



PSI:Capture Xero Migration - Overview

PSI:Capture's Migration for the Xero accounting system allows users to load invoices (accounts receivable and payable) and receipts from scanned or imported documents into a Xero organization. This document covers the steps required to register PSI:Capture with Xero as a private application, as well as the requirements for configuring PSI:Capture to import invoices and receipts.

Application Registration

Registration Overview

In order for PSI:Capture to connect to your Xero organization, you must register PSI:Capture as a **private** application through the Xero web site. Private applications use a special authorization process to allow connectivity to your Xero organization without having to manually supply passwords.

OpenSSL Installation

The first step is to generate both a public and private key file, and a combined *pfx* file. The public key file will be uploaded to Xero during application registration; all of the files will be placed on the PSI:Capture server. When the migration process begins, these key files are used by Xero to authenticate the connection.

To generate the key pair, Xero recommends installing the free *OpenSSL for Windows* software:

<http://slproweb.com/products/Win32OpenSSL.html>

Select the full Win32 download (32-bit or 64-bit versions of Windows) or the full Win64 download (for 64-bit versions of Windows only), v1.0.1e.

Generating a Key Pair

1. Open a Windows Command window (as Administrator).
2. Enter the following command (substituting the OpenSSL install directory for <INSTALLPATH>).

```
set OPENSSL_CONF=c:\<INSTALLPATH>\bin\openssl.cfg
```

3. Change to the OpenSSL "bin" directory, located in the directory where you installed OpenSSL.
4. Enter the following command to generate your *private* key file.

```
openssl genrsa -out privatekey.pem 1024
```

5. Enter the following command to generate your *public certificate* key file. OpenSSL will prompt you to supply your two-character country code, state, city, company organization name, your name, and your email address. This information will be used to help generate a unique key.

```
openssl req -new -x509 -key privatekey.pem -out publickey.cer -days 365
```

6. Enter the following command to export your keys to a *pfx* file. You will be prompted to create a password, which you will need to supply when configuring migrations.

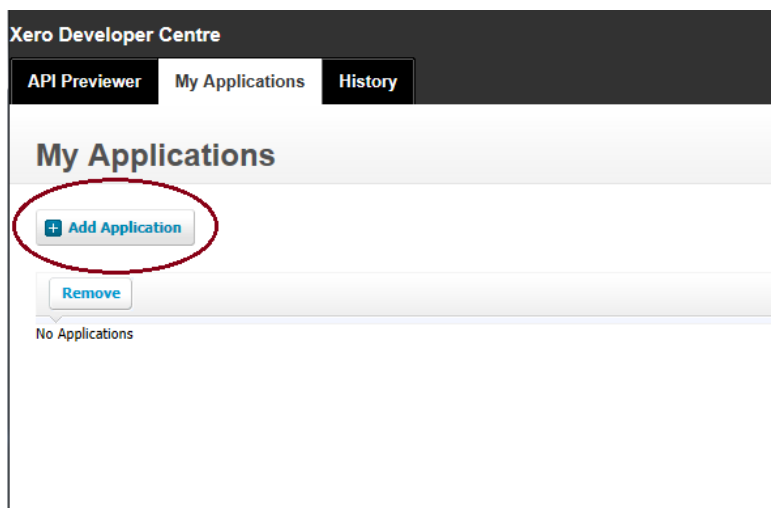
```
openssl pkcs12 -export -out public_privatekey.pfx -inkey privatekey.pem -in publickey.cer
```

7. The bin directory now contains three new files: *privatekey.pem*, *publickey.cer* and *public_privatekey.pfx*. Copy them to a location accessible by PSI:Capture and the users who create document types for the software. The migration configuration screen prompts for the location of the *public_privatekey.pfx* file.



Registering PSI:Capture With Xero

1. Log on to the Xero Developer portal (<https://api.xero.com>).
2. Select the *My Applications* tab, and click the *Add Application* button in the Xero Developer portal to add your application.



3. Select “Private” and enter a name for your application (ex: “PSIGEN PsiCapture”).
4. Choose your organization from the drop down list.
5. Upload the public certificate file (*publickey.cer*) you generated earlier.

Xero Developer Centre

API Previewer My Applications History

My Applications >

Add an Application

What type of application are you developing?

☐ Public - for use with any organisation that authorises you

☒ Private - just for use with my own organisation

Application Name

PSIGEN PsiCapture

Please select which organisation your application can access:

PSIGEN Test

X509 Public Key Certificate

Either, paste in the base-64 encoded X509 certificate file in here

Or, select a X509 certificate (.cer) file to upload

C:\Program Files (x86)\OpenSSL-Win32\bin\publickey.cer Browse...

Save Cancel



6. Press the Save button.
7. Record the *Consumer Key* that Xero generates. This information is required during migration configuration.

Xero Developer CentreLogoutHelp

API Previewer **My Applications** **History**

[My Applications](#) >
Edit Application

✓ Application added

Application Name
PSIGEN PsiCapture

Selected Organisation:
PSIGEN Test

X509 Public Key Certificate
Subject
O=Internet Widgits Pty Ltd, S=Some-State, C=AU
Valid From
5/3/2013 2:51:34 PM UTC
Valid To
5/3/2014 2:51:34 PM UTC
Thumbprint
FA0E8AA3D966A5716F203EE47C22A57E33CE6BCE
[Upload a new Public Key Certificate](#)

✓ Save Cancel

OAuth Credentials

Consumer Key
4SNMNNWC2VRNUULTFKTK5FBK5CZXE8

Consumer Secret
E2I48AJ0ZRVTDZLS9ZERFTYWK2CA6
[Regenerate Key and Secret](#)

Note, For Private applications, the consumer token and secret are also used as the access token and secret.

API Endpoint URL:
<https://api.xero.com/api.xro/2.0/>

Document Type And Migration Configuration

Data Requirements

Use the general guidelines below for each type of document supported by the PSI:Capture Xero migration. Please refer to Xero's documentation for complete information on the data requirements for each type of document.

Accounts Payable and Accounts Receivable Invoices:

Item	Availability	Description
Contact	required	A new or existing contact identifier
Line items	required	One or more line item details (description, quantity, and unit amount)
Date	recommended	Invoice date
Due Date	recommended	Invoice due date
LineAmount Type	recommended	"Exclusive", "Inclusive" or "NoTax"
Invoice Number	optional	
Currency Code	optional	A three-character currency code used in your Xero organization
Status	optional	DRAFT, SUBMITTED or AUTHORISED
Sent To Contact	optional	Yes or No
Sub Total	optional	Subtotal for the invoice
Total Tax	optional	Tax total for the invoice
Invoice Total	optional	Grand total for the invoice

Receipts:

Item	Availability	Description
Date	required	Receipt date
Contact	required	A new or existing contact identifier
Line items	required	One or more line item details (description, quantity, unit amount and account code)
User	required	Specifies the user who submitted the receipt. You can specify either the exact user's ID, or the migration can perform a lookup based on the user's last name and/or first name.
LineAmount Type	optional	"Exclusive", "Inclusive" or "NoTax"
Sub Total	optional	Subtotal for the receipt
Total Tax	optional	Tax total for the receipt
Receipt Total	optional	Grand total for the receipt

Xero Document Type Configuration

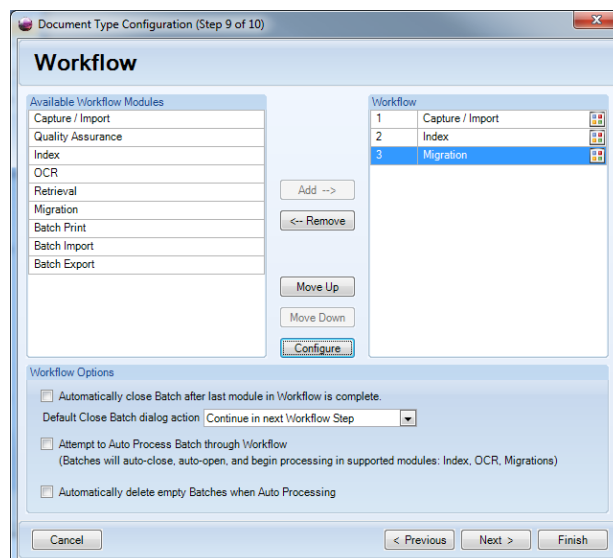
Refer to the PSI:Capture documentation for complete details of document type configuration. Be aware of the following as you prepare your document type:

- The supported documents normally have multiple line items to record. When this is the case, enable multi-record support for the document type by checking the box labeled *Allow Multiple Records per Document when Indexing* on *Step 3 of 10*.
- Configure index fields on *Step 6 of 10* for all of the required data items. These are matched to the items required by Xero during migration configuration
- If using Zone OCR to populate the index fields, use multi-record line item zones to extract each line item.

Xero Migration Configuration

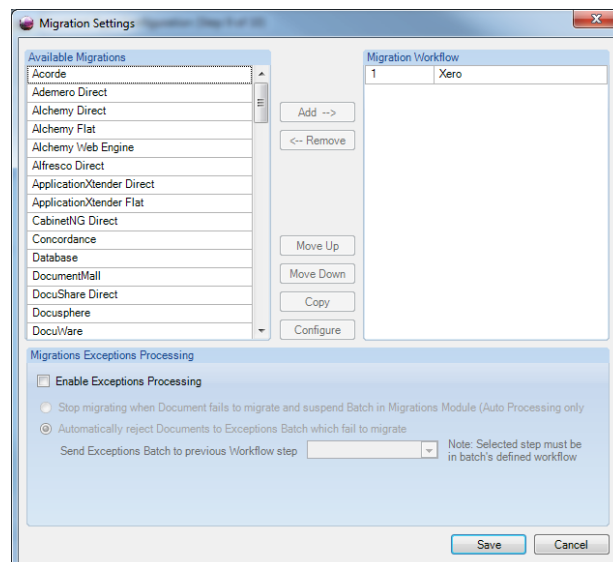
Configure the Xero migration on *Step 9 of 10* of the document type.

Add a Migration workflow step



Select Xero from the list of available migrations and press the *Add* button (if Xero is not listed, please contact your reseller).

Press the *Configure* button to display the Xero Migration Configuration dialog.



On the Migrations Settings tab, specify the *Xero Private App Connection* information:

- *Private program name* – The name specified in step three of section *Registering PSI:Capture With Xero*
- *Consumer key* – The 30-character key obtained in step seven of section *Registering PSI:Capture With Xero*
- *Certificate (.pfx) file* – The file created in step six of section *Generating a Key Pair*
- *Certificate password* – The password that was entered in step six of section *Generating a Key Pair*

Next, select the Xero Document Settings:

- *Type of document* – Select the type of documents the document type will process (AP invoices, AR invoices or Receipts)



- *Attachment source* – If you plan to attach the scanned or imported document, select the source of the document (*Image Files* or *OCR Files*). If no attachment is required, select *No attachments*.

The image shows the 'Xero Migration Configuration' window, specifically the 'Migrations Settings' tab. The window is divided into several sections: 'Xero Private App Connection' with fields for Private program name, Consumer key, Certificate (.pfx) file, and Certificate password; 'Xero Document Settings' with dropdowns for Type of document and Attachment source; 'Image File Options' with checkboxes for Migrate Image Files, Image Source, Storage Location, Image Output Type, JPEG Quality, Tags to Output, and Alt. Page Behavior; 'OCR and Non-Image File Options' with checkboxes for Migrate OCR or Non-Image Files, Storage Location, Files To Migrate, and Tags to Output; 'Shared File Options' with dropdowns for File Directory Structure, Duplicate Image/OCR File Behavior, and Document Path Output; 'Single Page Output Options' with dropdowns for Storage Option and Naming Option; and 'Other Options' with fields for Application to Launch, Application Arguments, and Launch Timing. At the bottom right are 'Save' and 'Cancel' buttons.

Xero Migration Configuration - Migrations Settings tab

Select the *Field Settings* tab, and associate your index fields with the data items supported by Xero for your chosen document. Fields with bold labels are required.

For receipts, the “user” (i.e. the person in your organization who submitted the receipts) must be specified. If the actual user identifier is not available, the migration can search for the user by last (and optionally first) name. The first match found will be associated with the receipt.

The screen shots on the next two pages show samples of index assignments for both invoices and receipts.



The available index fields are listed in the grid at the top of the screen. Check the ones you wish to use. The checked items will be listed in the drop-down lists in the *Index Field Mappings* area. For each Xero data item, select the corresponding index item.

The screenshot shows the 'Xero Migration Configuration' window with the 'Field Setting Options' tab selected. Below the table, the 'Index Field Mappings' section is visible, with the 'AP Invoice' sub-tab active. The table lists 15 fields with their types, names, and whether they are included in the migration.

	Field Type	Field Name	Output Format	Include
1	Document	LIDescription		<input checked="" type="checkbox"/>
2	Document	LIQuantity		<input checked="" type="checkbox"/>
3	Document	LIUnitAmount		<input checked="" type="checkbox"/>
4	Document	LIUnitAmount		<input checked="" type="checkbox"/>
5	Document	LIUnitAmount		<input checked="" type="checkbox"/>
6	Document	LIUnitAmount		<input checked="" type="checkbox"/>
7	Document	LIUnitAmount		<input checked="" type="checkbox"/>
8	Document	LIUnitAmount		<input checked="" type="checkbox"/>
9	Document	LIUnitAmount		<input checked="" type="checkbox"/>
10	Document	LIUnitAmount		<input checked="" type="checkbox"/>
11	Document	LIUnitAmount		<input checked="" type="checkbox"/>
12	Document	LIUnitAmount		<input checked="" type="checkbox"/>
13	Document	LIUnitAmount		<input checked="" type="checkbox"/>
14	System	BatchID		<input type="checkbox"/>
15	System	BatchName		<input type="checkbox"/>

The 'Index Field Mappings' section shows the 'AP Invoice' sub-tab. It contains several dropdown menus for mapping Xero data items to index fields:

- Contact:** Contact
- Invoice date:** Date
- Due date:** Due Date
- Line amount type:** LineAmount Types
- Invoice number:** InvoiceNum
- Reference:**
- Branding theme:**
- Currency code:**
- Status:**
- Sent to contact:**
- Sub total:** Sub Total
- Total tax:** Tax
- Total:** Total

The screenshot shows the 'Xero Migration Configuration' window with the 'Field Setting Options' tab selected. Below the table, the 'Index Field Mappings' section is visible, with the 'Line Items' sub-tab active. The table lists 15 fields with their types, names, and whether they are included in the migration.

	Field Type	Field Name	Output Format	Include
1	Document	LIDescription		<input checked="" type="checkbox"/>
2	Document	LIQuantity		<input checked="" type="checkbox"/>
3	Document	LIUnitAmount		<input checked="" type="checkbox"/>
4	Document	LIUnitAmount		<input checked="" type="checkbox"/>
5	Document	LIUnitAmount		<input checked="" type="checkbox"/>
6	Document	LIUnitAmount		<input checked="" type="checkbox"/>
7	Document	LIUnitAmount		<input checked="" type="checkbox"/>
8	Document	LIUnitAmount		<input checked="" type="checkbox"/>
9	Document	LIUnitAmount		<input checked="" type="checkbox"/>
10	Document	LIUnitAmount		<input checked="" type="checkbox"/>
11	Document	LIUnitAmount		<input checked="" type="checkbox"/>
12	Document	LIUnitAmount		<input checked="" type="checkbox"/>
13	Document	LIUnitAmount		<input checked="" type="checkbox"/>
14	System	BatchID		<input type="checkbox"/>
15	System	BatchName		<input type="checkbox"/>

The 'Index Field Mappings' section shows the 'Line Items' sub-tab. It contains several dropdown menus for mapping Xero data items to index fields:

- Description:** LIDescription
- Quantity:** LIQuantity
- Unit amount:** LIUnitAmount
- Account code:**
- Item code:**
- Line amount:** LIUnitAmount
- Tax type:**
- Tax amount:** LIUnitAmount

The Line Item mappings are available on the Line Items tab.



Receipts work the same way as Invoices. Assign the index field to its corresponding Xero field.

One small difference is the *User*. You can configure the migration to select the user by their assigned Xero ID (if known) or by the user's name (last name and first name).

The migration will return the first match it finds. If no user is found, the migration will fail.

Use the *Begins with* check boxes to allow the search to return users whose name begins with the value found in the index. For example, if *Begins with* is checked for *User last name*, and the index returns "Williams", the lookup would return all users whose last name begins with "Williams" ("Williams", "Williamson", etc.).

The Xero Migration Configuration window is shown with the 'Field Setting Options' tab selected. It contains a table of fields to be migrated and a section for 'Index Field Mappings'.

	Field Type	Field Name	Output Format	Include
1	System	BatchID		<input type="checkbox"/>
2	System	BatchName		<input type="checkbox"/>
3	System	BatchCreateDate		<input type="checkbox"/>
4	System	BatchCreateDateTime		<input type="checkbox"/>
5	System	BatchDeadline		<input type="checkbox"/>
6	System	DocumentTypeName		<input type="checkbox"/>
7	System	BatchNote		<input type="checkbox"/>
8	System	HighPriorityBatch		<input type="checkbox"/>
9	System	FolderID		<input type="checkbox"/>
10	System	FolderName		<input type="checkbox"/>
11	System	FolderNote		<input type="checkbox"/>
12	System	FolderNumber		<input type="checkbox"/>
13	System	FolderIndexedBy		<input type="checkbox"/>
14	System	FolderReindexedBy		<input type="checkbox"/>
15	System	DocumentID		<input type="checkbox"/>

Index Field Mappings

Receipt | **Line Items**

Date: **User ID:**

Contact: **- OR -**

Line amount type:

User last name: ☐ Begins with

Sub total: **User first name:** ☐ Begins with

Total tax:

Total:

If actual names are used, the first match will be returned. If no matching name is found in the organization, the receipt will fail.

Save **Cancel**