

For Microsoft Dynamics D365 Finance & Operations

User Instructions







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Overview

InvoiceConnect is an integration application that integrates payment requests and confirmations from Concur into Microsoft Dynamics D365 Finance and Operations (FO). With InvoiceConnect, companies using both Concur and FO can integrate requests into FO into an FO journal. InvoiceConnect reports come directly from Concur without any user intervention using the Concur Application Programming Interface (API) option and Dynamics FO managed interop. Refer to this document for the installation, usage, and definitions of InvoiceConnect.

Prerequisites

Permissions

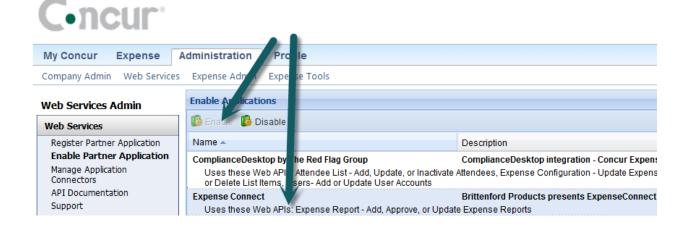
FO

Make sure you have access to the Asset Library in Lifecycle Services (LCS).

Concur

To create a token, the Concur user needs access to view and modify all reports company-wide and access to enable Expense & Invoice Connect by Brittenford via Administration \rightarrow Web Services \rightarrow Enable Partner Application. They will also need:

- 1. For Concur Standard Edition:
 - a. The "Can Administer" checkbox selected in their user account
 - b. The "Can Approve" checkbox selected in their user account
 - c. The "Can Submit" checkbox selected in their user account
- 2. For Concur Advanced Configurations:
 - a. The "Web Services" role added to their user account
 - b. The "Expense User" checkbox selected in their user account



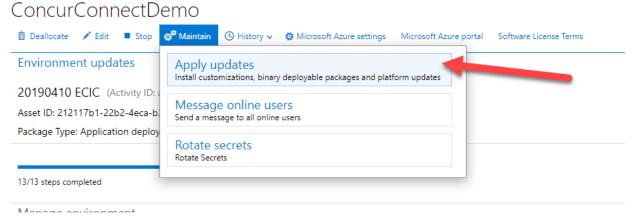






FO Installation into a testing environment

- 1. Take the deployment zip file given to you by your Wipfli implementation specialist and import it into your LCS Asset Library
- 2. In LCS, go into the environment to update, start it (if necessary), and click on Maintain → Apply Updates

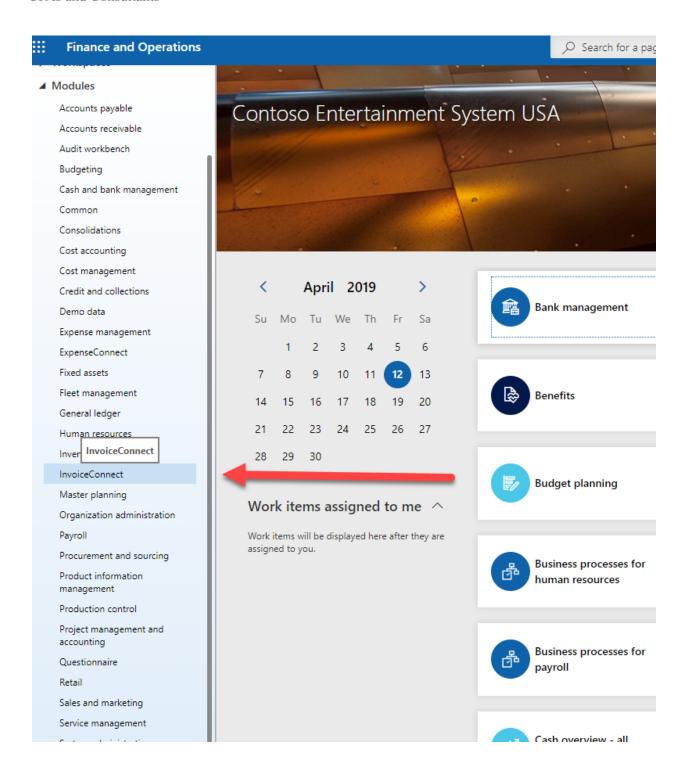


- 3. Find the deployment artifact and click Apply
- 4. Once the installation is over, you can login to the environment and see InvoiceConnect in the menu









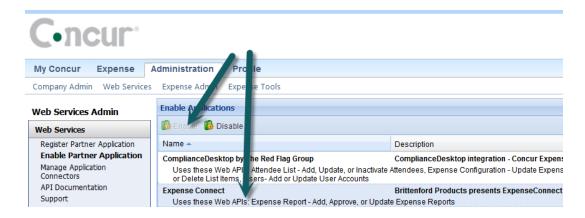
Concur Installation







- 1. Logon to Concur using the newly created wsadmin account.
- 2. Enable the application in Concur (Administration → Web Services → Enable Partner Application)
 - a. Select the Expense & Invoice Connect by Brittenford entry
 - b. Select the Enable button



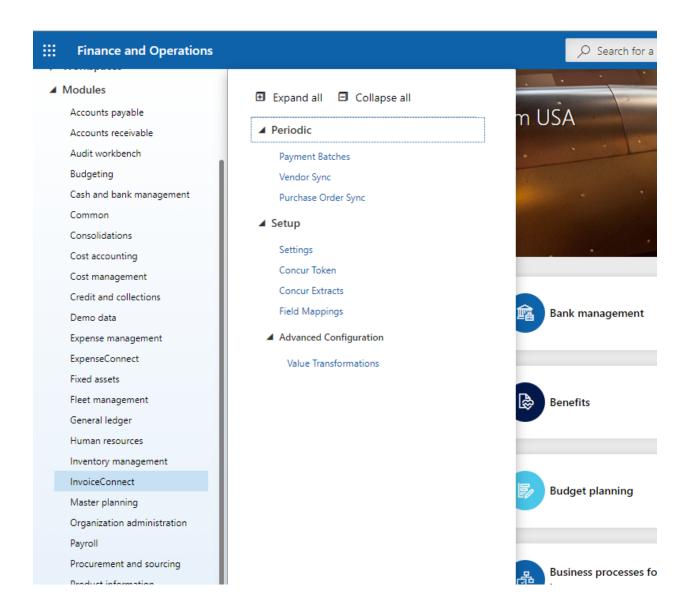






InvoiceConnect configuration in FO

- 1. Open FO as a user who is a System administrator
- 2. In FO, navigate to the InvoiceConnect home page using the navigation pane.

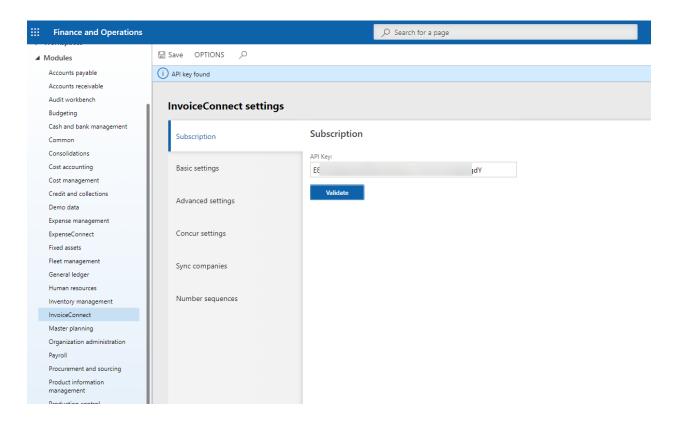


3. Open the Settings form and enter in the API Key provided by Wipfli to register the application. Click Validate to test it.







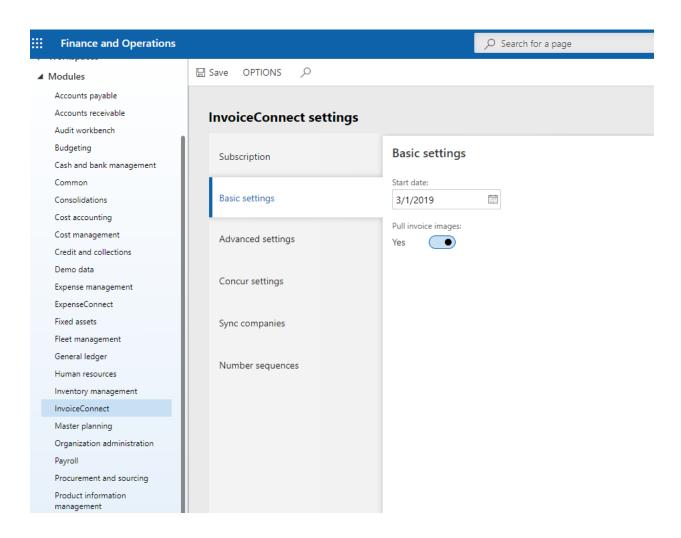


4. Under Basic Settings select a Start Date. This choice determines how far back to look for invoices and when to start synchronizing vendors and POs modified after that date.







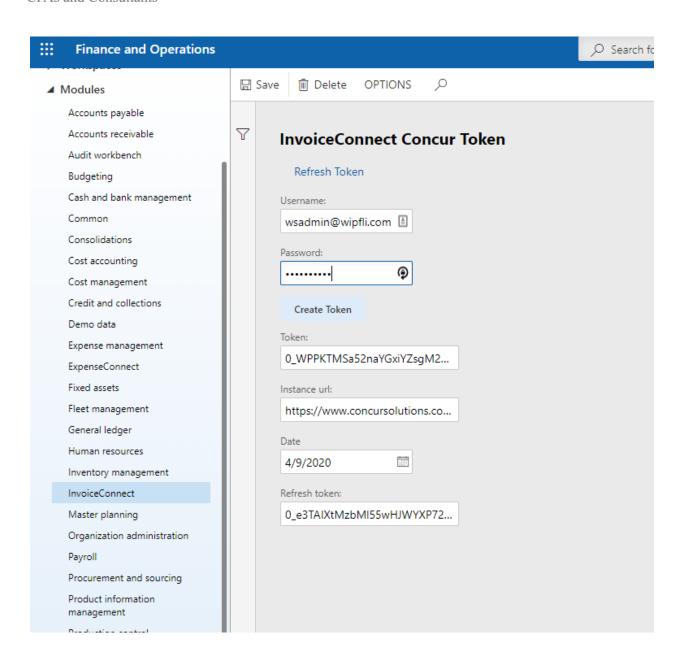


5. Open the Concur Token form and use the "WS Admin" Username and Password to Create a new token. After hitting Create Token, if a token is successfully created, you will see it in the Token textbox.







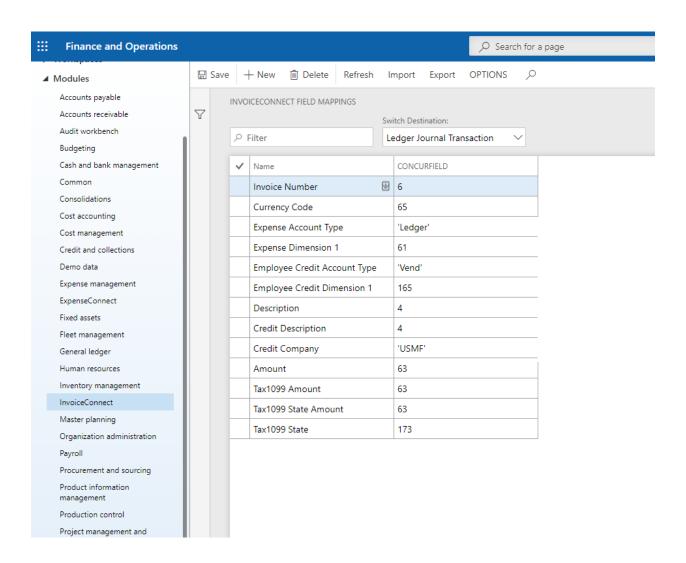


6. Open the Field Mappings form to import the default field mappings provided by Wipfli. Edit the field mappings according to the company's need.







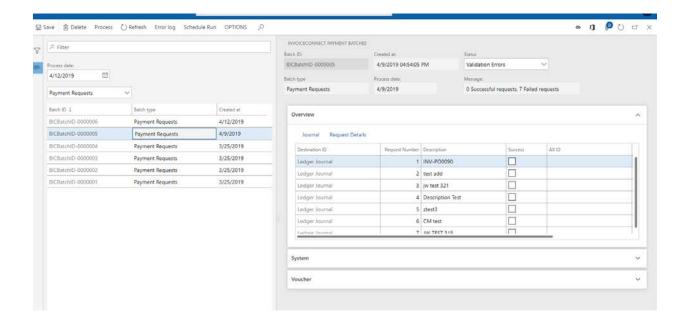


7. Open the InvoiceConnect Payment Batches form. You are now ready to test a batch. Start a batch by clicking the Process button. It should pull all the invoice going back as far as the Settings Start Date selected in Settings.









Installation media

Open the files that correspond to the appropriate FO version in a browser to install InvoiceConnect:

https://brittip.blob.core.windows.net/icfo/IC-AXDeployablePackage.zip

InvoiceConnect Security

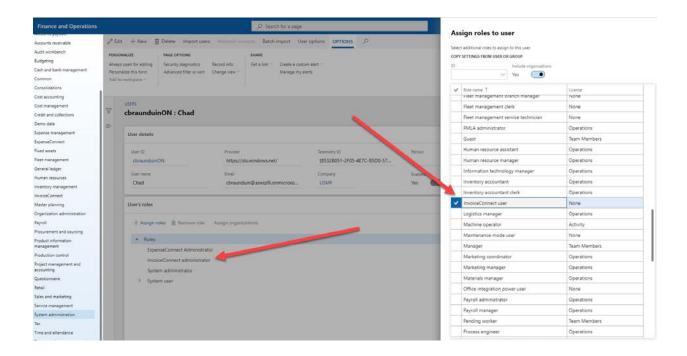
The token used to access the Concur API is stored internally and all programmatic requests between Concur and InvoiceConnect are encrypted (HTTPS), so the token is never seen nor handled as plain text.

FO Windows and Forms permissions for InvoiceConnect

Assign each user of InvoiceConnect either the InvoiceConnect Administrator role of the InvoiceConnect User role. The Administrator role can do everything within InvoiceConnect. The User role can only run IC Batches.







Concur Site Overrides (Implementation sites)

If the Concur domain differs from $\underline{www.concursolutions.com}$ (the default for production Concur sites), the domain needs overridden in the Settings form \rightarrow Concur settings tab.

If InvoiceConnect is implemented in a Concur implementation site, the Concur Key and Concur Secret fields need overridden. Obtain the Key and Secret fields after registering a new partner application in the Concur implementation site at Administration \rightarrow Company \rightarrow Web Services.

Choose an appropriate name and description, and select the following boxes:

- Expense Report
- Extract
- List Items

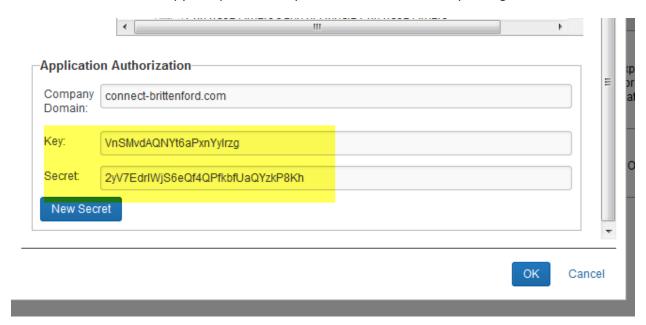






Users

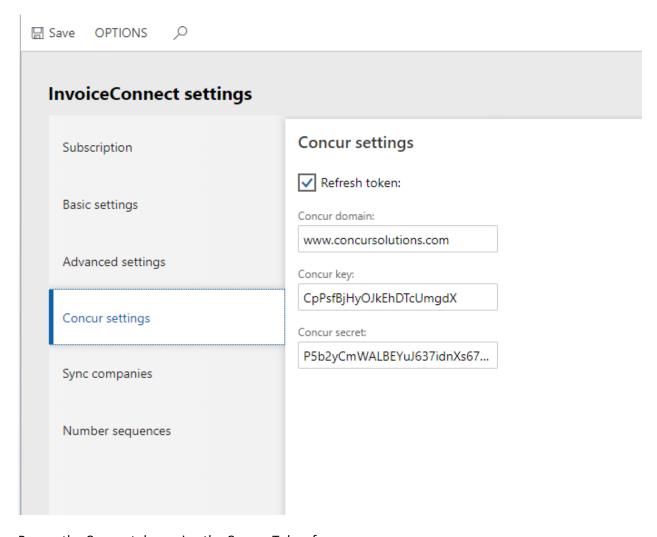
Scroll to the bottom and copy-and-paste the Key and Secret into the corresponding fields in the form.











Renew the Concur token using the Concur Token form.

InvoiceConnect Features

Payment Batches

Batches store a log of the integrations performed between Concur and FO along with a list off all the Concur reports integrated. During production, it is important not to delete Batches from InvoiceConnect because InvoiceConnect uses existing Batches in two ways:

- 1. InvoiceConnect uses the Created Date and Time of the last fully successful Batch as the Start Date of the next Batch. A Batch is considered fully successful only if all reports successfully integrate.
- 2. InvoiceConnect prevents duplicate integrations by checking the existing Batch Report lists before integrating a report.



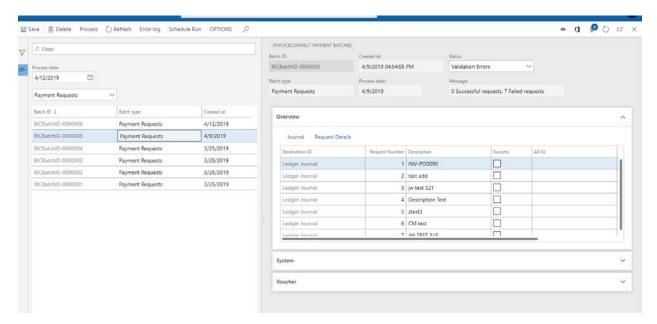




When first creating a Batch, there is an editable field called the Process date that defaults to today's date. By changing the date field, InvoiceConnect imports a Batch at an earlier or later date. For example, if reports need imported on the last day of the month, but the last day of the month falls on a Sunday, the reports can be run on the following Monday by changing the Current Date to Sunday's date.

If a report will not integrate, prevent InvoiceConnect from continuing to try to integrate the report by selecting the "Success" checkbox. In production, it is best to find the root cause of a report not integrating before choosing to skip reports.

The Payment Batches form is used to import both invoices and payment confirmations in from Concur.



Scheduling Batches

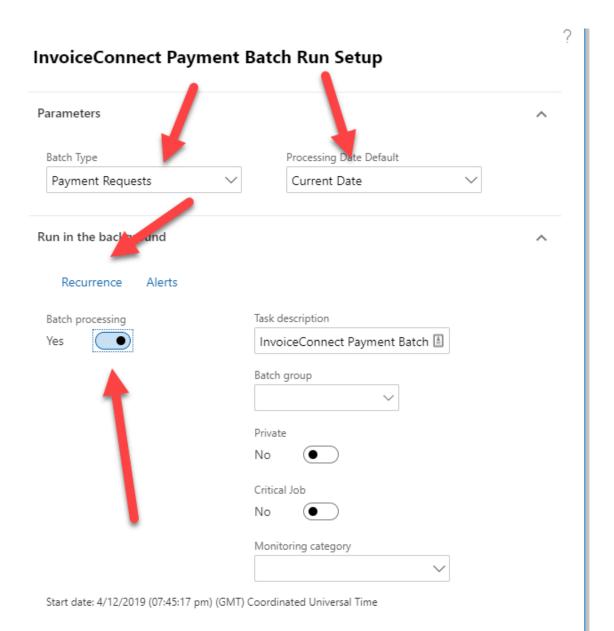
To schedule batches to run automatically, open the Payment Batches form and click on the Schedule Run button. That will open a scheduler setup form. The important choices to make on this form are:

- 1. Batch Type: whether or not this is a schedule for invoice requests or confirmations
- 2. What value will populate in the Processing Date field. There are 4 choices that should be selected based on accounting need
- 3. Select Yes for Batch Processing
- 4. Click on the Recurrence link to configure when the schedule will run









Cancel







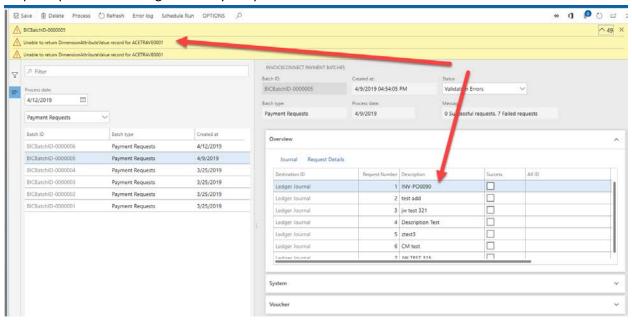
Debugging Validation Errors

Sometimes Concur expense reports fail to integrate when data they contain is not valid. The main causes are:

- An invalid Ledger account of dimension
- An invalid Ledger name
- A Transaction date in a closed period

When this happens, it is important to know how to debug those validation issues. First, identify which report caused the error. Sometimes identification can be a multi-step process.

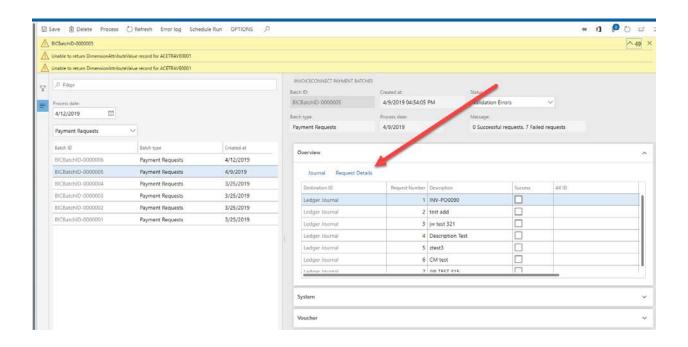
Step 1: Open the Error Log to identify the problem



Step 2: Find the Report Details for an offending report by clicking on the Report Details button. This gives us all of the data pulled from Concur. Open it in an XML viewer (e.g. Internet Explorer, Notepad).







Step 3: After identifying the issue, fix the issue in either Concur or FO or use a Value Transformation to fix it(whichever is more appropriate), and re-run another batch

Transaction Splitting

In the course of integrating invoices into FO, invoices split into different FO journals and vouchers.

Ledger Journal

Journal records split because of the following differences:

- LedgerName
- Currency Code
- Company ID

Ledger Journal Voucher

Vouchers split for the following differences:

- Credit Dimension Ledger Account
- Transaction Date
- Exchange Rate
- Extra Grouping Key (A pseudo field which can cause vouchers to split if desired)







Vendor Invoice Table

Vendor Invoices split because of the following differences

- Purchase Order Number
- Currency Code
- Company ID

Payment Journal

Payment Journal records split because of the following differences:

- LedgerName
- Currency Code
- Company ID

Payment Journal Voucher

Payments split for the following differences:

- Transaction Date
- Exchange Rate
- Extra Grouping Key (A pseudo field which can cause vouchers to split if desired)

Field Mapping

Values in Concur map to fields in FO via entries in the Field Mappings InvoiceConnect form. There are a few rules to follow when mapping fields.

- Using the Extract API, Concur fields map by entering the 1-based ordinal of which column number they are located in the file. Example: 19
- Literal values map by enclosing them with single quotes. Example: 'IC'
- Fields concatenate together by delimiting them with an ampersand or comma. Using a comma puts a space in between the fields whereas using an ampersand does not include a space.
 - o Example: 19,163 (could produce: Lunch 15.46)
 - o Example: 'IC-'&5 (could produce: IC-2883)
- It is also possible to map conditionals. In the example below, InvoiceConnect first finds the value of the Concur field 64. If that value is "Employee", it returns the value of the Concur field 65, otherwise it returns the literal value 'Other'. In this example, 'Other' is the default value because it has a blank conditional check. As many conditionals as needed may be used. The pipe character (|) divides up the conditionals. A colon character (:) separates each conditional check with the conditional result. A question mark character (?) tells InvoiceConnect to treat the text as a conditional expression.

64?Employee:65|:'Other'







It is also possible to nest conditions by using parenthesis such as this:

The tilde character (\sim) delimits multiple conditional checks. In the above case, '1010' is the return if field 136 is either "US" or "UK". Otherwise, '2010' is the return.

As a conditional check, use the underscore character for not found values:

In the above case, if field 21 is blank or not found in the Concur data, '00' is the return.

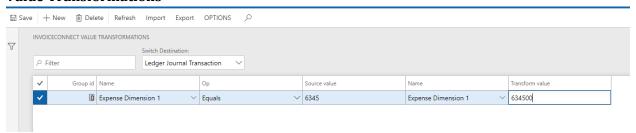
Otherwise, the value from field 21 is the return.

It is also possible to do simple math operations if both sides resolve to a number:

The value in column 67 multiplies by 1.05.

Review the exact Concur API response by opening up the Report Details.xml text file on the Batch Requests line.

Value Transformations



Value Transformations work with Field Mappings to transform FO values into other values. Value Transformations (VTs), unlike Field Mappings, act on already mapped values and not directly on fields from Concur data. Here are several cases for using VTs:

- To correct mistakes in Concur that are not easily fixed (e.g. incorrect natural account)
- To work with a single Concur configuration value that is used in several places. For example, if a customer has an account number string where the first financial dimension segment denotes the company, that segment value may need to direct that report line to the appropriate company value. If the segment value is "100" and the company name is "AAA", a VT can transform the company to be AAA whenever 100 is mapped to the Employee Dimension 2 value.
- VTs can group together using the Group value to create transformations from multiple criteria (e.g. a transformation on an entire account string instead of just a single segment).

Whenever possible, fix the data in Concur rather than using a Value Transformation.

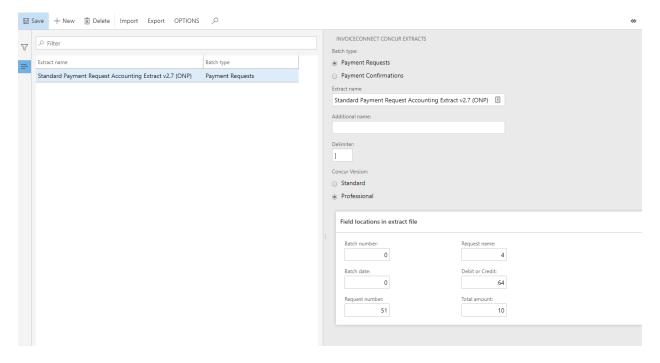
Concur Extract

The Concur Extract setup form is necessary to define which Concur extracts will be used for invoices and payment confirmations.









- Extract Name: A Concur system can have multiple extracts setup. The Extract Name is the name of the expense extract that InvoiceConnect uses. Use the Additional name field to configure multiple names for the same extract format. Generally, the additional name is only needed if you have an "Emergency Run" extract in Concur.
- Concur Version: The extracts look and work differently between Concur versions. Set the radiobutton to the correct Concur version.
- Delimiter: The different Concur versions use a different delimiter character to delimit the fields of data.
- Field Locations in Extract File: InvoiceConnect uses certain fields to drive behavior, so identify
 these fields before configuring the field mappings. Define the field locations and their 1-based
 column indexes in the Field Locations in extract file section. A field with a negative number or
 zero means it is not in the extract detail and it should be blank or default to the value from the
 extract header.

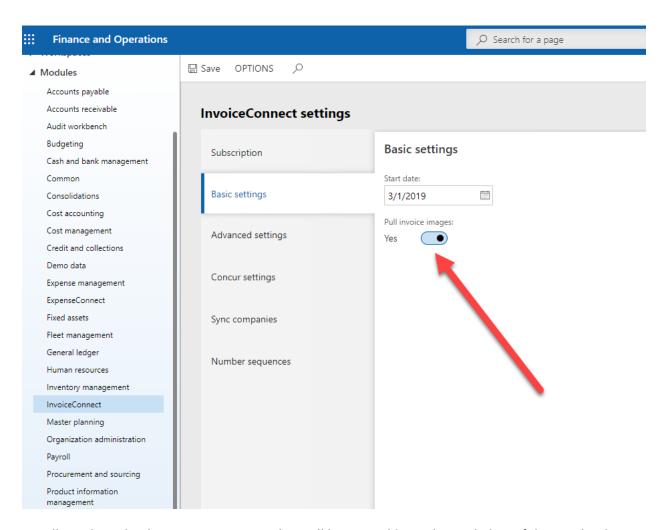
Invoice Images

Select the Pull invoice images checkbox in the Settings form and the invoice image will import as an FO attachment on the Ledger Journal Transaction credit line or on the Vendor Invoice.

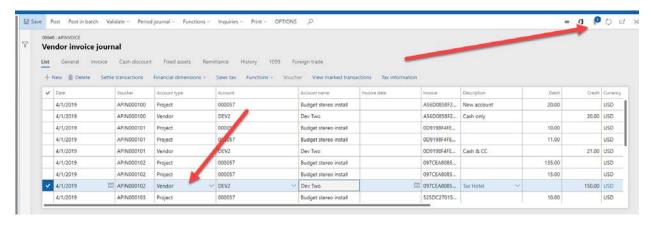








For all vouchers that have receipt images, they will be accessible on the credit line of the voucher by clicking on the document attachment button from the status bar. If you are using the "offset style" mappings, this file will be accessible on the first line of each voucher.







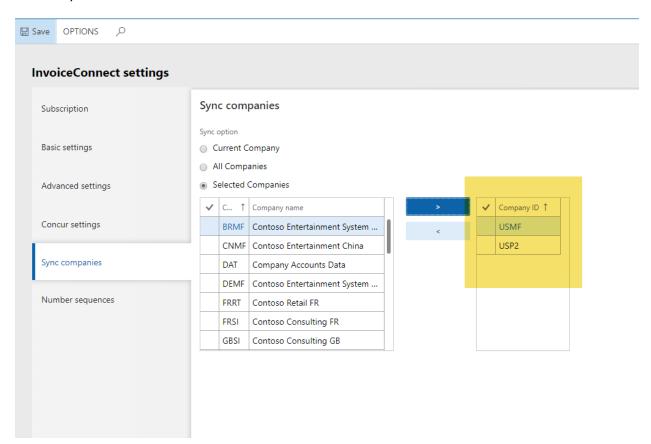


Vendor Sync

Use the Vendor Sync Batches form to synchronize vendors from Dynamics FO to Concur. Dynamics FO is the master location for vendors.

Before synchronizing vendors, complete the following steps:

- Map Vendor Sync fields using the Field Mappings form provided by Wipfli, which maps FO Fields to Concur vendor template fields. Find the possible fields to map from Concur at the following link:
 - https://developer.concur.com/api-reference/invoice/vendor.html
- Select the FO companies with the invoice vendors to sync into Concur using the Sync companies section of the Settings form. The companies moved to the right-hand window will be synchronized.



To begin synchronizing vendors, open the Vendor Sync form, and select process.

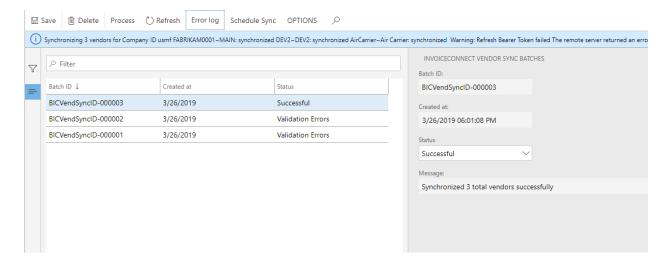






Which vendors will be synced?

All added/updated vendors from the selected companies in the Sync Companies form after the start date from the Settings form (or all if the start date is blank) will sync. Each sync integrates the added/updated vendors since the last successful sync.



Conditional Mapping

Use the following special syntax for conditional mapping from FO to Concur.

FOCondition@ConcurFieldName

For example:

FO Field	Concur Fieldname	Result
Bank Type of Account	?0:'CHCK' :'SAVE'@AccountType	Maps the Concur values for
		checking or savings accounts
		from the internal FO values of 0
		and 1
User Defined 1	62?1:'Yes' :'No'@Custom2	Maps a Yes or No value to the
		Concur field Custom2
		depending on if the FO field
		PostalAddress Is Primary (aka
		62, see lookup below) is a value
		of 1 or not.

FO Vendor Sync field numbers lookup

Field Number	Field Name
16	Vendor Account Number
1	Vendor Invoice Account







32	Address Name
25	Vendor Name
27	Vendor Name Alias
2	Vendor Group
4	Vendor Cash Discount
5	Vendor Currency
6	Vendor Line Discount
7	Vendor One Time Vendor
8	Vendor Price Group
9	Vendor Multiline Discount
10	Vendor End Discount
11	Vendor Payment ID
12	Vendor VAT Number
13	Vendor YourAccountNum
14	Vendor Dlv Term
15	Vendor Dlv Mode
17	Vendor Payment Method
18	Vendor Payment Specs
19	Vendor Line Discount
20	Vendor Payment Schedule
21	Vendor Payment Terms ID
22	Vendor Federal Tax ID
23	Vendor Tax Group
24	Vendor Notes
52	Vendor Payment Terms DAys
51	Vendor Blocked
53	Vendor ABC Number
54	Vendor DUNS Number
55	Vendor Organization Number
26	Vendor Language ID
31	Location ID
49	Employee Responsible ID
63	Bank Name
64	Bank Account Number
65	Bank Currency Code
66	Bank Routing Number
67	Bank Type of Account
56	Financial Dimension 1
57	Financial Dimension 2
58	Financial Dimension 3
59	Financial Dimension 4
60	Financial Dimension 5
61	Financial Dimension 6







68	VendorAccount Number
69	VendorAccount Name
28	Contact First Name
29	Contact Middle Name
30	Contact Last Name
33	PostalAddress Full Address
34	PostalAddress Country Region ID
35	PostalAddress Zip Code
36	PostalAddress State
37	PostalAddress County
38	PostalAddress City
39	PostalAddress Street
40	PostalAddress Street Number
62	PostalAddress Is Primary
41	PrimaryContact Phone
42	PrimaryContact Phone Extension
43	PrimaryContact Phone Description
44	PrimaryContact Email
45	PrimaryContact Email Description
50	Company ID
46	User Defined 1
47	User Defined 2
48	User Defined 3

Vendor Bank Sync

In order to synchronize vendor bank information (eg ACH information), the key field to map is the BankAccount FO field. Map that to the Concur field BankAccountNumber. Note, in the Concur documentation, that field is just AccountNumber, however in the connector it must be BankAccountNumber to disambiguate it from the vendor level AccountNumber field. The connector will change it to the correct field before sending the API call to Concur. Map other banking fields as needed. Most of the bank fields can be directly mapped from FO.

Mapping BankAccountType will save the bank information in Concur as either a checking or savings account depending on the type from FO. The connector defaults to a checking account if this field is not mapped.

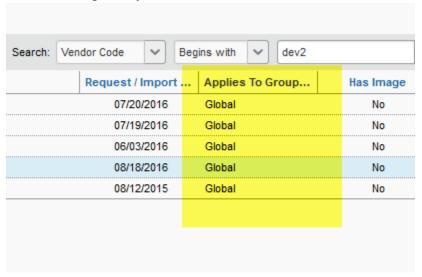
Mapping Y or N to the Concur field BanklsActive will activate/inactivate the banking information in Concur.







Vendor Group list Sync



In order to synchronize additional group lists to a vendor, you must map the list to the Concur field VendorGroupList. Multiple lists can be synchronized, too - just split the groups by a comma. Example:

'USA,Northeast'@VendorGroupList

The above mapping will add the groups USA and Northeast to each vendor. Typically, you would use a conditional statement to apply different groups to different vendors – perhaps per company.

You can also remove groups from a vendor by mapping the list of groups to remove to the Concur field VendorRemoveGroupList. The same rules of splitting groups apply to this.

Vendor Sync Filtering

It is possible to filter out vendors by using one of the three Filter Delete fields. Filtering only works on active vendors. Anything mapped to the Concur field IsActive that resolves to a value of "false" is filtered out**. Inactive vendors are always deleted. Here are some filtering examples:

FO Field	Mapping	Description
Filter Delete 1	62?0:'false'@IsActive	Filter out any
		vendor addresses
		which are not the
		primary addresses

^{** &}quot;Filtered out" means deleted from Concur If that vendor+address combination already has an invoice attached to it, the Vendor will be deleted and the user or approver will not be able to continue the Invoice Workflow until the Vendor is added.







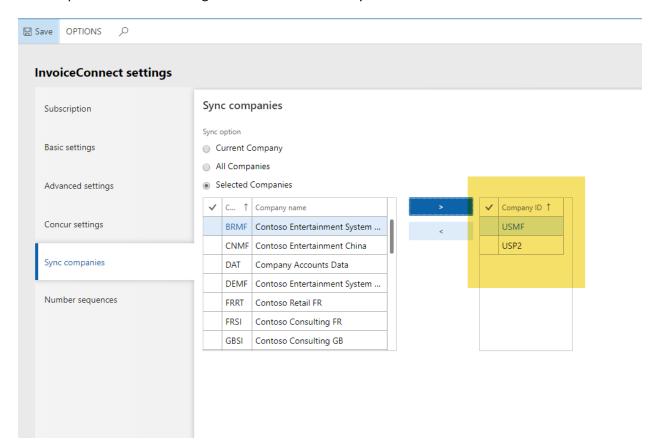
** Mapping more than one field to the same Concur field (eg IsActive) causes a collision and the field with the lower field number overrides the collision. Example: Filter Delete 1 resolves IsActive to false and Filter Delete 2 resolves IsActive to true. IsActive is false because 1 comes before 2.

Purchase Order Sync

Use the Purchase Order Sync Batches form to synchronize purchase orders (POs) from Dynamics FO to Concur. Dynamics FO is the master location for the Purchase Orders.

Before synchronizing POs, complete the following steps:

- Map PO Sync fields using the Field Mappings form provided by Wipfli, which maps FO Fields to Concur PO API fields. Find the possible fields to map from Concur at the following link: https://developer.concur.com/api-reference/invoice/purchase-order.html
- 2. Select the FO companies with the POs to sync into Concur using the Sync Companies form. The companies moved to the right-hand window will be synchronized.



To begin synchronizing POs, open the Purchase Order Sync form, and select process.





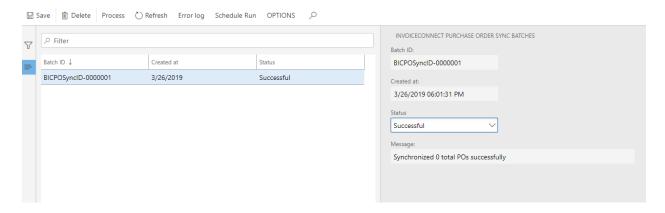


Which POs will be synced?

All added/updated POs from the selected companies in the Sync Companies form after the start date from the Settings form (or all if the start date is blank) will sync. Each sync integrates the added/updated POs since the last successful sync.

PO Sync Caveats

- POs with a Document State value of 40 (open) in FO will be synchronized with a Concur status of "Transmitted". Otherwise POs (closed or cancelled) will be synchronized with a Concur status of "Closed".
 - Mapping "True" to IsActive will sync all POs as Transmitted regardless of actual, GP status
 - Mapping "True" to Skip will skip POs from being sync'ed. For example, the following mapping if mapped to Document State will skip closed POs
 ?40: 'False' |: 'True'@Skip



Only PO lines with a status of 0, 1, or 2 (None, Backordered, Received) will be sync'ed. Statuses
of 3 and 4 (Invoiced and Cancelled) will be skipped

Conditional Mapping

Use the following special syntax for conditional mapping from FO to Concur.

FOCondition@ConcurFieldName

For example:

FO Field	Concur Fieldname	Result
ItemNumber	?Item1:'Item1a' :''@Custom1	Maps a value of Item1a or
		nothing to the Concur field







		Custom1 depending on if the FO field is a value of 1 or not
		If the field number is left off the beginning of the statement, the field number of the FO Field selected is used
UserDefined1	2107?US:'No' :'Yes'@Custom2	Maps a Yes or No value to the Concur field Custom2 depending on if the FO field CountryCode (aka 2107, see lookup below) is a value of US or not.

FO Field Numbers lookup (Header):

Field Number	Field Name
1	Cash Discount
2	Cash Discount Percent
3	Confirmed Dlv
4	Confirmed Dlv Earliest
5	Created DateTime
6	Currency Code
7	Delivery Date
8	Delivery Name
9	Delivery Type
10	Discount Percent
11	Dlv Mode
12	Dlv Term
13	Document Status
14	Email
15	End Discount
16	Exchange Rate Date
17	Finalize Closing Date
18	Fixed Due Date
19	Fixed Exchange Rate
20	Included Tax
21	Invoice Account
22	Language ID
23	Line Discount
24	MultiLine Discount
25	One Time Vendor
26	Payment
27	Payment Schedule







28	Payment Mode
29	Payment Specs
30	Purchase Type
31	Purchase Order Number
32	Purchase Order Name
33	Purchase Order Status
34	Requester
35	Tax Group
36	Transaction Code
37	URL
38	VAT Num
55	Accounting Date
41	Worker Purchase Placer
39	Vendor Group
40	Vendor Reference
42	Vendor Account Number
54	Vendor AddressCode
43	Vendor Payment Terms Days
44	Financial Dimension 1
45	Financial Dimension 2
46	Financial Dimension 3
47	Financial Dimension 4
48	Financial Dimension 5
49	Financial Dimension 6
50	User Defined 1
51	User Defined 2
52	User Defined 3
53	Company ID
	•

FO Field Numbers lookup (Address):

Field Number	Field Name	
1	Building Compliment	
2	City	
3	County	
4	District Name	
5	Post Box	
6	State Province	
7	Street	
8	Street Number	
9	Timezone	
10	Zip PostalCode	
11	Country Code	
12	BillTo AddressCode	







13	ShipTo AddressCode
14	Company Name
15	Full Address

FO Field Numbers lookup (Line):

Field Number	Field Name
1	Confirmed DIv
2	Confirmed Tax Amount
3	Confirmed Tax Write Code
4	Created DateTime
5	Currency Code
6	Customer Reference
7	Delivery Date
8	Delivery Name
9	Delivery Type
10	Discount Amount
11	Discount Percent
12	External Item ID
13	Item ID
14	Line Amount
15	Line Delivery Type
16	Line Discount
17	Line Header
18	Line Number
19	Line Percent
20	Matching Policy
21	MultiLine Discount
22	MultiLine Percent
23	Name
24	Price Unit
25	Purchase Type
26	Purchase Order Number
27	Purchase Markup
28	Purchase Price
29	Purchase Qty
30	Purchase Status
31	Purchase Unit
32	Qty Ordered
33	Requester
34	Tax Group
35	Tax Item Group
36	Vendor Account
37	Vendor Group







38	Source Document Line
39	Rec ID
40	Invent Trans ID
41	ReceiptAccount Number
42	ReceiptAccount Name
43	Financial Dimension 1
44	Financial Dimension 2
45	Financial Dimension 3
46	Financial Dimension 4
47	Financial Dimension 5
48	Financial Dimension 6
49	User Defined 1
50	User Defined 2
51	User Defined 3
52	Company ID
53	Activity Number

Receipt fields:

Field Number	Field Name
1	Delivery Date
2	External Item ID
3	Fully Matched
4	Inventory Date
5	Inventory Qty
6	Inventory Reference ID
7	Inventory Reference Trans ID
8	Inventory Reference Type
9	Inventory Trans ID
10	Item ID
11	Line Number
12	Name
13	Ordered
14	Original Purchase Order Number
15	Packing Slip ID
16	Price Unit
17	Purchase Line Number
18	Purchase Unit
19	Qty
20	Rec ID
21	Remaining
22	Remaining Inventory
23	Source Document Line
24	Line Item External ID







25	Accounting Date
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Receipt / Shipment Sync

Shipments entered in FO can be synchronized to Concur by mapping the Receipt fields from the PO Receipt destination.

Receipts will only be mapped if a mapping to Concur field LineItemExternalID is mapped.

Wipfli Support

For Wipfli support with InvoiceConnect, please create a support ticket by emailing productsupport@wipfli.com. A Wipfli support engineer will be in contact shortly after to resolve any issues.