shows tool-tips for all words and fires all mouse events for all words
CDRHighlightTextLines	Text lines highlighting
CDRHighlightTextLinesAdvanced	Highlights text lines according their block number, show tool-tips with line confidences, also fires all mouse events
CDRHighlightTrainedFields	Trained fields highlighting
CDRHighlightVerticalEdgesLeft	Left aligned edges highlighting
CDRHighlightVerticalEdgesRight	Right aligned edges highlighting
CDRHighlightWords	Word highlighting

# CDRClassifyResult

This data type is responsible for specifying the result of classification for a specific document class and specific classification engine. This is the same as the cell inside the classification matrix within Designer.

Available Types	Description
CDRClassifyMaybe	Document may belong to DocClass but weights are not available
CDRClassifyNo	Document does not belong to this DocClass
CDRClassifyNotApplied	Classification engine is not applied to this DocClass
CDRClassifyWeighted	Classification weight property has valid content
CDRClassifyYes	For sure document belongs to this DocClass

### **CDRDocState**

This definition determines the current state of the document within the workflow.

Available Types	Description
CDRDocStateAnalyzed	Document is analyzed
CDRDocStateBlocks	Blocks are analyzed in document
CDRDocStateClassified	Document is classified
CDRDocStateDeleted	Document is deleted
CDRDocStateEvaluated	Document is evaluated
CDRDocStateExported	Document is exported
CDRDocStateHaveDocs	Images or CIDocs are assigned to documents
CDRDocStateLanguage	Language detection executed
CDRDocStateReset	Initial state of document
CDRDocStateValid	Validity state of document
CDRDocStateWorktext	Worktext is assigned to document

### **CDRPageAssignment**

This data type is responsible for specifying how the Document Pages are assigned to the Workdoc.

Available Types	Description
CDRPageAssignAllPages	Assign all DocPages of Image or CIDoc to Workdoc
CDRPageAssignNewPage	First Page of Image or CIDoc appended as last DocPage to Workdoc
CDRPageAssignNoPage	No DocPages assigned to Workdoc

### **CDRPDFExportStyle**

This data type is responsible for specifying the export type of PDF image out of Perceptive Intelligent Capture.

Available Types	Description
CDRPDF_ImgOnly	Export only Image to PDF
CDRPDF_ImgOnTxt	Export Image on top of text to PDF
CDRPDF_NoExport	No Export for single DocPage
CDRPDF_NoThumbnails	No thumbnail generated for DocPage
CDRPDF_TxtOnly	Export only text to PDF

# CDRDocFileType

This data type is the enumeration that contains the type of input file.

Available Types	Description
CDRDocFileTypeCroClDoc	Cairo CIDocument
CDRDocFileTypeCroImage	Cairo image object
CDRDocFileTypeRawText	Created from plain text without document
CDRDocFileTypeUnknown	Unknown file type, maybe attachment

# Methods and Properties

### AddDocFile

This method adds a file into the Workdoc. File types include CIDoc, image, and raw text.

Description	Definition	
Syntax	AddDocFile (Path As String, FileType As CDRDocFileType, Assignment As CDRPageAssignment)	
Parameters	FilePath:	Path to the file to be added
	FileType:	Filetype of the specified file, such as a CIDoc or Image.
	Assignment:	It specifies how DocPages are assigned to the Workdoc
Example	This code shows how to add a CI-PDF file to the workdoc.	
	pWorkdoc.AddDocFile("C:\coversheet.pdf",CDRDocFileTypeCroCIDoc,CDRPageAssignNewPage)	

#### AddField

This method adds a field to the Workdoc.

Description	Definition	
Syntax	AddField (Name As String)	
Parameter	Name :	Contains the name for the new field
Example	This example adds the field "AdditionalField" to the workdoc  pWorkdoc.AddField("AdditionalField")	

### AddHighlightRectangle

This method adds a highlight rectangle on the page described by the following parameters. Set HighlightMode to CDRHighlightRectanglesto highlight all rectangles.

Description	Definition	
Syntax	AddHighlightRectangle (Left As Long, Top As Long, Width As Long, Height As Long, PageNr As Long, Color As OLE_COLOR)	
Parameters	Left:	Left of highlight rectangle
	Тор:	Top of highlight rectangle
	Width:	Width of highlight rectangle
	Height:	Height of highlight rectangle
	PageNr:	Document page number of highlight rectangle
	Color:	Color of highlight rectangle
Example	pWorkdoc.AddHighlightRectangle(10,10,100,100,1,vbCyan)	

# AnalyzeAlignedBlocks

This method splits the document into blocks that contain only left or right aligned lines. Using this method on a document with centered lines only usually results in one block per line.

Description	Definition	
Syntax	AnalyzeAlignedBlocks (edgeSide As CDREdgeSide, leftAlignTolerance As Long, XDist As Double, YDist As Double, Join As Boolean, minDistance As Double)	
Parameters	edgeSide:	Determines whether left or right aligned blocks are to be found
	leftAlignTolerance:	The distance (in mm) that aligned lines might differ. Useful if document was scanned slightly tilted.
	XDist:	A value, depending on the font size of a word, that specifies how far off an existing block of words may be to belonging to that block. If its horizontal distance from the block is greater that XDist, then a new block is created.
	YDist:	This value specifies (in mm) the maximum vertical distance for a word from a block. If its distance is greater that YDist, a new block is generated
	Join:	Specifies whether overlapping blocks are to be joined. Set to TRUE if you want to join them.



Description	Definition	
	minDistance:	This parameter is a factor to be multiplied with leftAlignTolerance. It specifies the minimal horizontal distance of two edges. Set this value to 0 to ignore its effect.

# AnalyzeBlocks

This method determines all the TextBlocks of text present in a Workdoc that are a minimum XDist apart from each other on X-axis and a minimum of YDist apart from each other on Y-axis.

Description	Definition	
Syntax	AnalyzeBlocks (X	Dist As Double, YDist As Double)
Parameters	XDist: Minimum X distance between two TextBlocks	
	YDist:	Minimum Y distance between two TextBlocks

# AnalyzeEdges

This method Analyzes a document set of words that are, within a certain tolerance, aligned either right or left. Use Highlight mode (CDRHighlightVerticalEdgesLeft or CDRHighlightVerticalEdgesRight) to make the results visible.

Description	Definition	
Syntax	AnalyzeEdges (edgeSide As CDREdgeSide, AlignTolerance As Double, YDist As Double, MinNoOfWords As Long, minDistance As Double, [pageNr As Long = TRUE])	
Parameters	edgeSide:	Set this parameter to either CDREdgeLeft or CDREdgeRight to specify if you want edges that contain left or right aligned words.
	AlignTolerance:	This value (in mm) specifies how far the left (right) values of words bounding rectangle may differ in order for it to still be considered aligned.
	YDist:	Specifies (in mm) how far two words may be apart vertically and still belong to the same edge.
	MinNoOfWords:	Specifies how many words have to belong to a valid edge. Edges that contain less than MinNoOfWords after analyzing the document are deleted.
	minDistance:	This parameter is a factor to be multiplied with AlignTolerance. It specifies the minimal horizontal distance of two edges. Set this value 0 to ignore its effect.



Description	Definition	
	pageNr:	[optional,defaultvalue(-1)] Specifies the page to be analyzed for edges. Set to -1 (default) if analysis is needed for all pages.

# AnalyzeEdges2

This method is similar to AnalyzeEdges method, but it applies the processing for visible text lines only (in case 'vbCheckedOnly' parameter is set to TRUE), otherwise it works exactly like AnalyzeEdges.

Description	Definition	
Syntax	AnalyzeEdges2 (edgeSide As CDREdgeSide, AlignTolerance As Double, YDist As Double, MinNoOfWords As Long, minDistance As Double, pageNr As Long, vbCheckedOnly As Boolean)	
Parameters	edgeSide:	Set this parameter to either CDREdgeLeft or CDREdgeRight to specify if you want edges that contain left or right aligned words.
	AlignTolerance:	This value (in mm) specifies how far the left (right) values of words bounding rectangle may differ in order for it to still be considered aligned.
	YDist:	Specifies (in mm) how far two words may be apart vertically and still belong to the same edge.
	MinNoOfWords	Specifies how many words have to belong to a valid edge. Edges that contain less than MinNoOfWords after analyzing the document are deleted.
	minDistance:	This parameter is a factor to be multiplied with AlignTolerance. It specifies the minimal horizontal distance of two edges. Set this value 0 to ignore its effect.
	pageNr:	Specifies the page to be analyzed for edges. Set to -1 (default) if analysis is needed for all pages.
	vbCheckedOnly:	If set to TRUE, the method applies processing for visible text lines only, otherwise this function works exactly like AnalyzeEdges.

# AnalyzeParagraphs

This method is used to determine all the paragraphs present in Workdoc.

Descrption	Definition
Syntax	AnalyzeParagraphs ()



## AppendWorkdoc

This method is used to append a given Workdoc to the existing Workdoc.

Description	Definition	
Syntax	AppendWorkdoc (pWorkdoc As ISCBCdrWorkdoc)	
Parameter	pWorkdoc:	Workdoc that is to be appended

#### AssignDocToPage

Use this method to assign a Page of an Image or CIDoc to a specific DocPage of the Workdoc. This method requires that there are already documents inserted to the Workdoc using the AddDocFile function and that the SetPageCount function is called prior to using this method.

Description	Definition	
Syntax	AssignDocToPage (DocIndex As Long, DocPage As Long, WorkdocPage As Long)	
Parameters	DocIndex:	Zero-based CIDoc or Image Index
	DocPage:	Zero-based DocPage inside the Image or CIDoc
	WorkdocPage:	Zero-based DocPage inside the Workdoc

#### AttractorColor

This property sets or returns the color that is used for attractor highlighting.

Description	Definition	
Syntax	AttractorColor As OLE_COLOR (read/write)	
Example	This example sets the AttractorColor to green.  pWorkdoc.AttractorColor = vbGreen	

#### **BatchID**

A property of the Workdoc that allows you to retrieve the Batch ID in which the current Workdoc resides.

Description	Definition
Attribute	strBatchID As String (Read Only)



Description	Definition
Example	The following script example shows how to retrieve the Batch ID.
	Dim strBatchID As String
	strBatchID = pWorkdoc.NamedProperty("BatchID")

#### BlockColor

This property sets or returns the color that is used for block highlighting.

Description	Definition
Syntax	BlockColor As OLE_COLOR (read/write)
Example	This example sets the color for block highlighting to cyan  pWorkdoc.BlockColor = vbCyan

#### **BlockCount**

This property returns the number of TextBlocks of the Workdoc. Use this property before accessing the TextBlock property where an index is required. The range of valid indices for TextBlocks is from 0 to BlockCount -1.

Description	Definition	
Syntax	BlockCount As Long (read only)	
Example	This example writes the text of each block to the string array 'strBlockText'.	
	Dim strBlockText() As String	
	Dim intBlockCount As Integer	
	Dim i as Long	
	intBlockCount = pWorkdoc.BlockCount -1	
	ReDim strBlockText(intBlockCount)	
	For i=0 To intBlockCount	
	strBlockText(i) = pWorkdoc.TextBlock(i).Text	
	Next i	

#### CandidateColor

This property sets or returns the color that is used for candidate highlighting.

Note The candidate color is not customizable in Verifier Thick Client.

Description	Definition
Syntax	CandidateColor As OLE_COLOR (read/write)
Example	This example sets the candidate color to magenta  pWorkdoc.CandidateColor = vbMagenta

#### Clear

Use this method to clear all the memories and to remove all the documents from Workdoc. This leaves the Workdoc in an initial state.

Description	Definition
Syntax	Clear ()

### ClearHighlightRectangles

This parameter removes all highlighted rectangles.

Description	Definition	
Syntax	ClearHighlightRectangles ()	

### ClsEngineConfidence

This property sets or returns a confidence level for a classification engine specified by its index in the collection of classification engines.

Description	Definition		
Syntax	ClsEngineConfidence (lMethodIndex As Long) As Long (read/write)		
Parameter	IMethodIndex: Zero-based engine index in collection of classification engines.		
Example	This example shows a message box with the confidence value for each classification engine.		
	Dim dblIndividualResult As Double		
	Dim lEngineIndex As Long		
	For lEngineIndex = 0 To Project.ClassifySettings.Count		
	<pre>dblIndividualResult =   (pWorkdoc.ClsEngineConfidence(lEngineIndex))</pre>		
	MsgBox "The classification confidence is " & dblIndividualResult		
	Next lEngineInd	Next lEngineIndex	

# ClsEngineDistance

This property sets or returns the distance value for a classification engine specified by its index in a collection of classification engines.

Description	Definition	
Syntax	ClsEngineDistance (lMethodIndex As Long) As Long (read/write)	
Parameter	IMethodIndex: Zero-based engine index in collection of classification engines.	
Example	This example shows a message box for each class, showing the classification engine distance.  Dim dblIndividualResult As Double  Dim lEngineIndex As Long  For lEngineIndex = 0 To Project.ClassifySettings.Count  dblIndividualResult = (pWorkdoc.ClsEngineDistance(lEngineIndex))  MsgBox "The engine distance is " & dblIndividualResult  Next lEngineIndex	

## ClsEngineResult

Use this property to access a classification result matrix. This matrix is used during the classification step to store the results of each used classification method for each document class (DocClass) of the project. The matrix has one column for each classification method and one column for the combined result of all methods. A row contains the results for a single DocClass, therefore there is one row for each DocClass in the classification matrix. The matrix is created during the classification step, but not saved to disk. After reloading the Workdoc, the matrix is no longer available.

The method returns the classification matrix as CDRClassifyResult. Refer to the type definition for further details.

Description	Definition	
Syntax	ClsEngineResult (MethodIndex As Long, DocClassIndex As Long) As CDRClassifyResult (read/write)	
Parameters	MethodIndex:  MethodIndex = 0 can be used to access the voted result of all classification methods. A MethodIndex of 1 - n can be used to access the results of the single classification methods. The sorting of the classification methods within the array is determined by the Collection of classification settings of the Perceptive Intelligent Capture Project. You can access this Collection from the script as Project. ClassifySettings, which has a type of SCBCroCollection Use the Count property to get the number of used classification engines or use the ItemIndex / ItemName property to find the index of classification method or the name for an index.	
	DocClassIndex:	The DocClassIndex is determined by the Collection of all DocClasses. You can access this Collection from the script as Project.AllClasses, which has a type of SCBCroCollection. Use the Count property to get the number of DocClasses or use the ItemIndex / ItemName property to find the index of DocClass or the name for an index.
Example	The following example sets the classification result of the Brainware Classify Engine to YES for a document in docclass "VOID". If Brainware Classify is the only engine or all other classes would be CDRClassifyNo, the document would get classified as VOID.  pWorkdoc.ClsEngineResult(Project.ClassifySettings.ItemIndex("Brainware Classify Engine"), Project.AllClasses.ItemIndex("VOID"))= CDRClassifyYes	



### ClsEngineWeight

This property provides access to the classification weights within the Classification Result Matrix.

Description	Definition			
Syntax	ClsEngineWeight (read/write)	ClsEngineWeight (MethodIndex As Long, DocClassIndex As Long) As Double (read/write)		
Parameters	MethodIndex:	MethodIndex = 0 can be used to access the voted result of all classification methods. A MethodIndex of 1 - n can be used to access the results of the single classification methods. The sorting of the classification methods within the array is determined by the Collection of classification settings of the Perceptive Intelligent Capture Project. You can access this Collection from the script as Project.ClassifySettings, which has a type of SCBCroCollection. Use the Count property to get the number of used classification engines or use the ItemIndex / ItemName property to find the index of classification method or the name for an index.		
	DocClassIndex:	The DocClassIndex is determined by the collection of all document classes. You can access this Collection from script as Project.AllClasses that is a type of SCBCroCollection. Use the Count property to get the number of DocClasses or use the ItemIndex / ItemName property to find the index of DocClass or the name for an index.		

#### CreationDate

A property of the Workdoc that allows the developer to retrieve the Creation Date of the current Workdoc. When a document is placed in a new exception batch, the attribute updates to a new date/time stamp.

Description	Definition
Attribute	Read Only
Example	The script sample below shows how to retrieve the Creation Date.  Dim dtCreationDate As Date  dtCreationDate = pWorkdoc.NamedProperty("CreationDate")



#### CreationDateAsFileTimeUTC

A new property of the Workdoc has been introduced to allow the developer to retrieve the Creation Date in UTC of the current Workdoc.

When a document is placed in a new exception batch, the attribute updates to a new date/time stamp.

Description	Definition	
Attribute	Read Only	
Example	The script sample below shows how to retrieve the Creation Date.  Dim dtCreationDateUTC As Long  dtCreationDateUTC = pWorkdoc.NamedProperty("CreationDateAsFileTimeUtc")	

#### CreateFromWorktext

This method creates Workdoc from the OCRed text of an Image.

Description	Definition		
Syntax	CreateFromWorktext (pWorktext As ISCBCroWorktext)		
Parameter	pWorktext:	Object pointer of Worktext.	

#### CutPage

This method cuts the current Workdoc and generates a new Workdoc from DocPages present after the given PageIndex.

Description	Definition	
Syntax	CutPage (PageIndex As Long, ppNewWorkdoc As ISCBCdrWorkdoc)	
Parameters	PageIndex:	[in] Zero-based index of DocPage after which the Workdoc has to be cut
	ppNewWorkdoc:	[out] New Workdoc generated as part of the current Workdoc



#### CurrentBatchState

This is a property that returns the temporary document batch state (a numeric value between 0 and 999). This value is set by the methods LoadWorkdoc and UpdateDocument of the Cedar Batch component.

Description	Definition
Syntax	pWorkdoc.CurrentBatchState (Read only)

#### DeleteFile

This method deletes all wdcs and corresponding TIFs of the Workdoc.

Description	Definition	
Syntax	DeleteFile (DeleteDocFiles As Boolean)	
Parameter	DeleteDocFiles:	Flag to inform whether to delete files or not

# DisplayPage

This property sets or returns the displayed DocPage specified by the zero-based index of the Workdoc in the Viewer(Index 0 represents page 1).

Description	Definition	
Syntax	DisplayPage As Long (read/write)	
Example	If a customer requires Verifier to display a specific page of each document instead of the first one when opening the document, use the DisplayPage property in the script.	
	In the example below, the script displays Page 3 if the document has 4 pages or more.	
	Private Sub ScriptModule_VerifierFormLoad(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, FormClassName As String, FormName As String)	
	If pWorkdoc.PageCount >=3 Then pWorkdoc.DisplayPage = 2	
	End Sub	

#### **DocClassName**

This property sets or returns the name of the DocClass to which the document was classified.

Description	Definition	
Syntax	DocClassName As String (read/write)	
Example	Private Sub ScriptModule_PreClassify(pWorkdoc As SCBCdrWorkdoc)	
	if ( DoSomeMagic(pWorkdoc) = TRUE ) then	
	'assign "Invoice" as result of the classification	
	pWorkdoc.DocClassName = ''Invoice''	
	else 'do nothing and continue with normal classification end if	
	End Sub	

#### **DocFileCount**

This property returns the number of documents from which the Workdoc is built.

Description	Definition
Syntax	DocFileCount As Long (read only)

#### DocFileDatabaseID - Unique ID

The read only property pWorkdoc.DocFileDatabaseID returns the database ID of document files attached to a Perceptive Intelligent Capture Workdoc. It corresponds to the [File].[Id] value in the database. The document file index has to be passed as a parameter when using DocFileDatabaseID property.

Use this property in custom script as a unique identifier of document files that were processed by Perceptive Intelligent Capture.

Description	Definition	
Attribute	Read only	
Syntax	DocFileDatabaseID (ByVal Index As long) As Long	
Parameter	Index	The index parameter has a valid range from 0 to DocFileCount -1
Example	Dim lUniqueID As Long  lUniqueID = pWorkdoc.DocFileDatabaseID(pWorkdoc.DocFileCount - 1)  The script example above demonstrates how to retrieve the unique ID of the last document file attached to a Workdoc.	



### DocFileName

This property returns the full pathname of a document (image or text file) from which the Workdoc is built.

Description	Definition			
Syntax	DocFileName (	DocFileName (index As Long) As String (read only)		
Parameter	Index:	The index parameter has a valid range from 0 to DocFileCount-1.		
Example	If a Workdoc was created from a single document, such as a multi-TIFF file, the name of the document file can be retrieved accessing the 0 index.			
	Path = pWorkd	loc.DocFileName(0)		
	The script fu	nction below returns the TIF file creation date.		
		Public Function fnGetFileDate(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc) As String		
	Dim FSO As Ne	w Scripting.FileSystemObject		
	Dim oFile As Scripting.File			
	Dim strFileName As String			
	Dim dtCreated As Date			
	<pre>strFileName = Replace(pWorkdoc.DocFileName(0),".wdc",".tif")</pre>			
	If FSO.FileExists(strFileName) Then			
	Set oFile = FSO.GetFile(strFileName)			
	dtCreated = oFile.DateCreated			
	<pre>fnGetFileDate = Month(dtCreated) &amp; "/" &amp; Day(dtCreated) &amp; "/" &amp; Year(dtCreated)  End If Set FSO = Nothing Set oFile = Nothing</pre>			
	End Function			

# DocFileType

This property returns the file type of the document by the specified index.

Description	Definition	
Syntax	DocFileType (index As Long) As CDRDocFileType (read only)	
Parameter	Index:	The index parameter has a valid range from 0 to DocFileCount-1.



### **DocState**

This property sets or returns the current state of the document.

Description	Definition
Syntax	DocState As CDRDocState (read/write)

# EdgeCount

This property returns the number of vertical edges found in a document.

Description	Definition	
Syntax	EdgeCount (edgeSide As CDREdgeSide) As Long (read only)	
Parameter	edgeSide:	Flag to distinguish between left and right edges.



## **ErrorDescription**

This property sets or returns an error description.

Description	Definition	
Syntax	ErrorDescription As String (read/write)	
Example	Private Sub Document_Validate(pWorkdoc As SCBCdrWorkdoc, pValid As Boolean)	
	Dim Number as string	
	Dim Name as string	
	'get fields name and number and make a database lookup	
	Number = pWorkdoc.Fields("Number")	
	Name = pWorkdoc.Fields("Name")	
	if LookupDBEntry(Name, Number) = FALSE then	
	'the Name/Number pair is NOT in the database  'set the document state to invalid  pValid = FALSE  'make both fields invalid and provide an error description	
	pWorkdoc.Fields("Number").Valid = FALSE	
	pWorkdoc.Fields("Number").ErrorDescription = "Not in database"	
	pWorkdoc.Fields("Name").Valid = FALSE	
	pWorkdoc.Fields("Name").ErrorDescription = "Not in database"	
	end if	
	End Sub	

### FieldColor

This property sets or returns the color that is used to highlight valid and invalid Fields.

Description	Defintion	
Syntax	FieldColor (	FieldValid As Boolean) As OLE_COLOR (read/write)
Parameter	FieldValid:	If set to TRUE it specifies the color for valid Fields or it specifies the color for invalid Fields if FALSE.



#### **Fields**

This property provides access to all Fields of a document.

Description	Defintion	
Syntax	Fields As ISCBCdrFields (read only)	
Example	To read the text content of a simple Field use the following command:  Dim FieldContent as string  FieldContent = pWorkdoc.Fields.Item("MyField").Text	

#### **FileName**

This property contains the database ID of the Workdoc and returns the databasee Workdoc ID and Name.

**Note** To retrieve the file name of the image from which the Workdoc was created, use the DocFileName property found above.

Description	Defintion
Syntax	Filename As String (read only)

#### Folder

This property accesses the Folder to which the Workdoc belongs.

Description	Definition
Syntax	Folder As ISCBCdrFolder (read only)

#### FolderIndex

This property provides the index of the Folder to which a Workdoc belongs.

Description	Definition
Syntax	FolderIndex As Long (read only)



### ForceClassificationReview

In the application, the PostClassify event has been extended so that it can force a manual classification review even if the classification succeeded.

Description	Definition	
Attribute	Read/Write	
Example	The script sample below shows how the manual classification process can be forced from custom script event "PostClassify".	
	Private Sub ScriptModule_PostClassify(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc)	
	If pWorkdoc.DocClassName = "VeryImportantClass" Then	
	pWorkdoc.ForceClassificationReview = True	
	End If	
	End Sub	

## GetEdge

This method returns the coordinates for the left, top, and bottom of the corners for an edge, which is interpreted as a rectangle.

Description	Defintiond	
Syntax	GetEdge (edgeSide As CDREdgeSide, edgeIndex As Long, pLeft As Long, pTop As Long, pBottom As Long, pPageNr As Long)	
Parameters	edgeSide:	Set this parameter to either CDREdgeLeft or CDREdgeRight to specify if you want edges that contain left or right aligned words.
	edgeIndex:	Index of the edge to be returned, valid indices are from 0 to the result of EdgeCount – 1
	pLeft:	Contains left coordinate of the edge.
	рТор:	Contains top coordinate of the edge.
	pBottom:	Contains bottom coordinate of the edge.
	pPageNr:	Contains page number of the edge.

#### **GetFileSizeKB**

This method retrieves the file size of an image or document through a custom script.

Description	Definition
Syntax	GetFileSizeKB(pWorkdoc As SCBCdrWorkdoc) As Integer
Example	Private Function GetFileSizeKB(pWorkdoc As SCBCdrWorkdoc) As Integer Dim FSO As FileSystemObject Dim ImageFile As File On Error GoTo ErrHandler Set FSO = New FileSystemObject Set ImageFile = FSO.GetFile(pWorkdoc.DocFileName(0)) GetFileSizeKB = Round(ImageFile.Size/1024) Exit Function ErrHandler: GetFileSizeKB = -1 End Function

### GetWorktextForPageArea

A function that returns a worktext object from a specific location on a document. The worktext object contains text and positional information relating to the area specified in GetWorktextForPageArea. You can view this as a temporary zone to read a piece of information through a script and review the returned result for that area.

The area to search starts from Left and Top coordinates and finishes at Width and Height coordinates, provided in pixels. These are the same coordinates that you would enter for a reading zone. For more information, refer to "Setting up Zone Analysis" in the *Designer User Guide*,).

The scripter may test their page area coordinates using a zone.

Description	Definition	
Syntax	GetWorktextForPageArea(Page, Left, Top, Width, Height, IncludePartial)	
Parameters	Page:	page number of the image. 0 represents the first page of a multi page document.
	Left:	left coordinate of the page area
	Тор:	top most coordinate of the page area
	Width:	width (length) of the area
	Height:	height of the area



Description	Definition	
	includePartial: Boolean flag.	
		> False – restricts reading of worktext to specified area
		> True - completes words that appear partially in the specified area with outside information
Example of includePartial	The word "Invoice" exists on the page, but our page area only captures "Inv". Setting includePartial to False will return only "Inv", setting includePartial to True will return the entire word "Invoice".	
Example of the code to use	The example below takes the OCR results of the top left page area and places the result into the first row table cell.	
	Dim ptrWorkText As SCBCroWorktext	
	Set ptrWorkText = New SCBCroWorktext	
	Set ptrWorkTex 300,True)	kt = pWorkdoc.GetWorktextForPageArea(0, 100, 100, 300,
	pWorkdoc.Field ptrWorkText	ds.ItemByName("TableField").Table(0).CellWorktext(0,0) =

# HighlightCandidate

This property sets or returns the position of the highlighted Candidate.

Description	Definition
Syntax	HighlightCandidate As Long (read/write)

# HighlightField

This property sets or returns the position of the highlighted Field.

Description	Definition
Syntax	HighlightField As Long (read/write)

## HighlightMode

This property sets or returns the current mode of highlighting.

Description	Definition
Syntax	HighlightMode As CDRHighlightMode (read/write)



### IgnoreAnalysisFailures

This is an optional capability to ignore any errors during Perceptive Intelligent Capture's extraction analysis phase. Otherwise, the extraction analysis stops in the middle of field extraction and does not apply processing for other fields and does not fire further events.

This capability is optional and by default switched off to ensure the backwards compatibility is not affected in any way.

If set to TRUE, any errors occurring during extraction analysis phase are ignored. Errors will not cause a sudden termination of the extraction process. Instead, traces are left in the component logs for the CdrProj library (at tracing level 1, i.e. Error):

0|0|13:10:14.840|LErr:0|hRes:0x80005141|cdrproj\scbcdrdocclass.cpp|Wed Sep 12 13:07:13 2012|2416|F|Error preprocessing zone !
Zone rectangle out of image.|||
0|0|13:10:14.840|LErr:0|hRes:0|cdrproj\scbcdrdocclass.cpp|Wed Sep 12 13:07:13 2012|2416||Level2||SAVINGS|

By default, this option is switched off. It can be activated at any time, for example in the PreExtract event.

Description	Definition	
Syntax	pWorkdoc.NamedProperty("IgnoreAnalysisFailures")	
Example	' Cedar Document Class Script for Class "Level2"	
	Private Sub SAVINGS_PreExtract(pField As SCBCdrPROJLib.ISCBCdrField, pWorkdoc As SCBCdrPROJLib.ISCBCdrWorkdoc)	
	pWorkdoc.NamedProperty("IgnoreAnalysisFailures") = True	
	End Sub	

#### **Image**

This property returns an Image object for the specified DocPage of the Workdoc.

Description	Definition	
Syntax	Image (index As Long) As ISCBCroImage (read only)	
Parameter	Index: Index of the DocPage that is valid from 0 to PageCount - 1.	

#### **IsPlainText**

This property sets or returns if worktext is plain text or not.

Description	Definition
Syntax	IsPlainText As Boolean (read/write)



### Language

This property sets or returns the language of the document, as it was specified by the language detection or the default language of the Project.

Description	Definition
Syntax	Language As String (read/write)

#### LineColor

This property sets or returns the Color that is used for line highlighting.

Description	Definition
Syntax	LineColor As OLE_COLOR (read/write)

#### Load

This method loads a file from given root path and this root path is not the absolute path of the file.

Description	Definition		
Syntax	Load (Filename As String, ImageRootPath As String)		
Parameters	Filename:	Name of the file.	
	ImageRootPath:	Relative path of the file.	

# **PageCount**

This property returns the number of displayable DocPages of the Workdoc.

Description	Defintion	
Syntax	PageCount As Long (read only)	
Example	intImageCount=pWorkdoc.PageCount	'Get the number of pages in Workdoc



### **Pages**

This property returns a single DocPage of the Workdoc.

Description	Definition	
Syntax	Pages (PageIndex As Long) As ISCBCdrDocPage (read only)	
Parameter	PageIndex:	Index of the DocPage to access, which is valid from 0 to PageCount-1.

## Paragraph

This property provides access to the paragraph array of the Workdoc.

Description	Definition	
Syntax	Paragraph (inde	ex As Long) As ISCBCdrTextBlock (read only)
Parameter	Index:	Specifies the index of the paragraph. Valid indexes are from 0 to the result of ParagraphCount – 1.

# ParagraphCount

This property returns the number of paragraphs in the

Description	Definition
Syntax	ParagraphCount As Long (read only)

### **PDFExport**

This method generates a PDF file from Workdoc based on CDRPDFExportStyle.

Description	Definition	
Syntax	PDFExport (FileName As String)	
Parameter	FileName: Name of the exported PDF file.	



### PDFGetInfoType

This method returns the export type of a given Page in a PDF file.

Description	Definition	
Syntax	PDFGetInfoType (PageIdx As Long, pExportStyle As CDRPDFExportStyle)	
Parameters	PageIdx: Page number of PDF.	
	pExportStyle:	Type of Export.

# PDFSetInfoType

This method sets the type of export of a PDF.

Description	Definition	
Syntax	PDFSetInfoType (PageIdx As Long, ExportStyle As CDRPDFExportStyle)	
Parameters	Pageldx: Zero-based DocPage Number.	
	ExportStyle:	Type of export

### ReadZone

This is part of the OCR-on-demand concept.

Description	Definition	
Syntax	ReadZone (PageIndex As Long, [left As Double = FALSE], [top As Double = FALSE], [right As Double = 1], [bottom As Double = 1])	
Parameters	PageIndex:	Specifies the DocPage where the OCR or text conversion should be executed. Valid indices are 0 to PageCount - 1 for working on single pages or -1 for executing OCR on all DocPages.
	Right:	[in,optional,defaultvalue(1)] Specifies the right border of the OCR region in percent. Use 100 here to read until the right border.
	Left:	[in,optional,defaultvalue(0)] Specifies a left offset for the OCR region in percent. Use 0 here to read from the left border.
	Тор:	[in,optional,defaultvalue(0)] Specifies the top offset for the OCR region in percent. Use 0 here to read from the top border.
	Bottom:	[in,optional,defaultvalue(1)] Specifies the bottom line of the OCR region in percent. Use 100 here to read until the bottom border.

### Refresh

This method refreshes the Workdoc's DocPage that is currently shown in the Viewer.



Description	Definition
Syntax	Refresh ()

#### RenameDocFile

Use this method to change the name of the CIDoc or Image at a given DocIndex by the given new name.

Description	Definition	
Syntax	RenameDocFile (DocIndex As Long, NewName As String)	
Parameters	DocIndex: Specifies the zero-based CIDoc or Image Index.	
	NewName:	New name given to the document at DocIndex.

### ReplaceFirstImage

This method replaces the first image in Workdoc.

Description	Definition	
Syntax	ReplaceFirstImage (Path As String)	
Parameter	Path:	Image path to replace the existing workdoc's image with.

#### Save

This method saves a Workdoc with given file name and its DocFiles relatively at given ImageRootPath.

Description	Def	inition
Syntax	Save (Filename A	s String, ImageRootPath As String)
Parameters	Filename: Filename of Workdoc	
	ImageRootPath:	Relative path where all corresponding DocFiles are saved, empty if files are saved in the same directory as the Workdoc.

### SkipTableCellMassValidation

This method allows you to optionally activate special "skip table cell mass validation" mode for validation of table cells. By default, Perceptive Intelligent Capture uses "mass validation of invalid cells". This means that upon an *ENTER* click within an invalid cell, all other invalid cells are automatically revalidated by the system. This behavior may lead to performance problems in Perceptive Intelligent Capture projects with a large number (1000+) of invalid cells that must each be corrected manually. It



may be also unacceptable if validation routines are unavailable for some of the processed transactions and manual review by the Verifier user is required for all cells.

You can invoke this script at any time and is in effect for the next fired cell validation event. You can also turn mass validation back on at any time. One of the possible events in which this script sample can be integrated is "ScriptModule\_VerifierFormLoad".

Description	Definition
Example	The validation mode can be switched individually for each processed document via the following script:
	pWorkdoc.NamedProperty("SkipTableCellMassValidation") = True

### SetDocPageIndex

This method has been added to allow the script implementation of the page merging workflow step.

Description	Definition
Example	The following short script example shows how this method can be used to append one document to another.
	For j = 0 To thePreviousWorkdoc.PageCount -1 Step 1
	theNextWorkdoc.InsertPage (thePreviousWorkdoc, j, True, theNextWorkdoc.PageCount)
	<pre>theNextWorkdoc.Pages (theNextWorkdoc.PageCount - 1).SetDocPageIndex(0, j + 1)</pre>
	End If

### **ShowTooltips**

This property sets or returns if tooltips display when moving the mouse pointer over a displayed Workdoc.

Description	Definition
Syntax	ShowTooltips As Boolean (read/write)

### SkipTrainingWithEngine

This property identifies whether the specified trainable engine has to skip this document in the training process.

Description	Definition
Syntax	SkipTrainingWithEngine (bstrEngineName As String) As Boolean (read/write)



Description	Definition	
Parameter	bstrEngineName:	Name of classification engine.

### **Table**

Returns a Table for a given index of the Workdoc.

Description	Definition	
Syntax	Table (index As	Long) As ISCBCdrTable (read only)
Parameter	Index:	Specifies the index of the Table. Valid indices are from 0 to TableCount-1.

### **TableCount**

This property returns the number of Table objects stored within the Workdoc.

Description	Definition
Syntax	TableCount As Long (read only)

#### **TextBlock**

This property returns the TextBlock by an index of the Workdoc.

Definition	Description	
Syntax	TextBlock (index	x As Long) As ISCBCdrTextBlock (read only)
Parameter	Index:	[in] Specifies the index of the TextBlock. Valid indices are from 0 to BlockCount-1.

### **Textline**

This property returns text line by an index of the Workdoc.

Definition	Description		
Syntax	Textline (index As Long) As ISCBCdrTextBlock (read only)		
Parameter	Index:	Zero-based index.	



#### **TextlineCount**

This property retrieves the number of text lines present in a Workdoc.

Definition	Description
Syntax	TextlineCount As Long (read only)

### TrainedWithEngine

This property indicates whether this document is trained with the specified engine.

Parameter	bstrEngineName:	Name of engine.
Syntax	TrainedWithEngir	ne (bstrEngineName As String) As Boolean (read only)
Definition	Description	

### UnloadDocs

This method releases all the Images and CIDocs that belong to this Workdoc.

Definition	Description
Syntax	UnloadDocs ()

#### Word

This property provides access to the Word array of the Workdoc.

Definition	Description	
Syntax	Word (index As Long) As ISCBCdrWord (read only)	
Parameter	Index:	[in] Index of the requested Word. Valid indices are from 0 to WordCount-1.

#### WordColor

This property sets or returns the color that is used for Word highlighting.

Definition	Description
Syntax	WordColor As OLE_COLOR (read/write)



#### WordCount

This property returns the number of Words of the Workdoc.

Description	Definition		
Syntax	WordCount As Long (read only)		
Example	Private Sub MyField_PostAnalysis(pField As SCBCdrField, pWorkdoc As SCBCdrWorkdoc)  Dim cindex as long, count as long, id as long 'add a new candidate to the field if pWorkdoc.Wordcount > 42 then 'use the 42th word as new candidate count = 1 'wordcount of new candidate id = 0 'rule-id for later backtracing pField.AddCandidate 42, count, id, cindex 'cindex is the new index of the candidate end if  End Sub		

### WordSegmentationChars

This property sets or returns a string that contains the characters used for the segmentation of Words.

Description	Definition
Syntax	WordSegmentationChars As String (read/write)

#### Worktext

Provides access to the raw OCR results represented by the SCBCroWorktext object.

Description	Definition
Syntax	Worktext As ISCBCroWorktext (read only)

## **SCBCdrFields**

## **Description**

This is a collection of all Field objects contained in the current WorkDoc object.

# **Methods and Properties**

#### Add

This method adds a new Field with the specified name to the Field Collection.



Description	Definition	
Syntax	Add (NewItem As ISCBCdrField, ItemName As String) As Long	
Parameters	NewItem:	[in] Pointer to a SCBCdrField object that should be added to the Collection.
	ItemName:	[in] Name of the Field item inside the Collection. This name must be used to access the item inside the Collection.

#### Clear

This method removes all items from the Collection and releases their reference count.

Description	Definition
Syntax	Clear ()

#### Collection

This property returns the Collection that is internally used to store the Fields.

Description	Definition
Syntax	Collection As ISCBCroCollection (read only)

### Count

This property returns the number of items within the Field Collection.

Description	Definition
Syntax	Count As Long (read only)

#### Item

These read-only properties return a specified item from the Collection. The Item property is the default property of the ISCBCdrFields Collection.

Description	Definition	
Syntax	Item (Index As Variant) As ISCBCdrField (read only)	
Parameter	Index:	The index can either be a long value specifying the index within the collection, valid range from 1 to Count, or a string specifying the item by name.



### ItemByIndex

This property returns an item from the Collection specified by the index.

Description	Definition	
Syntax	ItemByIndex (Index As Long) As ISCBCdrField (read only)	
Parameter	Index:	Index of the item to retrieve from the Collection, valid range from 1 to Count
Example	strClassName = theProject.AllClasses.ItemByIndex(intClass).Name	

### **ItemByName**

This property returns the Field from the Collection by the specified Field name.

Description	Definition		
Syntax	ItemByName (Name As String) As ISCBCdrField (read only)		
Parameter	Name:	[in] Name of the item to retrieve from the Collection.	
Example	Private Sub Document_FocusChanged(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Reason As SCBCdrPROJLib.CdrFocusChangeReason, ByVal OldFieldIndex As Long, pNewFieldIndex As Long)  If pWorkdoc.Fields.ItemByName("InteractiveTableExtractionAllowed").Text = "No" Then  Project.AllClasses.ItemByName(pWorkdoc.DocClassName).Fields.ItemByName("LineItems").AllowInteractiveExtraction = False		
	Else	Else	
	Project.AllClasses.ItemByName(pWorkdoc.DocClassName).Fields.ItemByName("LineItems").AllowInteractiveExtraction = True		
	End If	End If	
	End Sub		

### **ItemExists**

This method returns TRUE if an item with the specified name exists inside the Collection, or FALSE is returned.

Description	Definition	
Syntax	ItemExists (Name As String) As Boolean	
Parameter	Name:	Name of item for witch to search.



### ItemIndex

The index of an item specified by name is returned

Description	Definition	
Syntax	ItemIndex (Name As String) As Long (read only)	
Parameter	Name:	Name specifying an item in the Collection.

### **ItemName**

The name of an item is returned specified by index.

Description	Definition	
Syntax	ItemName (Index As Long) As String (read only)	
Parameter	Index:	Index specifying an item in the collection, valid range from 1 to Count.

### Moveltem

This method moves an item specified by OldIndex from OldIndex to NewIndex.

Description	Definition	
Syntax	MoveItem (OldIndex As Long, NewIndex As Long)	
Parameters	OldIndex: [in] Index of item to remove valid range from 1 to Count.	
	NewIndex:	[in] New index of the item after the move has occurred, valid range from 1 to Count.

#### Remove

This method removes the specified item from the Collection and releases the reference count to this item.

Description	Definition	
Syntax	Remove (ItemName As String)	
Parameter	ItemName:	[in] Name of item to remove.

### RemoveByIndex

This method removes the specified item from the Collection and releases the reference count to this item.



Description	Definition	
Syntax	RemoveByIndex (Index As Long)	
Parameter	Index:	[in] Index of item to remove, valid range from 1 to Count.

#### Rename

This method Renames the item specified by Oldname from OldName to NewName.

Description	Definition		
Syntax	Rename (OldName As String, NewName As String)		
Parameters	OldName:	OldName: [in] Name of item to rename	
	NewName:	[in] New name of item in Collection.	

### Tag

This property stores a variant for each item of the Collection.

Description	Definition	
Syntax	Tag (Index As Long) As Variant (read/write)	
Parameter	Index:	Specifies the item index, valid range from 1 to Count.

### **SCBCdrField**

# Description

This object contains the data that are evaluated and that should be extracted from the Document.

# Type Definitions

### **CDRFieldState**

This enumeration contains the state of the Field.

Available Types	Description
CDRFieldStateAnalyzed	Field is analyzed
DRFieldStateEvaluated	Field is evaluated
CDRFieldStateFormated	Field is formatted



Available Types	Description
CDRFieldStateReset	Initial state of a Field
CDRFieldStateValid	Validity state of Field

# **Methods and Properties**

### ActiveTableIndex

This property reads the position where the Table is activated or activate the Table at given zero-based index.

Description	Defintion	
Syntax	ActiveTableIndex As Long (read/write)	
Example	'Initializes table and field references	
	Set theEmptyTable = _	
	<pre>pWorkdoc.Fields("EmptyTable").Table(pWorkdoc.Fields("EmptyTable").Activ eTableIndex)</pre>	
	Set theEmptyTableField = pWorkdoc.Fields("EmptyTable")	

### AddCandidate

This method adds a new Candidate to the Field based on the specified Word ID.

Description	Definition	
Syntax	AddCandidate (WordNr As Long, WordCount As Long, FilterID As Long, pIndex As Long)	
Parameters	WordNr:	Specifies the Word index within the Word array of the Workdoc. Must be within 0 to pWorkdoc.WordCount - 1.
	WordCount:	[in] Specifies the number of Words to use for the Candidate. If WordCount is greater than 1 the second word for the Candidate is defined with WordNr + 1, the third with WordNr + 2.
	FilterID:	[in] This parameter can be used to store a filter identifier inside the Candidate. So later it is possible to see which filter expression has created the Candidate.
	plndex:	[out] Returns the index of the new Candidate within the Candidate array.



Description	Definition		
Example	Private Sub MyField_PostAnalysis(pField As SCBCdrField, pWorkdoc As SCBCdrWorkdoc)		
	Dim cindex as long, count as long, id as long		
	'add a new candidate to the field		
	if pWorkdoc.Wordcount > 42 then		
	`use the 42th word as new candidate		
	count = 1 'wordcount of new candidate		
	id = 0 'rule-id for later backtracing		
	pField.AddCandidate 42, count, id, cindex		
	'cindex is the new index of the candidate		
	end if		
	End Sub		

### AddCandidate2

This method adds a new Candidate to the Field based on the specified Worktext.

Description	Definition	
Syntax	AddCandidate2 (pWorktext As ISCBCroWorktext, pIndex As Long)	
Parameters	pWorktext:	[in] Must be an initialized Worktext as it was created calling a SCBCroZone.Recognize method.
	pIndex:	[out] Returns the index of the new Candidate within the Candidate array.

### AddTable

This method adds a Table into the Table array of this Field.

Description	Definition
Syntax	AddTable ()



### BoostDigitsOnly

This method sets or returns whether only digits should be boosted.

Description	Definition
Syntax	BoostDigitsOnly as Boolean

### **BoostField**

This method sets or returns whether a field should be boosted.

Description	Definition
Syntax	BoostField as Boolean

### Candidate

This property returns a Candidate of the Field.

Description	Definition		
Syntax	Candidate (index	As Long) As ISCBCdrCandidate (read only)	
Parameters	Index:	Index of the Candidate. Valid indices are 0 to CandidateCount-1	

## CandidateByFilterID

This method finds the first candidate by specified filter ID or creates a new one if no such candidate is found.

Description	Definition	
Syntax	1	erID (ByVal FilterID As Long, ByVal CreateNew As dateIndex As Long) as ISCBCdrCandidate
Parameters	FilterID:	The filter ID that is used to find the candidate.
	CreateNew:	Create a new candidate if set to True.
	pCandidateIndex:	The index of the found candidate



#### CandidateCount

This method returns the number of candidates for a field.

Description	Definition
Syntax	CandidateCount As Long

# Changed

This property returns the changed state of the Field. If the changed state becomes TRUE, the field must be validated even if it was previously validated.

Description	Definition
Syntax	Changed As Boolean (read/write)

### CustomDetailsString

This property sets or returns the CustomDetailsString.

Description	Definition
Syntax	CustomDetailsString as String

### CustomStatusLong

This property sets or returns the CustomStatusLong.

Description	Definition
Syntax	CustomStatusLong as Long



### DeleteLine

This method deletes a line from a specific index position.

Description	Definition	
Syntax	DeleteLine (LineIndex As Long)	
Parameter	LineIndex:	Index of Line, zero-based indexing
Example	`This loop deletes the existing line objects in the field:	
	Dim lngLineCour	ater As Long
	For lngLineCounter = (pField.LineCount - 1) To 0 Step -1	
	pField.DeleteLine(lngLineCounter)	
	Next	
	'Then add as ma string:	ny lines as required and populate with the required
	pField.InsertLi	ne(0)
	pField.Line(0)=	"Line1"
	pField.InsertLi	ne(1)
	pField.Line(1)=	"Line2"

### DeleteTable

This method deletes a Table from the Table array of this Field.

Description	Definition	
Syntax	DeleteTable (TableIndex As Long)	
Parameter	TableIndex:	Zero-based Index of the Table

# **ErrorDescription**

This property stores the reason if a script validation could not be performed successfully.

Description	Definition
Syntax	ErrorDescription As String (read/write)
Example	Private Sub Number_Validate(pField As SCBCdrField, pWorkdoc As SCBCdrWorkdoc, pValid As Boolean)  if pValid = FALSE then
	'Standard validation returns invalid, stop here exit sub end if
	'Perform additional check for number format  if IsValidNumber(pField) = FALSE then  pValid = FALSE
	<pre>pField.ErrorDescription = "Field is not a valid number" end if End Sub</pre>

### ExternalText

This method sets or returns the extended text.

Description	Definition
Syntax	ExternalText As String

#### **FieldID**

This read-only property returns the internally used FieldID.

Description	Definition
Syntax	FieldID As Long (read only)



### **FieldState**

This property sets or returns the current execution state of the Field.

Description	Definition
Syntax	FieldState As CDRFieldState (read/write)
Example	<pre>Private Sub Document_PreExtract(pWorkdoc As SCBCdrWorkdoc) Dim MyResult as string MyResult = DoSomeMagic(pWorkdoc) if (len(MyResult) &gt; 0) then 'assign result to a single field pWorkdoc.Fields("Number") = MyResult; 'skip defined analysis and evaluation methods pWorkdoc.Fields("Number").FieldState = CDRFieldStateEvaluated end if end Sub</pre>

### **FieldVersion**

This property returns the field data of the specified version.

Description	Definition	
Syntax	FieldVersion As String (ByVal index As Long)	
Parameter	Index:	ByVal index As Long

#### **FindCandidate**

This method searches inside the list of Candidates if there is a Candidate based on the specified WordID.

Description	Definition		
Syntax	FindCandidate (	WordID As Long, pCandIndex As Long)	
Parameters	WordID:	WordID: [in] Specifies a WordID inside the Word array of the Workdoc searched for.	
	pCandIndex:	[out] Contains the index of the Candidate if someone was found or -1 if no Candidate was found.	

## FindCandidateByPos

This is a method to find a candidate by its position.

Description	Definition	
Syntax	FindCandidateByPos (ByVal Page as Long, ByVal Param1 as Long, ByVal Left as Long, ByVal Top as Long, ByVal Width as Long, By Val Height as Long, CandidateIndex as Long) as ISCBCdrCandidate	
Parameters ByVal Page: Long		Long
	ByVal Param1:	Long
	ByVal Left:	Long
	ByVal Top:	Long
	ByVal Width:	Long
	ByVal Height:	Long
	CandidateIndex:	Long

### FormattedText

This property can be set only in FormatForExport field event. It is emptied before validate field event. For details, refer to the <a href="FormatForExport">FormatForExport</a> section.



# GetFirstCandidatePropsByPage

This is a method to get the first candidate's properties by page.

Description	Definition	
Syntax	CandidatePropsByPage (ByVal Page As Long, ByVal Paraml As Long, ByVal Left As Long, ByVal Top As Long, ByVal Width As Long, ByVal Height As Long, ByVal Text As String, ByVal Weight As Double) as Long	
Parameter	CandidateProps:	ByVal Page As Long ByVal Param1 As Long ByVal Left As Long ByVal Top As Long ByVal Width As Long ByVal Height As Long ByVal Text As String ByVal Weight As Double

# ${\sf GetNextCandidatePropsByPage}$

This is a method to get the next candidate's properties by page.

Description	Definition	
Syntax	CandidatePropsByPage (ByVal Left As Long, ByVal Top As Long, ByVal Width As Long, ByVal Height As Long, ByVal Text As String, ByVal Weight As Double) as Long	
Parameter	CandidateProps:	ByVal Left As Long ByVal Top As Long ByVal Width As Long ByVal Height As Long ByVal Text As String ByVal Weight As Double

# GetUniqueEntryID

This method retrieves other column values for the specified pool entry.

Description	Definition	
Syntax	GetUniqueEntryI	d (IdHigh As Long, IdLow As Long)
Parameters	IdHigh:	[out] Upper part of the 64-bit unique ID.
	IdLow:	[out] Lower part of the 64-bit unique ID.
Example	Public Function GetASSAInfo (pworkdoc as SCBCdrPROJLib.SCBCdrWorkdoc, cand as SCBCdrWkDocLib.SCBCdrCandidate) As String  'Function input: Workdoc, ASSA Candidate  Dim lNumericIdHigh As Long  Dim lNumericIdLow As Long  GetASSAInfo=""  If cand.IsIDAlphNum = True Then	
	<pre>GetASSAInfo = cand.UniqueID  Else  GetASSAInfo = Cand.GetUniqueEntryID(lNumericIDhigh, lnumericIdLow) End If End Function</pre>	

# Height

This property sets or returns the height of the Field in pixels

Description	Definition
Syntax	Height As Long (read/write)
Example	'copy the positional information to the new object pCopyField.Height = pField.Height

#### InsertLine

This method inserts a line at the given LineIndex in a Field.

Description	Definition		
Syntax	InsertLine (Lir	neIndex As Long)	
Parameter	LineIndex:	Zero-based LineIndex at which position line has to be inserted.	
Example	The following script code should be used when attempting to insert new lines to a field in custom script:		
	'This loop dele	etes the existing line objects in the field:	
	Dim lngLineCour	Dim lngLineCounter As Long	
	For lngLineCour	For lngLineCounter = (pField.LineCount - 1) To 0 Step -1	
	pField.DeleteLi	pField.DeleteLine(lngLineCounter)	
	Next	Next	
	'Then add as ma	'Then add as many lines as required and populate with the required string:	
	pField.InsertLine(0)		
	pField.Line(0)=	pField.Line(0)="Line1"	
	pField.InsertLi	ne(1)	
	pField.Line(1)=	-"Line2"	
	Attempting to u	ase pfield.text="Line1" + VbCrLf & "Line2" will not work.	

### IsIDAlphNum

Sets / returns whether an Associative Search Engine's (ASE) unique ID is alphanumeric. If TRUE, than the field is AlphaNumeric, if FALSE than the field is numeric.

When accessing this attribute from the CdrWorkDoc Object, the property is taken from the ASE configured for the Classification Field.

When accessing this attribute from the CdrField Object, the property is taken directly from the ASE Field for the class.

In some complex project configuration, the following considerations may apply where direct access to Fields is needed to look directly at the ASE Field attribute rather than the workdoc.

- 1) When the project hierarchy has a Parent class where the Classification Field UniqueID is of Type A (eg AlphaNumeric) but the same field on a Child Class if of Type B (eg Numeric). In this instance accessing the workdoc.IsIDAlphNum will always return the Parent setting, thus requiring the scripter to access the Cedar Field property directly.
- 2) When the project has many ASE fields, and the IsIDAlphNum is being retrieved/set.

Description	Definition	
Syntax	IsIDAlphNum As Boolean	
Example	Dim pFieldDef As SCBCdrFieldDef	
	Dim pSettings As SCBCdrSupExSettings	
	Dim bIsAlphNum As Boolean	
	<pre>Set pFieldDef = Project.AllClasses(pWorkdoc.DocClassName).Fields("MyASSA")</pre>	
	Set pSettings = pFieldDef.AnalysisSetting(Project.DefaultLanguage )	
	bIsAlphNum = pSettings.IsIDAlphNum	

#### LastModificationEndDate

This property sets or returns the LastModificationEndDate.

Description	Definition	
Syntax	LastModificationEndDate As Date	

### LastModificationEndDateAsFileTimeUtc

This property sets or returns the LastModificationEndDateAsFileTimeUtc..

Description	Definition
Syntax	LastModificationEndDateAsFileTimeUtcAs Date (read/write)



#### Left

This property sets or returns the left border of the Field in pixels.

Description	Definition
Syntax	Left As Long (read/write)

#### Line

This property sets or returns the text of a single line.

Description	Definition		
Syntax	Line (index As Long) As String (read/write)		
Parameter	Index:	Index of the line must be from 0 to LineCount-1.	

## LineCaption

If a Field has more than one line, it is possible to assign a caption to each line to provide information about the content of the line.

Description	Definition		
Syntax	LineCaption (index As Long) As String (read/write)		
Parameter	Index:	Index of the line, must be from 0 to LineCount-1	

#### LineCount

This property returns the number of lines of a multi-line header field. This equals the number of Worktext objects (In Perceptive Intelligent Capture, each line of a multi-line header field is represented by a separate individual Worktext object).

Description	Definition
Syntax	LineCount As Long (read/write)



#### LineWorktext

This property provides access to the Worktext of each single line of the Field. The line index corresponds to the Worktext object.

Description	Definition	
Syntax	LineWorktext (index As Long) As ISCBCroWorktext (read/write)	
Parameter	Index:	Index of the line, must be from 0 to LineCount-1.

#### MultilineText

This property sets or returns multiline text for all lines at once that are separated with line break chars (same as "vbCrLf" in WinWrap script).

Description	Definition
Syntax	MultilineText As String (read/write)

#### Name

This property returns the name of the Field as it was defined within the design environment.

Description	Definition
Syntax	Name As String (read only)

### **PageNr**

This property sets or returns the DocPage number where the Field is located.

Description	Definition
Syntax	PageNr As Long (read/write)



### PutUniqueEntryId

This method sets the unique ID (64 bit) for the field content from associative search pool.

Description	Definition	
Syntax	PutUniqueEntryId	(IdHigh As Long, IdLow As Long)
Parameters	IdHigh:	[in] Upper part of the 64-bit unique ID.
	IdLow:	[in] Lower part of the 64-bit unique ID.
Example	Dim intNewCandidate As long  Dim lngUniqueID As Long  lngUniqueID =  pWorkdoc.Fields("VendorASSA").Candidate(intNewCandidate).FilterID  pWorkdoc.Fields("VendorASSA").PutUniqueEntryId(0, lngUniqueID)	

### RemoveCandidate

This method removes a Candidate from the Candidate array.

Description	Definition	
Syntax	RemoveCandidate (CandIndex As Long)	
Parameter	CandIndex:	Zero-based Candidate Index.

### SkipTrainingWithEngine

This property identifies whether the specified trainable engine has to skip this field in the training process.

Description	Definition	
Syntax	SkipTrainingWithEngine (bstrEngineName As String) As Boolean (read/write)	
Parameter	bstrEngineName:	Name of the extraction engine.



#### **Table**

This property returns the Table object from an array of Tables of this Field at a specified index.

Description	Definition	
Syntax	Table (index As Long) As ISCBCdrTable (read only)	
Parameter	Index:	Position of a Table in an array of Tables, zero-based indexing.

### **TableCount**

This property returns the number of Tables according to the Field.

Description	Definition
Syntax	TableCount As Long (read only)

## Tag

Use this property to store an arbitrary variant in the Field.

Description	Definition
Syntax	Tag As Variant (read/write)

### **Text**

Use this property to read and write the text of the Field. In case of multi-line Fields, the Text property refers to all lines at once as one single string, combining lines with spaces in between.

Description	Definition
Syntax	Text As String (read/write)

#### Top

This property sets or returns the top border of the Field in pixels.

Description	Definition
Syntax	Top As Long (read/write)



### TrainedWithEngine

This property returns whether this field is trained with the specified engine.

Description	Definition	
Syntax	TrainedWithEngin	ne (bstrEngineName As String) As Boolean (read only)
Parameter	bstrEngineName:	Name of the Engine

#### Valid

This property sets or returns the valid state of the Field.

Description	Definition
Syntax	Valid As Boolean (read/write)

### Width

This property sets or returns the width of the Field in pixels.

Description	Definition	
Syntax	Width As Long (read/write)	

#### Worktext

This property provides access to the Worktext of the Field. In case of multi-line Fields, the Worktext property refers to the first Worktext the header field consists of, which represents the first line of the multi-line header field.

Description	Definition
Syntax	Worktext As ISCBCroWorktext (read/write)



### **SCBCdrCandidate**

## Description

Cedar Candidates are generated during the analysis step and are representing possible results of a Field.

# **Methods and Properties**

#### Attractor

This property returns the attractor of the Candidate by a zero-based index.

Description	Definition	
Syntax	Attractor (index As Long) As ISCBCdrAttractor (read only)	
Parameter	Index:	Specifies the index in the attractor array, must be between 0 and AttractorCount - 1.

### AttractorCount

This property returns the number of attractors for this Candidate.

Description	Definition	
Syntax	AttractorCount As Long (read only)	

## CopyToField

Use this method to copy all required properties from the Candidate to the Field result.

Description	Definition	
Syntax	CopyToField (pField As ISCBCdrField)	
Parameter	pField:	Reference to the Field containing the Candidate. States which field should get the values from the Candidate.



#### **FilterID**

This is the FilterID value as it was specified by the AddCandidate method of the Field

Description	Definition	
Syntax	FilterID As Long (read only)	
Example	Dim intNewCandidate As long Dim lngUniqueID As Long	
	<pre>lngUniqueID = pWorkdoc.Fields("VendorASSA").Candidate(intNewCandidate).FilterID pWorkdoc.Fields("VendorASSA").PutUniqueEntryId(0, lngUniqueID)</pre>	

#### FormatConfidence

This property sets or returns the confidence of the string match algorithm performed by the format search engine that has created the Candidate.

Description	Definition
Syntax	FormatConfidence As Double (read/write)

## Height

This property returns the height of the Candidate in pixels.

Description	Definition
Syntax	Height As Long (read only)

## KeepSpaces

This property specifies if the text created from several Words should keep the spaces between these Words or not.

Description	Definition
Syntax	KeepSpaces As Boolean (read/write)



#### Left

This property returns the left border of the Candidate in pixels.

Description	Definition
Syntax	Left As Long (read only)

#### Line

This property returns the text of a single line. A Candidate can consist of one or more lines.

Description	Definition	
Syntax	Line (index As Long) As String (read only)	
Parameter	Index:	Index of the Line, must be from 0 to LineCount-1.

## LineCaption

If a Candidate has more than one line, it is possible to assign a caption to each line to provide information about the content of the line.

Description	Definition	
Syntax	LineCaption (index As Long) As String (read/write)	
Parameter	Index:	Index of the line, must be from 0 to LineCount – 1

### LineCount

This property returns the number of lines of the Candidate or can be used to set the number of lines of a Field.

Description	Definition
Syntax	LineCount As Long (read/write)



#### LineWordCount

This property returns the number of words of the specified line.

Description	Definition	
Syntax	LineWordCount (index As Long) As Long (read only)	
Parameter	Index:	Index of the line.

### LineWordID

This property returns the Word ID of the specified Line and Word index.

Description	Definition	
Syntax	LineWordID (LineIndex As Long, WordIndex As Long) As Long (read only)	
Parameters	LineIndex: Index of the Line, must be from 0 to LineCount-1.	
	WordIndex:	Index of the Word within the Line.

#### LineWorktext

This property returns the Worktext object of the single line specified by the zero-based index within a multi-line Field.

Description	Definition	
Syntax	LineWorktex	t (index As Long) As ISCBCroWorktext (read/write)
Parameter	Index:	Zero-based index of single line

## **PageNr**

This property returns the DocPage number where the Candidate is located.

Description	Definition	
Syntax	PageNr As Long (read only)	
Example	Private Sub RestoreFieldPosition(pField As SCBCdrField, pCopyField As SCBCdrField)	
	'write the saved fields positional data back to the original field	
	pField.PageNr = pCopyField.PageNr	
	End Sub	



#### RemoveAttractor

This method removes the attractor specified by index.

Description	Definition	
Syntax	RemoveAttractor (AttractorIndex As Long)	
Parameter	AttractorIndex:	Index of attractor to be removed, valid range from 0 to AttractorCount-1.

#### Text

This property returns the text of the Candidate.

Description	Definition
Syntax	Text As String (read only)

### Top

This property returns the top border of the Candidate in pixels.

Description	Definition
Syntax	Top As Long (read only)

### Weight

This property sets or returns the result of the evaluation, which is between 0 and 1.

**Note** The value can be higher than 1 (1 equals 100 %) in case the sum of different single candidate weights resulting from position and environment of the candidate exceeds 100 %. Candidates with more than 100 % will also be accounted for selection.

Description	Definition
Syntax	Weight As Double (read/write)

#### Width

This property returns the width of the Candidate in pixels.

Description	Definition
Syntax	Width As Long (read only)



### WordCount

This property returns the Word count of the Candidate.

Description	Definition
Syntax	WordCount As Long (read only)

#### WordID

This property returns the Word ID of the specified Word index within the first line.

Description	Definition	
Syntax	WordID (index As Long) As Long (read only)	
Parameter	Index:	Zero-based index of the Word within the line.

#### Worktext

This property returns the Worktext object of the first line.

Description	Definition
Syntax	Worktext As ISCBCroWorktext (read only)

## **SCBCdrTable**

# **Descriptions**

The Cedar Table object represents a logical Table in a Document that is assigned to a Cedar Field of a Workdoc.

# Type Definitions

### CDRTableHighlightMode

This lists the enumerations that contains the highlighting mode of a Table.

Available Types	Description
CDRTableHighlightAllCells	Highlight all cells of Table
CDRTableHighlightAllColumns	Highlight all columns of Table
CDRTableHighlightAllColumnsAdvanced	Advanced highlighting mode for both mapped and unmapped columns



Available Types	Description
CDRTableHighlightAllRows	Highlight all rows of Table
CDRTableHighlightCell	Highlight particular cell (as set by HighlightColumnIndex and HighlightRowIndex)
CDRTableHighlightColumn	Highlight column (as set by HighlightColumnIndex)
CDRTableHighlightNothing	Highlight nothing
CDRTableHighlightRow	Highlight row (as set by HighlightRowIndex)
CDRTableHighlightTable	Highlight whole Table

## **CDRLocation**

This table lists the enumerations that contain the location of a row, column, or cell in a Table.

Available Types	Description
CDRLocationBottom	Bottom corner coordinate
CDRLocationLeft	Left corner coordinate
CDRLocationRight	Right corner coordinate
CDRLocationTop	Top corner coordinate

# **Methods and Properties**

## AddColumn

This method adds a new column to a Table. It returns the index of the new column (zero-based).

Description	Definition	
Syntax	AddColumn (ColumnName As String) As Long	
Parameter	ColumnName: [in] Name of column	



#### AddRow

This method adds a new row to a Table. Returns the index of the new row (zero-based).

Description	Definition
Syntax	AddRow() As Long

### AddUMColumn

This method adds a new unmapped column to a Table. Returns the index of the new unmapped column.

Description	Definition	
Syntax	AddUMColumn (pUMColumnIndex As Long)	
Parameter	pUMColumnIndex: The method returns the zero-based index of the new column to this parameter.	

## **AppendRows**

This method appends new rows over the specified range within the document.

Description	Definition	
Syntax	AppendRows (top As Long, height As Long, PageNumber As Long)	
Parameters	Тор:	Top of region used for creation or new rows
	Height:	Height of region used for creation or new rows
	PageNumber:	DocpPage number of region

### CellColor

This property sets or returns the color of the Table cell.

Description	Definition	
Syntax	CellColor (IsValid As Boolean) As OLE_COLOR (read/write)	
Parameter	IsValid:	Flag indicating if color refers to valid or invalid Table cells



## CellLocation

This property sets or returns the location of the Table cell.

Description	Definition	
Syntax	CellLocation (Column As Variant, RowIndex As Long, Location As CDRLocation) As Long (read/write)	
Parameters	Column: Zero-based index or name of column	
	Rowlndex:	Zero-based index of row
	Location:	Location parameter

## CellText

This property sets or returns the text of the Table cell.

Description	Definition	
Syntax	CellText (Column As Variant, RowIndex As Long) As String (read/write)	
Parameters	Column: Zero-based index or name of column	
	RowIndex:	Zero-based index of row

Description	Definition
Example	Private Sub MyTableField_ValidateCell(pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Row As Long, ByVal Column As Long, pValid As Boolean)
	Select Case Column
	Case 0:
	'check date in column 0
	if CheckDate(pTable.CellText(Column, Row)) = FALSE then
	pValid = FALSE
	pTable. CellValidationErrorDescription(Column, Row) = "Invalid date"
	end if
	Case 2:
	'check order number in column 2
	if CheckOrderNumber(pTable.CellText(Column, Row)) = FALSE then
	pValid = FALSE
	pTable. CellValidationErrorDescription(Column, Row) = "Invalid order number"
	end if
	End Select
	End Sub

## CellValid

This property sets or returns the validity flag of the Table cell.

Description	Definition		
Syntax	CellValid (Column As Variant, RowIndex As Long) As Boolean (read/write)		
Parameters	Column:	Column: Zero-based index of name of column	
	RowIndex:	Zero-based index of row	
Example	' Makes table object valid		
	theEmptyTable.CellValid(0,0) = True		
	<pre>theEmptyTable.CellValid(1,0) = True</pre>		

## CellValidationErrorDescription

This property sets or returns the ErrorDescription for the cell validation.

Description	Definition	Definition	
Syntax		CellValidationErrorDescription (Column As Variant, RowIndex As Long) As String (read/write)	
Parameters	Column:	Zero-based index or name of column	
	Rowlndex:	Zero-based index of row	
Example	SCBCdrPROJLib.SC SCBCdrPROJLib.SC	Private Sub MyTableField_ValidateCell(pTable As SCBCdrPROJLib.SCBCdrTable, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Row As Long, ByVal Column As Long, pValid As Boolean)	
	Select Case Col	umn	
	Case 0:		
	'check date in o	column 0	
	if CheckDate(pTa	if CheckDate(pTable.CellText(Column, Row)) = FALSE then	
	pValid = FALSE	pValid = FALSE	
	pTable. CellVal: date"	pTable. CellValidationErrorDescription(Column, Row) = "Invalid date"	
	end if	end if	
	Case 2:		
	'check order nur	mber in column 2	
	if CheckOrderNu	mber(pTable.CellText(Column, Row)) = FALSE then	
	pValid = FALSE		
	pTable. CellVal: order number"	<pre>pTable. CellValidationErrorDescription(Column, Row) = "Invalid order number"</pre>	
	end if		
	End Select		
	End Sub	End Sub	

### CellVisible

This property sets or returns Visible flag of the Table cell (currently not used).

Description	Definition	
Syntax	CellVisible (Column As Variant, RowIndex As Long) As Boolean (read/write)	
Parameters	Column: Zero-based index or name of column	
	RowIndex:	Zero-based index of row

#### CellWorktext

This property sets or returns the Worktext object of the cell.

Description	Definition	
Syntax	CellWorktext (Column As Variant, RowIndex As Long) As ISCBCroWorktext (read/write)	
Parameters	Column: Zero-based index or name of column	
	RowIndex:	Zero-based index of row

## CellWorktextChanged

This property sets or returns a flag that indicates whether the cell Worktext has changed.

Description	Definition	
Syntax	CellWorktextChanged (Column As Variant, RowIndex As Long) As Boolean (read/write)	
Parameters	Column: Zero-based index or name of column	
	RowIndex:	Zero-based index of row

### Clear

This method clears the content of the Table., It removes all columns and all rows and resets all Table attributes.

Description	Definition
Syntax	Clear ()



### ClearColumn

This method clears the content of an existing column.

Description	Definition	
Syntax	ClearColumn (Column As Variant)	
Parameter	Column:	Zero-based index or name of column

## ClearRow

This method clears the content of an existing row.

Description	Definition	
Syntax	ClearRow (RowIndex As Long)	
Parameter	Rowlndex:	Zero-based index of row.

### ClearUMColumn

This method clears the content of an unmapped column.

Description	Definition	
Syntax	ClearUMColumn (UMColumnIndex As Long)	
Parameter	UMColumnIndex:	Zero-based index of unmapped column to be cleared.

### ColumnColor

This property sets or returns the color of the column.

Description	Definition	
Syntax	ColumnColor (IsValid As Boolean) As OLE_COLOR (read/write)	
Parameter	IsValid:	Flag indicating if color refers to valid or invalid columns



#### ColumnCount

This property returns the number of columns.

Description	Definition
Syntax	ColumnCount As Long (read only)

## ColumnExportEnable

This property sets or returns the ExportEnable flag of a column.

Description	Definition	
Syntax	ColumnExportEnable (Column As Variant) As Boolean (read/write)	
Parameter	Column:	Zero-based index or name of column

## ColumnIndex

This property returns the column index for the name of a column.

Description	Definition	
Syntax	ColumnIndex (ColumnName As String) As Long (read only)	
Parameter	ColumnName:	Name of the column

#### ColumnLabelLocation

This property sets or returns the location of a column label (referring to first label line in case of multi-page Tables).

Description	Definition	
Syntax	ColumnLabelLocation (Column As Variant, Location As CDRLocation) As Long (read/write)	
Parameters	Column: Zero-based index or name of column	
	Location:	Location parameter



#### ColumnLabelText

This property sets or returns the column label.

Description	Definition  ColumnLabelText (Column As Variant) As String (read/write)	
Syntax Parameter	Column:	Zero-based index or name of column

## ColumnLocation

This property sets or returns the location of the column.

Description	Definition	
Syntax	ColumnLocation (Column As Variant, PageNr As Long, Location As CDRLocation)As Long (read/write)	
Parameters	Column:	Zero-based index or name of column
	PageNr:	DocPage number
	Location:	Location parameter

## ColumnMapped

This property sets or returns a flag that indicates whether a column has been mapped.

Description	Definition	
Syntax	ColumnMapped (Column As Variant) As Boolean (read/write)	
Parameter	Column:	Zero-based index or name of column

### ColumnName

This property returns the name of a column.

Description	Definition	
Syntax	ColumnName (ColumnIndex As Long) As String (read only)	
Parameter	ColumnIndex:	Zero-based Index of column



#### ColumnValid

This property sets or returns a validity flag for a column. If the flag is set to false, the invalid state of the table field is not changed automatically.

Description	Definition	
Syntax	ColumnValid (Column As Variant) As Boolean (read/write)	
Parameter	Column:	Zero-based index or name of column

#### ColumnVisible

This property sets or returns the visible flag of a column. This method affects the visibility of the column in Verifier.

Description	Definition	
Syntax	ColumnVisible (Column As Variant) As Boolean (read/write)	
Parameter	Column:	Zero-based index or name of column
Example	theTableSettings.ColumnVisible(2) = True 'Set the Column visible to True to show, False to hide.	

#### **DeleteColumn**

This method deletes a column specified by its name or by index.

Description	Definition	
Syntax	DeleteColumn (Column As Variant)	
Parameter	Column:	Zero-based index or name of column

#### **DeleteRow**

This method deletes a row specified by an index.

Description	Definition	
Syntax	DeleteRow (RowIndex As Long)	
Parameter	RowIndex:	Zero-based index of row



#### DeleteUMColumn

This method deletes an unmapped column specified by index.

Description	Definition	
Syntax	DeleteUMColumn (UMColumnIndex As Long)	
Parameter	UMColumnIndex:	Zero-based index of unmapped column to be deleted

### **FieldName**

This property sets or returns the name of the CdrField to which the CdrTable object belongs.

Description	Definition
Syntax	FieldName As String (read/write)

## FillColumn

This method fills the column with Words of specified area. If the Table is empty, each text line is assigned to a Table row. Otherwise the existing row segmentation is used.

Description	Definition	
Syntax	FillColumn (left As Long, top As Long, width As Long, height As Long, PageNumber As Long, Column As Variant)	
Parameters	Left:	Left position of area in pixel
	Тор:	Top of area in pixel
	Width:	Width of area in pixel
	Height:	Height of area in pixel
	PageNumber:	DocPage number of area
	Column:	Zero-based index or name of destination column

#### FooterLocation

This property sets or returns the location of the Table footer.

Description	Definition	
Syntax	FooterLocation (Location As CDRLocation) As Long (read/write)	
Parameter	Location:	Location parameter

## FootPageNr

This property sets or returns the DocPage number of the Table footer.

Description	Definition
Syntax	FooterPageNr As Long (read/write)

## FooterText

This property sets or returns the text of the Table footer.

Description	Definition
Syntax	FooterText As String (read/write)

### HeaderLocation

This property sets or returns the location of the Table header.

Description	Definition	
Syntax	HeaderLocati	on (Location As CDRLocation) As Long (read/write)
Parameter	Location:	Location parameter

### HeaderPageNr

This property sets or returns the DocPage number of the Table header.

Description	Definition	
Syntax	HeaderPageNr As Long (read/write)	



### HeaderText

This property sets or returns the text of the Table header.

Description	Definition
Syntax	HeaderText As String (read/write)

## HighlightColumnIndex

This property sets or returns the index of the column to be highlighted.

Description	Definition
Syntax	HighlightColumnIndex As Long (read/write)

## HighlightMode

This property sets or returns the HighlightMode of Table.

Description	Definition		
Syntax	HighlightMode As CDRTableHighlightMode (read/write)		
	CDRTableHighlightTable	Highlights whole table.	
	CDRTableHighlightAllColumns:	Highlights all columns	
	CDRTableHighlightAllRows:	Highlight all rows	
	CDRTableHighlightAllCells:	Highlights all cells	
	CDRTableHighlightColumn:	Highlights single column, as set by HighlightColumnIndex	
	CDRTableHighlightRow:	Highlights single row, as set by HighlightRowIndex.	
	CDRTableHighlightCell:	Highlights single cell, as set by HighlightColumNindex and HighlightRowIndex.	

## HighlightRowIndex

This property sets or returns the index of the row to be highlighted.

Description	Definition	
Syntax	HighlightRowIndex As Long (read/write)	

## HighlightUMColumnIndex

This property sets or returns the zero-based index of an unmapped column to be highlighted.

Description	Definition
Syntax	HighlightUMColumnIndex As Long (read/write)

### InsertColumn

This method Inserts a new column after specified ColumnIndex.

Description	Definition	
Syntax	InsertColumn (ColumnIndex As Long, ColumnName As String)	
Parameters	ColumnIndex:	Zero-based index of existing column, after which the new column is inserted.
	ColumnName:	Name of new column

### InsertRow

This method inserts a new row after specified Rowlndex.

Description	Definition	
Syntax	InsertRow (RowIndex As Long)	
Parameter	RowIndex:	Zero-based index of existing row, after which thenew row is inserted.



#### InsertUMColumn

This parameter inserts a new, unmapped column.

Description	Definition	
Syntax	InsertUMColumn	(UMColumnIndex As Long)
Parameters	UMColumnIndex:	Zero-based index of new column.

### LabellinePageNr

This property sets or returns the DocPage number of the label line, which is the first occurrence for multipage Tables.

Description	Definition
Syntax	LabellinePageNr As Long (read/write)

# LocationExplicit

This property sets and returns the LocationExplicit flag.

Description	Definition
Syntax	LocationExplicit As Boolean (read/write)

### MapColumn

This maps unmapped column. It transfers the content of an unmapped source column to a specified target column.

Description	Definition	
Syntax	MapColumn (UMColumnIndex As Long, Column As Variant)	
Parameters	UMColumnIndex: Zero-based index of unmapped source column	
	Column:	Zero-based index or name of destination column



## MergeRows

This method merges two rows specified by two indices.

Description	Definition	
Syntax	MergeRows (RowIndex1 As Long, RowIndex2 As Long)	
Parameters	RowIndex1: Zero-based index of row 1	
	RowIndex2:	Zero-based index of row 2

### RemoveAllColumns

This method removes all mapped table columns.

Description	Definition	
Syntax	RemoveAllColumns ()	

### RemoveAllRows

This method removes all table rows.

Description	Definition
Syntax	RemoveAllRows ()

#### RemoveAllUMColumns

This method removes all unmapped table columns.

Description	Definition	
Syntax	RemoveAllUMColumns ()	

### RowColor

This property sets or returns the color of the row.

Description	Definition		
Syntax	RowColor (IsValid As Boolean) As OLE_COLOR (read/write)		
Parameter	IsValid:	Flag indicating if color refers to valid or invalid rows	



### **RowCount**

This property returns the number of the rows.

Description	Definition	
Syntax	RowCount As Long (read only)	

### RowLocation

This property sets or returns the location of the row.

Description	Definition	
Syntax	RowLocation (RowIndex As Long, Location As CDRLocation) As Long (read/write)	
Parameters	Rowlndex: Zero-based index of row	
	Location:	Location parameter

### RowNumber

This property sets or returns the actual number of row.

Description	Definition	
Syntax	RowNumber (RowIndex As Long) As Long (read/write)	
Parameter	Rowlndex:	Zero-based index of row
Example	pWorkdoc As_ SCBC Column As Long, p Dim nCurrentRow,	,

## RowPageNr

This property sets or returns the DocPage number of a row

Description	Definition		
Syntax	RowPageNr (RowIndex As Long) As Long (read/write)		
Parameter	Rowlndex:	Zero-based index of row	

### RowValid

This property sets or returns a validity flag of a row.

Description	Definition	
Syntax	RowValid (RowIndex As Long) As Boolean (read/write)	
Parameter	Rowlndex:	Zero-based index of row

## RowValidationErrorDescription

This property sets or returns an ErrorDescription for a row validation.

Description	Definition		
Syntax	RowValidationErrorDescription (RowIndex As Long) As String (read/write)		
Parameter	RowIndex: Zero-based index of row		

Description	Definition
Example	Private Sub MyTableField_ValidateRow(pTable As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Row As Long, pValid As Boolean)
	'check if quantity * single price = total price
	Dim quantity as long
	Dim s_price as double, t_price as double
	'all cells must already have a valid format
	quantity = CLng(pTable.CellText("Quantity", Row))
	s_price = CLng(pTable.CellText("Single Price", Row))
	t_price = CLng(pTable.CellText("Total Price", Row))
	if quantity*s_price = t_price then
	pValid = TRUE
	else
	pValid = FALSE
	pTable.RowValidationErrorDescription(Row) = "Invalid quantity or amounts"
	end if
	End Sub

# Significance

This property sets or returns the significance for the corresponding evaluation property of the Table.

Description	Definition			
Syntax	Significance (Ev	Significance (EvalPropIndex As Long) As Double (read/write)		
Parameters	EvalPropIndex: Index of evaluation property:			
		1.	percentage of required columns identified	
		2.	percentage of table columns mapped	
		3.	average percentage of elements found in cell, for which element is required	
		4.	Average no-overlap to neighboring cells (column view)	
		5.	Average no-overlap to neighboring cells (row view)	

## **SwapColumns**

This method swaps two specified columns.

Description	Definition	
Syntax	SwapColumns (ColumnIndex1 As Long, ColumnIndex2 As Long)	
Parameters	ColumnIndex1: Zero-based index of column 1	
	ColumnIndex2:	Zero-based index of column 2

### **TableColor**

This property sets or returns the color of the Table.

Description	Definition	
Syntax	TableColor (IsVal	id As Boolean) As OLE_COLOR (read/write)
Parameter	IsValid:	Flag indicating if color refers to a valid or an invalid Table.

## TableFirstPage

This property sets or returns the DocPage number of the beginning of a Table (must be set after creation of a Table, but cannot change afterwards).

Description	Definition
Syntax	TableFirstPage As Long (read/write)

## TableLastPage

This property sets or returns the DocPage number of the end of a Table (must be set after creation of a Table, and after assigning the first DocPage, but must not change afterwards).

Description	Definition
Syntax	TableLastPage As Long (read/write)



## **TableLocation**

This property sets or returns the location of a Table.

Description	Definition	
Syntax	TableLocation (Pa	geNr As Long, Location As CDRLocation) As Long
Parameters	PageNr: DocPage number	
	Location:	Location parameter

## **TableValid**

This property sets or returns a validity flag of the Table.

Description	Definition
Syntax	TableValid As Boolean (read/write)

## TableValidationErrorDescription

This property sets or returns an ErrorDescription for the Table validation.

Description	Definition	
Syntax	TableValidationErrorDescription As String (read/write)	
Example	Private Sub MyTableField_ValidateTable (pTable As SCBCdrPROJLib.SCBCdrWorkdoc, pValid As Boolean)	
	'calculate the sum of all amounts and compare with the net amount fields	
	Dim tablesum as double, netamount as double	
	Dim cellamount as double	
	Dim row as long	
	For row = 0 to pTabler.RowCount-1	
	<pre>cellamount = CLng(pTable.CellText("Total Price", Row))</pre>	
	tablesum = tablesum + cellamount	
	Next row	
	'now compare sum with the content of the net amount field	
	netamount = CDbl(pWorkdoc.Fields("NetAmount").Text	
	if netamount = tablesum then	
	pValid = TRUE	
	else	
	pValid = FALSE	
	pTable.TableValidationErrorDescription	
	= "Sum of table amounts and field net amount are different"	
	end if	
	End Sub	

## Tag

This property sets and returns a tag associated with the Table.

Description	Definition
Syntax	Tag As String (read/write)

## **TotalSignificance**

This property sets and returns the total significance of the Table.



Description	Definition
Syntax	TotalSignificance As Double (read/write)

### **UMCellColor**

This property sets or returns a color of an unmapped Table cell.

Description	Definition
Syntax	UMCellColor As OLE_COLOR (read/write)

### **UMCellLocation**

This property sets or returns the location of an unmapped Table cell.

Description	Definition	
Syntax	UMCellLocation (UMColumnIndex As Long, RowIndex As Long, Location As CDRLocation) As Long (read/write)	
Parameters	UMColumnIndex: Zero-based index of unmapped column	
	Rowlndex:	Zero-based index of unmapped row
	Location:	Location parameter

## **UMCellText**

This property sets or returns the text of an unmapped Table cell.

Description	Definition	
Syntax	UMCellText (UMColumnIndex As Long, RowIndex As Long) As String (read/write)	
Parameters	UMColumnIndex: Zero-based index of unmapped column	
	Rowlndex:	Zero-based index of row



### **UMCellVisible**

This property sets or returns a Visible flag of an unmapped Table cell.

Description	Definition	
Syntax	UMCellVisible (UMColumnIndex As Long, RowIndex As Long) As Boolean (read/write)	
Parameters	UMColumnIndex: Zero-based index of unmapped column	
	RowIndex:	Zero-based index of row

### **UMCellWorktext**

This property sets or returns the Worktext Object of an unmapped cell.

Description	Definition	
Syntax	UMCellWorktext (UMColumnIndex As Long, RowIndex As Long) As ISCBCroWorktext (read/write)	
Parameters	UMColumnIndex: Zero-based index of unmapped column	
	Rowlndex:	Zero-based index of row

### **UMColumnColor**

This property sets or returns the color of an unmapped column.

Description	Definition
Syntax	UMColumnColor As OLE_COLOR (read/write)

### **UMColumnCount**

This property returns the number of unmapped columns.

Description	Definition
Syntax	UMColumnCount As Long (read only)



#### **UMColumnLabelLocation**

This property sets or returns the location of an unmapped column label.

Description	Definition	
Syntax	UMColumnLabelLocation (UMColumnIndex As Long, Location As CDRLocation) As Long (read/write)	
Parameters	UMColumnIndex: Zero-based index of unmapped column	
	Location:	Location parameter

#### **UMColumnLabelText**

This property sets or returns the text of a label of an unmapped column.

Description	Definition	
Syntax	UMColumnLabelText	(UMColumnIndex As Long) As String (read/write)
Parameter	UMColumnIndex:	Zero-based index of unmapped column

### **UMColumnLocation**

This property sets or returns the location of an unmapped column.

Description	Definition	
Syntax	UMColumnLocation (UMColumnIndex As Long, PageNr As Long, Location As CDRLocation) As Long (read/write)	
Parameters UMColumnIndex: Zero-based index of unmappe		Zero-based index of unmapped column
	PageNr:	DocPage number
	Location:	Location parameter

### **UMColumnVisible**

This property sets or returns a Visible flag of an unmapped column(currently not used).

Description	Definition	
Syntax	UMColumnVisible (	UMColumnIndex As Long) As Boolean (read/write)
Parameter	UMColumnIndex:	Zero-based index of unmapped column



## UnMapColumn

This method unmaps a column. Ittransfer content from a specified source column to a new, unmapped column.

Description	Definition	
Syntax	UnMapColumn (Column As Variant) As Long	
Parameter	Column:	Zero-based index or name of source column

## WeightingFactor

This property sets or returns a Weighting Factor for a corresponding evaluation property.

Description	Definition		
Syntax	WeightingFactor (EvalPropIndex As Long) As Double (read/write)		
Parameters	EvalPropIndex: Index of evaluation property:		
		1.	percentage of required columns identified
		2.	percentage of table columns mapped
		3.	average percentage of elements found in cell, for which element is required
		4.	Average no-overlap to neighboring cells (column view)
		5.	Average no-overlap to neighboring cells (row view)

## **SCBCdrTextblock**

## Description

This object represents a TextBlock on a Document. A TextBlock may contain one or more lines.

## Methods and properties

#### Color

This property sets or returns the color that is used for TextBlock highlighting.

Description	Definition
Syntax	Color As OLE_COLOR (read/write)



## Height

This property returns the height of the TextBlock in pixels.

Description	Definition
Syntax	Height As Long (read only)

#### Left

This property returns the left border of the TextBlock in pixels

Description	Definition
Syntax	Left As Long (read only)

## **PageNr**

This property returns the number of the DocPage where the TextBlock is located.

Description	Definition
Syntax	PageNr As Long (read only)

#### **Text**

This property returns the whole text of the TextBlock.

Description	Definition
Syntax	Text As String (read only)

### Top

This property returns the top border of the TextBlock in pixels.

Description	Definition
Syntax	Top As Long (read only)

#### Visible

This property controls whether the highlighted rectangle of the TextBlock should be visible if the TextBlock highlighting is enabled.



Description	Definition
Syntax	Visible As Boolean (read/write)

## Weight

This property returns the block weight.

Description	Definition
Syntax	Weight As Double (read only)

### Width

This property returns the width of the TextBlock in pixels.

Description	Definition
Syntax	Width As Long (read only)

#### WordCount

This property returns the number of Words that belong to the TextBlock.

Description	Definition
Syntax	WordCount As Long (read only)

### WordID

Use this property as an index for the Word array of the Workdoc.

Description	Definition	
Syntax	WordID (index	As Long) As Long (read only)
Parameter	Index:	Index of Word inside the TextBlock. Must be between 0 and WordCount - 1



### **SCBCdrWord**

## **Description**

This object represents a textual Word of a Document.

# **Methods and Properties**

#### Color

This property sets or returns the color that is used for highlighting checked Words.

Description	Definition
Syntax	Color As OLE_COLOR (read/write)

#### Height

This property returns the height of the Word in pixels.

Description	Definition
Syntax	Height As Long (read only)

#### Left

This property returns the left border of the Word in pixels.

Description	Definition
Syntax	Left As Long (read only)

## PageNr

This property returns the number of the DocPage where the Word is located.

Description	Definition
Syntax	PageNr As Long (read only)

#### **StartPos**

This property returns the index of the first character of the Word inside the Worktext that is attached to the Workdoc.

Description	Definition
Syntax	StartPos As Long (read only)



#### **Text**

This property returns the text of the Word.

Description	Definition
Syntax	Text As String (read only)

#### **TextLen**

This property returns the number of characters of the Word.

Description	Definition
Syntax	TextLen As Long (read only)

## **Tooltip**

This property sets or returns a tooltip string that displays in the checked Words highlight mode.

Description	Definition
Syntax	Tooltip As String (read/write)

### Top

This property returns the top border of the Word in pixels.

Description	Definition
Syntax	Top As Long (read only)

### Visible

If the Word highlighting for checked Words is enabled, this property sets or returns if the highlighted rectangle of the Word should be visible.

Description	Definition
Syntax	Visible As Boolean (read/write)



#### Width

This property returns the width of the Word in pixels.

Description	Definition
Syntax	Width As Long (read only)

#### Worktext

This property returns the Worktext object of the Word.

Description	Definition
Syntax	Worktext As ISCBCroWorktext (read only)

# SCBCdrDocPage

### Description

An object that represents a single DocPage within a Workdoc.

### **Type Definitions**

### **CDRPageSource**

The following table shows the enumeration that contains the Page source.

Available Types	Descriptions
CDRPageSourceFrontPage	Front Page assigned to Workdoc
CDRPageSourceRearPage	Rear Page assigned to Workdoc
CDRPageSourceUnknown	Assigned Page to Workdoc is not known

#### CroLinesDir

This table shows the enumeration that specifies the direction of a line.

Available Types	Descriptions
CroLinesDir_Horizontal	Horizontal line
CroLinesDir_Vertical	Vertical line



### CroLinesKooType

This table shows the enumations that specifies coordinate types for a line.

Available Types	Descriptions
CroLinesKoorType_Angle	Angle of line
CroLinesKoorType_FirstPX	Starting abscissa of line
CroLinesKoorType_FirstPY	Starting ordinate of line
CroLinesKoorType_Length	Length of line
CroLinesKoorType_SecondPX	Ending abscissa of line
CroLinesKoorType_SecondPY	Ending ordinate of line
CroLinesKoorType_Thick	Thickness of line

# **Methods and Properties**

### DisplayImage

This property specifies the indexx of the image, which is displayed if the DocPage is visible inside the Viewer.

Description	Definition
Syntax	DisplayImage As Long (read/write)

#### **DocIndex**

This property specifies the index of the document inside the Workdoc to which this DocPage belongs.

Description	Definition	
Syntax	DocIndex (ImageIndex As Long) As Long (read only)	
Parameters	ImageIndex:	ImageIndex of the DocPage. Valid indices are 0 to ImageCount-1.

For additional information, refer to  ${\tt DocFileName}$  and  ${\tt DocFileType}$  properties of the SCBCdrWordoc object.



### **DocPageIndex**

This property specifies the DocPage offset inside the document where this DocPage belongs.

Description	Definition	
Syntax	DocPageIndex (ImageIndex As Long) As Long (read only)	
Parameters	lmageIndex:	Index of the Image of the DocPage. Valid indexes are 0 to ImageCount-1.

#### GetResolution

This method returns the resolution of the specified Image in pixels.

Description	Definition	
Syntax	GetResolution Long)	(ImageIndex As Long, pXRes As Long, pYRes As
Parameters	ImageIndex:	[in] Index of the Image of the DocPage. Valid indices are 0 to ImageCount-1.
	pXRes:	[out] Will contain the x resolution after execution of the method.
	pYRes:	[out] Will contain the y resolution after execution of the method.

### Height

This property returns the height of the DocPage in millimeter.

Description	Definition
Syntax	Height As Double (read only)



### **Image**

This property returns an Image object for the specified index of the DocPage.

Description	Definition	
Syntax	Image (index As Long) As ISCBCroImage (read only)	
Parameters	Index:	Index of the Image of the DocPage. Valid indices are 0 to ImageCount-1.

#### **ImageCount**

This property returns the number of images available for the DocPage.

Description	Definition
Syntax	ImageCount As Long (read only)

#### Line

This property returns some specific property of a line, of some specific index, direction and coordinate type.

Description	Definition	
Syntax	Line (LineIndex As Long, LineDir As CroLinesDir, KooType As CroLinesKooType) As Long (read only)	
Parameters	LineIndex:	Zero-based index of the Line.
	LineDir:	Direction of Line (Horizontal or Vertical).
	КооТуре:	Information of a Line (starting X, starting Y, End X, End Y, and so on)

#### LinesCount

This property returns the number of horizontal or vertical Lines present in a document.

Description	Definition	
Syntax	LinesCount (Li	nesDir As CroLinesDir) As Long (read only)
Parameters	LinesDir:	Direction of Line (Horizontal or Vertical).



### OriginalDocumentFileName

This property allows the Scripter to access the page property to examine the original file name for the image. This is useful for the Scripter when attempting to track original file names for pages when a document is split or merged through the Verifier, Web Verifier or through the Page Separation engine.

Description	Definition
Syntax	pWorkdoc.Pages(0).OriginalDocumentFileName
Example	Private Sub CreateCollectionofPageOrgFileName(pWorkdoc As SCBCdrPROJLib.ISCBCdrWorkdoc)
	Dim WdcPageCount As Long ' Total Number of pages associated to the WorkDoc
	Dim CurPage As Long ' Current Page Number
	Dim OrgFilename As String ' Original File Name of the selected page
	Dim OrgFilenames() As String ' Array of Original File Name of all Pages of the WorkDocument
	WdcPageCount = pWorkdoc.PageCount
	ReDim OrgFilenames(WdcPageCount)
	For CurPage=0 To WdcPageCount-1
	OrgFilenames(CurPage) = pWorkdoc.Pages(CurPage).OriginalDocumentFileName
	Next CurPage
	' Write the original file name of all pages to log.
	For CurPage=0 To WdcPageCount-1
	OrgFilename = OrgFilenames(CurPage)
	Project.LogScriptMessageEx CDRTypeInfo, CDRSeverityLogFileOnly, "Original File Name of Page: "& CStr(CurPage+1) & "is ["& OrgFilename & "]"
	Next CurPage
	End Sub



### **PageSource**

This property sets or returns a source of a DocPage. At the time of scanning, a DocPage can be directly assigned to Workdoc.

Description	Definition
Syntax	PageSource As CDRPageSource (read/write)
Example	

#### Rotate

This method rotates the underlying Images by the specified angle.

Description	Definition	
Syntax	Rotate (angle As Double)	
Parameter	Angle:	Specifies the rotation angle in a range of -180.0 to +180.0.

#### Rotation

This property returns the rotation angle as it was applied by the Rotate method.

Description	Definition
Syntax	Rotation As Double (read only)

#### **Text**

This property returns the text of the DocPage if OCR was already executed.

Description	Definition
Syntax	Text As String (read only)



#### Width

This property returns the width of the DocPage in millimeters.

Description	Definition	
Syntax	Width As Double (read only)	

#### **SCBCdrFolder**

### **Description**

A Folder may represent an array of Workdocs within a Batch. A Folder may contain one or more Workdocs. During classification and extraction it is possible to access all Workdocs of the same Folder from script.

### **Methods and Properties**

#### AddDocument

This method adds a Workdoc into a Folder at the last position and also returns the position where the Workdoc is appended.

Description	Definition	
Syntax	AddDocument (r	pWorkdoc As ISCBCdrWorkdoc, pNewIndex As Long)
Parameters	pWorkdoc:	[in] Added Workdoc Object
	pNewIndex:	[out] Index position in a Folder where Workdoc is inserted

#### Clear

This method frees all the allocated memory by Folder.

Description	Definition
Syntax	Clear ()



#### **Document**

This property returns a Workdoc from the specified index of the document array of the Folder.

Description	Definition	
Syntax	Document (Index As Long) As ISCBCdrWorkdoc (read only)	
Parameter	Index:	The index of the Workdoc within the Folder. Must be from 0 to DocumentCount-1.

#### **DocumentCount**

This property returns the number of Workdocs within the Folder.

Description	Definition
Syntax	DocumentCount As Long (read only)

#### FolderData

This property provides the possibility to store and load a variable number of strings using any string as an index key.

Description	Definition	
Syntax	FolderData (Index As String) As String (read/write)	
Parameter	Index:	Any non-empty string that is used as an index key



Description	Definition
Example	'writing FolderData
	pWorkdoc.Folder.FolderData("NumberFound") = "1"
	<pre>pWorkdoc.Folder.FolderData("Number") = pWorkdoc.Field("Number")</pre>
	'reading FolderData
	if pWorkdoc.Folder.FolderData("NumberFound") = "1" then
	if len(pWorkdoc.Field("Number")) > 0 then
	'takeover the result from the other workdoc
	<pre>pWorkdoc.Field("Number") = pWorkdoc.Folder.FolderData("Number")</pre>
	else
	'compare results
	<pre>if pWorkdoc.Field("Number") = pWorkdoc.Folder.FolderData("Number") then</pre>
	'found the same number again
	else
	'found a different number on this document
	end if
	end if
	end if

#### InsertDocument

This method inserts a Workdoc into a Folder at some given position.

Description	Definition	
Syntax	InsertDocument (Index As Long, pWorkdoc As ISCBCdrWorkdoc)	
Parameters	Index: Index at which Workdoc is to be inserted, zero-based indexing	
	pWorkdoc:	Workdoc object

#### MoveDocument

Use this method to move a Workdoc from one position to another position in a Folder.

Description	Definition
Syntax	MoveDocument (FromIndex As Long, ToIndex As Long)



Description	Definition	
Parameters	FromIndex:	Zero-based Index from where Workdoc is moved
	ToIndex:	Zero-based index where Workdoc is to be placed

#### RemoveDocument

This method removes a Workdoc from a given index from a Folder.

Description	Definition	
Syntax	RemoveDocument (index As Long)	
Parameter	Index:	Zero-based index in a Folder from where Workdoc is to be removed

# Cedar Project Object Reference (SCBCdrPROJLib)

### **Description**

The Cedar Project object represents a complete Project definition including all Document Classes, Field Definitions, and used classification and extraction methods.

# Type Definitions

### **CDRClassifyMode**

This type defines the algorithms for how the results of several classification engines can be combined.

Available Types	Description
CDRClassifyAverage	Average is computed
CDRClassifyMax	Maximum is computed
CDRClassifyWeightedDistance	For each cell of classification matrix difference between maximum of column and classification weight is calculated

### CDRDatabaseWorkflowTypes

The Workflow Type of the batch. These are standard Perceptive Intelligent Capture workflow settings for batches.

This type of interface is a member of the Cedar project library.



Available Types	Description
CDRAutoTrainingFailed	Automatic document training failed
CDRAutoTrainingSucceeded	Automatic document training succeeded
CDRClassificationFailed	Automatic document classification failed
CDRClassificationSucceeded	Automatic document classification succeeded
CDRCleanupFailed	Automatic document cleanup failed
CDRCleanupSucceeded	Automatic document cleanup succeeded
CDRDocumentSeparationFailed	Automatic document separation failed
CDRDocumentSeparationSucceeded	Automatic document separation succeeded
CDREmailImportFailed	Automatic document import from exchange server failed
CDREmailImportSucceeded	Automatic document import from exchange server succeeded
CDRExportFailed	Automatic document export failed
CDRExportSucceeded	Automatic document export succeeded
CDRExtractionFailed	Automatic document extraction failed
CDRExtractionSucceeded	Automatic document extraction succeeded
CDRFileSystemExportFailed	Runtime Server based DB import from file system batches failed
CDRFileSystemExportSucceeded	Runtime Server based DB import from file system batches succeeded
CDRImportFailed	Automatic document import failed
CDRImportSucceeded	Automatic document import succeeded
CDRManualClassificationIncomplete	Manual document classification was not completed
CDRManualClassificationSucceeded	Manual document classification succeeded
CDRManualDocumentSeparationIncomplete	Manual document separation failed
CDRManualDocumentSeparationSucceeded	Manual document separation succeeded



Available Types	Description
CDRManualFinalValidationFullyIncomplete	Manual final document validation was not completed
CDRManualFinalValidationSucceeded	Manual final document validation succeeded
CDRManualTrainingFailed	Manual document training failed
CDRManualTrainingSucceeded	Manual document training succeeded
CDRModifiedByDesignerApplication	The document was saved via Designer application without changing its workflow status
CDRModifiedByVerifierApplication	The document was saved via Verifier application without changing its workflow status
CDROCRFailed	Automatic document OCR failed
CDROCRSucceeded	Automatic document OCR succeeded
CDRPartialManualValidationIncomplete	Partial manual document validation was not completed
CDRPartialManualValidationSucceeded	Partial manual document validation succeeded
CDRReserved	Reserved for system use
CDRReset	Intial state of document
CDRScanningFailed	Images scanning failed
CDRScanningSucceeded	Images scanning succeeded

### CdrSLWDifferentResultsAction

When the Template and Associative Search engines determine different results during classification, there are different options how the program should continue the processing.

Available Types	Description
CdrDoNothing	Let Verifier user decide to skip special processing altogether.
CdrDoSmartDecision	Make a smart decision, for example, the machine makes the decision for the classification.
	<b>Note</b> The system determines which one is the right DocClass based on an algorithm that compares the results of the associative search and the template calssification. You can select this feature from the Supervised Learning tab in the Designer application.



Available Types	Description
CdrUseDocumentClassName	Automatically assign current document class name to the supplier field content.
CdrUseSupplierField	Automatically assign supplier field content to the document class name.



#### CdrForceValidationMode

This table defines the options for Force Validation.

Available Types	Description
CdrForceValDefault	CdrForceValidationModeDefault: ForceValidationMode inherited
CdrForceValForbidden	CdrForceValidationModeForbidden: ForceValidation (3*return) not allowed
CdrForceValPermitted	CdrForceValidationModePermitted: ForceValidation (3*return) allowed

#### CdrLicenseCounter

This table lists the data type definitions for all available license counters to be interrogated in script.

Available Types	Description
TLCFineReaderRemainingUnits	Remaining page units available to be processed by the FineReader licensing scheme.
TLCPeriodDocumentsClassified	Documents classified within the licensing period.
TLCPeriodDocumentsExported	Documents exported within the licensing period.
TLCPeriodDocumentsExtracted	Documents extracted within the licensing period.
TLCPeriodDocumentsOCRed	Documents OCRed within the licensing period.
TLCPeriodDocumentsProcessed	Docuemnts processed within the licensing period.
TLCPeriodDocumentsValidatedVerifier	Documents validated in Verifier within the licensing period.
TLCPeriodPagesImported	Pages imported within the licensing period.
TLCPeriodPagesOCRed	Pages OCRed within the licensing period.
TLCPeriodPagesProcessed	Pages Processed within the licensing period.
TLCTotalDocumentsClassified	Total Overall Classified documents.
TLCTotalDocumentsExported	Total Overall Exported documents.
TLCTotalDocumentsExtracted	Total Overall Extracted documents.
TLCTotalDocumentsOCRed	Total Overall OCRed documents.



Available Types	Description
TLCTotalDocumentsProcessed	TotalOverall Processed documents.
TLCTotalDocumentsValidatedVerifier	Total Overall documents validated in verifier.
TLCTotalPagesImported	Total Overall Pages Imported documents.
TLCTotalPagsOCRed	Total Overall Pages Processed documents.
TLCTotalPagesProcessed	Total Overall Pages Processed documents.

#### CdrLicenseFeatureName

These are the data type definitions for all available license features to be interrogated in script.

Each data type item below is represented in the license file and may appear. If the item appears in the license file, that means the feature is licensed and available for usage.

Available Types	Description
CDRLfnA2iACheckReader	The A2iA Check Reader License Feature.
CDRLfnA2iAFieldReaderCustom	The A2iA Field Reader custom License Feature.
CDRLfnA2iAFieldReaderSingleField	The A2iA Field Reader Single Field License Feature.
CDRLfnAddressAnalysisEngine	The Address Analysis Engine License Feature.
CDRLfnAddressAnalysisEngine2	The Address Analysis2 Engine License Feature.
CDRLfnASSAClassifyEngine	The ASSA Classification Engine License Feature.
CDRLfnAssociativeSearchEngine	The Associative Search Engine Field License Feature.
CDRLfnAutomaticLearningProcessing	The Automatic Learning Processing License Feature.
CDRLfnAutomaticLearningSupervising	The Learnset Manager License Feature.
CDRLfnBrainwareClassifyEngine	The Brainware Classifier License Feature.
CDRLfnBrainwareExtraction	The Brainware Extraction evaluation engine License Feature.
CDRLfnBrainwareFieldExtraction	The Brainware Field Extraction License Feature.
CDRLfnBrainwareLayoutClassification	The Brainware Layout Classifier engine License Feature.
CDRLfnBrainwareTableExtraction	The Brainware Table Extraction engine License Feature.
CDRLfnCairoImage	The Cairo Image License Feature.



Available Types	Description
CDRLfnCairoOMR	The Cairo OMR License Feature.
CDRLfnCaptureService	The Capture Service License Feature.
CDRLfnCleqsBarcode	The Cleqs Barcode OCR License Feature.
CDRLfnCloseLicensingPeriodBySlaveServer	Close Licensing Period by Slave Server
CDRLfnConcurrentVerifierSessionCount	The Web Verifier session count License Feature.
CDRLfnCustomer	The customer name License Feature.
CDRLfnCustomerID	The customer ID License Feature.
CDRLfnDesignerDesignLicense	The Designer application module License Feature.
CDRLfnDisableUpdateForVerifier	The ability to disable an update for verifier License Feature.
CDRLfnEMailsImporting	The EMail Importing License Feature.
CDRLfnFineReader	The FineReader4 License Feature.
CDRLfnFineReader5	The FineReader5 License Feature.
CDRLfnFineReader7	The FineReader7 License Feature.
CDRLfnFineReader8	The FineReader8 License Feature.
CDRLfnFirmwareHDSerialNumber	The Hard Disk Serial Number License Feature.
CDRLfnFormatAnalysisEngine	The Format Analysis engine License Feature.
CDRLfnFormsClassifyEngine	The Forms Classifier engine License Feature.
CDRLfnHardwareBindingEnabled	The HW binding enabled License Feature.
CDRLfnImageSizeClassification	The Image Size classifier engine License Feature.
CDRLfnlMailBasicComponents	The Imail components License Feature.
CDRLfnlSIS	The ISIS driver License Feature.
CDRLfnKadmos	The Kadmos OCR License Feature.
CDRLfnKadmos4	The Kadmos4 OCR License Feature.
CDRLfnKofax	The Kofax driver License Feature.
CDRLfnLanguageClassifyEngine	The Language Classifier Engine License Feature.



Available Types	Description
CDRLfnLicenseCountingByReprocessing	The License Counting when reprocessing documents License Feature.
CDRLfnLicenseExpirationDate	The License expiration date License Feature.
CDRLfnLicenseVersion	The License version License Feature.
CDRLfnLicensingPeriodInDays	The License period in days License Feature.
CDRLfnMasterLicenseHexID	The License HexID License Feature.
CDRLfnNonImageDocumentsProcessing	The electronic document processing License Feature.
CDRLfnNonImageDocumentsProcessing	The electronic document processing License Feature.
CDRLfnOverallVerifierSessionCount	The overall verifier session count License Feature.
CDRLfnPeriodDocumentsClassified	The documents classified count License Feature.
CDRLfnPeriodDocumentsExported	The documents exported count License Feature.
CDRLfnPeriodDocumentsExtracted	The documents extracted count License Feature.
CDRLfnPeriodDocumentsOCRed The documents OCRed count License Feature.	
CDRLfnPeriodDocumentsProcessed	The documents Processed count License Feature.
CDRLfnPeriodDocumentsValidatedVerifier	The documents validated in verifier License Feature.
CDRLfnPeriodPagesImported	The Pages imported License Feature.
CDRLfnPeriodPagesOCRed	The Pages OCRed License Feature.
CDRLfnPeriodPagesProcessed	The Pages Processed License Feature.
CDRLfnPhraseClassifyEngine	The Phrase Classifier engine License Feature.
CDRLfnPrimaryDongleID	The Primary Dongle ID License Feature.
CDRLfnProcessedDocumentsPerDay	The Processed Documents Per Day License Feature.
CDRLfnQualitySoftBarcode	The QualitySoft Barcode OCR engine License Feature.
CDRLfnQualitySoftBarcodeDM	The QualitySoft Barcode DM OCR engine License Feature.
CDRLfnQualitySoftBarcodePDF417	The QualitySoft Barcode PDF OCR engine License Feature.
CDRLfnRecognita	The Recognita OCR engine License Feature.
CDRLfnRecognitaBarcode	The Recognita Barcode OCR engine License Feature.



Available Types	Description
CDRLfnRecoStar	The RecoStar OCR engine License Feature.
CDRLfnSecondaryDongleID	The Secondary Dongle ID License Feature.
CDRLfnSecondaryHDSerialNumber	The Secondary Hard Disk Serial Number License Feature.
CDRLfnSecondaryMACAddress	The Secondary MAC Address License Feature.
CDRLfnSelfLearningManager	The Learnset Manager Module License Feature.
CDRLfnSERSCSI	The SCSI Driver License Feature.
CDRLfnServer	The RTS Server Module License Feature.
CDRLfnServerCount	The RTS Server count License Feature.
CDRLfnSupplierExtraction	The supplier extraction License Feature.
CDRLfnSVRS	The SVRS driver License Feature.
CDRLfnTableAnalysisEngine	The Table Analysis engine License Feature.
CDRLfnTemplateClassifyEngine	The Template Classifier engine License Feature.
CDRLfnTWAIN	The Twain Driver License Feature.
CDRLfnVerifier	The Verifier application module License Feature.
CDRLfnVerifierCount	The Verifier application count License Feature.
CDRLfnZoneAnalysisEngine	The Zone Analysis engine License Feature.

### CdrMessageType

This type defines the different message types.

Available Types	Description
CDRTypeInfo	An informational message.
CDRTypeWarning	A warning message.
CDRTypeError	An error message.

### CdrMessageSeverity

This type defines the different message severities.



Available Types	Description
CDRSeverityLogFileOnly	Store the message to the application log file only.
CDRSeveritySystemMonitoring	Store the message in the log file and forward it to the host instance's MMC console and to the System Monitoring service of the Runtime Server. This option is applicable when the call is executed from within the Runtime Server application only.
CDRSeverityEmailNotification	Store the message in the log file and forward it to the MMC console / System Monitoring view and send as an e-mail to the system administrators via System Monitoring service of Runtime Server. This option is applicable when the call is executed from within the Runtime Server application only.

# **Methods and Properties**

### ActivateLicensing

This method is used as a call to enable license activation in the custom script. The call is used as a prerequisite prior to retrieving information for the licensing utilization. By calling activate licensing, the script creates a connection to the active license being utilized.

Description	Definition		
Syntax	ActivateLicensin	ActivateLicensing (ModuleName as text, LicensePath as text)	
Parameters	ModuleName:	A text that represents the application activating licensing. Any value may be entered here.	
	LicensePath:	A text that contains the location of the license share file that will be queried.	
		The licensePath must be accessible from the location of the script execution.	
		The license path must point to the Runtime.lic file explicitly.	



Description	Definition
Example	Code to retrieve licensing utilization information for active licensing counters.  'the Project represents the project library object.  Dim theProject As New SCBCdrPROJLib.SCBCdrProject
	'The location of the shared license file that is being updated.  Dim LicenseShareLocation As String  LicenseShareLocation="\\MasterRTS\License\Runtime.lic"
	'Activate licensing within the code for project. This enables you to reference the license in the next command.  theProject.ActivateLicensing("CustomEXE", LicenseShareLocation)  'Call the License Reporting function, this has several options available  theProject ReportLicensingStatus(True
	theProject.ReportLicensingStatus(True, SCBCdrPROJLib.CDRMessageSeverity.CDRSeverityLogFileOnly)

For additional information refer to the ReportLicensingStatus, GetLicenseValueByName, and GetLicenseValueByID methods.

#### **AllClasses**

This property returns a Collection of all defined DocClasses of this Project.

Description	Definition
Syntax	AllClasses As ISCBCdrDocClasses (read only)

For more information, refer to the <u>ISCBCdrDocClasses</u> and <u>ISCBCdrDocClass</u>.

#### **BaseClasses**

This property returns a Collection that contains all defined BaseDocClasses.

Description	Definition
Syntax	BaseClasses As ISCBCdrDocClasses (read only)

For more information, refer to the <u>ISCBCdrDocClasses</u> and <u>ISCBCdrDocClass</u>.



#### ClassificationMode

This property returns the used classification mode.

Description	Definition	
Syntax	ClassificationMode As CDRClassifyMode (read/write)	

### DefaultClassifyResult

This property returns the default DocClass name to which a document is redirected if no other DocClass fits.

Description	Definition	
Syntax	DefaultClassifyResult As String (read/write)	

### DefaultLanguage

This property returns the language used as default.

Descriptio n	Definition
Syntax	DefaultLanguage As String (read only)
Example	Private Sub Document_FocusChanged(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Reason As SCBCdrPROJLib.CdrFocusChangeReason, ByVal OldFieldIndex As Long, pNewFieldIndex As Long)
	'Set the table column to be invisible, check that the verifier form hasn't been loaded yet.
	If Reason=CdrBeforeFormLoaded Then
	'The Table Setting to use to set table properties.
	Dim theTableSettings As SCBCdrBrainwareTableEngineLib.SCBCdrTableSettings
	Dim theAnalysisSettings As Object
	Project.AllClasses.ItemByName("Invoices").GetFieldAnalysisSettings("Table", Project.DefaultLanguage, theAnalysisSettings) 'Get the table settings for the TABLE field.
	Set theTableSettings = theAnalysisSettings
	theTableSettings.ColumnVisible(2) = True 'Set the Column visible to True to show, False to hide.
	End If
	End Sub



#### **Filename**

This property returns the file name of the Project including the directory path.

Description	Definition
Syntax	Filename As String (read only)

#### **ForceValidation**

If ForceValidation is set to 'permitted' then the user can overrule the validation by pressing three times on the Return key. If it is set to 'forbidden' then the user cannot change the content of the field disregarding the validation rules.

Description	Definition
Syntax	ForceValidation As CdrForceValidationMode (read/write)

#### **GetVerifierProject**

This method returns the Verifier Project.

Description	Definition	
Syntax	GetVerifierProject (ppVal As Object)	
Parameter	ppVal:	[out] Verifier Project Object

### LastAddressPoolUpdate

This property returns the time when the address pool was updated for the last time.

Description	Definition
Syntax	LastAddressPoolUpdate As Date (read only)

#### Lock

This method locks the Project for updating.

Description	Definition
Syntax	Lock ()



### LogScriptMessage

This method is obsolete and LogScriptMessageEx should be used instead.

#### LogScriptMessageEx

This method enables the developer to utilize the in-built functionality output messages directly to the core product logs, MMC, or system monitoring notification.

Description	Definition		
Syntax		LogScriptMessageEx(ByVal Type As CDRMessageType, ByVal Severity As CDRMessageSeverity, ByVal Message As String)	
Parameters	Type:	The CdrMessageType option to determine whether the message is classified to either an Information, a Warning, or an Error.	
	Severity:	Represents the severity code of the message. Reference CdrMessageSeverity for additional information on options.  This option depicts where the message appears (Log, System Monitoring, or as an EMail).	
	Message:	The message text to display or send.	
Example	Project.LogScriptMessageEx(CDRTypeInfo, CDRSeverityLogFileOnly, "My message")		
	triggered, a c	ve can be placed in any event; when the event is ustom script message will be written to the core le (H_, D_, V_ or U_ log), e.g	
		01:59:33.312   3108   668184k/1428344k   2k   57176k/67252k   238   38/43   My message	

For more information, refer to <a href="CdrMessageType">CdrMessageSeverity</a>.

#### MinClassificationDistance

This property sets or returns the minimal distance of classification results.

Description	Definition	
Syntax	MinClassificationDistance As Double (read/write)	

### MinClassificationWeight

This property sets or returns the minimal classification weight

Description	Definition	
Syntax	MinClassificationWeight As Double (read/write)	



#### MinParentClsDistance

This property sets or returns the minimal distance between the classification weight of the parent and the derived DocClasses.

Description	Definition	
Syntax	MinParentClsDistance As Double (read/write)	

#### MinParentClsWeight

This property sets or returns the minimal parent classification weight. This value is used as a threshold during parent classification.

Description	Definition
Syntax	MinParentClsWeight As Double (read/write)

#### MoveDocClass

This method moves a DocClass specified by its Name to a new ParentDocClass specified by NewParentName.

Description	Definition		
Syntax	MoveDocClass (Name As String, NewParentName As String)		
Parameters	Name:	Name of moved DocClass	
	NewParentName:	Name of new ParentDocClass	

#### NoUI

This property sets or returns NoUI. If NoUI is set to TRUE, then no login dialog box displays.

Description	Definition	
Syntax	NoUI As Boolean (read/write)	

#### Page

This property returns the Cairo Page object of the current Project.

Description	Definition	
Syntax	Page As ISCBCroPage (read only)	



#### **ParentWindow**

This property sets the parent window of the login dialog box.

Description	Definition	
Syntax	ParentWindow As Long (write only)	
Parameters	lhWnd:	[in] Window handle of windows operating system.

### PerformScriptCommandRTS

This method allows the developer to restart or stop the Runtime Server through a custom script.

You can use this method to perform a Stop on Runtime Server should a third-party, such as SAP, be unavailable.

This method stops the currently running Runtime Server instance executing the script to either stop or restart.

Description	Definition	
Syntax	PerformScriptCommandRTS (CommandID As Long, MessageType As Long, UserCode As Long, MessageDescription As String)	
Parameters	CommandID:  MessageType:	Identifier of the command to execute on the RTS instance.  Two commands that are currently supported:  Forcing the RTS instance to stop document processing (with the "CommandID" parameter set to "0").  Restarting the RTS instance (with the "CommandID" parameter set to "1").  The type of message to log when the command executes: "0" for informational message, "1" for warnings and "2" for
	UserCode:	error messages. Note that error messages are additionally forwarded to MMC administration console of the Runtime Server.  User error code of the message. This error code can be
	MessageDescription:	defined by the developer as any custom error number.  The description of the message to log in the common Runtime Server log file and in the case of error messages on the MMC administration console.



Description	Definition		
Example	Two examples depicting a stop and a restart of the RTS instance executing project code.		
	script code stops document processing for the current Runtime Server		
	' instance and logs specified message as error with error code "777"		
	Project.PerformScriptCommandRTS 0, 2, 777, "RTS is going to be stopped from Custom Script"		
	' This script code restarts the current Runtime Server instance and logs		
	' specified message as warning with error code "999"		
	Project.PerformScriptCommandRTS 1, 1, 999, "RTS is going to be restarted from Custom Script"		

### ReleaseAllAdsPools()

This method releases the memory used by all ADS Pools loaded in memory by RTS or Verifier.

Use this feature when the project has multiple large ADS pools from different classes that require a lot of memory. If the documents are sorted by class in different batches, only the required pools for a class are loaded in memory when processing the batch. The drawback is a potential decrease in performance due to the fact that the pools have to be reloaded each time a batch is processed.

Description	Definition	
Syntax	Project.ReleaseAllAdsPools()	
Example 1	The example below shows the implementation for RTS processing. It is placed in the Initialize event.	
	Private Sub ScriptModule_Initialize(ByVal ModuleName As String)	
	Project.ReleaseAllAdsPools()	
	End Sub	

Description	Definition	
Example 2	The example below shows the implementation for Verifier and Webverifier process. It is placed in the BatchOpen event.	
	Private Sub ScriptModule_BatchOpen(ByVal Username As String, ByVal BatchDatabaseID As Long, ByVal ExternalGroupID As Long, ByVal ExternalBatchID As String, ByVal TransactionID As Long, ByVal _ WorkflowType As SCBCdrPROJLib.CDRDatabaseWorkflowTypes, ByVal BatchState As Long)	
	Project.ReleaseAllAdsPools()	
	End Sub	
	The scripts above would provide an entry in the log similar to this:	
	[Info]  20  14:05:26.812   7488   4820400k/3448008k   5829788k/6631068k   195812k/200160k   543   73/57   Disconnecting ADS Pool for class: Invoices, field: VendorName	

### ReportLicensingStatus

This method retrieves either all license counter information, or just the active license counter information.

An active counter license is the document or page limit licensing that is present in the license file.

References the Product Licensing guide for further details on licensing counters that are present or available in the license file.

The information is saved in the H, D, V or U \_log file.

Description	Definition	
Syntax	ReportLicensingStatus (ReportActiveLicensingOnly As Boolean, Severity As SCBCdrPROJLib.CDRMessageSeverity)	
Parameters	ReportActiveLicensingOnly:	A Boolean flag to indicate if all licensing counters should be outputted (False), or if only the license counters active in the license file should be outputted (True).
	Severity:	The location of the utilization output to be sent to. This relates to the defined types shown in CdrMessageSeverity type definition (Log File, Email, or RTS System Monitoring).
		An example of a log file output is:  Requested current licensing status for license "Internal" with ID 00999-D7CDV811. License updated last time at 2007-11-16 21:02:55. Current licensing period is [2] of 30 days. Project was started at 2007-10-17 15:20:31.
		License status for [Processed Pages per Day = 500] (active). Current utilization: 0.65%. Units processed: 97 in period of 1 day(s). Units credit: 14903.



Description	Definition
Example	Code to retrieve licensing utilization information for all licensing counters.  Project represents the project library object.  Dim theProject As New SCBCdrPROJLib.SCBCdrProject
	'The location of the shared license file that is being updated.  Dim LicenseShareLocation As String  LicenseShareLocation="\\MasterRTS\License\Runtime.lic"
	'Activate licensing within the code for project. This enables you to reference the license in the next command.  theProject.ActivateLicensing("CustomEXE", LicenseShareLocation)  'Call the License Reporting function, this has several options available  theProject.ReportLicensingStatus(False, SCBCdrPROJLib.CDRMessageSeverity.CDRSeverityLogFileOnly)

For more information, refer to ActivateLicensing, GetLicenseValueByName, and GetLicenseValueByID.

#### ShowValidationTemplates

This method displays the validation templates and their settings in a given container.

Description	Definition		
Syntax	ShowValidationTemplates (pContainer As ISCBCdrPPGContainer)		
Parameter	pContainer:	Container used to save the validation templates and their settings.	

#### **SLWDifferentResultsAction**

This property sets or returns the action to complete if a template classification and supplier extraction has different results.

Description	Definition	
Syntax	SLWDifferentResultsAction As CdrSLWDifferentResultsAction (read/write)	

### SLWSupplierInvalidDifferentClsResults

This property sets or returns if a Supplier Field is made invalid when the template classification and supplier extraction have different results.



Description	Definition	
Syntax	SLWSupplierInvalidIfDifferentClsResults As Boolean (read/write)	

#### Unlock

This method unlocks the Project after updating.

Description	Definition
Syntax	Unlock ()

### UpdateAddressPool

This method updates the address analysis pool.

Description	Definition
Syntax	UpdateAddressPool ()

### ValidationSettingsColl

This property returns a collection of all activated validation engines.

Description	Definition
Syntax	ValidationSettingsColl As ISCBCroCollection (read only)

### ValidationTemplates

This returns a collection of all available validation templates.

Description	Definition
Syntax	ValidationTemplates As ISCBCroCollection (read only)

#### **VersionCount**

This property returns the number of versions available for a specified file name.

Description	Definition	
Syntax	VersionCount (Filename As String) As Long (read only)	
Parameter	Filename:	Name of the file.



#### WordSegmentationChars

This property sets or returns a string that contains all characters used for Word segmentation.

Description	Definition	
Syntax	WordSegmentationChars As String (read/write)	

#### **SCBCdrDocClasses**

### **Description**

This Collection contains all defined DocClass objects of the Cedar Project.

# **Methods and Properties**

#### Collection

This property returns the Collection that is internally used to store the DocClasses.

Description	Definition
Syntax	Collection As ISCBCroCollection (read only)

#### Count

This property returns the number of items within the Collection.

Description	Definition	
Syntax	Count As Long (read only)	

#### Item

This property returns a specified item from the Collection.

Description	Definition	
Syntax	Item (Index As Variant) As ISCBCdrDocClass (read only)	
Parameter	Index:	[in] The index can either be a Long value specifying the index within the collection or a String specifying the item by name.



### ItemByIndex

This property returns an item from the Collection specified by the index.

Description	Definition	
Syntax	ItemByIndex (Index As Long) As ISCBCdrDocClass (read only)	
Parameter	Index:	[in] Index of the item to retrieve from the Collection, valid range from 1 to Count

### **ItemByName**

This property returns an item from the Collection specified by name.

Description	Definition	
Syntax	ItemByName (Name As String) As ISCBCdrDocClass (read only)	
Parameter	Name:	[in] Name of the item to retrieve from the Collection.

#### **ItemExists**

This method returns TRUE if an item with a specified names exists inside the Collection or FALSE is returned.

Description	Definition	
Syntax	ItemExists (Name As String) As Boolean	
Parameter	Name:	[in] Name of item to search for.

#### ItemIndex

This property returns the index of anitem specified by name.

Description	Definition	
Syntax	ItemIndex (Name As String) As Long (read only)	
Parameter	Name:	[in] Name specifying an item in the Collection.



#### **ItemName**

This property returns the name of an item specified by the index.

Description	Definition	
Syntax	ItemName (Index As Long) As String (read only)	
Parameter	Index:	[in] Index specifying an item in the Collection, valid range from 1 to Count

### Tag

Use this property to store a variant for each item of the Collection.

Description	Definition	
Syntax	Tag (Index As Long) As Variant (read/write)	
Parameter	Index:	Specifies the item index, valid from 1 to Count

### **SCBCdrDocClass**

# **Description**

A Cedar DocClass object represents a single document class within a Cedar project class hierarchy.

# Type Definitions

### CdrFocusChangeReason

This enumeration defines the reason for the focus change of a Verifier field edit.

Available Types	Description
CdrEnterPressed	Focus changed by pressing Enter
CdrFcrCandidateCopied	Focus changed (refreshed) because a candidate and its location was copied to the field
CdrFcrRefreshed	Focus changed (refreshed) because the selection area and its location was copied to the field
CdrFcrSelectionCopied	Focus changed (refreshed) because the selection area and its location was copied to the field
CdrFcrWordCopied	Focus changed (refreshed) because a word and its location was appended to the field



Available Types	Description
CdrFormLoaded	Focus changed because of loading form
CdrMouseClicked	Focus changed because of mouse click
CdrSelectedOutside	Focus changed because of some selection outside
CdrTableCellSelected	Focus changed because of the selection of a Table cell
CdrTabPressed	Focus changed because of pressing Tab key
CdrUnknownReason	Focus changed because of an unknown reason

# ${\bf Cdr Verifier Classify Reason}$

These are the reasons for classification for the document.

Available Types	Description
CdrChangedReason	The user selected a new class without leaving the classification view.
CdrInitReason	Manual classification view has just been displayed.
CdrValidatedReason	The document class has been changed.

### CDRsiModule

This type defines the module in which the smart index definition is used.

Available Types	Description
CDRsiModuleDistiller	Use smart indexing in automatic Field extraction
CDRsiModuleDistVer	Use smart indexing in automatic Field extraction and manual Field validation
CDRsiModuleVerifier	Use smart indexing in manual Field validation



#### CdrForceValidationMode

This enumeration defines the different options for the ForceValidation.

Available Types	Description
CdrForceValDefault	CdrForceValidationModeDefault: ForceValidationMode inherited
CdrForceValForbidden	CdrForceValidationModeForbidden: ForceValidation (3*return) not allowed
CdrForceValPermitted	CdrForceValidationModePermitted: ForceValidation (3*return) allowed

# **Methods and Properties**

### ClassificationField

Use this property to read or write the name of the field that is used for the classification.

Description	Definition
Syntax	ClassificationField As String (read/write)

#### ClassificationRedirection

This property returns the name of the target DocClass

Description	Definition
Syntax	ClassificationRedirection As String (read/write)

### ClassifySettings

This is a collection of chosen classification engines and their settings for this DocClass.

Description	Definition
Syntax	ClassifySettings As ISCBCroCollection (read only)



#### DerivedDocClasses

This property returns a collection of all DocClasses derived directly from this DocClass

Description	Definition
Syntax	DerivedDocClasses As ISCBCdrDocClasses (read only)

#### DisplayName

This property sets or returns the display name of the DocClass currently not used. If nothing is inserted here, the DocClass name is used.

Description	Definition
Syntax	DisplayName As String (read/write)

#### **Fields**

This property provides access to FieldDefs of a DocClass.

Description	Definition
Syntax	Fields As ISCBCdrFieldDefs (read only)

#### **ForceSubtreeClassification**

This property sets or returns if the classification to the subtree of this DocClass is forced.

Description	Definition
Syntax	ForceSubtreeClassification As Boolean (read/write)

#### **ForceValidation**

If ForceValidation is set to 'permitted' then the user can overrule the validation by pressing three times on the Return key. If it is set to 'forbidden' then the user cannot change the content of the field disregarding the validation rules.

Description	Definition
Syntax	ForceValidation As CdrForceValidationMode (read/write)



### GetFieldAnalysisSettings

This method returns the analysis settings for the document class.

Description	Definition	
Syntax	GetFieldAnalysisSettings (FieldName As String, Language As String, ppAnalysisSettings As ISCBCdrAnalysisSettings)	
Parameters	FieldName:	The name of the field for which the analysis settings are retrieved.
	ppAnalysisSettings:	The name of the analysis settings object that is used in the code to assign the settings to, see script sample.
Example	'This script samples shows how to retrieve the analysis settings 'to assign them for example to be used for the associative 'search engine  Dim theDocClass As SCBCdrDocClass Dim theAnalysisSettings As ISCBCdrAnalysisSettings Dim theSupplierSettings As Object	
	(pWorkdoc.DocClass) 'Get the settings the the DocClass.GetField the Analysis Settings	for the field VendorName  ldAnalysisSettings "VendorName", "German",

#### Hidden

This property specifies whether the DocClass should be visible in the Project designer.

Description	Definition
Syntax	Hidden As Boolean (read/write)



#### InitField

This method reintializes a required field in Workdoc.

Description	Definition	
Syntax	InitField (pWorkdoc As ISCBCdrWorkdoc, pField As ISCBCdrField)	
Parameters	pWorkdoc:	Current workdoc.
	pField:	Field to be cleared.

## ManualTableTrainingMode

This propertysets or returns the option for manual Table Extraction training mode.

Description	Definition
Syntax	ManualTableTrainingMode As Boolean (read/write)

#### Name

This propertyreads or writes the name of the Document Class

Description	Definition
Syntax	Name As String (read/write)

## Page

This propertyreturns the Page object of this DocClass with all defined zones and their OCR settings.

Description	Definition
Syntax	Page As ISCBCroPage (read only)

#### **Parent**

This propertyreturns the parent DocClass of the actual DocClass.

Description	Definition
Syntax	Parent As ISCBCdrDocClass (read only)



## ShowClassValidationDlg

This method displays the property page validation settings for this document class.

Description	Definition	
Syntax	ShowClassValidationDlg (pContainer As ISCBCdrPPGContainer)	
Parameter	pContainer:	Container in which the property page displays.

## ShowFieldValidationDlg

This method displays the property page of the validation settings for the specified field name.

Description	Definition	
Syntax	ShowFieldValidationDlg (FieldName As String, pContainer As ISCBCdrPPGContainer)	
Parameters	FieldName:	Field for which the dialog box is shown.
	pContainer:	Container in which the property page displays.

### ShowGeneralFieldPPG

This method starts the field settings property page specifying the active tab.

Description	Definition	
Syntax	ShowGeneralFieldPPG (FieldName As String, TabIndexActive As Long, pContainer As ISCBCdrPPGContainer)	
Parameters	FieldName:	Field for which the dialog box is shown.
	TabIndexActive:	Zerobased Index for the tab that displays.
	pContainer:	Container in which the property page displays.

### SubtreeClsMinDist

This propertyreturns the minimal distance to the classification weight of the derived DocClasses.

Description	Definition
Syntax	SubtreeClsMinDist As Double (read/write)



## SubtreeClsMinWeight

This propertysets or returns the minimal classification weight of the derived DocClasses.

Description	Definition
Syntax	SubtreeClsMinWeight As Double (read/write)

## UseDerivedValidation

This propertysets or returns a Boolean value, when derived validation rules are used.

Description	Definition
Syntax	UseDerivedValidation As Boolean (read/write)

## ValidationSettingsColl

This property returns a collection of all activated validation engines

Description	Definition
Syntax	ValidationSettingsColl As ISCBCroCollection (read only)

## ValidationTemplateName

This propertysets or returns the name of the validation template.

Description	Definition
Syntax	ValidationTemplateName As String (read/write)

#### ValidClassificationResult

This propertysets or returns if this DocClass is a valid classification result or if it is omitted for classification.

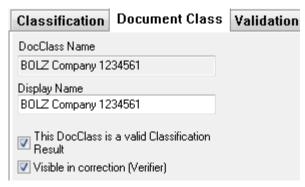
Description	Definition		
Syntax	ValidClassificationResult As Boolean (read/write)		



#### VisibleInCorrection

This property determines if a project class is available for classification. You can modify this property prior to classification correction for a Verifier by setting the property to TRUE if the class is available for classification correction, or FALSE if the class is unavailable for classification correction.

Dynamic modification of this property is managed through the ScriptModule\_VerifierClassify event. Dynamic modification of the class visibility overrides the default Designer class property.



Description	Definition	
Syntax	VisibleInCorrection As Boolean (read/write)	

Description	Definition		
Example	The script sample below shows how to dynamically modify the property of classes prior to showing the classification view.		
	The example below hides Invoices, BOLZ and UNICOM classes from verification availability.		
	Public Function fnShouldHideClass(ByVal strClassNameToCheck As String, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc) As Boolean		
	Select Case UCase (strClassNameToCheck)		
	Case "BOLZ COMPANY 1234561"		
	fnShouldHideClass = False		
	Case "UNICOM CORPORATION 1234563"		
	fnShouldHideClass = False		
	Case "INVOICES"		
	fnShouldHideClass = False		
	Case Else		
	fnShouldHideClass = True		
	End Select		
	End Function		
	Private Sub ScriptModule_VerifierClassify(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc, ByVal Reason As SCBCdrPROJLib.CdrVerifierClassifyReason, ClassName As String)		
	Dim i As Long		
	Dim strNextClassName As String		
	If Reason = CdrInitReason Then		
	For i = 1 To Project.AllClasses.Count Step 1		
	strNextClassName = Project.AllClasses.ItemName(i)		
	Project.AllClasses.ItemByIndex(i).VisibleInCorrection = fnShouldHideClass(strNextClassName, pWorkdoc)		
	Next i		
	End If		
	End Sub		

### FillRectangle

This method allows the developer to draw a square on the image (White/Black), which is used to blank out a certain area on the invoice.

By utilizing the FillRectangle method of the SCBCroImage object, you can perform image redaction.

Description	Definition	
Parameters	Color to use	0: black , 1: white
	Left, Top, Width, Height:	Dimensions of the rectangle

## SCBCdrFieldDefs

# **Description**

This Collection contains all defined FieldDef objects of a single DocClass.

# **Methods and Properties**

#### Collection

This property returns the Collection that is internally used to store the FieldDefs.

Description	Definition
Syntax	Collection As ISCBCroCollection (read only)

#### Count

This property returns the number of items within the FieldDef Collection.

Description	Definition	
Syntax	Count As Long (read only)	



#### Item

This property returns a specified item from the Collection

Description	Definition	
Syntax	Item (Index As Variant) As ISCBCdrFieldDef (read only)	
Parameter	Index:	[in] The index can either be a Long value specifying the index (1 to Count) within the Collection or a String specifying the item by name.

## ItemByIndex

This property returns an item from the Collection specified by index.

Description	Definition	
Syntax	ItemByIndex (Index As Long) As ISCBCdrFieldDef (read only)	
Parameter	Index:	[in] Index of the item to retrieve from the Collection.

# **ItemByName**

This property returns an item from the Collection specified by name.

Description	Definition	
Syntax	ItemByName (Name As String) As ISCBCdrFieldDef (read only)	
Parameter	Name:	[in] Name of the item to retrieve from the Collection.

### **ItemExists**

This method returns TRUE if an item with specified name exists inside the Collection or FALSE is returned.

Description	Definition	
Syntax	ItemExists (Name As String) As Boolean	
Parameter	Name:	[in] Name of item to search for.



### ItemIndex

This property returns the index of an item specified by name.

Description	Definition	
Syntax	ItemIndex (Name As String) As Long (read only)	
Parameter	Name:	[in] Name specifying an item in the Collection.

## **ItemNames**

This property returns the name of an item specified by index.

Description	Definition	
Syntax	ItemName (Index As Long) As String (read only)	
Parameter	Index:	[in] Index specifying an item in the Collection, valid range from 1 to Count

## Tag

Use this property to store a variant for each item of the Collection.

Description	Definition	
Syntax	Tag (Index As Long) As Variant (read/write)	
Parameter	Index:	Specifies the item index, valid range from 1 to Count



## SCBCdrFieldDef

# Description

A Cedar FieldDef object represents the definition of a single FieldDef inside a Cedar DocClass

# **Type Definitions**

### CdrFieldFormat

This type defines the default format of a certain field. (Not yet implemented.)

Available Types	Descriptions
CdrFieldFormatCurrency	CdrFieldFormatCurrency
CdrFieldFormatDate	CdrFieldFormatDate
CdrFieldFormatExtNumber	CdrFieldFormatExtNumber
CdrFieldFormatNone	CdrFieldFormatNone
CdrFieldFormatNumber	CdrFieldFormatNumber

# CDRFieldType

This type defines the type of a FieldDef

Available Types	Description
CDRFieldTypeTable	The Field type is Table.
CDRFieldTypeText	The Field type is text, which may be single or multi-line text.

### CdrForceValidationMode

This enumeration defines the different options for the ForceValidation.

Available Types	Description
CdrForceValDefault	CdrForceValidationModeDefault: ForceValidationMode inherited
CdrForceValForbidden	CdrForceValidationModeForbidden: ForceValidation (3*return) not allowed
CdrForceValPermitted	CdrForceValidationModePermitted: ForceValidation (3*return) allowed



## CdrValFieldType

This enumeration contains different validation types for fields.

Available Types	Description
CdrAmountValidation	Used for amount values or general numeric values.
CdrChkboxValidation	Field as used check box.
CdrCustomValidation	TBD
CdrDateValidation	Used for date values.
CdrListValidation	Used for lists.
CdrTableValidation	Used for tables.
CdrTextValidation	Used for text values, strings.

# **Methods and Properties**

## AlwaysValid

This property sets or returns if the content of this FieldDef is always valid.

Description	Definition
Syntax	AlwaysValid As Boolean (read/write)

# AnalysisTemplate

This property returns the name of the analysis template if used.

Description	Definition	
Syntax	AnalysisTemplate	(Language As String) As String (read only)
Parameter	Language:	Language parameter



## AppendListItem

This method adds a new list item and returns a new item index for it.

Description	Definition	
Syntax	AppendListItem (bstrItem As String) As Long	
Parameter	bstrltem:	String inserted into the list.

### ColumnCount

This property returns the number of Table columns if FieldType is Table.

Description	Definition
Syntax	ColumnCount As Long (read only)

#### ColumnName

This property returns the name of the Table column specified by an index if FieldType is Table.

Description	Definition	
Syntax	ColumnName (Colu	mnIndex As Long) As String (read only)
Parameter	ColumnIndex:	Zero-based index of the Table column

## **DefaultValidationSettings**

This property returns the validation settings with the default language.

Description	Definition
Syntax	DefaultValidationSettings As ISCBCdrValidationSettings (read only)

#### Derived

This property returns TRUE if the FieldDef properties are derived from an upper DocClass.

Description	Definition
Syntax	Derived As Boolean (read only)



## DisplayName

The DisplayName can be different from the FieldDef name and does not have any restrictions about the used character set while the FieldDef name must be a valid basic name. An application may use the DisplayName instead of the FieldDef name to show a more readable name of the FieldDef

Description	Definition
Syntax	DisplayName As String (read/write)

## **EvalSetting**

This property sets or returns the activated evaluation engine and its settings.

Description	Definition	
Syntax	EvalSetting (Language As String) As Object (read/write)	
Parameter	Language:	Language parameter

## EvalTemplate

This property returns the name of the evaluation template if used.

Description	Definition	
Syntax	EvalTemplate (La	nguage As String) As String (read only)
Parameter	Language:	Language of Project

#### **FieldID**

This read-only property returns the internally used FieldID.

Description	Definition
Syntax	FieldID As Long (read only)

# FieldType

This property sets or returns the type of the FieldDef.

Description	Definition
Syntax	FieldType As CDRFieldType (read/write)



#### **ForceValidation**

This property sets or returns the mode for the ForceValidation.

Description	Definition
Syntax	ForceValidation As CdrForceValidationMode (read/write)

#### ListItem

This property sets or returns a list item string for a given index.

Description	Definition	
Syntax	ListItem (lIndex As Long) As String (read/write)	
Parameter	IIndex:	Zero-based index.

### ListItemCount

This property returns the number of strings in the ListItem list.

Description	Definition
Syntax	ListItemCount As Long (read only)
Example	<pre>Dim lngItem As Long For lngItem = Project.AllClasses.ItemByName("Invoice").Fields("Currency").ListI temCount - 1 To 0 Step -1</pre>

## MaxLength

This property returns the maximum number of characters permitted for this FieldDef.

Description	Definition
Syntax	MaxLength As Long (read/write)

# MinLength

This property sets or returns the minimal number of characters for this FieldDef.

Description	Definition
Syntax	MinLength As Long (read/write)



#### Name

This property sets or returns the name of the FieldDef.

Description	Definition
Syntax	Name As String (read/write)

# **NoRejects**

This property sets or returns if rejects are permitted.

Description	Definition
Syntax	NoRejects As Boolean (read/write)

### **OCRConfidence**

This property sets or returns the confidence level for OCR. The value must be between 0 and 100.

Description	Definition
Syntax	OCRConfidence As Long (read/write)

### RemoveListItem

This method removes a list item by its index.

Description	Definition	
Syntax	RemoveListItem (lIndex As Long)	
Parameter	lIndex:	Index of entry to be removed from the list.
Example	Project.AllClasses.ItemByName("Invoice").Fields("Currency").RemoveList Item(lngItem)	

### **SmartIndex**

This property contains all definitions about smart indexing.

Description	Definition
Syntax	SmartIndex As ISCBCdrSmartIndex (read/write)



## UseDerivedOCRSettings

This property sets or returns if OCR settings of the parent DocClass are used.

Description	Definition
Syntax	UseDerivedOCRSettings As Boolean (read/write)

#### UseDerivedValidation

This property sets or returns if the derived validation rules are used for validation of this FieldDef.

Description	Definition
Syntax	UseDerivedValidation As Boolean (read/write)

#### UseMaxLen

This property sets or returns if the maximum number of characters is limited to the value given by MaxLength.

Description	Definition
Syntax	UseMaxLen As Boolean (read/write)

#### UseMinLen

This property sets or returns if the usage of the minimal number of characters given by the property MinLength is activated.

Description	Definition
Syntax	UseMinLen As Boolean (read/write)

### **ValidationSettings**

This property sets or returns the chosen validation engine and its settings.

Description	Definition	
Syntax	ValidationSettings (read/write)	(Language As String) As ISCBCdrValidationSettings
Parameter	Language:	Defines the language for classification, extraction and validation.



## ValidationTemplate

This property returns the name of the validation template.

Description	Definition	
Syntax	ValidationTemplate	(Language As String) As String (read only)
Parameter	Language:	Defines the language for classification, extraction and validation.

## ValidationType

This property returns the type of validation.

Description	Definition
Syntax	ValidationType As CdrValFieldType (read only)

#### VerifierColumnWidth

This property sets or returns the width of the specified column of the Table.

Description	Definition	
Syntax	VerifierColumnWidth (ColumnIndex As Long) As Long (read/write)	
Parameter	ColumnIndex:	Zero-based Index of the Table column

# **SCBCdrSettings**

# Description

The Cedar Settings object stores arbitrary strings for usage in script.

# **Methods and Properties**

### **ActiveClient**

This property sets or returns the name of the currently active client.

Description	Definition
Syntax	ActiveClient As String (read/write)



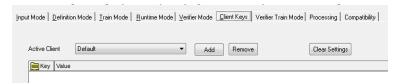
#### AddClient

This method adds a new client with the specified name to the current Settings object.

Description	Definition	
Syntax	AddClient (newVal As String)	
Parameter	newVal:	Name of new client

## AddKey

This method adds a new key specified by its name and its Parent. Refer to the *Designer User Guide* for more information.



Description	Definition		
Syntax	AddKey (newVal As String, Parent As String)		
Parameters	newVal: New key name		
	Parent:	Name of the parent key, in case of a new base key use an empty string for the Parent.	

#### Clear

This method clears all clients and keys from the Settings object.

Description	Definition
Syntax	Clear ()

#### Client

This property returns the name of the specified client

Description	Definition	
Syntax	Client (Index As L	ong) As String (read only)
Parameters	Index:	Zero-based client index.



#### ClientCount

This property returns the number of clients

Description	Definition
Syntax	ClientCount As Long (read only)

### GlobalLearnsetPath

This property sets or returns the global Learnset path.

Description	Definition
Syntax	GlobalLearnsetPath As String (read/write)

## Key

This property returns the key name specified by index.

Description	Definition	
Syntax	Key (Index As Long) A	As String (read only)
Parameter	Index:	Zero-based index of the key.

# **Key Count**

This property returns the number of keys.

Description	Definition
Syntax	KeyCount AS Long (read only)

## Keylcon

This property sets the new value for the specified key or returns the key's value.

Description	Definition	
Syntax	KeyIcon (Key As String) As String (read/write)	
Parameter	Key:	Name of the key.



# KeyParent

This property returns the parent name of the specified key index.

Description	Definition	
Syntax	KeyParent (Inde	x As Long) As String (read only)
Parameter	Index:	Zero-based key index.

## MoveKey

This method moves a key specified by its name to the NewParent specified by its name.

Description	Definition	
Syntax	MoveKey (Key As	String, NewParent As String)
Parameter	Key: Name of key that should be moved	
	NewParent:	Name of new parent, empty string in case of moving it as a base key

# ProjectFileName

This property sets or returns the file name of the Project.

Description	Definition
Syntax	ProjectFileName As String (read/write)

## RemoveClient

This method removes a client specified by its name.

Description	Definition	
Syntax	RemoveClient (ClientName As String)	
Parameter	ClientName:	Name of client that should be removed



## RemoveKey

This method removes a key specified by its name.

Description	Definition	
Syntax	RemoveKey (KeyName As String)	
Parameter	KeyName:	Name of key that is removed.

## SupervisedLearningDisabled

This property sets or returns the state of supervised learning in *Designer* and local *Verifier* workstations.

Description	Definition	
Syntax	SupervisedLearningDisabled As Boolean (read/write)	

## TopDownEventSequence

This property sets or returns the value of a top-down event sequence.

Description	Definition
Syntax	TopDownEventSequence As Boolean (read/write)

### Value

This property returns the value of the specified key.

Description	Definition	
Syntax	Value (Key As String, Parent As String, Client As String) As String (read/write)	
Parameters	Key: Key name, which is assigned to the value.	
	Parent:	Parent name of the key.
	Client:	Name of the client. Can be an empty string. In that case the active client is used.
Example	MyDBPath = Settings.Value(" DatabaseName ", " ", " ")	
	'now we can open the database  DB.Open(MyDBPath,)	



# SCBCdrScriptModule

# Description

This is a global object at the project level. All script module events occurred at project level belongs to this object.

## **Methods and Properties**

#### ModuleName

This propertyreturns the name of the module that initialized ScriptModule.

The full list of values and under what circumstances they are set are detailed below:

- Runtime Server ModuleName = Server
- Web Verifier Client (v5 and above) ModuleName = Verifier
- Verifier Thick Client (v3 and above) ModuleName = Verifier
- Local Verifier Project ModuleName = LocalVerifier
- Learnset Manager Tool ModuleName = PlainVerifier
- Designer Runtime mode = Server
- Designer Verifier test mode = Verifier
- Designer Verifier train mode = Verifier
- Designer Normal train mode = Designer
- Designer Definition mode = Designer

Description	Definition
Syntax	ModuleName As String (read only)



Description	Definition	
Example	`This example sets the global variable gblVerifierAsServer to true if the Modulename contains VERIFIER	
	Private Sub Document_PreExtract(pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc)	
	If InStr(UCase(ScriptModule.ModuleName), "VERIFIER") Then	
	gblVerifierAsServer = True	
	Else	
	gblVerifierAsServer = False	
	end if	
	End Sub	
	`This example is a function which returns true if the Modulename contains VERIFIER	
	Public Function fnIsVerifier As Boolean	
	If InStr(UCase(ScriptModule.ModuleName), "VERIFIER") Then	
	fnIsVerifier = True	
	Else	
	fnIsVerifier = False	
	end if	
	End Function	

# ReadZone

Use this method to read a zone on a CroImage object, the settings of which were previously saved in the ScanJObs' definition.

Description	Definition	
Syntax	ReadZone (Image As ISCBCroImage, ZoneName As String) As String	
Parameters	Image:	[in] SCBCroImage object
	ZoneName:	[in] Name of Zone that is read



### ReadZoneEx

Use this method to read a zone on a Crolmage object, the settings of which were previously saved in the ScanJobs' definition.

Description	Definition	
Syntax	ReadZoneEx (Image As ISCBCroImage, ZoneName As String, Result As ISCBCroWorktext)	
Parameters	Image:	[in] SCBCroImage object
	ZoneName:	[in] Name of read zone
	Result:	[out] Result of reading returned as SCBCroWorktext object

# SCBCdrScriptProject

# **Description**

# **Methods and Properties**

#### CurrentClient

This property retrieves and sets the "Client" attribute of the batch.

Description	Definition	
Syntax	CurrentClient As String (read/write)	

# **GetHostProperties**

This method allows the user to retrieve information about the current machine, application, and Perceptive Intelligent Capture user.

Description	Definition	
Syntax	GetHostProperties(appType as CDRApplicationName, appSubtype as Long, appInstance as String, appUserName as String, appIP as String, appMachineName as String, appLicensee as String)	
Parameters		
		Not used for other applications.
	appUsername	Login Name of the current Perceptive Intelligent Capture user  Perceptive Intelligent Capture user for Designer, Verifier, LSM, Web  Verifier  Windows user for Runtime Server
	appIP	IP address of the computer
	appMachineName	Machine name that is running the script



Description	Definition	
	appLicensee	Customer name of the used license file
Example	information into variable application module is e	the GetHostProperties in the initialize event. The method than returns es as to where the script is executed, who is executing it, and what xecuting it.  **Idea
		As Long e As String ng lame As String As String CDRApplicationName operties(appType, appSubtype, appInstance, appUserName, appIP,
	End Sub	



# SCBCdrScriptAccess

# Description

Perceptive Intelligent Capture provides a public interface "SCBCdrScriptAccess" for external access to the project and class level custom script pages. The interface can be queried from the main "SCBCdrProject" interface available in Perceptive Intelligent Capture custom script. Using this interface it is possible to retrieve, modify and dump project and class level scripts.

## **Methods and Properties**

## **DumpAllPages**

This method dumps all script pages available in the project as a Unicode text file.

Description	Definition	
Syntax	DumpAllPages(FileName As String)	
Parameters	FileName:	[in] name of the dump file.
Example	'Export all script pages to a file (Project and Classes) theScriptAccess.DumpAllPages("Script Export.txt")	

## **ExportAllPages**

CURRENTLY NOT SUPPORTED. This method exports all available script pages in a reimportable format to the specified folder.

Description	Definition	
Syntax	ExportAllPages(FolderName As String)	
Parameter	FolderName:	[in] name of the folder to save the script pages to.

## ExportClassPage

CURRENTLY NOT SUPPORTED. This method exports the specified script page to a script dump file.

Description	Definition	
Syntax	ExportClassPage(FolderName As String, ClassName As String)	
Parameters	FolderName: [in] name of the folder to save the script page to.	
	ClassName:	[in] name of the class to export the script for.



## GetPageCode

This method retrieves the project or specified class level script code.

Description	Definition	
Syntax	GetPageCode(Class	Name As String, ScriptCode As String)
Parameters	ClassName: [in] name of the class.	
	ScriptCode:	[out] class script code.

## **ImportAllPages**

CURRENTLY NOT SUPPORTED. This method imports all available script pages using script dumps from the specified folder.

Description	Definition	
Syntax	ImportAllPages(FolderName As String)	
Parameter	FolderName:	[in] name of the folder to load the script pages from.

## ImportClassPage

CURRENTLY NOT SUPPORTED. This method imports the specified script page from a script dump file.

Description	Definition	
Syntax	ImportClassPage(F	olderName As String, ClassName As String)
Parameters	FolderName: [in] name of the folder to load the script page from.	
	ClassName:	[in] name of the class to import the script for.

## SetPageCode

This method assigns the project or specified class level script code.

Description	Definition	
Syntax	SetPageCode(ClassName As String, ScriptCode As String)	
Parameters	ClassName:	[in] name of the class.
	ScriptCode:	[out] class script code.
Example	theScriptAccess.SetPageCode(strClassName, "") 'Set new script code (blank"")	

# **CDRADSLib**

# SCBCdrSupExSettings

# Description

This collection contains the functions for the Associative Search engine.

# **Methods and Properties**

### ClearFilterAttributes

This method clears all existing filters of the Multi-column Attribute Search.

Description	Definition
Syntax	ClearFilterAttributes()
Example	Dim theSupplierSettings As Object  Set theSupplierSettings = FieldAnalysissettings  Dim theAdsSettings As CDRADSLib.SCBCdrSupExSettings  Set theAdsSettings = theSupplierSettings  theAdsSettings.ClearFilterAttributes

#### AddFilterAttributes

This method adds new filters for chosen attribute of the Multi-column Attribute search. Choose attributes from the data source of the Associative Search Engine.

**Note** The first two attributes are combined as logical OR, and the additional ones that may be added are combined with logical AND.

Description	Definition	
Syntax	AddFilterAttribute(	"Attribute Name", "Attribute Value")
Parameters	Attribute Name:	Name of the attribute to be filtered
	Attribute Value	Value of the attribute that is searched for in the datasource



Description	Definition
Example	This example configures the Multi-column Attribute Search for use with the Vendor search button of the Verifier Thick Client. The VendorSearch button in Verifier is related to the Object: General, Process: DialogFunc:
	Dim theSupplierSettings As Object
	Set theSupplierSettings = FieldAnalysissettings
	Dim theAdsSettings As CDRADSLib.SCBCdrSupExSettings
	Set theAdsSettings = theSupplierSettings
	theAdsSettings.ClearFilterAttributes
	theAdsSettings.AddFilterAttribute "SupplierName", "VAN"
	theAdsSettings.AddFilterAttribute "SupplierName", "VAN3"
	The following example configures the extension for the filtering with RTS in the VendorName (or VendorASSA) object preExtract event:
	Private Sub VendorName_PreExtract(pField As SCBCdrPROJLib.SCBCdrField, pWorkdoc As SCBCdrPROJLib.SCBCdrWorkdoc)
	Dim theSupplierSettings As CDRADSLib.SCBCdrSupExSettings
	Dim theDocClass As SCBCdrDocClass
	Dim theAnalysisSettings As ISCBCdrAnalysisSettings
	Dim theObject As Object
	Set theDocClass=Project.AllClasses.ItemByName(pWorkdoc.DocClassName)
	theDocClass.GetFieldAnalysisSettings "VendorName", "German", theAnalysisSettings
	Set theObject = theAnalysisSettings
	Set theSupplierSettings = theObject
	theDocClass.GetFieldAnalysisSettings "VendorName", "German", theAnalysisSettings
	Set theObject = theAnalysisSettings
	Set theSupplierSettings = theObject
	theSupplierSettings.ClearFilterAttributes()
	theSupplierSettings.AddFilterAttribute "SupplierName", "VAN"
	theSupplierSettings.AddFilterAttribute "SupplierName", "VAN3"
	End Sub

# Analysis Engines Object Reference

# SCBCdrAssociativeDbExtractionSettings

# **Description**

This interface covers all methods and properties that are required for controlling and accessing the new universal format of the ASSA engine's pool.

# Type Definitions

## CdrAutoUpdateType

This enumeration is used to specify the automatic import property.

Available Types	Description
CdrAUTFile	Automatic import from file for associative search field.
CdrAUTNone	No automatic import for associative search field.
CdrAUTODBC	Automatic import from ODBC source for associative search field.

# **Method and Properties**

#### AddColumn

This method adds a new column field to the pool.

Description	Definition	
Syntax	AddColumn (ColumnName As String, IsSearchField As Boolean, NewColumnIndex As Long)	
Parameters	ColumnName:	[in] Name of the column field.
	IsSearchField:	[in] Boolean value that has to be set to true when the inserted column field is a search field.
	NewColumnIndex:	[out] Index of the newly created entry in the pool.

#### AddPhrase

This method appends a new phrase to the list of phrases to use for the address.

Description	Definition	
Syntax	AddPhrase (Phrase As String, IsIncludePhrase As Boolean)	
Parameters	Phrase:	[in] This string variable contains the phrase that is added to the list.
	IsIncludePhrase:	[in] If the value of the Boolean variable is true and the phrase is found, then the resulting address is accepted. If the value of the Boolean variable is false and the phrase is found, then the address is not accepted

# ChangeEntry

This method updates or inserts the content of the entry data to the specified column.

Description	Definition	
Syntax	ChangeEntry (ColumnName As String, EntryData As String)	
Parameters	ColumnName: [in] Name of the column that is changed.	
	EntryData:	[in] The content of the specified column is updated with this data.

### ClassNameFormat

This property sets or reads the format definition for a document class name.

Description	Definition
Syntax	ClassNameFormat As String (read/write)

### ColumnCount

This property returns the number of columns of a currently opened pool.

Description	Definition
Syntax	ColumnCount As Long (read only)



### ColumnName

This property returns or sets the name of the column by its index.

Description	Definition	
Syntax	ColumnName (ColumnIndex As Long) As String (read/write)	
Parameter	ColumnIndex:	[in] Index of the column to retrieve [zero-based].

## CommitAddEntry

This method takes effect after execution of StartAddEntry and ChangeEntry.

Use this method only in context with the StartUpdate, StartAddEntry, ChangeEntry, CommitAddEntry, and CommitUpdate methods.

Description	Definition	
Syntax	CommitAddEntry (NewIndex As Long)	
Parameter	NewIndex:	[out] Index of new entry.

# CommitUpdate

This method closes and save the currently opened pool.

Description	Definition
Syntax	CommitUpdate ()



#### EnableCandidateEvaluation

This property sets or returns if a candidate evaluation (so called Second Pass) is permitted.

For Enable Candidate Evaluation, the following three options are availble.

- Above configured search areas: EvalOverSearchAreas is set to TRUE.
- First page only. EvalFirstPageOnly is set to TRUE.
- All pages of document. Evaluation is performed using the entire text of the document, which is performed if neither of the above restrictions is TRUE. Both are FALSE.

The EvalOverSearchAreas or EvalFirstPageOnly restrictions are mutually excluding, therefore when setting one to TRUE, the other one automatically becomes FALSE.

**Note** If candicate evaluation (Second Pass) is switched off, then candidates, returned after the first pass, typically have very low confidence.

Description	Definition
Syntax	EnableCandidateEvaluation As Boolean (read/write)

### **EntryCount**

This property returns the number of entries of the pool.

Description	Definition
Syntax	EntryCount As Long (read only)

## **EvalFirstPageOnly**

This property sets or returns if candidate evaluation is performed using the text from first page only.

When EvalFirstPageOnly is set to TRUE, EvalOverSearchAreas becomes FALSE automatically.

Description	Definition
Syntax	EvalFirstPageOnly As Boolean (read/write)



#### EvalOverSearchAreas

This property sets or returns if the candidate evaluation is processed using only the text from configured search areas.

When EvalOverSearchAreas is set to TRUE, EvalFirstPageOnly becomes FALSE automatically.

Description	Definition
Syntax	EvalOverSearchAreas As Boolean (read/write)

### FieldContentsFormat

This property sets or returns the format definition for the representation of the engine.

Description	Definition
Syntax	FieldContentsFormat As String (read/write)

#### **FindLocation**

This property sets or returns if address analysis is enabled. If TRUE, the position of the address is found.

Description	Definition	
Syntax	FindLocation As Boolean (read/write)	

#### GeneratePool

This method imports the pool from the specified source by the property AutomaticImportMethod.

Description	Definition
Syntax	GeneratePool ()

#### **GeneratePoolFromCsvFile**

This method removes the previous pool and generates a new one using CSV file designed in the new format.

Description	Definition	
Syntax	GeneratePoolFromCsvFile ()	



#### GeneratePoolFromODBC

This method removes the previous pool and generates a new one using the ODBC source with the parameters set on the property page.

Description	Definition	
Syntax	GeneratePoolFromODBC ()	

## GetClassNameByID

This method returns the formatted document class name for the pool entry specified by its unique ID.

Description	Definition	
Syntax	GetClassNameByID (IDHigh As Long, IDLow As Long, ClassName As String)	
Parameters	IDHigh:	[in] Upper part of 64 bit unique IDs.
	IDLow:	[in] Lower part of 64 bit unique IDs.
	ClassName:	[out] Formatted document class name for the specified entry.

# GetEntry

This method returns the content of a field that is specified by its index and the column name.

Description	Definition	
Syntax	GetEntry (Index As Long, FieldName As String) As String	
Parameters	Index:	[in] Index of the entry to be retrieved.
	FieldName:	[in] Name of the column to be retrieved.

### GetFormattedValueByID

This method returns the formatted entry representation for the pool entry specified by its unique ID

Description	Definition	
Syntax	GetFormattedValueByID (IDHigh As Long, IDLow As Long, FormattedValue As String)	
Parameters	IDHigh: [in] Upper part of 64-bit unique ID.	
	IDLow:	[in] Lower part of 64-bit unique ID.
	FormattedValue:	[out] Formatted entry representation for the specified entry.

### GetIDByIndex

This method returns the unique ID of an entry by index.

Description	Definition	
Syntax	GetIDByIndex (Ind	ex As Long, IDHigh As Long, IDLow As Long)
Paremeter	Index: [in] Zero-based index.	
	IDHigh:	[out] Upper part of 64-bit unique ID.
	IDLow:	[out] Lower part of 64-bit unique ID.

### GetIndexById

This method returns the index of an entry by its unique ID.

Description	Definition	
Syntax	GetIndexByID (IDHigh As Long, IDLow As Long, Index As Long)	
Parameters	IDHigh:	[in] Upper part of 64-bit unique ID.
	IDLow:	[in] Lower part of 64-bit unique ID.
	Index:	[out] Zero-based index.



### GetSearchArea

This method returns an area on the document in which to search.

Description	Definition	
Syntax	GetSearchArea (SearchAreaIndex As Long, Left As Long, Top As Long, Width As Long, Height As Long)	
Parameters	SearchAreaIndex:	Index of the area, accepts values from 0 to 5 with following meaning:  0 - First Page Header  1 - First Page Footer  2 - Subsequent Pages Header  3 - Subsequent Pages Footer  4 - Last Page Header  5 - Last Page Footer
	Left:	Distance in % from left border of document.
	Тор:	Distance in % from top of document.
	Width:	Width in % of search area.
	Height:	Height in % of search area.

### IdentityColumn

This property sets or returns the unique ID of a column name.

Description	Definition
Syntax	IdentityColumn As String (read/write)

### ImportFieldNames

This property sets or returns if the column names are taken from the first line of a CSV file.

Description	Definition
Syntax	ImportFieldNames As Boolean (read/write)



### **ImportFileName**

This property sets or returns if column names are taken from the first line of a CSV file.

Description	Definition
Syntax	ImportFileName As String (read/write)

### ImportFileNameRelative

This property sets or returns if the name of a CSV file is stored relative to the path of the project file.

Description	Definition
Syntax	ImportFileNameRelative As Boolean (read/write)

#### IsPhraseIncluded

This property sets or returns if a phrase to find the address is sufficient.

Description	Definition	
Syntax	IsPhraseIncluded (PhraseIndex As Long) As Boolean (read/write)	
Parameter	PhraseIndex:	[in] Index of phrase [zero-based].

#### IsSearchField

This property sets or returns if a field is used for an associative search.

Description	Definition	
Syntax	IsSearchField	(ColumnIndex As Long) As Boolean (read/write)
Parameter	ColumnIndex:	[in] Index of column [zero-based]

### LastImportTimeStamp

This property returns the timestamp for the last import.

Description	Definition
Syntax	LastImportTimeStamp As Date (read only)



#### **MaxCandidates**

This property sets or returns the maximum number of results of the associative search engine.

Description	Definition
Syntax	MaxCandidates As Long (read/write)

#### MinDistance

This property sets or returns the required minimium distance to the next best candidate for a valid result.

Description	Definition	
Syntax	MinDistance As Double (read/write)	

#### MinRelevance

This property sets or returns the minimum relevance for search results, default value is 0.0.

Description	Definition	
Syntax	MinRelevance As Double (read/write)	

#### MinThreshold

This property sets or returns the required minimum value for a valid engine result.

Description	Definition	
Syntax	MinThreshold As Double (read/write)	

### **ODBCName**

This property sets or returns the name of the ODBC source.

Description	Definition	
Syntax	ODBCName As String (read/write)	



#### **Passwords**

This property sets or returns the password of the ODBC source.

Description	Definition	
Syntax	Password As String (read/write)	

#### Phrase

This property sets or returns the phrase by its index.

Description	Definition	
Syntax	Phrase (PhraseIndex As Long) As String (read/write)	

### **PhrasesCount**

This property returns the number of phrases used for address analysis.

Description	Definition	
Syntax	PhrasesCount As Long (read only)	

#### **PoolName**

This property sets or returns the name of the associative search pool.

Description	Definition	
Syntax	PoolName As String (read/write)	

### **PoolPath**

This property sets or returns the name of the path of the associative search pool.

Description	Definition	
Syntax	PoolPath As String (read/write)	



#### **PoolPathRelative**

This property sets or returns if the pool should be saved relative to the path of the project.

Description	Definition	
Syntax	PoolPathRelative As Boolean (read/write)	

### **ProjectPath**

This property returns the path of the project file.

Description	Definition	
Syntax	ProjectPath As String (read only)	

### RemovePhrase

This method removes a phrase from a list of phrases for address anlysis specified by its index.

Description	Definition		
Syntax	RemovePhrase (PhraseIndex As Long)		
Parameter	PhraseIndex:	[in] Index of the phrase that should be deleted [zero-based].	

### SavePoolInternal

This property sets or returns if a pool should be saved within the project file or as separate files

Description	Definition
Syntax	SavePoolInternal As Boolean (read/write)



### SearchAreaActive

This property sets or returns if the corresponding search area is active or not.

Description	Definition		
Syntax	SearchAreaActive(Se	SearchAreaActive(SearchAreaIndex As Long) As Boolean (read/write)	
Parameters	SearchAreaIndex:	Index of the area, accepts values from 0 to 5 with following meaning:	
		0 – First Page Header	
		1 – First Page Footer	
		2 – Subsequent Pages Header	
		3 – Subsequent Pages Footer	
		4 – Last Page Header	
		5 – Last Page Footer	

### Separator

This property sets or returns a separator, either a semicolon or comma, that is used for CSV files.

Description	Definition
Syntax	Separator As String (read/write)



#### SetSearchArea

This method sets the area on the document in which to search.

Description	Definition	
Syntax	SetSearchArea (SearchAreaIndex As Long, Left As Long, Top As Long, Width As Long, Height As Long)	
Parameters	SearchAreaIndex:	Index of the area, accepts values from 0 to 5 with following meaning:  0 – First Page Header  1 – First Page Footer  2 – Subsequent Pages Header  3 – Subsequent Pages Footer  4 – Last Page Header  5 – Last Page Footer
	Left:	Distance in % from left border of document.  Distance in % from top of document.
	Width:	Width in % of search area.
	Height:	Height in % of search area.

### **SQLQuery**

This property sets or returns an SQL statement used to import ODBC source.

Description	Definition
Syntax	SQLQuery As String (read/write)

# StartAddEntry

This method prepares the insertion of a new entry to the associative search pool.

Description	Definition
Syntax	StartAddEntry ()



### StartUpdate

This method generates and opens a new empty pool, or opens an existing pool for the update.

Description	Definition	
Syntax	StartUpdate (RemoveExistingPool As Boolean)	
Parameter	RemoveExistingPool:	[in] When this Boolean variable is set to true, than the old pool is removed, otherwise the existing pool is supposed to be updated by further "AddPhrase" calls. Note that in this case, it should not be required to call "AddColumn" function, because the former column information has to be taken.  Moreover, in case this parameter is true, and the "AddColumn" method is invoked, the "AddColumn" method will report an error because it must be prohibited to modify the existing column.

### UserName

This property sets or returns the user name required to login in to the ODBC source.

Description	Definition
Syntax	Username As String (read/write)

### VendorTypeColumn

This property sets or returns the column that defines the vendor type. The vendor Type column must contain a value in the 0 to 2 range.

- 0 = No class is created for this vendor through SLW.
- 1 = Allows one document for that vendor to be trained.
- 2 = Allows unlimited training.

Description	Definition
Syntax	VendorTypeColumn As String (read/write)



# StringComp Object Reference (SCBCdrSTRCOMPLib)

# SCBCdrStringComp

### **Description**

This component provides several implementations of string compare algorithms.

# **Type Definitions**

### CdrCompareType

This table contains a list of string compare algorithms.

Available Types	Descriptiosn
CdrTypeLevenShtein	Levenshtein algorithm
CdrTypeRegularExpression	Regular expression
CdrTypeSimpleExpression	Simple expression
CdrTypeStringComp	Exact string compare
CdrTypeTrigram	Trigram algorithm

# **Methods and Properties**

#### CaseSensitive

This property controls if the compare algorithm should work case-sensitive.

Description	Definition
Syntax	CaseSensitive As Boolean (read/write)

# CompTypes

This property selects the compare algorithm used for the next call of Distance.

Description	Definition
Syntax	CompType As CdrCompareType (read/write)



#### **Distance**

This method performs the selected string compare algorithm. You must first initialize the search expression and the compare method. The return value is the distance between the search expression and the string parameter, which is between 0.0 and 1.0. A distance of 0.0 means that the search expression matches the string parameter exactly and a distance of 1.0 means that there is no match at all. Most algorithms can also return a value between 0.0 and 1.0, which provides the possibilty to compare strings in a fault tolerant way.

Description	Definition	
Syntax	Distance (String As String, Distance As Double)	
Parameters	String:	[in] Specifies the string that should be compared with the search expression.
	Distance:	[out] Contains the distance of the compare operation that is between 0.0 and 1.0.

#### LevDeletions

This property returns the count of deletions calculated by the last Distance function.

Description	Definition	
Syntax	LevDeletions As Single (read only)	

#### LevInsertions

This property returns the count of insertions calculated by the last Distance function.

Description	Definition	
Syntax	LevInsertions As Single (read only)	

### LevRejects

This property returns the count of rejects calculated by the last Distance function.

Description	Definition
Syntax	LevRejects As Single (read only)



### LevReplactments

This property returns the count of replacements calculated by the last Distance function.

Description	Definition	
Syntax	LevReplacements As Single (read only)	

#### LevSame

This property returns the count of equal characters calculated by the last Distance function.

Description	Definition	
Syntax	LevSame As Single (read only)	

### LevTraceMatrix

This property returns the Levenshtein trace matrix calculated by the last Distance function.

Description	Definition	
Syntax	LevTraceMatrix As String (read only)	

#### LevTraceResult

This property returns the Levenshtein trace result calculated by the last Distance function.

Description	Definition	
Syntax	LevTraceResult As String (read only)	

#### MatchEndPosition

This property returns the matching end position calculated by the last Distance function.

Description	Definition
Syntax	MatchEndPosition As Single (read only)



#### **MatchStartPosition**

This property returns the matching start position calculated by the last Distance function.

Description	Definition	
Syntax	MatchStartPosition As Single (read only)	

### SerachExpression

This property contains the search expression that should be used for the next compare operation.

Description	Definition	
Syntax	SearchExpression As String (read/write)	

### ValidateSearchExpression

This method performs a syntax check for the specified compare method and search expression.

Description	Definition	
Syntax	ValidateSearchExpression (Type As CdrCompareType, SearchExpression As String) As Boolean	
Parameters	Туре:	Compare method to use for validation.
	SearchExpression:	Search expression to validate.

# **SCBCdrEmailProperties**

# **Description**

When importing a MSG file into a Workdoc, the most important properties of the e-mail are stored in the Workdoc and available in the custom script via the "ISCBCdrEmailProperties" interface that can be queried from the SCBCdrWorkdoc interface.

## **Properties**

### CdrMessageSeverity

This type defines the different message severities.

Available Types	Description
CDRSeverityLogFileOnly	Store the message to the application log file only.
CDRSeveritySystemMonitoring	Store the message in the log file and forward it to the host instance's MMC console and to the System Monitoring service of the Runtime Server. This option is applicable when the call is executed from within the Runtime Server application only.
CDRSeverityEmailNotification	Store the message in the log file and forward it to the MMC console / System Monitoring view and send as an e-mail to the system administrators via System Monitoring service of Runtime Server. This option is applicable when the call is executed from within the Runtime Server application only.



### SCBCdrLicenseInfoAccess

# Description

The Licensing Information Access object allows direct retrieval to the active licensing object. The Developer is able to directly query any licensing component in a custom script.

### Methods

### GetLicenseCounterByID

This method returns the license counter information for any given active or inactive license counter.

An active counter is one that is specifically identified in the license file and is enforced by the licensing mechanism.

Description	Definition	
Syntax	GetLicenseCounterByID(CounterID As SCBCdrPROJLib.CDRLicenseCounter, Count As Long, Active As Boolean)	
Parameters	CounterID:	The ID of the counter from which the value is retrieved. The ID is determined by the CdrLicenseCounter project data type.
	Count:	The returned utilization value from the licensing mechanism. This stores the value of usage.
	Active:	Identifies if the license counter should be active, or specified in the license file.
Example	An example to retrieve the OCRed count of documents in script.  Dim theLicensingInterface2 As SCBCdrPROJLib.SCBCdrLicenseInfoAccess	
	theObject2 As Object Dim vValue2 As Long Dim vValue3 As Varia Dim LicInfoMsg2 As S	ant
	vValue2=0 vValue3=0	
	<pre>Project.ActivateLicensing "Designer", "C:\Program Files (x86)\Perceptive\Components\Cairo" Set theObject2 = Project Set theLicensingInterface2 = theObject2 ' theLicensingInterface2.GetLicenseCounterByID(TLCPeriodPagesOCRed, vValue2, False)</pre>	
	' theLicensingInterf vValue3, False)	Face2.GetLicenseCounterByID(TLCTotalPagesOCRed,
	ts, vValue2, True) theLicensingInterfac vValue2, True) LicInfoMsg2 = "OCRec	ce2.GetLicenseCounterByID(TLCFineReaderRemainingUnice2.GetLicenseCounterByName ("Overall OCRed Pages", d count - " & CStr(vValue2) vbOkOnly, "Get License Count By ID")



For more information, refer to CdrLicenseCounter, CdrLicenseFeatureName, GetLicenseCounterByName, GetLicenseValueByID, GetLicenseValueByName, and ActivateLicensing.

### GetLicenseCounterByName

This method returns the license counter information for any given active or inactive license counter.

An active license counter is one that is specifically identified in the license file and is enforced by the licensing mechanism.

Description	Definition	
Syntax	GetLicenseCounterByName(CounterName As String, Count As Long, Active As Boolean)	
Parameters	CounterName:	The Name of the counter from which the value is retrieved. The Name is the same as shown in the license file.
	Count:	The returned utilization value from the licensing mechanism. This stores the value of usage.
	Active:	Identifies if the license counter should be active, or specified in the license file.
Example	An example to retrieve the OCRed count of documents in script.	
	Dim theLicensingI	nterface As SCBCdrPROJLib.SCBCdrLicenseInfoAccess
	Dim theObject As	Object
	Dim vValuel As Va	riant
	Dim LicInfoMsg As	String
	Project.ActivateL	icensing "Designer",""'
	Set theObject = P	roject
	Set theLicensingI	nterface = theObject
	theLicensingInter vValue1, True)	face.GetLicenseCounterByName("OCRed Pages per Day",
	LicInfoMsg = "OCR	ed count - " & CStr(vValue1)

For more information, refer to CdrLicenseCounter, CdrLicenseFeatureName, GetLicenseCounterByID, GetLicenseValueByID, GetLicenseValueByName, and ActivateLicensing.



### GetLicenseValueByld

This method returns the license counter information for any given item in the license file.

Description	Definition	
Syntax	GetLicenseValueByID(PropertyID As SCBCdrPROJLib.CDRLicenseFeatureName, Value As Variant)	
Parameters	PropertyID:	Depicts the item for which to retrieve the values. Various options can be found in CdrLicenseFeatureName.
	Value:	The returned value from the licensing mechanism. The data type varies depending on the item being returned.
Example	An example to retrieve the Email Importing flag in the license file.	
	Dim theLicensingIn	terface As SCBCdrPROJLib.SCBCdrLicenseInfoAccess
	Dim theObject As O	bject
	Dim vValue1 As Var	iant
	Dim LicInfoMsg As	String
	Project.ActivateLi	censing "Designer",""'
	Set theObject = Pr	roject
	Set theLicensingIn	terface = theObject
	theLicensingInterf	ace.GetLicenseValueByID(CDRLfnEMailsImporting,
	LicInfoMsg = "Ema	il Importing - " & CStr(vValue1)
	MsgBox(LicInfoMsg,	vbOkOnly,"Get License Value By ID")

For more information, refer to CdrLicenseCounter, CdrLicenseFeatureName, GetLicenseCounterByID, GetLicenseCounterByName, GetLicenseValueByName, and ActivateLicensing.

### GetLicenseValueByName

This method returns the license counter information for any given item in the license file.

Description	Definition	morniation for any given term in the heerise life.
Syntax	GetLicenseValueByName(PropertyName As String, Value As Variant)	
Parameters	PropertyName:	Depicts the name on which to retrieve values. Various options can be found in the license file. The text to be entered for this parameter should be the exact same text as appears in the license file.
	Value:	The returned value from the licensing mechanism. The data type varies depending on the item being returned.`
Example	An example to retrieve the Email Importing flag in the license file.	
	Dim theLicensingIr	nterface As SCBCdrPROJLib.SCBCdrLicenseInfoAccess
	Dim theObject As C	)bject
	Dim vValue1 As Var	riant
	Dim LicInfoMsg As	String
	Project.ActivateLi	censing "Designer",""'
	Set theObject = Pr	roject
	Set theLicensingIn	nterface = theObject
	theLicensingInterf	Face.GetLicenseValueByName("Serial", vValue1)
	LicInfoMsg = "Prim	mary Dongle Serial Number - " & CStr(vValue1)
	MsgBox(LicInfoMsg,	vbOkOnly,"Get License Value By Name")

For more information, refer to CdrLicenseCounter, CdrLicenseFeatureName, GetLicenseCounterByID, GetLicenseCounterByName, GetLicenseValueByName, and ActivateLicensing.

# Cedar Verifier Component Library

### SCBCdrVerificationForm

# Description

This interface is used to set properties specific for verification form object, as well as to set default properties for embedded elements, like verification fields, labels, tables, buttons, and so on.

For the Web Verifier, use this method in the VerifiedFormatLoad event.



# **Methods and Properties**

#### DefaultLabelFont

This property sets or returns the default font for all label elements available on this verification form.

Description	Definition
Syntax	DefaultLabelFont As StdFont

#### DefaultLabelFontColor

This property sets or returns the default color for all label elements available on this verification form.

Description	Definition
Syntax	DefaultLabelFontColor As OLE_COLOR
Example	<pre>Dim clrDefaultColor As OLE_COLOR     clrDefaultColor = -1 the     Form.VerificationLabels.ItemByIndex(lNextLabelIndex).FontColor = clrDefaultColor</pre>

### DefaultLabelBackgroundColor

This property sets or returns the default background color for all label elements available on this verification form.

Description	Definition
Syntax	DefaultLabelBackgroundColor As OLE_COLOR

### DefaultFieldFont

This property sets or returns the default font for all verification field elements available on this verification form.

Description	Definition
Syntax	DefaultFieldFont As StdFont



#### DefaultFieldFontColor

This property sets or returns the default color for all verification field elements available on this verification form.

Description	Definition
Syntax	DefaultFieldFontColor As OLE_COLOR

### DefaultElementBackgroundColorValid

This property sets or returns the default color for all valid (valid in terms of validation status) field elements available on this verification form.

Description	Definition
Syntax	DefaultElementBackgroundColorValid As OLE_COLOR

### DefaultElementBackgroundColorInvalid

This property sets or returns the default color for all invalid (invalid in terms of validation status) field elements available on this verification form.

Description	Definition
Syntax	DefaultElementBackgroundColorInvalid As OLE_COLOR

### FormBackgroundColor

This property sets or returns the background color for the form.

Description	Definition
Syntax	FormBackgroundColor As OLE_COLOR

### FormBackgroundColorDI

This property sets or returns the background color for the Direct Input control on the form, i.e. for the area around the Direct Input field.

Description	Definition
Syntax	FormBackgroundColorDI As OLE_COLOR



### SCBCdrVerificationField

# Description

This interface is used to identify verification properties specific for header fields' validation elements, like drop down lists, check-boxes, and normal edit fields.

**Note** To get the OLE\_COLOR or StdFont object for the properties below, add **OLE Automation** as a reference.

### Type Definitions

### CdrVerifiedFieldType

This is the Verifier Field type. This type interface is a member of the Cedar Verifier Project library.

Available Type	Description
CDRVerifierFieldTypeCheckbox	Check box field type
CDRVerifierFieldTypeCombobox	Combo box field type
CDRVerifierFieldTypeTableCheckBoxCell	Table check box cell field type
CDRVerifierFieldTypeTextMultiline	Multiline Text field type
CDRVerifierFieldTypeTextSingleline	Single Line Text field type

# **Methods and Properties**

### AutoCompletionEnabled

This property enables or disables Auto Completion for a verification field.

Description	Definition
Attribute	Read/Write
Example	The example below turns Auto Completion on for the Invoice Number field.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	<pre>Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")</pre>
	theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo"). AutoCompletionEnabled = True



### BackgroundColorInvalid

This property sets the color for the verification field to display to the user when the field required manual verification. When the field is Invalid in Verifier, the color that is set displays to the user. By default, the invalid background color of the field is red.

Descriptio n	Definition
Attribute	Read/Write
Example	The example below turns the color for Invoice Number field to gray if it is Invalid.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationForms.ItemByName("Invoices")
	theVerificationForm.VerificationFields.ItemByName("InvoiceNo").BackgroundColorInvalid = RGB (192, 129, 129)

For more information, refer to BackgroundColorValid.

### BackgroundColorValid

This property sets the color for the verification field to display to the user when the field does not require manual verification. When the field is Valid in Verifier, the color that is set displays to the user. By default, the valid background color of the field is green.

Description	Definition
Attribute	Read/Write
Example	The example below turns the color for Invoice Number field to gray if it is Valid.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")
	theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo"). BackgroundColorValid = RGB (192, 129, 129)

For more information, refer to BackgroundColorInvalid.



### Font

This property sets the Font for the content of the verification field.

Description	Definition
Attribute	Read/Write
Example	The example below sets the Font for Invoice Number field.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim DefaultFieldFont As New StdFont
	DefaultFieldFont.Bold = False 'Set Font attributes
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	<pre>Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")</pre>
	theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo"). Font = DefaultFieldFont

For more information, refer to FontColor.

### FontColor

This property sets the Font Color for the content of the verification field.

Description	Definition
Attribute	Read/Write
Example	The example below sets the FontColor for Invoice Number field to gray.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	<pre>Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")</pre>
	theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo"). FontColor = RGB (192, 129, 129)

For more information, refer to Font.



### Invisible

This property determines if the field is visible or hidden from the Verifier or WebVerifier form. The developer uses script options to hide or display the field from the verifier user. For the WebVerifier, this property can only be used in the VerifierFormload event.

Descriptio n	Definition
Attribute	Read/Write
Example	The example below hides the Invoice Number field from the verifier user.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationForms.ItemByName("Invoices")
	theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").Invis ible = True
	' Update the form
	theVerificationForm.RepaintControls

#### Left

This property provides the left position of the field on the Verifier form.

Description	Definition
Attribute	Read/Write
Example	The example below retrieves the Left position of the Invoice Number field from the Verifier form.  Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim LeftPos As Integer
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")
	LeftPos = theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").Left



For more information, refer to Top and Width.

#### Name

This property provides the Name of the field on the Verifier form.

Description	Definition
Attribute	Read
Example	The example below retrieves the Name of the Invoice Number field from the Verifier form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim FieldName As String
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")
	FieldName = theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").Name

### ReadOnly

This property determines if the verification field on the Verifier or Web Verifier form is editable or Read Only. For the Web Verifier, use this method in the VerifiedFormatLoad event.

Set the property to TRUE to make the field non-editable.

Descriptio n	Definition
Attribute	Read/Write



Descriptio n	Definition
Example	The example below sets the Invoice Number field as Read Only on the Verifier form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationForms.ItemByName("Invoices")
	theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").ReadO nly = True
	theVerificationForm.RepaintControls ' Update the form UI

### **TabIndex**

This property allows the scripter to set the tab sequence number of the verification field on the Verifier form.

The Tab sequence is typically configured on the verification form in Designer. This script method allows the scripter to change the sequence number to re-ordering TAB sequence of fields.

Descriptio n	Definition
Attribute	Read/Write
Example	The example below sets the Invoice Number field tab sequence on the Verifier form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")
	theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").TabIn dex = 5



### Top

This property provides the top position coordinates of the field on the Verifier form.

The scripter may choose to reorder positional information of the field if another element is being hidden. Using the RepaintControls method, the form UI is updated with the changes made.

Description	Definition
Attribute	Read/Write
Example	The example below retrieves the Top position of the Invoice Number field from the Verifier form.  Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject  Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm  Dim TopPos As Integer  ' Request the main form  Project.GetVerifierProject theVerificationProject  Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")  TopPos = theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").Top

For more information, refer to Left, Width, and RepaintControls.

### Type

This property provides the Field Type information of the field on the Verifier form.

The scripter may choose to review information based on the field type.

Description	Definition
Attribute	Read



Description	Definition
Example	The example below retrieves the Field Type Information of the Invoice Number field from the Verifier form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim FieldInfo As CdrVerifierFieldType
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationForms.ItemByName("Invoices")
	FieldInfo = theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").Type

For more information, refer to CdrVerifierFieldType.

#### Width

This property provides the Width size information of the field on the Verifier form.

The scripter may choose to reorder or resize positional information of the field if another element is being hidden. Using the RepaintControls method, the form UI is updated with the changes made.

Description	Definition
Attribute	Read/Write
Example	The example below retrieves the Width Information of the Invoice Number field from the Verifier form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim WidthInfo As Integer
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationForms.ItemByName("Invoices")
	WidthInfo = theVerificationForm.VerificationFields.ItemByName("Field_InvoiceNo").Width

For more information, refer to Left, Top, and RepaintControls.



### SCBCdrVerificationTable

### **Description**

This interface is used to identify verification properties specific for table validation elements.

# **Methods and Properties**

#### **FontFont**

This property sets or returns the font settings for the individual table field element.

Description	Definition
Syntax	FontFont As StdFont

### BackgroundColorValid

This property sets or returns the background color for the individual verification table element, when the table cell is valid in terms of current validation status.

Description	Definition
Syntax	BackgroundColorValid As OLE_COLOR

### BackgroundColorInvalid

This property sets or returns the background color for the individual verification table element, when the table cell is invalid in terms of current validation status.

Description	Definition
Syntax	BackgroundColorInvalid As OLE_COLOR

#### HeaderFont

This property sets or returns the font settings for all header buttons of the table field element, including row header buttons, column header buttons and the table header button (small control in the left-top corner of the table).

Description	Definition
Syntax	HeaderFont As StdFont



#### HeaderFontColor

This property sets or returns the font color for the header buttons of the table field element, including row header buttons and column header buttons.

Description	Definition
Syntax	HeaderFontColor As OLE_COLOR

### HeaderBackgroundColor

This property sets or returns background color for all header buttons of the table field element, including row header buttons, column header buttons, and the table header button.

Description	Definition
Syntax	HeaderBackgroundColor As OLE_COLOR

### **SCBCdrVerificationButton**

# **Description**

Use this interface to set verification properties specific for all custom buttons defined on a verification form.

# **Methods and Properties**

#### **Font**

This property sets or returns the font settings, such as name, type and style, for the individual custom button control.

Descriptions	Definitions
Syntax	Font As StdFont

#### **FontColor**

This property sets or returns the font color for the individual custom button control.

Descriptions	Definitions
Syntax	FontColor As OLE_COLOR



### **Background Color**

This property sets or returns background color for the individual custom button control.

Descriptions	Definitions
Syntax	BackgroundColor As OLE_COLOR

### **SCBCdrVerificationLabel**

## **Description**

This object is part of the Cedar Verifier Component Library. It enables the scripter to manipulate the verifier form labels.

Cedar Verifier Component Library is not enabled by default. This component can be added to the script references for any project class.

# **Properties**

### BackgroundColor

This property sets the color for the verification text label to display to the user. By default, the background color of the field is gray.

Description	Definition
Syntax	BackgroundColor As OLE_COLOR
Attribute	Read/Write
Example	The example below turns the color for Invoice Number label to gray.  Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject  Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm  ' Request the main form  Project.GetVerifierProject theVerificationProject  Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")  theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo"). BackgroundColor = RGB (192, 129, 129)



#### **Font**

This property sets the Font for the content of the verification field label.

**Note** To get the StdFont object, add OLE Automation as a reference.

Description	Definition
Attribute	Read/Write
Example	The example below sets the Font for Invoice Number field label.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim DefaultLabelFont As New StdFont
	DefaultLabelFont.Bold = False 'Set Font attributes
	'Request the main form
	Project.GetVerifierProject theVerificationProject
	<pre>Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")</pre>
	<pre>theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").Font = DefaultLabelFont</pre>

For additional information refer to the FontColor property.

### **FontColor**

This property sets the Font Color for the content of the verification field label.

**Note** To get the OLE\_COLOR object, add OLE Automation as a reference.

Descriptio n	Definition
Attribute	Read/Write
Example	The example below sets the FontColor for Invoice Number field label to blue.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationForms.ItemByName("Invoices")
	theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").FontC olor = RGB (0, 0, 255)



For additional information, refer to the Font property.

#### Invisible

This property determines if the field label is visible or hidden on the Verifier form. The developer may script options to hide or display the field label from the verifier user.

Descriptio n	Definition
Attribute	Read/Write
Example	The example below hides the Invoice Number field label from the verifier user.  Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject  Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm  'Request the main form  Project.GetVerifierProject theVerificationProject  Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")  theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").Invisible = True  'Update the form
	theVerificationForm.RepaintControls

### Left

This property provides the left position of the field on the Verifier form.

Description	Definition
Attribute	Read/Write



Description	Definition
Example	The example below retrieves the Left position of the Invoice Number field label from Verifier Form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim LeftPos As Integer
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")
	LeftPos = theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").Left

For additional information, refer to the  $\mathtt{Top}$  and  $\mathtt{Width}$  properties.

### Name

This property provides the Name of the field label on the Verifier form.

Description	Definition
Attribute	Read
Example	The example below retrieves the Name of the Invoice Number field label from Verifier Form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	Dim FieldName As String
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")
	FieldName = theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").Name

**Text** 

This property allows the scripter to set the text of the verification field label on the Verifier form.

Description	Definition
Attribute	Read/Write
Example	The example below sets the Invoice Number field label text on the Verifier Form.
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm
	' Request the main form
	Project.GetVerifierProject theVerificationProject
	Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")
	theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").Text = "Invoice Number"

### Top

This property provides the top position coordinates of the field label on the Verifier form.

The scripter may choose to reorder positional information of the field label if another element is being hidden. Using the RepaintControls method, the form UI is updated with the changes made.

Description	Definition
Attribute	Read/Write
Example	The example below retrieves the Top position of the Invoice Number field label from Verifier Form.  Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject  Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm  Dim TopPos As Integer  ' Request the main form  Project.GetVerifierProject theVerificationProject  Set theVerificationForm = theVerificationProject.AllVerificationForms.ItemByName("Invoices")  TopPos = theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").Top

For additional information , refer to the Left, Width, and RepaintControls.



#### Width

This property provides the Width size information of the field label on the Verifier form.

Description	Definition	
Attribute	Read/Write	
Example	The example below retrieves the Width Information of the Invoice Number field label from the Verifier form.	
	Dim theVerificationProject As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationProject	
	Dim theVerificationForm As DISTILLERVERIFIERCOMPLib.SCBCdrVerificationForm	
	Dim WidthInfo As Integer	
	'Request the main form	
	Project.GetVerifierProject theVerificationProject	
	Set theVerificationForm = theVerificationForms.ItemByName("Invoices")	
	WidthInfo = theVerificationForm.VerificationLabels.ItemByName("Label_InvoiceNo").Width	

For additional information, refer to the Left, Top, RepaintControls properties.

# Password Encryption for Database Connection Strings

The application architecture of Perceptive Intelligent Capture makes it very important to be able to hide sensitive security information, such as DB access password, stored in Perceptive Intelligent Capture or custom project configuration files.

The same requirement also applies to the database connection strings in the Perceptive Intelligent Capture project INI files that often contain multiple connection strings to different database instances (like for Visibility reporting or custom databases) with unencrypted password info. These INI files may not reside directly on the local Verifier workstation, but still can be easily accessed by the Verifier users, because at least the read-only access to the Perceptive Intelligent Capture project directory is a requirement for Perceptive Intelligent Capture applications.

**Note:** Maximum number of characters allowed to encrypt is 30. Passwords longer than 30 characters would not be encrypted correctly.Below are the steps to implement password encryption for custom configuration files used when loading Perceptive Intelligent Capture projects:

# Master Project Side (Project Primary Developer)

### **Prerequisites**

Before you start, request a pair of RSA encryption keys from Perceptive Customer Support. In terms of testing you can though use the pair of test keys below. However, do request a new pair before releasing your master project to the others.

Important Keep your private key safe - do NOT share it with anyone else. Only the public key should be distributed to those who use your project for custom implementations.



#### **Test Public Key**

<RSAKeyValue><Modulus>vJ+W7SuXuvOrWVoy4tPrbfLCuoHElo750cpTuEzLPk6iz6bHAodPVgLFaOEK+XMMS2G5z+6961vuQsDGUt+O1Ag1PiTXCa6rrAaeCaaDO4H18Mmpw0OkUZEfCZpTTYCYQPfZlgokwomF6VDSB9dlUS430IT0gctQY1b5iM4MqT0=</Modulus><Exponent>AQAB</Exponent></RSAKeyValue>

#### **Test Private Key**

<RSAKeyValue>< Modulus>vJ+W7SuXuvOrWVoy4tPrbfLCuoHelo750cpTuEzLPk6iz6bHAodPVgLFaOEK+XMMS2G5z+6961vuQsDGUt+01Ag1PiTXCa6rrAaeCaaDO4H18Mmpw00kUZEfCZpTTYCYQPfZlgokwomF6VDSB9dlUS430IT0gctQY1b5iM4MqT0= </Modulus>Exponent>AQAB</Exponent><P>8SRHEvT5Bn2paRHSDR9yCQb7WGYE9PbeHzuqwH6iWa0LNYJrSrhhUeCEpw1PLQWQq10KmMZgG0+Br4nuBMmMHQ==</P><Q>yD719fjB/MJWYaV3LcEZY286Q+Xvo74i6THvHkKqB1NKYGCN9xF9d8XbiUQNgBZ/4F02T6mFeYDO3ZkFVRXHOQ==</Q><DP>nRDTFn7nwRmSgfRwi8minkyk5DQ3IF035EIZ+x3Ao4Z52ZWkStwDz6/c12vR3XJVg7irkU0NB1zoDK1bklSw5Q==</DP><DQ>B3xieGmORva05/2ZkPpSA3ubAAL0jJ6FC5a0S7t0Q+vXMfdoTD45J1sfA+ipY1p2yVpyt10tC7fHBA7Y0S95QQ==</DQ><InverseQ>4S1xq1Kx9f1rawGCbFW0Vp61z1fCoQ8RfyDE87/G/pUi1HRJV2acBAcngy3C/MRMKrXQb8lx99k7dENUYc8ywQ==</InverseQ><D>KAL6cwkCQKgbuvKFRNSLZmFOqV2JpB5kI/p1U+0GWAs6Qi4wnPqy+5303naOa2faPctXLSKJqv1vSz21VDMUCSyphvOSxBtc1cZHJp4ueQPA7u+qrIJaDY1Rh1aVoqNfCJFX6+McVJ+I/X+mZOCtdUaCNAN014UYOaMujYDQE=</D></rr>



### Implementation Guidelines

1. Split the connection string in your configuration files to encrypted and non-encrypted parts.

Example of connection string of "BW Packaged.ini" before splitting:

```
SQL\_VL\_01\_ConnectionString=Provider=SQLOLEDB.1; \textbf{Password=alexey 123456789}; \textbf{Persist Security Info=True}; \textbf{User ID=alexey}; \textbf{Initial Catalog=Visibility}; \textbf{Data Source=KIR-AE-NB-03} \\ SQLSERVER2008R2 \\ \textbf{Password=alexey}; \textbf{Persist Security}; \textbf{Password=alexey}; \textbf{Persist Security}; \textbf{Password=alexey}; \textbf{Persist Security}; \textbf{Persist Sec
```

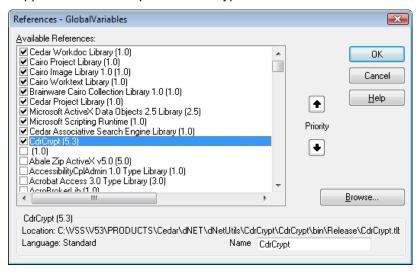
Example of connection string of "BW Packaged.ini" before splitting (the red part of the example below is now packaged as an extended new variable - see the red part below):

```
SQL\_VL\_01\_ConnectionString=Provider=SQLOLEDB.1; Persist\ Security\ Info=True; User\ ID=alexey; Initial\ Catalog=Visibility; Data\ Source=KIR-AE-NB-03\SQLSERVER2008R2
```

SQL\_VL\_01\_ConnectionPassword=encrypted\_password\_is\_to\_be\_placed\_here

2. Open your master project in Designer, run script editor, open the script page, where you would like to implement connection string encryption and add the Reference to "CdrCrypt (5.3)" type library:

**Note** If it does not show up in the list of libraries, click on "Browse..." button, browse to the .\Application\bin and open the CdrCrypt.tlb.



4. At the place of the same script page, where connection string is supposed to be read from the configuration (INI) file and then used further to connect to the database add a script code, similar to the one below:

```
Dim theCedarCryptographyHelper As New CdrCrypt.RSACodecInt
 Dim strEncryptedPassword As String
 Dim strOpenPassword As String
 Dim strPrivateKey As String
 strPrivateKey =
"<RSAKeyValue><Modulus>vJ+W7SuXuvOrWVoy4tPrbfLCuoHElo750cpTuEzLPk6iz6bHAodPVqLFa0EK+XMMS2G5z+
6961vuQsDGUt+01Ag1PiTXCa6rrAaeCaaD04H18Mmpw00kUZEfCZpTTYCYQPfZ1gokwomF6VDSB9d1US430IT0gctQY1b
5iM4MqT0=</Modulus><Exponent>AQAB</Exponent><P>8SRHEvT5Bn2paRHSDR9yCQb7WGYE9PbeHzuqwH6iWa0LNY
JrSrhhUeCEpwlPLQWQq10KmMZgG0+Br4nuBMmMHQ==</P><Q>yD719fjB/MJWYaV3LcEzY286Q+Xvo74i6THvHkKqB1NK
YGcN9xF9d8XbiUQNgBZ/4F02T6mFeYD032KFVRXHoQ==</Q><DP>nRDTFn7nwRmSgfRwi8minkyk5DQ3IF035EIZ+x3Ao
4Z52ZWkStwDz6/c12vR3XJVq7irkU0NB1zoDK1bk1Sw5Q == </DP > < DQ > B3xieGmORva05/2ZkPpSA3ubAALOjJ6FC5a0S
7tOQ+vXMfdoTD45JIsfA+ipYIp2yVpyt10tC7fHBA7Y0S95QQ==</DQ><InverseQ>4S1xq1XK9f1rawGCbFW0Vp6lz1f
CoQ8RfyDE87/G/pUilHRJV2acBAcnqY3c/MRMKrXQb8lx99k7dENUYc8ywQ==</InverseQ><D>KAL6cwkCQKqbuvKFRN
SLZmFOqV2JpB5kI/p1U+0GWAs6Qi4wnPqy+53O3naOa2faPctXLSKJqvlvSz21VDMUCsyphvOSxBtc1cZHJp4ueQPA7u+
qrIJaDY1RhlAVoqNfCJFX6+McVJ+I/X+mZOCtdUaCuAoNn014UY0aMujYDQE=</D></RSAKeyValue>"
  strEncryptedPassword = DicVal("01" & "ConnectionPassword", "SQL")
 If Len(strEncryptedPassword) > 0 Then
    strOpenPassword = theCedarCryptographyHelper.Decode(strEncryptedPassword, strPrivateKey)
 End If
 If Len(strOpenPassword) > 0 Then
    strConnection = strConnection + "; Password=" + strOpenPassword
 End If
```

- 5. Make sure you encrypt the script page that contains the code above via standard script code encryption feature.
  - Alternatively, you leave the code above unencrypted, but place the "strPrivateKey" variable and its initialization on another encrypted page available from the code above.
- 6. When you release your master project to the others, distribute the public key along with the project releaseThe professional servicesrepresentatives who are installing your project on site, use this public key to encrypt their custom passwords.

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