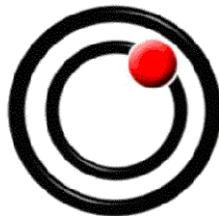




Starting K2.net 2003 from Kofax Ascent 6.1 Release Script
KB000101 - REV 1, November 2005



sourcecode

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K2.net® 2003

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Step 1 - Creating COM wrapper for K2Rom.dll

To create the .NET assembly containing a public class that can be called from a COM component, follow the steps as described in this knowledge base article.

Step 2 – Modify the Kofax Ascent TextRel.dll

Obtain the Visual Basic 6 code for the compiled dll from the following location: **“C:\Program Files\Ascent\Source\Release\Text”**. This is the default installation location and may vary depending on your installation.

Note: Ensure to make a backup copy of the “Text” directory before making changes to the files as a source.

To complete the example in this article, ensure that the following pre requisites are met:

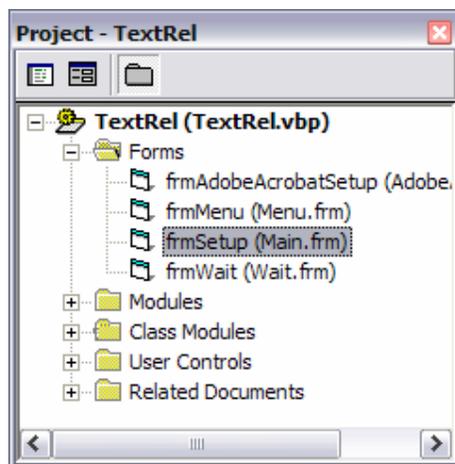
- Visual Basic 6 is installed

Note: Visual Basic 6 is required to compile a COM based DLL. Kofax is not .NET compatible and therefore will not be able to call from a .NET assembly. VB6 is used to demonstrate the process of modifying the COM component. Any deployment environment capable of compiling a COM component may be used.

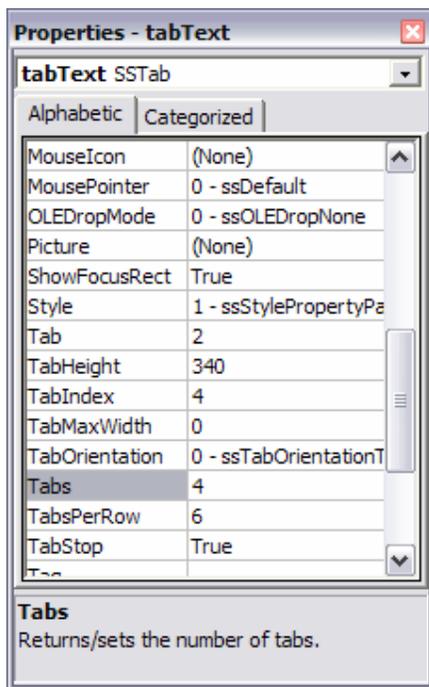
- Locate the tutorial files *NWest_1.tif* and *NW_Mult.tif* available in the *Tutorial* directory
- K2.net 2003 Project: Create a project in K2.net 2003 Studio with the following criteria:
 - *Project Name:* KofaxTest
 - *Process Name:* Kofax
 - *Process Data fields:* "FirstName", "LasName"
- When the user provides a K2Server name in the template, the server name must always be correct and available! **No** error checking regarding the server name and availability is placed in the code samples provided

Modify the DLL:

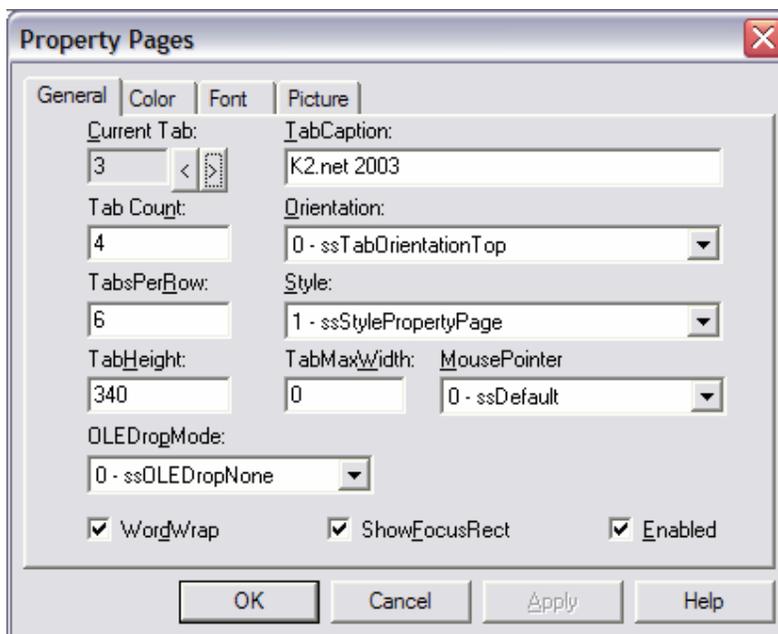
1. Open the *TextRel.vbp* file located in the *Source\Release\Text* directory by double clicking on the file.
2. In the project explorer window,
 - a. Click on the folder labeled **"Forms"** and open it
 - b. Double click the form labeled *"frmSetup"*. This will open the form **"frmSetup"** in the Design pane in the middle of the screen.



3. Select the tab control on the form (tabText). In the properties window of the control, change the **Tabs** property from 3 to 4. See the image below



4. Right click on the tab-control (tabText) and select **"Properties"**
5. For the next section, you are required to add a new Tab and then place a number of controls on the Tab and configure them.
 - a. Change the current tab to 3 and configure the properties to be as is shown in the image below:



- b. On the blank tab, place a frame called fraTab. Set the following properties for this frame:

Property	Configuration
Name	fraTab
BorderStyle	0 – None
Caption	(Blank)
Index	3
Enabled	True
Left	0
Top	360
Height	5415
Width	7815

- c. Inside the above frame, place a CheckBox with the following properties:

Property	Configuration
Name	chkK2
Alignment	0 – Left Justify
Caption	Use K2.net 2003
Height	255
Left	240
Width	1695

- d. Now, place another frame below the checkbox in the fraTab frame with the following properties:

Property	Configuration
Name	fraK2
BorderStyle	1 – Fixed Single
Caption	K2.net 2003
Enabled	False
Height	1095
Left	120
Top	960
Width	7335

- e. Inside the frame fraK2, place a label and a text box. The label has the follow properties:

Label Properties

Property	Configuration
Caption	K2.net 2003 Server
Left	120
Top	360
Width	1695

Textbox Properties

Property	Configuration
Name	txtK2ServerName
Height	285
Left	1920
Text	(Blank)
Top	345
Width	5055

6. Double click on the checkbox (chkK2) to view the code behind the control. Place the following code in the **“Click-event”** of the check box:
VB6

```
Private Sub chkK2_Click()
    If chkK2.Value = vbChecked Then
        fraK2.Enabled = True
        txtK2ServerName.Text = GetSetting("Kofax", "K2", _
            "UseValue", "")
        If Len(txtK2ServerName.Text) = 0 Then
            txtK2ServerName.Text = GetSetting("Kofax", "K2",
                "StoreValue", "")
        End If
    Else
        fraK2.Enabled = False
        txtK2ServerName.Text = ""
        SaveSetting "Kofax", "K2", "UseValue", ""
    End If
End Sub
```

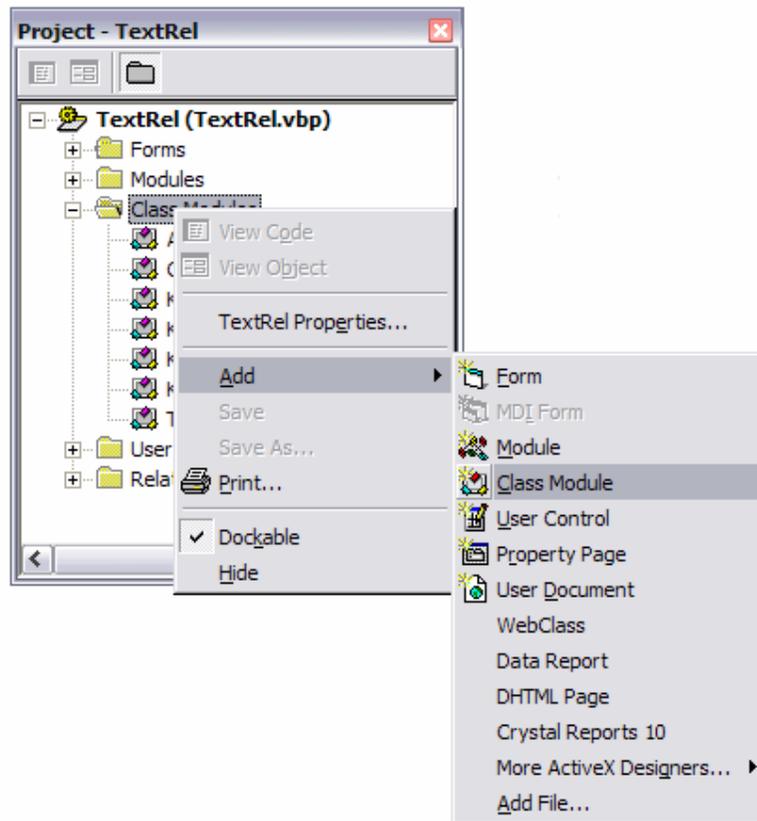
7. Place the following sub procedure in the code:

```
Private Sub SaveK2Settings()
    If chkK2.Value = vbChecked Then
        SaveSetting "Kofax", "K2", "UseValue", _
            txtK2ServerName.Text
        SaveSetting "Kofax", "K2", "StoreValue", _
            txtK2ServerName.Text
    Else
        SaveSetting "Kofax", "K2", "UseValue", ""
        SaveSetting "Kofax", "K2", "StoreValue", _
            txtK2ServerName.Text
    End If
End Sub
```

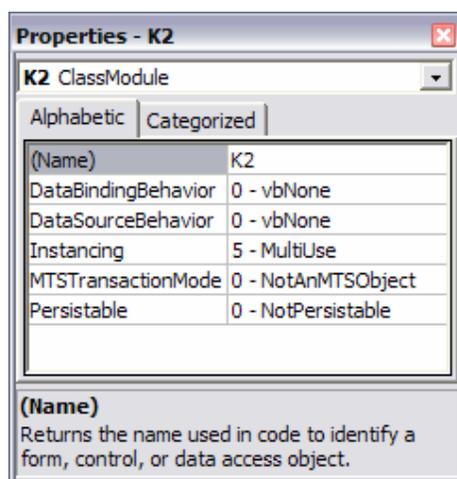
8. In the click events of both the cmdOK and the cmdApply buttons, add the following code to the existing code:

```
Call SaveK2Settings
```

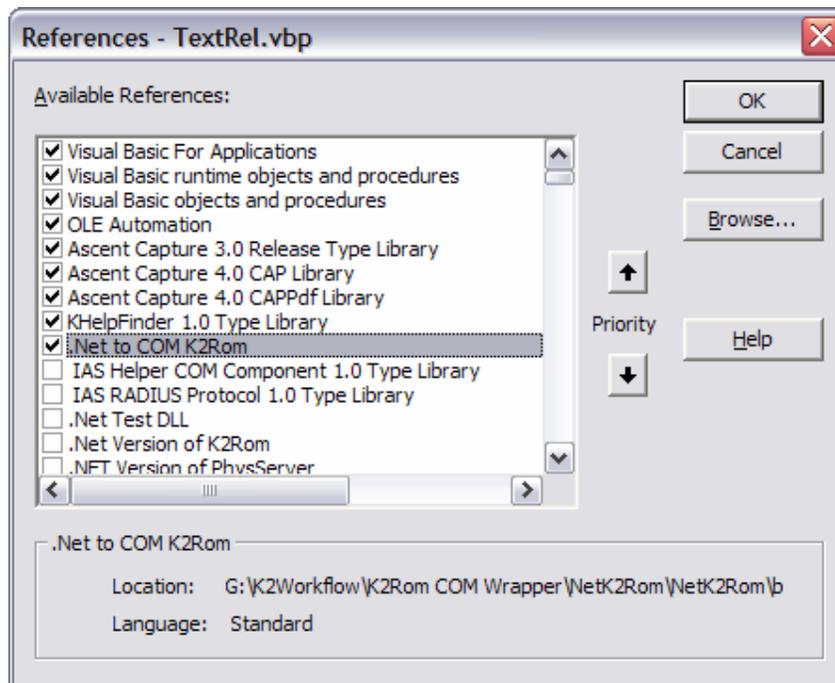
9. Add a new class module:
 - a. Right click on the folder in the “Project Explorer” labeled “Class Module”
 - b. Select “Add>Class Module”



10. Configure the properties for the new class as shown below:



11. Add a reference to the .Net assembly created previously:
 - a. Click on **Project >References**
 - b. In the references window, enable the .Net to COM K2Rom object.



12. In the code window of the K2 class, place the following code:

```
Option Explicit

Private moTempClass As NetK2Rom.NetK2Rom
Private moTemp As NetK2Rom.iK2ROM

Public Sub K2StartProcess(ByRef LastName As String, _
    ByRef FirstName As String)

    Set moTempClass = New NetK2Rom.NetK2Rom
    Set moTemp = moTempClass

    Dim szServerName As String
    szServerName = GetSetting("Kofax", "K2", "UseValue", "")

    Dim sDataFieldNames As String
    Dim sDataFieldValues As String

    sDataFieldNames = "FirstName,LastName"
    sDataFieldValues = FirstName & "," & LastName

    Dim bCreateProcess As Boolean
    Dim sOut As String

    With moTemp
        .Server = szServerName
        .Folio = "Kofax - " & FirstName & " " & LastName
        .Project = "KofaxTest"
        .Process = "Kofax"
```

```

        .DataFieldsCommaDelStrNames = sDataFieldNames
        .DataFieldsCommaDelStrValues = sDataFieldValues

        bCreateProcess = .CreateProcess

        sOut = .Data

    End With
End Sub

```

13. Open the code window for the class ASCIITextFile. Double click on the class in the “**Project Explorer**” window. Declare the following two variables in the ReleaseIndexes procedure:

```

Dim K2FirstName as String
Dim K2LastName as String

```

Place the following code at the end of the loop as indicated by the image below:

```

1170     If sSource <> "" Then
            ' Get the Index Value
            sValue = Chr$(34) & SortedValues(I).Value & Chr$(34)

            'If this is the FirstName or LastName, store the value
            If Len(K2FirstName) = 0 Then
                K2FirstName = sValue
            Else
                K2LastName = sValue
            End If

            ' Append the index source and value
1175     sOutput = sOutput & sSource & "," & sValue & ","
            End If

            I = I + 1
        Wend

```

```

'If this is the FirstName or LastName, store the value
If Len(K2FirstName) = 0 Then
    K2FirstName = sValue
Else
    K2LastName = sValue
End If

```

Place the following code just before the error handling starts as indicated by the image below:

```

        ' Write the output to the file and close the file
    On Error GoTo RI_LogAndPropError
1210    Print #hFile, sOutput
1220    Close #hFile

'Now call the K2 Process
Dim oK2Class As New K2
Call oK2Class.K2StartProcess (K2LastName, K2FirstName)

Exit Sub

'-----
' Error Handler
'-----
RI_FileOpenError:

    ' If the path does not exist, don't try to re-open the file
    ' Append the missing path to the error message

```

```

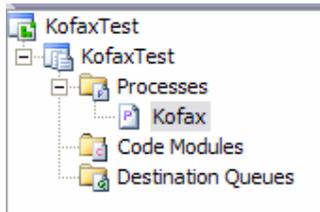
'Now call the K2 Process
Dim oK2Class As New K2
Call oK2Class.K2StartProcess (K2LastName, K2FirstName)

```

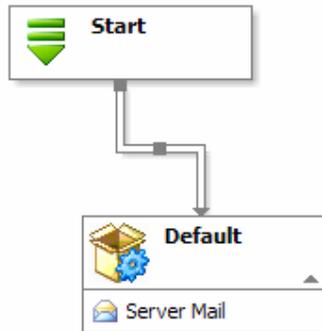
14. The dll must now be recompiled. However, since the dll is registered, the dll must be de registered before the re compile can take place. The dll will be re-registered automatically once the compilation is complete with no errors.
 - a. De-register the current DLL found in the bin directory in the Kofax Ascent installed directory (by default C:\Program Files\Ascent\Bin).
 - i. To do this, click **Start, Run...**, and type in the following command (make sure no instance of Kofax Ascent using this DLL is running):
 - ii. regsvr32 -u "C:\Program Files\Ascent\Bin\TextRel.dll"
 - b. Compile the TextRel.dll. In the VB6 environment.
 - i. Click on "**File> Make TextRel.dll...**"
 - c. The DLL has been registered when it was compiled according to the location where it was created. It therefore needs to be unregistered and moved to the bin directory of Kofax Ascent. To do this, follow the steps in a.i) above, changing only the path to the correct location where the DLL was just compiled.
 - d. Browse to the directory where the DLL was created, copy it and paste it in the Kofax Ascent bin directory. It is advised to make a backup of the current TextRel.dll before replacing it with your newly created DLL.
 - e. Register the DLL by doing the following:
 - i. Click **Start>Run...**
 - ii. Type in the following command:
regsvr32 "C:\Program Files\Ascent\Bin\TextRel.dll"

Step 3 – Create K2.net 2003 Process

Create a K2.net 2003 project called **KofaxTest**. Add a process called **Kofax** with two datafields, **FirstName** and **LastName**, both of type string.



Add a **Default Activity** to the canvas and place a **Server Mail** event in the activity. Configure the Server Mail event to send an email to the originator. Allocate the two datafields' values in the body of the email.



Once complete, export the process ensuring that there are no errors.

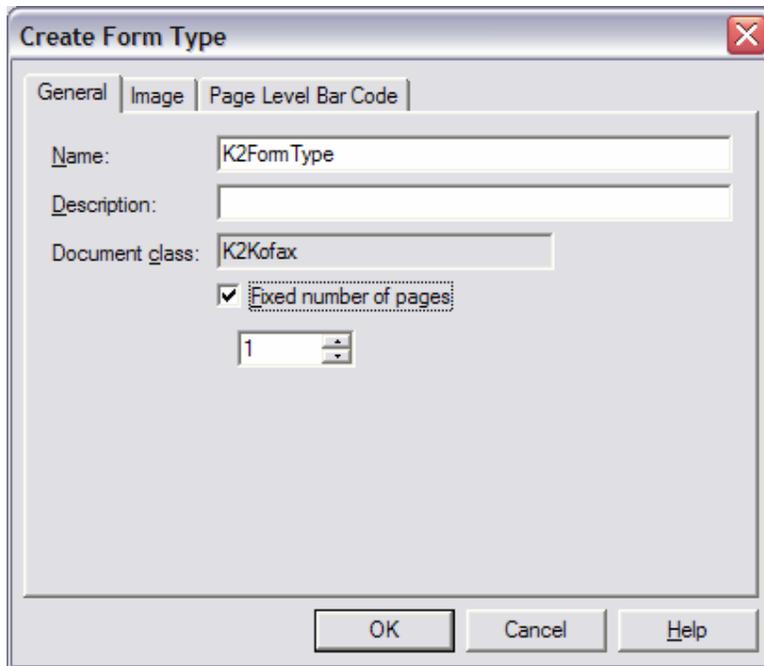
Step 4 – Setup a batch in Kofax Ascent for scanning and release.

In this example, a batch is created which automatically recognizes the first name and the last name contained in the document. To setup the batch, do the following:

1. Open the Ascent Capture Administration module.
2. Click on the “**Field Types**” tab on the “**Definitions**”, and right click anywhere on the panel and a context menu will appear.
3. From the context menu, select “**New Field Type**”. The Create Field Type dialog box will appear.
4. Now add Field Type with the following properties:

Field	Type
Name	Alphanumeric_25
Data Type	Varchar
No of Chars	25

5. Create a Document Class:
6. Click on the Document tab on the Definitions panel
7. Right click anywhere on the panel and a context menu will appear.
8. Select *New Document Class* and the “**Create Document Class**” dialog will appear.
9. Provide the document class a name – for this example we will call it *K2Kofax*.
10. Click *New* to add an Index field. Add the following two index fields:
 - a. *FirstName* and *LastName*.
 - b. Set the field type of both to *Alphanumeric_25*
 - c. Set *Required* to *True*
11. Click “**Ok**” to create the new document class.
12. Create a form type by right-clicking on the *K2Kofax* document type just created and select *New Form Type* from the context menu.
13. Give the new form type the name *K2FormType*.
14. Select the checkbox for *Fixed Number of pages* and add a 1 to the list below it (see image). Now click “**OK**” to close the context menu.

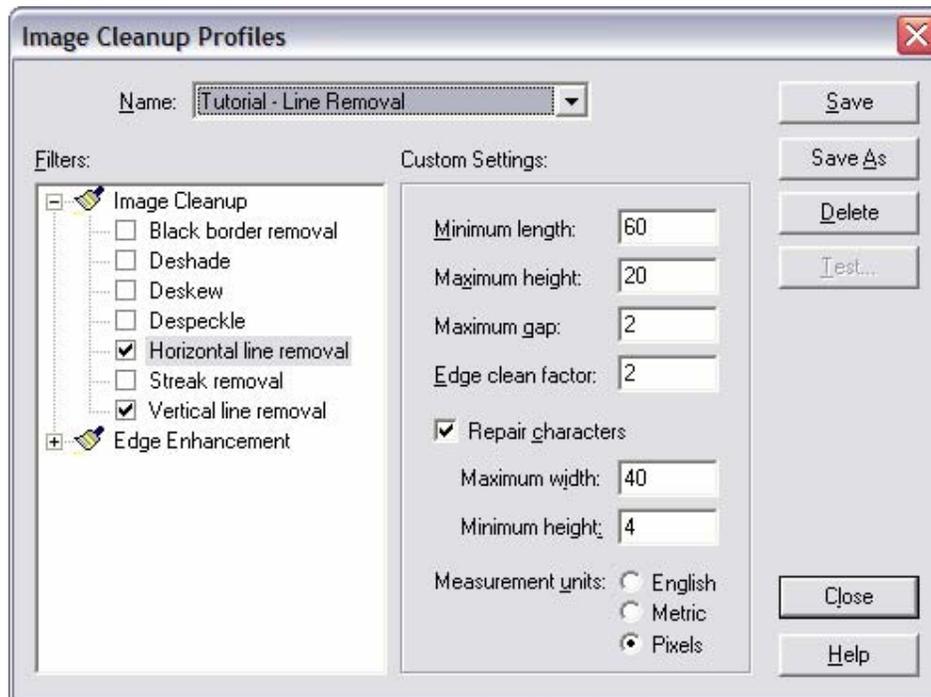


15. Click on the drop-down arrow and ensure the option **“Software Import”** is selected as indicated:

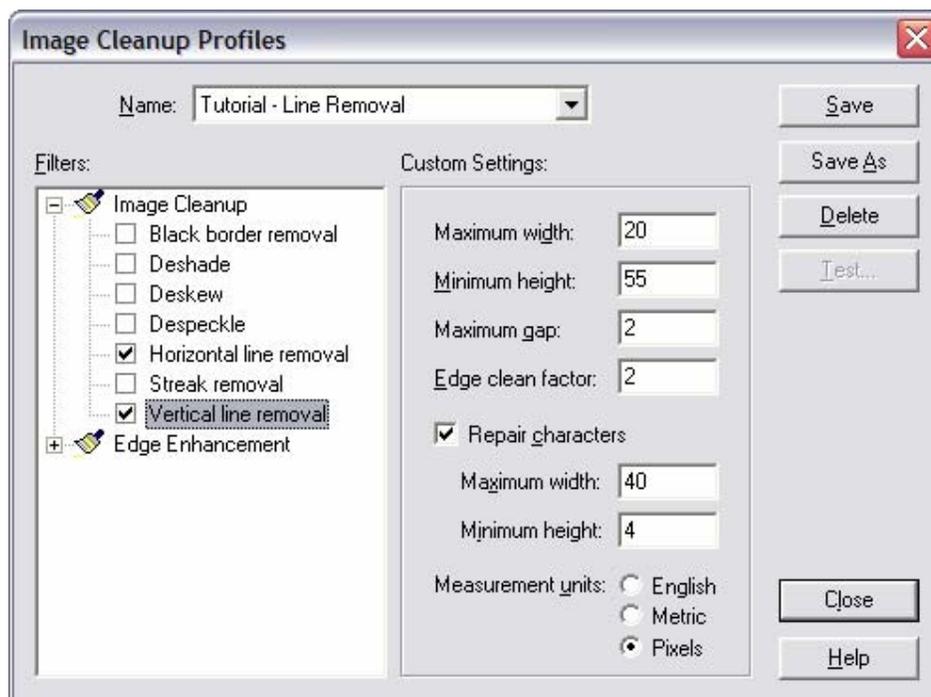


16. Right click on the newly created form type in the definitions window and select *Add Sample Pages* from the context menu.
17. Browse to the file called NWest_1.tif (located in the tutorial directory of the Kofax Ascent installation).
18. Select the file NWest_1.tif.
19. You will now see the page displayed.
20. To continue, an image cleanup filter profile must be created. To do this, select **“Edit> Image Cleanup Profiles”**. The Image Cleanup Profiles context menu will appear.

21. Enable the checkbox next to **“Horizontal Line removal”**. Enter the settings as displayed in the image:



22. Enable the checkbox next to **“Vertical line removal”**. Enter the settings as in the image below:



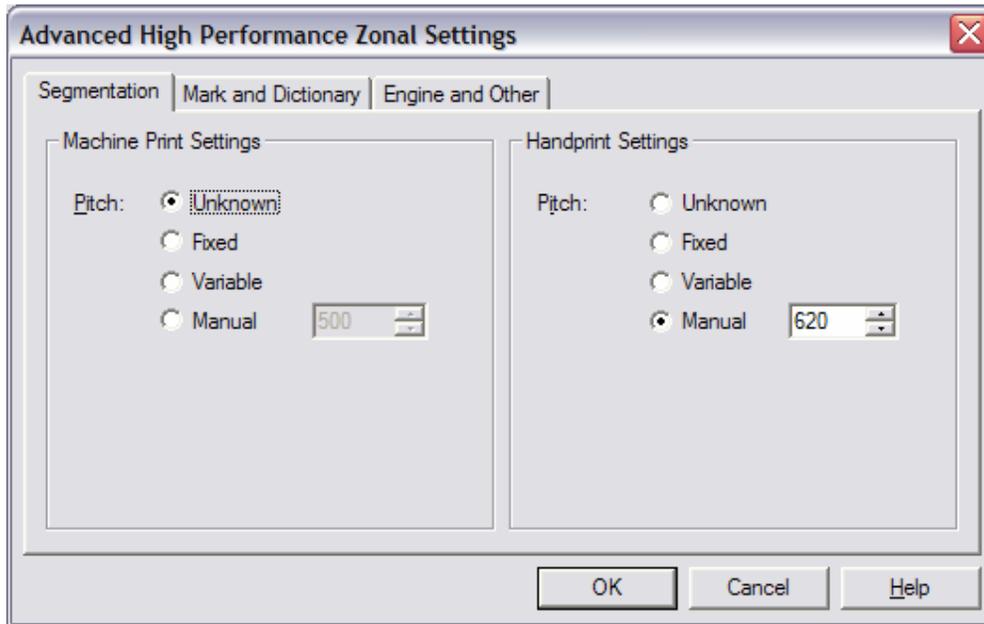
23. Click on “**Save As**” and save the profile as **Tutorial – Line Removal**.
24. Create a recognition profile. Click on “**Edit >Recognition Profile**”. The Recognition Profile context menu will appear
25. From the “**Name**” dropdown list, select **Kofax High Performance ICR Zonal**.
26. Select the Print Type: “**Handprint**”
27. Select the Content Alphanumeric with the character set A-Za-z.
28. Set the Trigram mode to “**Off**” and enable the setting “**Logical content**”
29. In the image clean up profile, select Tutorial – Line Removal (the clean up profile we just created).
30. Now click “**Save As**” and save this recognition profile as **Tutorial – Boxed Letters**.
31. When done, the profile will look as follows:

The screenshot shows the "Recognition Profiles" dialog box with the following settings:

- Name: Tutorial - Boxed Letters
- Engine: High Performance Zonal
- Language: ENGLISH - UNITED STATES
- Code page: [1252 WINDOWS LATIN 1]
- Print type: Handprint, Unknown, Farrington 7B, Machine print, OCR-A, CMC7, Fixed, OCR-B, E13B
- Content: Alphanumeric, Amount, Numeric
- Character set: A-Za-z
- Trigram mode: Off, Check, Repair, Logical context
- Image Cleanup: Profiles: Tutorial - Line Removal

Buttons on the right side: Save, Save As, Delete, Script..., Test..., Close, Help.

32. The advanced settings must look as follow:



33. Click **Close** to close the context menu



34. Select the Create Index Zone icon () from the menu at the top. Draw a box around the **First Name** section on the sample page as follows:

87326

Ship To: 

First Name: MARTIN Last Name: JANEWAY

Address: 19 POWERS ROAD

City: MANHEIM State: IL Zip/Postal Code: 60420

Country: USA

Quantity	Item #	Description	Unit Price	Amount
1	638	LANG STERLING PIE SERVER	32.95	32.95

35. A context menu will appear. Select **FirstName** from the **Associated Field** drop down list. Select **Auto Recognition** and select **Tutorial – Boxed Letters** from the **Recognition Profiles** dropdown list

36. Repeat step 33 for the **Last Name** area, this time selecting **LastName** from the **Associated Field** dropdown list and **Tutorial – Boxed Letters** from the **Recognition Profiles** dropdown list

37. View the preview, an example preview is shown below:

Northwest Products
525 Corporate Dr.
Lakeview, CA 90435

Ordered By:
Bill Slater
365 Planter Street
New York, NY
87326

Ship To:

First Name: MARTIN
Last Name: JANEWAY

Address: 19 POWERS ROAD

Barcode: * 6 7 3 4 2 - 8 9 5 *

38. Create a batch class. Select the “**Batch**” tab on the “**Definitions**” panel. Right click anywhere on the panel and select “**New Batch Class**” from the context menu.
39. Call the Batch Class **K2Batch**. Click “**New**” to add a batch field. Call it **Site ID**, field type Alphanumeric_25, and Default value {Site ID}.
40. Under the *Queues* tab, select the following in sequence:

Queues Settings
Scan
Recognition Server
Validation
Release

41. Under the “**Separation and Form Identification**” tab, select **Kofax fixed pages**.
42. Click on the “**Queues**” tab, select “**Scan**” and then click on “**Properties**”. Set the properties as follows:

Scan Properties

General | Endorsing

Capture Mode

Scan

Import

Permanent Image Cleanup

Profiles: Kofax Scan [Edit...]

Scanner Support

Patch code reader Bar code reader

OK Cancel Help

43. Click **“OK”** to save and close the properties window
44. Click **“OK”** to close the **“Batch Class”** properties window.
45. Right click on the batch class **K2Batch** and select **“Insert Document Class”** from the context menu.
46. Select **K2Kofax** from **“Insert Document Class”** list.
47. Now setup the release script to use. Right click on the **“Document Class”** **K2Kofax** which you just added to the batch class. From the context menu, select **“Release Scripts”**.
48. Now select **“Ascent Capture Text”** from the list on the left and add it to the **“Assigned Release”** scripts list on the right.
49. The template will appear. In the name enter **K2KofaxRelease**.
50. Under the **“Index Storage”** tab, browse to a working directory where the output files will be saved. Call the file **K2Test.txt**.
51. Under **“Document Storage”** tab, select **Release Image files** and browse to a directory where the image files will be released to.
52. Under the *K2.net 2003* tab, select **Use K2.net 2003**, and place the server name in the textbox.
53. Click **“OK”** to save and click **“Close”**.
54. Publish the batch. To publish the batch right clicking on the batch (**K2Batch**). Select **“Publish”** from the context menu. From the **“Publish”** dialog box, publish the document, ensuring that there were no errors. Refer to the [AC_6_1_Learning_Ascent_Capture_Guide.pdf](#) on correcting possible errors.

Since the batch class has been created, a few final steps must be performed. A batch must be scanned and run through the recognition server. Once the data has been validated it can then be released.

Scan module:

1. Open the **“Scan”** module of Kofax Ascent.
2. In the **“Create Batch”** dialog box, select **K2Batch** from the batch class dropdown list.
3. Give the Batch a descriptive name. For this example use **K2BatchTest1**.
4. Click the **“Scan”** button.
5. Browse to the location where the NW_Multi.tif file is stored (by default in the tutorial directory under the Ascent installed folder). Select the file and click **“Open”**.
6. Select **“Batch>Close”** from the menu. When prompted if you are sure, select **Yes**.
7. Close the **“Scan”** module.

Recognition Server module:

1. Open the **“Recognition”** module of Kofax Ascent.
2. The recognition server will scan through the batch. Close the module when the recognition server has completed its task.

Validation Module:

1. Open the **“Validation”** module of Kofax Ascent.
2. The Open Batch dialog should appear. From the dialog, select **K2BatchTest1** and click **OK**.
3. Ensure that the data is correct. By pressing **TAB**, you can quickly run through the document and see that the data is correct. Once you have checked all the data, you will be prompted if you wish to close the batch. Select **OK**, and close the validation module

Release Module:

Note: The user under which the Release module is run must be the same user who starts the K2.net 2003 process. Ensure that this user has the appropriate rights to start the process.

1. Open the “**Release**” module of Kofax Ascent.
2. The “**Release**” module will automatically run through each document and release it to the file system to the directory specified earlier. Once the document is released to the directory a new K2.net 2003 process instance will be started.
3. For each document that is released an email will be received by the destination user

See Also

Calling .Net from COM - <http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dndotnet/html/callnetfrcom.asp>

Learning Ascent Capture 6.1 – AC_6_1_Learning_Ascend_Capture_Guide.pdf

