Perceptive Intelligent Capture for Invoices

Solution Guide

August 2013

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Date: September 2013

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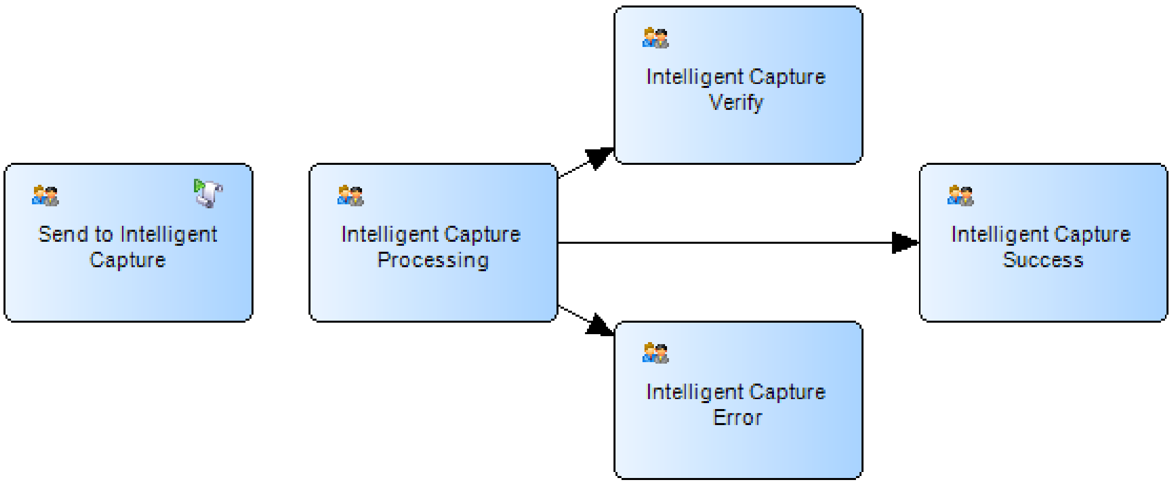
Product Overview

Intelligent Capture for Invoices is Perceptive's advanced solution for invoice processing. This solution fully integrates ImageNow with Intelligent Capture. The ImageNow components used include ImageNow workflow, iScripts, External Message Agent, and Output Agent. In addition, Intelligent Capture provides a pre-developed project for invoice processing. The Perceptive Intelligent Capture for Invoices solution includes Intelligent Capture's production rules-based capture logic and the ability to deliver document status messages to the External Message Agent table.

The workflow process for an invoice includes the following steps.

- The user captures an invoice into ImageNow using a capture profile. The profile captures the document into an initial workflow queue. For example, Send **to Intelligent Capture**.
- The **Send to Intelligent Capture** queue contains an iScript, which runs each time an invoice enters the queue. With Output Agent, the iScript exports the invoice as an image to an Intelligent Capture-monitored directory. After the export, ImageNow routes the original document to the workflow queue **Intelligent Capture Processing**.
- The configured Intelligent Capture service monitors and imports the invoice image from the directory. Intelligent Capture completes the Classification, Extraction and Verification processes on the invoice image. Then, it generates one of the following external messages reflecting the invoice image status.
  - **Errors**
  - **Needs Verification**
  - **Success**
- After receiving the external message, External Message Agent executes an iScript. The iScript routes the invoice, in workflow, to one of the corresponding queues:
  - **Intelligent Capture Success**
  - **Intelligent Capture Verify**
  - **Intelligent Capture Error**
- When an invoice enters the **Intelligent Capture Success** queue, the iScript populates the AP Invoice eForm and sets document and custom properties with valid, extracted data. At this point, you could set a routing rule to move the invoice to a queue for the next invoice-processing task.
- If the invoice needs verification, the user processes it with the Intelligent Capture Verifier tool. After the user verifies that Intelligent Capture correctly extracted the invoice data, Intelligent Capture sends a new external message. External Message Agent executes the iScript to route the invoice to either the **Intelligent Capture Success** or the **Intelligent Capture Error** queue.
- If the invoice has an error, the External Message Agent iScript populates the Invoice eForm and sets index values with error information to aid in troubleshooting. For example, you could set a routing rule to handle certain conditions, such as VENDOR NOT FOUND. The routing rule could then send the document to a queue for the user who handles new vendors.

Below is an example of a primary workflow. Depending on your invoice processing needs, your process may vary.



Prepare to install the solution

Solution prerequisites

Before downloading and installing the Intelligent Capture for Invoices project solution, review and complete the following prerequisites, as necessary.

Program prerequisites

To install the Intelligent Capture for Invoices solution, you must install and have access to the following programs.

- ImageNow Server and Client, version 6.5.1. or higher
- Output Agent, version 6.5.1 or higher
- AP Invoice eForm or a custom invoice eForm

For information on the compatibility of specific versions of the ImageNow and Intelligent Capture, refer to the Compatibility matrix for the complete solution below.

Task prerequisites

Review the following tasks and complete any as necessary.

- In **ImageNow Management Console**, create the document types **Invoice** and **Credit Memo**.

Determine which component versions to use

To determine the compatibility of Intelligent Capture, Intelligent Capture for Invoices, and your existing ImageNow Server and AP Invoice eForm, review the following sections.

- Determine the Accounts Payable Invoice eForm and Intelligent Capture Connector version
- Determine the Intelligent Capture for Invoices version
- Compatibility matrix for the complete solution

Determine the Accounts Payable Invoice eForm and Intelligent Capture Connector version

AP Invoice eForm and Intelligent Capture Connector release concurrently and use the same version number. To locate which version of AP Invoice eForm your current solution uses, complete the following steps.

1. Navigate to **[*drive*:]\inserver6\<*form or worksheet*>\data_definition** and open **AP_Invoice.xml** with a text editor.
2. In the top five lines of text, locate the version number.

   Note If no version number exists, you have an AP eForm version prior to 10.0.0.28. Contact your Perceptive Software representative to determine the exact version number.

Determine the Perceptive Intelligent Capture for Invoices version

To determine your version of Intelligent Capture for Invoices, complete the following steps.

1. Navigate to **[*drive*:]\<*path*>\PerceptiveInvoiceSolution\Global**, right-click on **BW Invoices.sdp** and click **Properties**.
2. On the **Custom** tab, in the **Properties** box, in the **Name** column, locate **PS_DFI_VER** and note the version number in the **Value** column.
3. Open **BW Invoices.sdp** in **Intelligent Capture Designer**.
4. Click the **Switch to Definition Mode** button.
5. In the left pane, on the **Classes** tab, right-click **Invoices** and click **Show Script**.
6. In the **Script View for Document Class “Invoices”** window, in the top 10 lines of the script, in the comments, locate the build number next to **BUILD**.

Compatibility matrix for the complete solution

The following table maps the compatible versions of each component in the Intelligent Capture for Invoices solution.

For versions of AP Invoice eForm and Intelligent Capture Connector prior to 10.0.0.28, contact your Perceptive Software representative to determine compatibility.

ImageNow Server	AP Invoice eForm	Intelligent Capture Connector	Intelligent Capture	Intelligent Capture for Invoices
6.5.1.149 to 6.6.x	10.0.0.28 to 11.0.0.153	10.0.0.28 to 11.0.0.153	5.2 to 5.5	1006D
	10.0.0.28 to 11.0.0.153	10.0.0.28 to 11.0.0.153	5.3 to 5.5	1007B
6.7.x	10.1.0.307 to 11.0.0.153	10.1.0.307 to 11.0.0.153	5.2 to 5.5	1006D
			5.3 to 5.5	1007B

Download the Perceptive Intelligent Capture files

To download the Intelligent Capture files, complete the following steps.

1. Go to the Perceptive Software website at www.perceptivesoftware.com, and log in to the **Customer Portal**.
2. In the **Product Downloads** page, search for and download the following files to a temporary directory. Refer to the compatibility matrix to determine which version of each file you need to use.
   - **Intelligent Capture**
   - **Intelligent Capture for Invoices**
   - **Intelligent Capture Connector**
   - **AP Invoice Processing Solution Patch Readme Guide**

Install Perceptive Intelligent Capture

To install Intelligent Capture, complete the following sections.

- Install or upgrade Intelligent Capture
- Rename the license file
- Verify Intelligent Capture services

Install or upgrade Perceptive Intelligent Capture

For complete directions on how to install or upgrade Intelligent Capture, refer to the *Perceptive Intelligent Capture with Supervised Learning Installation Guide.*

Rename the license file

To rename the Intelligent Capture license file, complete the following steps.

1. Navigate to **[*drive*:]\<*path*>\Perceptive\Components\Cairo**.
2. Rename **zCroDemo.lic** to **zCroDemo.bak**.
3. Paste the license file provided by Intelligent Capture, which begins with *perceptive software*, into the **[*drive*:]\<*path*>\Perceptive\Components\Cairo** directory.
4. To register the Cairo (Cro*.dll), Cedar (Cdr*.dll), and Web Verifier (Bwe*.dll) components, complete the following substeps.
   - Navigate to **[*drive:*]\<*path*>\Perceptive\Components\Cairo** and execute **RegCro.bat**.
   - Navigate to **[*drive*:]\<*path*>\Perceptive\Components\Cedar** and execute **RegCdr.bat**.
   - Navigate to **[*drive*:]\<*path*>\Perceptive\Components\Bwe** and execute **BweReg.bat**.

Verify Perceptive Intelligent Capture services

For complete steps on how to verify the Runtime Service Manager and System Monitoring services, refer to the “Configuring the Runtime Service Manager” section in the *Intelligent Capture with Supervised Learning Installation Guide*.

Install Perceptive Intelligent Capture for Invoices

To install Intelligent Capture for Invoices for the first time, complete the following steps.

Note To upgrade an existing version of Intelligent Capture for Invoices, refer to the following Upgrade Intelligent Capture for Invoices section.

1. Unzip the **Intelligent Capture for Invoices** file you downloaded to a temporary location.
2. Copy the **PerceptiveInvoiceSolution** folder to a permanent location on your installation drive. For example, C:\Program Files\Perceptive\Projects\ or C:\Program Files (x86)\Perceptive\Projects\
3. To open **Intelligent Capture Designer**, in the **[*drive*:]\<*path*>\PerceptiveInvoiceSolution\Global** folder, open **BW Invoices.sdp**.

4. In the **Perceptive Intelligent Capture Project Logon** dialog box, complete the following substeps.
    1. In the **User name** box, type **administrator**, and leave the **Password** box blank.
    2. Click **OK**.
5. On the **Options** menu, click **Settings**.
6. In the **Settings** dialog box, on the **Input Mode** tab, complete the following substeps.
    - Select **Use database as documents and statistics source**.
    - Under **Batch Input Mode**, select **Create Job** and name the new job **JOB1**.
7. On the **Train Mode** tab, under **Learn Set Manager**, set the directory path to **[*drive*:]\<*path*>\PerceptiveInvoiceSolution\Global\Train**.
8. On the **Runtime Mode** tab, under **Export Directory**, set the directory path to **[*drive*:]\<*path*>\PerceptiveInvoiceSolution\Export** and click **OK**.
9. Save the project file, but do not close **Designer**.

Configure Perceptive Intelligent Capture for Invoices

To configure Intelligent Capture for Invoices, review and complete the following sections.

- Configure the initialization file
- Configure the ASSA column mappings and create ASSA pools

Configure the initialization file

To configure the Intelligent Capture initialization file, complete the following steps.

1. In Windows Explorer, navigate to **[*drive*:]\<*path*>\PerceptiveInvoiceSolution\Global**.
2. In a text editor, open **BW Invoices.ini**, and make the following changes:
    - Set **EXP_VL_OutputDateFormat** to match the Invoice eForm date format.
    - Set **EXP_VL_OutputDateSeparator** to **/** (forward slash).

```
' Use DDMMYYYY, MMDDYYYY or YYYYMMDD:
EXP_VL_OutputDateFormat=MMDDYYYY
' e.g. '/' for DD/MM/YYYY or '-' for DD-MM-YYYY etc...
EXP_VL_OutputDateSeparator=/
```

    - Verify **ASA_OP_01_AlphaNum** and **ASA_OP_03_AlphaNum** are both set to **YES**.
    - Configure **ASA_VL_01_POOLPATH** and **ASA_OP_03_POOLPATH** to point to the installed directory. For example, C:\Program Files\Perceptive\Projects\PerceptiveInvoiceSolution\Global\Pool.
    - Configure **ASA_ VL_01_ImportPathFilename** to point to **vendor.csv** file in the installed directory. For example, C:\Program Files\Perceptive\Projects\PerceptiveInvoiceSolution\Global\vendor.csv.
    - Configure **ASA_OP_03_ImportPathFilename** to point to the **CompanyCode.csv** file in the installed directory. For example, C:\Program Files\Perceptive\Projects\PerceptiveInvoiceSolution\Global\companycode.csv.

      For example,

```
# ASSA Settings for vendor and employee look-up

ASA_VL_01_Class=Invoices
ASA_VL_01_Fieldname=VendorASSA
ASA_OP_01_AlphaNum=Yes
ASA_OP_01_PoolRelative=YES
ASA_VL_01_PoolPath= C:\Program
Files\Perceptive\Projects\PerceptiveInvoiceSolution\Global\Pool
ASA_VL_01_PoolDirectory=Pool
ASA_VL_01_PoolName=Vendor
ASA_OP_01_FileRelative=YES
ASA_VL_01_ImportPathFilename= C:\Program
Files\Perceptive\Projects\PerceptiveInvoiceSolution\Global\vendor.csv
```

    - In the **# Settings for Bill-to name format** group, complete the following steps.
        - Set **BTO_OP_AllowBlank** to **YES**.
        - Create **BTO_VL_<*increment*>_Format and BTO_VL_<*increment*>_Ignore** setting for each Bill-to name.

For example,

```
# Settings for Bill-to name format

BTO_OP_AllowBlank=YES

BTO_VL_01_Format=Perceptive Software
BTO_VL_01_Ignore=.,
BTO_VL_02_Format=ACME
BTO_VL_02_Ignore=.,
```

Note If you add an entry, increment the sequence number. In the example above, the next entry would be **BTO_VL_03**.

Configure the ASSA column mappings and create ASSA pools

VendorASSA

To configure the designer to work with the Vendor Remit To Addressing format, complete the following steps.

1. In **Intelligent Capture Designer**, click the **Definition Mode** button, click **Invoices**, and then click the **Fields** tab.
2. Right-click the **VendorASSA** field and click **Show Properties**.
3. In the **Properties** window, click the **Analysis** tab.
4. On the **General** tab, select the **Enable alphanumeric identifier** check box.
5. On the **Import** tab, select the **Import field names from the first row** check box.
6. In the **CSV file** box, click the **…** button, navigate to the **Global** folder, and click **vendorlabels.csv** > **Open** > **Import**.
7. On the **General** tab, verify the column headings from the CSV file display.
8. Locate the field **VendorID** and deselect the **ID** column.

   Note If using a custom eForm product, your VendorID column name may differ.
9. Locate the **Identifier** row and select the **ID** column.

   Note Identifier contains the new vendor remit to key value and is now the new search ID for vendor lookups.
10. In the **Class name format** box, verify
11. Return to the **Import** tab, and click **Import** and browse to the vendor.csv file.
12. If there are no headings in the real CSV file, deselect **Select Import field names from first row**.

CompanyCode

If you did not create the initial company codes CSV file, use the companycodelabels.csv file located in the Global folder, and then complete the following steps.

1. Right-click the **CompanyCode** field and click **Show Properties**.
2. In the **Properties** dialog box, click the **Analysis** tab.
3. On the **General** tab, click **Enable alphanumeric identifier**.

4. On the **Import** tab, click **Import field names from the first row**.
5. If you did not create the initial CSV file, go to the CSV file section, navigate to the **Global** folder, select **companycodelabels.csv**, and then click **Import**.
6. Click the **General** tab and verify the column headings from the CSV file display.
7. Locate the **CompanyCode** or **BusinessUnit** field and select the **ID** column.
8. Locate the **BillToName** field and select the **Search** column.
9. Return to the **Import** tab, click **Import** and browse to the **companycode.csv** file.

   Note If there are no headings in the real CSV file, deselect **Select Import field names from first row**.

Configure Perceptive Intelligent Capture

To configure Intelligent Capture, review and complete the following sections.

- Configure the run-time services
- Create a Verifier instance (DVS file)

Configure the run-time services

To create the appropriate run-time services, complete the following steps.

1. Start the **Perceptive Intelligent Capture Runtime Service**.
2. Right-click **Runtime Server Administration** > **New RTS Group**.
3. Name the new RTS group **Intelligent Capture**.
4. Right-click the **Intelligent Capture** group > **New Machine**.
5. In the **Group Management** window, under **Available Perceptive Intelligent Capture**, enter **localhost** or the server IP address and click **OK**. You should now see your computer name as an entry under the **Intelligent Capture** group. For example, SERVER01.
6. Right-click the new machine entry > **New** > **RTS Instance**.
7. Name the new RTS instance **IMPORT_EXPORT**.

   Note You should create at least four RTS instances. After you create and configure the IMPORT_EXPORT instance, repeat the configuration steps to create the following instances:

   - **CLEANUP_800**
   - **ASSA_UPDATER**
   - **OCR_CLASS_EXTR**
8. Right-click the new RTS instance > **Properties**.
9. In the **Intelligent Capture Runtime Service Properties** dialog box, click the **General** tab and complete the following steps:
   - Under **Project File**, set **Use project file** to **[*drive*:]\<*path*>\PerceptiveInvoiceSolution\Global**.
   - Under **Directories**, select **Use database**, and from the **Database** list, select **JOB1**.

- Under **Batch Scanning Delay and Mode**, review the **Wait** settings to determine how frequently Intelligent Capture checks for incoming invoices. We recommend setting this value to **5**.
- Under **Automatic start / stop**, review the **Start at** and **Terminate at** times.
- Under **Automated System Updates**, review the **Automatic pool update every setting**. This setting controls how frequently Intelligent Capture updates the Vendor table. Enable it only for the **ASSA_UPDATER** instance.

   Note These optional settings can assist with automation. For more information, refer to the Runtime Server Installation Guide.

10. On the **Workflow** tab, verify the following **Process Step** options:
    - For the **IMPORT_EXPORT** instance, select **Import** and **Export**.
    - For the **CLEANUP_800** instance, select **Cleanup**.
    - For the **ASSA_UPDATER** instance, do not select any options.
    - For the **OCR_CLASS_EXTR** instance, select **OCR**, **Classification**, and **Extraction**.
11. On the **Import** tab, complete the following steps:
    - Set **Import Directory** to **[*drive*:]\<*path*>\PerceptiveInvoiceSolution\Import**.
    - Under **Document Grouping**, select **1 folder per batch (no subdirectories)**.
    - Under **Import Condition**, select **Always import documents**.
    - Under **Extended Settings**, select **Limit batch size**, and set the **documents** value to **1**. This setting ensures that Intelligent Capture processes each invoice independently as its own batch. ImageNow holds batches of more than one invoice if at least one invoice in the batch has a verification or error issue. Each invoice that has no errors can flow through the process without holding up the rest of the invoices.
12. Complete the following substeps to verify that the Export and Cleanup settings for the RTS are set correctly:
    1. Right-click the runtime service and select **Properties**.
    2. On the **OCR+Export+Cleanup** tab, under **Export**, deselect **General Protocol File**.
13. Click **OK**.

    Note For additional details and recommendations on scaling and configuring RTS instances, contact your system administrator.

Create a Verifier instance (DVS file)

To create a Verifier instance, complete the following steps.

1. Open **Intelligent Capture Verifier**.
2. On the **File** menu, click **Save As**.
3. Name the file **Verifier** and save it in the **[*drive*:]\<*path*>\PerceptiveInvoiceSolution** folder.
4. In the toolbar, click **Options**, and then click **Settings**.
5. In the **Intelligent Capture Verifier Properties** dialog box, on the **General** tab, under **Project File**, verify that the path associated with the project file refers to the loaded Intelligent Capture project.

For example, **C:\Program Files\Perceptive\Projects\PerceptiveInvoiceSolution\Global\BW Invoices.sdp**.

6. Under **Directories**, enable **Use database as documents and statistics source** and select JOB1from the list.
7. On the **Workflow** tab, select **Classification verification** and **Extraction verification.**
8. Click **OK**.
9. Exit the **Verifier** and click **Yes** to save your changes.

Configure the Verifier instance

To configure the Web Verifier, follow the instructions contained in the *Intelligent Capture with Supervised Learning Web Verifier User Guide*. Then, complete the Update the connection strings procedure below.

Update the connection strings

If you manually created your Oracle or MS SQL databases, use one of the following procedures to update the connection strings.

Update the Oracle database connections

To update the Oracle database connections, complete the following steps.

1. Navigate to **[*drive*:]\WINDOWS\Microsoft.NET\Framework\v2.0.507.27\CONFIG** directory and open **machine.config** with a text editor.
2. Under **<DbProviderFactories>**, add the following section:

```
<add name=”EF Oracle Data Provider” invariant=”EFOracleProvider” description=”EF
Provider for Oracle testing” type=”EFOracleProvider.EFOracleProviderFactory,
EFOracleProvider, Version=1.0.0.0, Culture=neutral,
PublicKeyToken=def642f226e0e59b”/>
```

3. Save and close the **machine.config** file.
4. Navigate to **[*drive*:]\<*path*>\Perceptive\Perceptive Intelligent Capture\bin**.
5. Open each of the following configuration files with a text editor:
   - **DstDsr.exe.config**
   - **DstVer.exe.config**
   - **DstSlm.exe.config**
   - **DstHost.exe.config**
   - **Brainware.System.Project.exe.config**

6. In each configuration file, modify the following connection strings as needed:

```
<connectionStrings>
<add name="Entities"
connectionString="metadata=res://*/Entity.ORAEntities.csdl|res://*/Entity.ORAEntiti
es.ssdl|res://*/Entity.ORAEntities.msl; provider=EFOracleProvider; Provider
Connection String='Data Source=percep; User ID=inuser; Password=imagenow'"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

7. Save and close each configuration file.

Update the MS SQL database connections

To update the MS SQL database connections, complete the following steps.

1. Navigate to **[*drive*:]\<*path*>\Perceptive\Perceptive Intelligent Capture\bin** directory.
2. Open each of the following configuration files with a text editor:
    - **DstDsr.exe.config**
    - **DstVer.exe.config**
    - **DstSlm.exe.config**
    - **DstHost.exe.config**
    - **Brainware.System.Project.exe.config**
3. In each configuration file, modify the following connection strings as needed:

```
<connectionStrings>
<add name="Entities"
connectionString="metadata=res://*/Entity.Entities.csdl|res://*/Entity.Entities.ssd
l|res://*/Entity.Entities.msl;provider=System.Data.SqlClient;provider connection
string=&quot;Data Source=<Database Server>;Initial
Catalog=Perceptive_Software_Database;User Id=<User
ID>;Password=<Password>;Integrated
Security=false;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

4. Save and close each configuration file.

Install Perceptive Intelligent Capture Connector

To install Intelligent Capture Connector, complete the following sections.

- Copy and load the connector scripts
- Copy the XML files

Copy and load the connector scripts

To load the ImageNow iScripts, complete the following steps.

1. Navigate to the **Perceptive Intelligent Capture Connector.zip** file you previously downloaded.
2. Extract **Perceptive Intelligent Capture Connector.zip\inserver6\script** folder and place it in the **[*drive*:]\inserver6\script** folder.

   Note If you installed AP Invoice eForm in an active-active server environment, extract to the **[*shared path*]\inserver6\script** directory.

   This loads the following iScripts:

   - **BW_WS_Mapping.js** contains logic specifically for mapping Intelligent Capture Invoice XML to AP Invoice eForm.
   - **BW_Custom_WS_Mapping.js** contains user exits to script custom logic for mapping Intelligent Capture XML to a custom eForm.
   - **BW_ExportDoc.js** exports invoice images to Intelligent Capture.
   - **BW_ReindexDoc.js** indexes invoice images and updates the AP Invoice eForm or custom eForm data from Intelligent Capture.
   - **BW_LI_Review.js** identifies invoices in workflow with match discrepancies and line items that do not match the PO by Intelligent Capture.

Copy the XML files

To copy the necessary XML files, complete the following step.

- Copy the contents of the **Perceptive Intelligent Capture Connector.zip\inserver6\etc\ap** folder and place it in the **[*drive*:]\inserver6\etc\AP** folder.

  Note If you installed AP Invoice eForm in an active-active server environment, extract to the **[*shared path*]\inserver6\etc\ap** directory.

  This action loads the following XML files:

  - **AP_VirtualTable_Updater.xml** automatically creates vendor data for Intelligent Capture and saves it in the **Global** folder.
  - **BW_Config.xml** controls the basic functions of Intelligent Capture Connector.

Configure Perceptive Intelligent Capture Connector

To configure the Intelligent Capture Connector scripts, complete the following procedures:

- Configure the Perceptive Intelligent Capture for Invoices User Exit scripts
- Configure Output Agent
- Configure External Message Agent
- Configure ImageNow workflow
- Configure the connector scripts using BW_Config.xml

Important Before proceeding with this section, stop and start Perceptive Intelligent Capture services to activate changes to the initialization file.

Configure Perceptive Intelligent Capture for Invoices User Exit scripts

To modify the Intelligent Capture for Invoices script, complete the following steps.

1. Open the **BW Invoices.sdp** project file with **Intelligent Capture Designer**.
2. Click the **Definition Mode** button.
3. Expand the **Invoices** tree.
4. Click the **Show/Hide Scripts** button.
5. To display global variables, click the **2** tab on the left side of the window. Complete the following substeps to configure the ImageNow connection string:
    1. Using the **Edit/Find** option, search for **ImageNow**. The system returns the ImageNow connection string.
    2. To stop the scripting module, in the **Script View** toolbar, click the **End** button.
    3. Modify the **Data Source** value with the name of the ImageNow Server computer. For example,

       ```
       Info=True;User ID=inemuser;Initial Catalog=INOW6;Data Source=Server01”
       ```
    4. Locate the dbType connection string and modify as needed to **Oracle** or **SQLServer**. For example,

       ```
       Global Const dbType As String = "Oracle"
       ```
    5. Locate the INOW connection string and modify as needed. For example,

       ```
       Global Const INowConnectionString As String =
       "Provider=OraOLEDB.Oracle.1;Password=imagenow;Persist Security Info=True;User
       ID=inuser;Data Source=INOW"
       ```
6. To restart the scripting module, in the **Script View** toolbar, click the **Start/Resume** button.
7. Exit the **Script View** function.
8. To save your changes, in the **Designer** toolbar, click the **Save** button.

Configure Output Agent

To configure Output Agent, complete the following steps.

1. Navigate to **[*drive*:]\inserver6\etc** folder and open the **inserveroutput.ini** file in a text editor.

   Note If working in an active-active server environment, navigate to **[*shared path*]\inserver6\etc**.

2. Under **[Monitor]**, set the **poll.interval**. For example, set the interval to **1** or **2** seconds.
3. Set **export.multipage.document** to **TRUE**.

Configure External Messaging Agent

Complete the following steps to configure External Messaging Agent:

1. Navigate to the **[*drive*:]\inserver6\etc** folder and open the **inserverEM.ini** file in a text editor.

   Note If working in an active-active server environment, navigate to **[*shared path*]\inserver6\etc**.

2. Insert the following lines into the INI file:

```
[brainware]
bw_status_update=BW_ReindexDoc.js
```

   Note If you use a custom eForm with Intelligent Capture, the script name you use here must be the custom script used to complete the importing and indexing into ImageNow.

Configure ImageNow workflow

Define the following workflow queue functions so that the name of queue indicates the status of the invoices in the process. Example queue names include

- Send to Intelligent Capture
- Intelligent Capture Processing
- Intelligent Capture Success
- Intelligent Capture Verify
- Intelligent Capture Error

Note If your solution implementation incorporates Mail Agent Conversion (INMAC), the conversion should take place after the success queue.

Configure the name of each process queue in the scripts. After the invoice reaches the success queue, a routing rule must route the invoice to the beginning of the invoice workflow. In this queue, a script runs to fill in the data ImageNow requires, then sends the document to validation like any other invoice.

Important Add the following script actions and routing rules to the invoice workflow.

- In the **Send to Intelligent Capture** queue, add **BW_ExportDoc.js** as an inbound action.
- In the **Intelligent Capture Success** queue, add the following routing rule:

```
If F5 = blanks (meaning NonPO), execute the same routing rule currently assigned to
the validation queue in your AP invoice processing workflow for NonPO invoices.

If F5 is NOT Blank (meaning PO), execute the same routing rule currently assigned
to the validation queue in your AP invoice processing workflow for PO invoices. You
do not have to run invoices from Intelligent Capture through the Validation Server
script.
```

- In the **Intelligent Capture Error** queue, add the following routing rule:

```
If F5 = blanks (meaning NonPO) and AP Custom Valid (CP) starts with "Vendor", route
to the New Vendor Setup queue in your AP Invoice Processing workflow.

If F5 = blanks (meaning NonPO) and AP Custom Valid (CP) is not blank (meaning some
other error has occurred), route to the queue designated for NonPO invoice errors.

If F5 is NOT Blank (meaning PO) and AP Custom Valid (CP) is not blank (meaning some
other error has occurred), route to the queue designated for PO invoice errors.
```

Important To separate invoices automatically with match discrepancies, you need to use the workflow script BW_LI_Review:

- Add **BW_LI_Review.js** as an inbound action to a workflow queue, then add the following routing rule:

```
If AP Detail Valid (CP) starts with "BW_LI_REVIEW" (this is an indication of a
severe error in the script), route the invoice to a special exception queue.

If AP Detail Valid (CP) starts with “ERR-MATCH” (this is an indication that the
invoice has line items that need manual pairing and/or there is match
discrepancies), route the invoice to the workflow queue where match discrepancies
and/or manual pairing are to be handled.

All else – route to the next step in the process.
```

- Verify the mapping for the vendor fields corresponds with the format of the data being uploaded. Make the changes shown below.

  Note These field names must match the fields shown in the Designer Tool for the VendorASSA search.

```
# Vendor Search Dialog Box / ASSA mapping

' Mapping of ASSA fields to search box & vendor validation fields
' Column name is case sensitive

SRC_VL_ID=IDENTIFIER
SRC_VL_SiteID=REMITTO
SRC_VL_Name=VENDORNAME
SRC_VL_Address1=ADDRESS1
SRC_VL_Address2=ADDRESS2
SRC_VL_City=CITY
SRC_VL_Zip=ZIP
SRC_VL_State=STATE
SRC_VL_Country=Field9
SRC_VL_POBox=
SRC_VL_POBoxZip=
SRC_VL_EUMember=
SRC_VL_Currency=
SRC_VL_TaxID01=
SRC_VL_TaxID02=
SRC_VL_VATRegNo=
SRC_VL_TaxJurCode=
SRC_VL_TelNo=
SRC_VL_InvoiceType=
SRC_VL_PaymentMethods=
SRC_VL_BankDetails=
SRC_VL_WithholdingTaxDetails=
SRC_VL_CompanyCodes=
```

```
SRC_VL_UtilityFlag=
SRC_VL_PORSubscriberNo=
SRC_VL_ExternalVendorID=VENDORID
SRC_VL_VendorAccountGroup=
SRC_VL_AlternatePayee=
SRC_VL_PermittedPayee=
```

- Under **# Vendor Validation**, verify that the mapping for the vendor remit to fields is set properly. Make the changes shown below.

```
# Vendor Validation

VND_OP_ValidateFromASSA=YES
VND_OP_CheckConditionVendors=NO
VND_VL_AlphNumSiteSeparator=-
VND_OP_IgnorePOVendor=NO
```

- Under **# Settings for PO number format**, verify the Intelligent Capture configuration to capture the PO Number. Intelligent Capture identifies and extracts the PO Number based on a format. The "#" character following the number identifies the remaining digits. It is important to include the # characters because the format also keys in on the total number of digits for the PO number. Make the changes or additions needed to customize your solution. For example,

```
# Settings for PO number format

PON_VL_01_Format=45########
PON_VL_01_Ignore=.,
PON_VL_02_Format=110#####
PON_VL_02_Ignore=.,
PON_VL_03_Format=07#####
PON_VL_03_Ignore=.,
PON_VL_04_Format=PO45########
PON_VL_04_Ignore=.,
PON_VL_05_Format=71########
PON_VL_05_Ignore=.,
PON_VL_06_Format=52###
PON_VL_06_Ignore=.,
PON_VL_07_Format=65#######
PON_VL_07_Ignore=.,
```

Note Increment the sequence number for each additional entry. In this example above, the next entry would be **PON_VL_08**.

- Under **# Line Pairing**, enable the **PO Line Pairing** feature, as shown in the following example.

```
# Line Pairing

LPR_OP_DoLinePairing=YES
LPR_OP_DoLinePairingForService=NO
LPR_OP_GetPOLinesFromSAP=NO
LPR_OP_CheckForMultiplePOS=NO
LPR_VL_DescriptionThreshold=30
LPR_VL_DescriptionDistance=10
```

Configure core connector features: BW_Config.xml

The BW_Config.xml file controls the basic functions of Intelligent Capture Connector and the BW_ReindexDoc.js and BW_ExportDoc.js scripts.

The following sections describe the configuration options.

Intelligent Capture export and error directories

This element specifies the directory where Intelligent Capture places processed (exported) invoices.

```
<importdir>C:\\Program
Files\\Perceptive\\Projects\\PerceptiveInvoiceSolution\\Export\\</importdir>
```

This element specifies the directory where Intelligent Capture sends XML files and images when an error occurs.

```
<errordir>C:\\Program
Files\\Perceptive\\Projects\\PerceptiveInvoiceSolution\\Error\\</errordir>
```

Error queues

This optional error queue value specifies the workflow queue that receives invoices if an operational failure occurs.

```
<errorqueuereindex>Intelligent Capture Error</errorqueuereindex>
```

This optional error queue value specifies the workflow queue that receives invoices if an error occurs in the BW_ExportDoc process.

```
<errorqueueexport>Intelligent Capture Error</errorqueueexport>
```

Document notes for invalid reason codes

By default, invalid reason codes only load into the AP Custom Valid custom property. Therefore, setdocnotes is set to FALSE.

```
<setdocnotes>false</setdocnotes>
```

If you set it to TRUE, Intelligent Capture loads invalid reason codes into both the AP Custom Valid custom property and the Document Notes section.

Date mask

This element specifies the default date format for the Invoice Date entry. Valid formats are MMDDYYYY, DDMMYYYY, and YYYYMMDD. Slashes are optional. If not specified, the default format is MMDDYYYY.

```
<datemask>MMDDYYYY</datemask>
```

Workflow queue names

You can configure the workflow queue names Intelligent Capture uses. Do not change the status code settings unless you are making corresponding changes in Intelligent Capture.

```
<statuscode code="800" type="SUCCESS" queuename="Intelligent Capture Success"/>
<statuscode code="550" type="VERIFICATION" queuename="Intelligent Capture Verify"/>
<statuscode code="DEFAULT" type="ERROR" queuename="Intelligent Capture Error"/>
```

Document type mapping

You can configure the document type mapping Intelligent Capture uses.

```
<doctype name="Invoice" bwimportdir="C:\\Program
Files\\Perceptive\\Projects\\PerceptiveInvoiceSolution\\Import\\">
//Defines the ImageNow document type and the directory where ImageNow images are moved
for Intelligent Capture processing.
```

Value added tax (VAT) validation

You can configure this section to enable or disable the **currency** and **VAT summary total** features. For more information on VAT, refer to the Configure value added tax (VAT) features section.

```
<validation>
   <currency>false</currency>
   <vatsummarytotal>false</vatsummarytotal>
</validation>
```

Batch separation

You can configure the BW_Config.xml file to export document properties as part of the file name and can export files to multiple Intelligent Capture import directories. You must include the <batchseparation> node for each document type that uses the batch separation functionality.

```
<doctype name=”Invoice” bwimportdir=”C:\\Program
Files\\Perceptive\\Projects\\PerceptiveInvoiceSolution\Import\\”
   <batchseparation separator=”^” identifier=”(currentQueue)”>
//The separator attribute defines what character to use to separate the different
identifier attributes in the exported image filename. ^, #, +, and ~ are all valid
separator characters.
//The identifier attribute determines the batch separation and must be a variable. The
variable’s value should match the name attribute of an <identifier> node. This
determines which <identifier> node to use for separation.

      <identifier name=”Send to Queue A” groupid=”{Vendor ID}” batchid=”Batch ID}
transid=”Trans ID” transtype=”A” bwimportdir=”C:\\Program
Files\\Perceptive\\Projects\\PerceptiveInvoiceSolution\\Import\\A\\”/>
      <identifier name=”Send to Queue B” groupid=”{Invoice Number}” batchid=”Batch ID}
transid=”3” transtype=”4” bwimportdir=”C:\\Program
Files\\Perceptive\\Projects\\PerceptiveInvoiceSolution\\Import\\B\\”/>
   </batchseparation>
```

For each <identifier> node, define the following attributes:

- name
- groupid
- batchid
- transid
- transtype
- bwimportdir

Notes

- groupid, batchid, transid, and transtype must be a string of whole integers

- name and bwimportdir must be an alphanumeric string
- batchid, transid, and transtype support empty string values
- groupid must always be populated

You can use the following variables:

- (previousQueue), (currentQueue)
- Index keys, [docid], [drawer], [folder], [tab], [field1], [field2], [field3], [field4], [field5], [doctype], [creationname], and [docname]. Only ImageNow 6.7 and higher support [docname].
- Custom properties, in the format, {Custom Property}

Duplicate invoice detection

To configure the BW_Config.xml file to include a VSL query statement, complete the following steps.

1. Open BW_Config.xml in a text editor.
2. Find the following section of code:

```
<!--
<dupcheck value="true">
//This element specifies whether to check for potential duplicates in ImageNow.
Valid values are “true” and “false”.
```

3. Insert and modify the code from either **Option 1** or **Option 2** below.
4. Save and exit BW_Config.xml

Option 1: Legacy duplicate check

This example is the legacy invoice duplicate check configuration.

```
<dupcheck_vsl>[tab] = %s AND [f3] = %s</dupcheck_vsl>
//This element contains the VSL query statement for detecting duplicate invoices. The
first %s is replaced with Vendor ID, and the second %s is replaced with Invoice
Number.
//Expected to be populated with the XPath to the data in the Intelligent Capture XML
Only the parameters vendor id and invoice number are valid. However, you can configure
dupcheck_vsl by changing which keys or custom properties to use for duplicate
checking.
//The following is an example of a VSL using {custom property} and a literal value for
DocType

{Vendor ID} = %s and [f4] = %s and [DocType] = 'Invoice'
-->
```

Option 2: Advanced duplicate check

This example illustrates the advanced invoice duplicate check configuration.

```
<!--
<statement view="AP Documents" match="2">VENDORID | INVOICENUMBER </statement>
//This element contains advanced grammar parameters and | to separate them.
//Valid parameters - CompanyNumHdr, LocationCode, PONumber, VendorID, InvoiceNumber,
InvoiceDate, TotalAmount, InvoiceReferenceNumber, TaxAmount, FreightAmount,
MiscCharge, AddlAmt[1-8], Hdr1[1-8]
//Valid operators are % and #.
//Example: TotalAmount % 5 would match TotalAmounts in ImageNow within 5 Percent.
//Example: TotalAmount # 5 would match TotalAmounts in ImageNow within 5 Dollars.
```

```
//Use the view attribute to further filter the statement query. By default, the view
is "All Documents" but you can create a custom view within the ImageNow Management
console and then configure that view name here.
//Use the match attribute to identify how many of the parameters in the statement
query need to be true to be identified as a Duplicate. If match="2" but 3 parameters
are provided, then only 2 of the 3 need to match to be considered a Duplicate.
-->
```

A complete example:

```
<dupcheck value="true">
     <!--
     <dupcheck_vsl>[tab] = %s AND [f3] = %s</dupcheck_vsl>
     <vendorid>/BrainwareDocument/InvHeader/VENDORID</vendorid>
       <invoicenumber>/BrainwareDocument/InvHeader/INVOICENO</invoicenumber>
     -->
     <statement view="AP Documents" match="2"> VendorID | InvoiceNumber
</statement>
     <customprop cp="AP Header Valid" value="ERR_DUP_INVOICE"/>
</dupcheck>
```

Create a custom view definition

To create a custom view definition, complete the following steps.

1. In the **Management Console**, in the left pane, click **Views**.
2. In the right pane, on the **Projects** or **Folders** tab, click **New**.
3. In the **New View** dialog box, in the **Name** box, type a name, and then, in the **Description** box, type the description of the view that will appear in the **ToolTip** for the view.
4. Click **OK**, select the view, and then click **Modify**.
5. In the **View Designer** window, on the **Help** menu, click **ImageNow View Designer Help** to review the steps for adding or changing conditions, adding or modifying public filters, modifying column layout, previewing the view, and assigning view privileges to users and groups.

Grant access to a view

1. In the **View** toolbar, click the **Properties** button.
2. In the **View Properties** dialog box, on the **Security** tab, click **Add**.
3. In the **Select Users** dialog box, click the **Users** or **Groups** tab.
4. Optional. If you have a large number of users or groups, you can shorten the selection list. In the **Search for user** box, type the first two or three letters of the names you want to add to the **security list**.
5. If you are working with users, click **Search**. Otherwise, the **group list** is displayed automatically.
6. In the **Search** results box, click the user or group who you want to have access to the view. You can use CTRL+click to select multiple users or groups.

7. Click **Add**, click **OK**, and then perform the following substeps:
    1. On the **Security** tab, in the **Users and Groups** list, click the newly added user or group.
    2. In the **Privileges** list, grant a privilege by clicking in the column to the left of the privilege until the Granted icon appears, or deny a privilege by clicking in the same position until the Denied icon appears.
8. Repeat the substeps for any other newly added users or groups and then click **OK.**

Index Mapping

The default index key mappings are preconfigured to work with the Invoice eForm product. If you are working with a custom eForm, you may need to adjust the mappings to coincide with your specific indexing requirements. For each index key mapping row, fill in values for key and, if necessary, function and mapping.

```
<indexkey xpath="/BrainwareDocument/InvHeader/COMPANYCODE" key="folder" function=""
mapping=""/>
<indexkey xpath="/BrainwareDocument/InvHeader/VENDORID" key="tab" function=""
mapping=""/>
<indexkey xpath="/BrainwareDocument/InvHeader/INVOICENO" key="f3" function=""
mapping=""/>
<indexkey xpath="/BrainwareDocument/InvHeader/PO" key="f5" function="" mapping=""/>
```

- Valid values for the required **key** setting are **folder**, **tab**, **f1**, **f2**, **f3**, **f4**, **f5**.

Note The capture profile sets the drawer and document type values.

- The optional **function** setting lets you include a java function such as **to lowercase** or **round**.
- You can use the optional **mapping** setting to convert values from Intelligent Capture to your eForm. For example:

```
mapping={ "PO" : "po", "NO-PO" : "non-po" }
```

Custom property mapping

The custom property settings in the script are preconfigured to work with the Invoice eForm product.

```
<customprop xpath="/BrainwareDocument/InvHeader/COMPANYCODE" cp="Company"
datatype="STRING" default="" function="" mapping="" />
<customprop xpath="/BrainwareDocument/InvHeader/VENDORID" cp="Vendor ID"
datatype="STRING" default="" function="" mapping="" />
<customprop xpath="/BrainwareDocument/InvHeader/VENDORNAME” cp="Vendor Name”
datatype="STRING" default="" function="" mapping="" />
<customprop xpath="/BrainwareDocument/InvHeader/INVOICENO" cp="Invoice Number"
datatype="STRING” default="" function="" mapping="" />
<customprop xpath="/BrainwareDocument/InvHeader/AMOUNT" cp="Invoice Amount"
datatype="NUMBER" default="" function="" mapping="" />
<customprop xpath="/BrainwareDocument/InvHeader/INVOICEDATE" cp="Invoice Date”
datatype="DATE" default="" function="" mapping="" />
<customprop xpath="/ BrainwareDocument/InvHeader/TAX" cp="Invoice Tax Amount"
datatype="NUMBER" default="" function="" mapping="" />
<customprop xpath="/BrainwareDocument/InvHeader/PO" cp="PO Number" datatype="STRING"
default="" function="" mapping="" />
```

If you are working with a custom eForm, you may need to adjust the following settings to satisfy your requirements:

- **cp**: the custom property name
- **datatype**: must be STRING for alphanumeric or date values, and NUMBER for numeric values. The default setting is STRING.
- **default**: (not currently used) the default value if the corresponding value from Intelligent Capture is null.
- **function**: lets you include a java function such as **to lowercase** or **round**.
- **mapping**: used to convert values from Intelligent Capture.

eForm name and data definition

Use this setting to specify the eForm name and the path for the data definition. The default setting is preconfigured to work with the Invoice eForm product. If you are working with a custom eForm, you may need to change this setting.

```
<worksheet name="AP Invoice"
datadef="C:\\inserver6\\form\\data_definition\\AP_Invoice.xml">
```

PO line items

This element allows you to enable and disable Intelligent Capture PO line item processing. If set to false, the virtual tables provide the data used to populate the AP eForm line item section. If set to true, Intelligent Capture provides the data.

```
<functiontoapply name="doAPInvoiceMapping">
       <polineitemprocessing>false</polineitemprocessing>
       //True allows Intelligent Capture line item details to be pulled into eForm
with matching PO information from the PO lines virtual table setting
       //False disregards Intelligent Capture line items (if they are even provided)
and uses only PO line virtual table data
</functiontoapply>
```

Location code

Use this setting to define the source of the Location code, which is provided at scan time. Location code is not provided by Intelligent Capture. If the customer uses a location code, you must pass this value to the Intelligent Capture Connector using an (unused) index value that the capture profile sets at scan time. By default, Intelligent Capture uses F4. Releases 6.6.x and higher enable the use of a custom property at capture time. The connector references this value to set the related AP Invoice eForm XML data.

```
<!--sourcetype = [index|customproperty] -->
<locationcode sourcetype="index" sourcename="f4"/>
```

eForm field mapping

The Worksheets or eForm settings are preconfigured to work with the Invoice eForm product. If you are working with a custom eForm, you may need to adjust the settings to satisfy your eForm XML requirements.

```
<header>
	<field xpath="/BrainwareDocument/InvHeader/INVOICETYPE" node="InvoiceType" datatype="" default="" function="" mapping="{'PO': 'po', 'NO-PO':'nonpo'}"/>
	<field xpath="/BrainwareDocument/InvHeader/INVOICENO" node="InvoiceNumber" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/INVOICEDATE" node="InvoiceDate" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/PONUMBER" node="PONumber" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/VENDORID" node="VendorID" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/VENDORNAME" node="VendorName" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/COMPANYCODE" node="CompanyNumHdr" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/FREIGHT" node="FreightAmount" datatype="NUMBER" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/TAX" node="TaxAmount" datatype="NUMBER" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/MISCCHARGE" node="MiscCharge" datatype="NUMBER" default="" function="" mapping=""/>
	field xpath="/BrainwareDocument/InvHeader/AMOUNT" node="TotalAmount" datatype="NUMBER" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/CURRENCY" node="Currency" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvHeader/SITEID" node="RemitTo" datatype="STRING" default="" function="" mapping=""/>
</header>

<polines lineitemxpath="/page/POLines/POLine">
	<field xpath="/BrainwareDocument/InvLines/LINENO" node="PO_LineNumber" datatype="NUMBER" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvLines/LINENO" node="LineNumber" datatype="NUMBER" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvLines/DESCRIPTION" node="ItemDescription" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvLines/QUANTITY" node="Quantity" datatype="NUMBER" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvLines/UOM" node="UOM" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvLines/UNITPRICE" node="UnitPrice" datatype="NUMBER" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/InvLines/TOTAL" node="ExtendedAmount" datatype="NUMBER" default="" function="" mapping=""/>
</polines>

<gllines lineitemxpath="/page/POLines/POLine/GLLines/GLLine">
	<field xpath="/BrainwareDocument/GLLines/GLACCOUNT" node="/page/POLines/POLine/GLLines/GLLine/GL1" datatype="STRING" default="" function="" mapping=""/>
	<field xpath="/BrainwareDocument/GLLines/COSTCENTER" node="/page/POLines/POLine/GLLines/GLLine/GL2" datatype="STRING" default="" function="" mapping=""/>
```

```
        <field xpath="/BrainwareDocument/GLLines/TOTAL"
node="/page/POLines/POLine/GLLines/GLLine/LineAmount" datatype="NUMBER" default=""
function="" mapping=""/>
</gllines>
```

The settings are organized in three sections: Header, PO lines, and GL Lines. The GL Lines section includes an example mapping. For each line, enter the following set of values:

node: the name of the invoice eForm XML value

datatype: must be STRING for alphanumeric or date values, and NUMBER for numeric values. The default setting is STRING.

default: the default value if the corresponding value from Intelligent Capture is null.

function: this allows lets you include a java function such as **to lowercase** or **round**.

mapping: used to convert values from Intelligent Capture.

Custom mapping

The BW_ReindexDoc script loads index values and custom properties according to the configuration settings in the BW_Config.xml file. After the reindexing and the setting of custom properties, the BW_ReindexDoc script executes the BW_Custom_WS_Mapping script. The BW_Custom_WS_Mapping script allows you to script a user exit for custom logic.

For adding custom logic, create a routine in the BW_Custom_WS_Mapping.js script to contain the logic. Then, configure in BW_Config.xml as a functiontoapply inside the worksheet node for custom eForm.

```
<functiontoapply name="doAPInvoiceMappingCustom">
        <param1>abcdefghijklmn</param1>
        <param2>opqrstuvwxyz</param2>
</functiontoapply>
```

Configure value added tax (VAT) features

The AP Invoice eForm, version 10.4.x or higher, supports value added tax (VAT) fields and validation. If you use the Perceptive Intelligent Capture for Invoices solution with AP Invoice eForm, you can enable the following features.

- Enable currency and VAT amount validation
- Map VAT registration numbers (VAT IDs) to the AP Invoice eForm header fields
- Map VAT rates and codes to the AP Invoice eForm line-item fields
- Display VAT line-item fields in the AP Invoice eForm

To enable any of these features, refer to the following sections.

Enable currency and VAT amount validation

To enable currency or VAT amount validation in Intelligent Capture for each doctype, such as invoice or credit memo, complete any of the following steps.

- To validate the captured invoice currency against the original PO, in **BW_Config.xml**, under **`<validation>`**, set **`<currency>`** to **`true`**.

  Note If the captured currency fails validation, Intelligent Capture Connector transfers the ERR_CURR_MATCH error message, which then displays as a message in the AP eForm.

- To allow Intelligent Capture to validate the header-level VAT with line-level VAT, in **BW_Config.xml**, under **`<validation>`**, set **`<vatsummarytotal>`** to **`true`**.

  Note If the line-level VAT Amounts fields fail validation against the header-level VAT Total field, the Intelligent Capture Connector transfers the ERR_VAT_TOTAL_MATCH error message, which then displays as a message in the AP Invoice eForm.

Map VAT header fields

To map the Intelligent Capture-extracted VAT registration numbers (VAT IDs) to the AP Invoice eForm header fields, complete the following steps.

- In **BW_Config.xml**, under the **`<doctype>`** element, under **`<header>`**, uncomment, or add, the following **`<field>`** elements.

```
<field xpath="/BrainwareDocument/InvHeader/VENDORVATREGNO" node="VendorVATID"
datatype="STRING" default="" function="" mapping=""/>
<field xpath="/BrainwareDocument/InvHeader/BILLTOVATREGNO" node="SoldToVATID"
datatype="STRING" default="" function="" mapping=""/>
```

- In **BW Invoices.ini**, at the bottom of the **`EXP_VL_XMLHC`** section, add the following lines.

```
EXP_VL_XMLHCVendorVATRegNo=VENDORVATREGNO
EXP_VL_XMLHCBillToVATRegNo=BILLTOVATREGNO
```

- In the Intelligent Capture project file **BW Invoices.sdp**, on script tab **3**, in the sub-routine **UserExitXMLOutput**, under **`Case cXMLInvHeader`**, add the following lines.

```
fnWriteXMLField("HCVendorVATRegNo", pWorkdoc.Fields("VendorVATRegNo").Text)
fnWriteXMLField("HCBillToVATRegNo", pWorkdoc.Fields("BillToVATRegNo").Text)
```

Map VAT line-item fields

To map the Intelligent Capture-extracted VAT rates and codes to the AP Invoice eForm line-item fields, modify the BW_Config.xml file. Complete any of the following steps.

- To map the line items for PO lines, in **BW_Config.xml**, under the **`<doctype>`** element, under **`<polines>`**, uncomment the following **`<field>`** elements.

```
<field xpath="/BrainwareDocument/InvLines/TAXJURCODE" node="POLVATJurisdiction"
datatype="STRING" default="" function="" mapping=""/>
<field xpath="/BrainwareDocument/InvLines/TAXCODE" node="POLVATCode"
datatype="STRING" default="" function="" mapping=""/>
<field xpath="/BrainwareDocument/InvLines/TAXRATE" node="POLVATRate"
datatype="NUMBER" default="" function="" mapping=""/>
```

- To map the line items for GL lines, in **BW_Config.xml**, under the **`<doctype>`** element, under **`<gllines>`**, add the following **`<field>`** elements.

```
<field xpath="/BrainwareDocument/GLLines/TAXJURCODE"
node="/page/POLines/POLine/GLLines/GLLine/GLVATJurisdiction" datatype="STRING"
default="" function="" mapping=""/>
<field xpath="/BrainwareDocument/GLLines/TAXCODE"
node="/page/POLines/POLine/GLLines/GLLine/GLVATCode" datatype="STRING" default=""
function="" mapping=""/>
```

Display VAT line-item fields in the eForm

To display the Intelligent Capture-extracted VAT jurisdictions and codes in the AP Invoice eForm, modify the AP_Skin.xml file. Complete the following step.

Prerequisite The `<polineitemprocessing>` element must be set to true in the BW_Config.xml file.

- In **AP_Skin.xml**, under **`<fields>`,** update the **`visible`** attribute to **`“true”`** for each of the following **`<poline>`** elements:

```
<poline label="lblPO_VATJurisdiction" visible="true">
<poline label="lblPO_VATCode" visible="true">
```

Configure Virtual Table data sharing (optional)

If your solution uses the AP Invoice eForm, you can configure Virtual Table data sharing. To use the verification and search processes in Intelligent Capture, you load Company and Vendor CSV files. These files automatically load using the virtual table data associated with the Perceptive Invoice eForm product.

After you run the AP_VirtualTable_Updater.js script to load the AP Invoice eForm Virtual Tables, the script places a formatted copy of both the vendor and company code files in the global directory. Update the AP_VirtualTable_Updater.xml file, as shown below, to create the Intelligent Capture data files.

```
<?xml version=”1.0” encoding=”UTF-8”?>
<configuration host="lawson" bwexportpath="C:\\Program
Files\\Perceptive\\Projects\\PerceptiveInvoiceSolution\\Global\\"
bwexportdelimiter=";" inputpath="C:\inserver6\temp\ap\import\*.csv"
archivepath="C:\inserver6\temp\ap\archive" errorpath="C:\inserver6\temp\ap\error">
  <recordstructure recordtype="BUS_UNIT" bwfile="busunit.csv"
table="Z_APW_APBusinessUnit">
    <column required="true" type="flag" customprop="Z_APW Active"/>
    <column enabled="true" customprop="Z_APW Business Unit ID" bwcolumn="1" />
    <column enabled="true" customprop="Z_APW Business Unit Name" bwcolumn="2,4" />
    <column enabled="true" customprop="Z_APW Vendor Group" bwcolumn="3" />
    <column enabled="true" customprop="Z_APW VAT Jurisdiction" bwcolumn="5" />
    <column enabled="true" customprop="Z_APW VAT ID" bwcolumn="6" />
  </recordstructure>
</configuration>
```

Company Code

Extracted from the Business Unit virtual table, the CompanyCodes CSV table lists valid company codes.

To find a matching Business Unit, such as the "Bill To Name" on an invoice, and populate the corresponding company code, configure the CompanyCode ASSA search. The table must contain the following fields:

- Business Unit
- Company Code

For example:

	A	B
1	10;New Hanover Regional Med Ctr	
2	20;Carolina Healthcare Associates	
3	85;Coastal Carolina Heart	
4	200;Edwards Cancer Ctr	
5	400;Brainware	
6	500;Texas	

Vendor

The Vendor CSV table lists valid vendors extracted from the Vendor virtual table. The table contains the following fields:

- Vendor ID
- Remit To #
- Vendor Name
- Address Line 1
- Address Line 2
- City
- Postal Code
- State
- Country
- Identifier (*hyphenated combo field Vendor ID-Remit To#)

  Important The identifier field must be unique for each row in the Intelligent Capture Vendor CSV table.

For example:

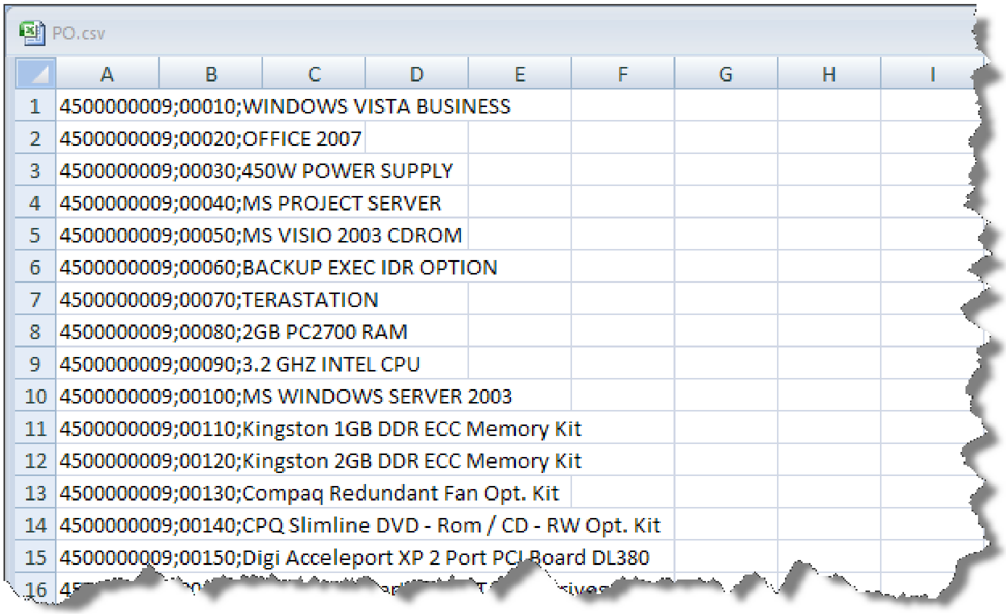
	A	B	C	D	E	F	G	H	I	J	K
1	10003;01;Acme;5 Dedrick Place;;West Caldwell;NJ;07006;;10003-01										
2	10005;01;Admiral Linen & Uniform Service;2030 Kipling;;Houston;TX;77098;;10005-01										
3	10009;01;ANGIODYNAMICS;P.O. Box 1549;;Albany;NY;12201-1549;;10009-01										
4	10010;60425-1586;Landauer;Inc.;2 Science Road;;Glenwood;IL;01;10010-60425-1586										
5	10011;01;Cook Medical Incorporated;22988 Network Place;;Chicago;IL;60673-1229;;10011-01										
6	10012;01;Boston Scientific;75 Remittance Drive;Suite 6094;Chicago;IL;60675-6094;;10012-01										
7	10015;01;Software House International;P.O. Box 8500-41155;;Philadelphia;PA;19178;;10015-01										
8	10016;01;Teksystems;P.O. Box 198568;;Atlanta;GA;30384-8568;;10016-01										
9	10018;01;Blueline Simulations LLC;Wrong Address;Wrong Address2;Wrong City;Wrong State;Wrong Zip;;10018-01										
10	10018;02;Blueline Simulations LLC;12400-2 Wake Union Church Road;Suite 32;Wake Forest;NC;27587;;10018-02										
11	10019;01;McManus Instrument Co. Inc;P.O. Box 829;;Village Mills;TX;77663;;10019-01										
12	10020;01;Promega;P.O. Box 689768;;Milwaukee;WI;53268-9768;;10020-01										
13	10004;01;Ricoh;5 Dedrick Place;;West Caldwell;NJ;07006;;10004-01										
14											
15											
16											
17											

PO Lines

The PO (Lines) CSV table lists valid PO lines extracted from the PO Lines virtual table. The table contains the following fields:

- Purchase Order #
- PO Line #
- PO Line Description

For example:



PO.csv

	A	B	C	D	E	F	G	H	I
1	4500000009;00010;WINDOWS VISTA BUSINESS								
2	4500000009;00020;OFFICE 2007								
3	4500000009;00030;450W POWER SUPPLY								
4	4500000009;00040;MS PROJECT SERVER								
5	4500000009;00050;MS VISIO 2003 CDROM								
6	4500000009;00060;BACKUP EXEC IDR OPTION								
7	4500000009;00070;TERASTATION								
8	4500000009;00080;2GB PC2700 RAM								
9	4500000009;00090;3.2 GHZ INTEL CPU								
10	4500000009;00100;MS WINDOWS SERVER 2003								
11	4500000009;00110;Kingston 1GB DDR ECC Memory Kit								
12	4500000009;00120;Kingston 2GB DDR ECC Memory Kit								
13	4500000009;00130;Compaq Redundant Fan Opt. Kit								
14	4500000009;00140;CPQ Slimline DVD - Rom / CD - RW Opt. Kit								
15	4500000009;00150;Digi Acceleport XP 2 Port PCI Board DL380								
16	[illegible]								

Configure Verifier batch security (optional)

To configure batch security, complete the follow sections.

Enable new columns for batch view

Four columns, ExternalGroupID, ExternalBatchID, TransactionID, and TransactionType, known as batch level entities, are available to hold additional information on batches.

By default, these columns are not shown. To display the columns in the batch view, execute the following commands in the Intelligent Capture database:

Syntax:

```
exec sp_SetGlobalApplicationSetting 'ColumnSettingName','Column Name to Display',
Enabled boolean
```

ExternalGroupID:

```
exec sp_SetGlobalApplicationSetting
'SysAppBatchColumnExternalGroupId','ExtGroupID',True
```

ExternalBatchID:

```
exec sp_SetGlobalApplicationSetting
'SysAppBatchColumnExternalBatchId','ExtBatchID',True
```

TransactionID:

```
exec sp_SetGlobalApplicationSetting 'SysAppBatchColumnTransactionId','TransID',True
```

TransactionType:

```
exec sp_SetGlobalApplicationSetting
'SysAppBatchColumnExternalTransactionType,'TransType',True
```

Notes

- You can customize the ExtGroupID, ExtBatchID, TransID, and TransType values to meet your needs.
- To hide the Batch entities from the batch view, set the last value to False, and then run the same commands.

Update user group security

To import users that require group security, use the scripting functionality introduced in Intelligent Capture version 5.4. This script reads from a CSV file at a configurable location.

1. Create a CSV file called CSVGroupSecurity.csv that contains the following four columns:
    - User name
    - Group ID
    - Verifier role

      Note For more information on available Verifier roles, refer to the *Intelligent Capture Verifier User Guide*.
    - User domain

      Note If this value is left blank, BDD_ANYUSERDOMAIN is used.
2. Complete the following steps to enable the CSVGroupSecurity.csv file load of user group security:
    1. Open the project file with **Intelligent Capture Designer**.
    2. Click the **Definition Mode** button.
    3. Expand the **Invoices** tree.
    4. Click the **Show/Hide Scripts** button.
    5. To display global variables, click the **2** tab on the left side of the window.
    6. Click the **End** button in the **Script View** toolbar to stop the scripting module.

7. For CSV File Location and CSV File Separator, define the following Global variables.

```
Global Const strBatchGroupSecurityFile = "C:\Program
Files\Perceptive\Projects\PerceptiveInvoiceSolution\Global\CSVGroupSecurity.csv
"
Global Const strBatchGroupSecurityFileDelimter = ","
```

Note If either of these values are blank, the load from the CSV file is ignored.

8. Click the **Start/Resume** button in the **Script View** toolbar to restart the scripting module.
9. Exit the **Script View** function.
10. Click the **Save** button in the **Designer** toolbar to save your changes.

Enable Windows and Database authentication

Local workstation and network Windows users can be imported into the Intelligent Capture project authentication sub-system allowing automatic project authentication with the currently logged in Windows user account for all Intelligent Capture applications. You must enable Windows Authentication and Database Authentication in order to implement the batch security feature.

Complete the following steps to enable Windows and Database authentication in Intelligent Capture:

1. Open the project file in the Intelligent Capture Designer application.
2. From the menu, select **Options, Users, Groups and Roles**.
3. On the **Project Authentication Settings** dialog, on the Users tab, select **Allow Windows Authentication** and **Allow Database Authentication**.
4. Click **OK**.

Enable system security updates

Complete the following steps to update system security:

1. Launch the **Runtime Service Management Console**.
2. From the **Runtime Server Administration** tree, expand the **RTS Group** > ***Machine name***, and then stop one of the **Runtime Service (RTS)** instances.
3. Right-click the **RTS** instance and then select **Properties**.
4. On the **General** tab, in the **Automated System Updates** section, select **Update system security** and then configure the interval for how often you want to run the security updates.
5. Restart the **RTS** instance.

Resolve Visibility port conflict

Visibility is the reporting and dashboard product from Intelligent Capture. It consists of several predefined reports and a dashboard that you can use during the course of the demonstration to provide the customer with excellent processing metrics and analysis. Visibility uses an embedded copy of Apache Tomcat, which, in turn, uses ports that are also used by ImageNow. To resolve this conflict, complete the following steps:

1. Navigate to the **C:\Program Files\Brainware Visibility\Jakarta\conf** folder and open the **server.xml** file in a text editor.
2. Locate the following line and update the port assignments as shown below.

```
<!-- Define an AJP 1.3 Connector on port 8009 -->
<Connector port="8010" protocol="AJP/1.3” redirectPort="8444"/>
```

Note 8010 is the new port assignment and 8009 is the default installed port assignment.

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