

Setting up OIOUBL for DAX 2012

Reviewed 01/03-16 – based on AX 2012 R3 CU10 – KB3141855

You can use electronic invoicing in Microsoft Dynamics AX to send electronic invoices to the public sector agencies in the Offentlig Information Online Universal Business Language (OIOUBL) format.

The electronic invoices and credit notes support mandatory information, such as the contact person, invoice number, and address information. Validation rules are applied to verify that the correct information has been entered in AX.

Setting up Application Integration Framework (AIF) and Batch processing are mandatory steps in setup.

Following topics are discussed

- A Configure Microsoft Dynamics AX for OIOUBL electronic invoicing**
- B Setup AIF for OIOUBL electronic invoicing**
- C Setup batch processing for OIOUBL electronic invoicing**
- D Setup for company for OIOUBL electronic invoicing**
- E Setup customer accounts for OIOUBL electronic invoicing**
- F Notes**
- G Resources**

A. Configure Microsoft Dynamics AX for OIOUBL electronic invoicing

To configure Microsoft Dynamics AX for OIOUBL electronic invoicing, you must set up folders to save the error messages, .xml files, and OIOUBL files.

- a. Set up the following folder structure in a shared location that can be accessed from the Application Object Server (AOS) computer and from any client computers that are used as batch servers in your system. User must have minimum write access to the folders.

Note: if any changes for the server setup, you need to check the corresponding batch job task (see later in the chapter C).

Set up the following folder structure for project invoices:

\\Server\OIOUBL\Project\Error

\\Server\OIOUBL\Project\Processed files

\\Server\OIOUBL\Project\Source

\\Server\OIOUBL\Project\Target

\\Server\OIOUBL\Project\XSLT

Set up the following folder structure for sales invoices:

\\Server\OIOUBL\Sales\Error

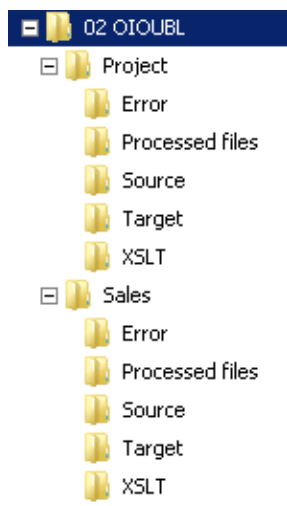
\\Server\OIOUBL\Sales\Processed files

\\Server\OIOUBL\Sales\Source

\\Server\OIOUBL\Sales\Target

\\Server\OIOUBL\Sales\XSLT

Example:



b. The folders are used as follows:

Error – Used for saving error messages that are generated when the .xml file is converted to the OIOUBL format.

Processed files – Used for saving documents after they are processed. The documents are moved from the Source folder to this folder.

Source – Used for saving metadata file generated by Microsoft Dynamics AX.

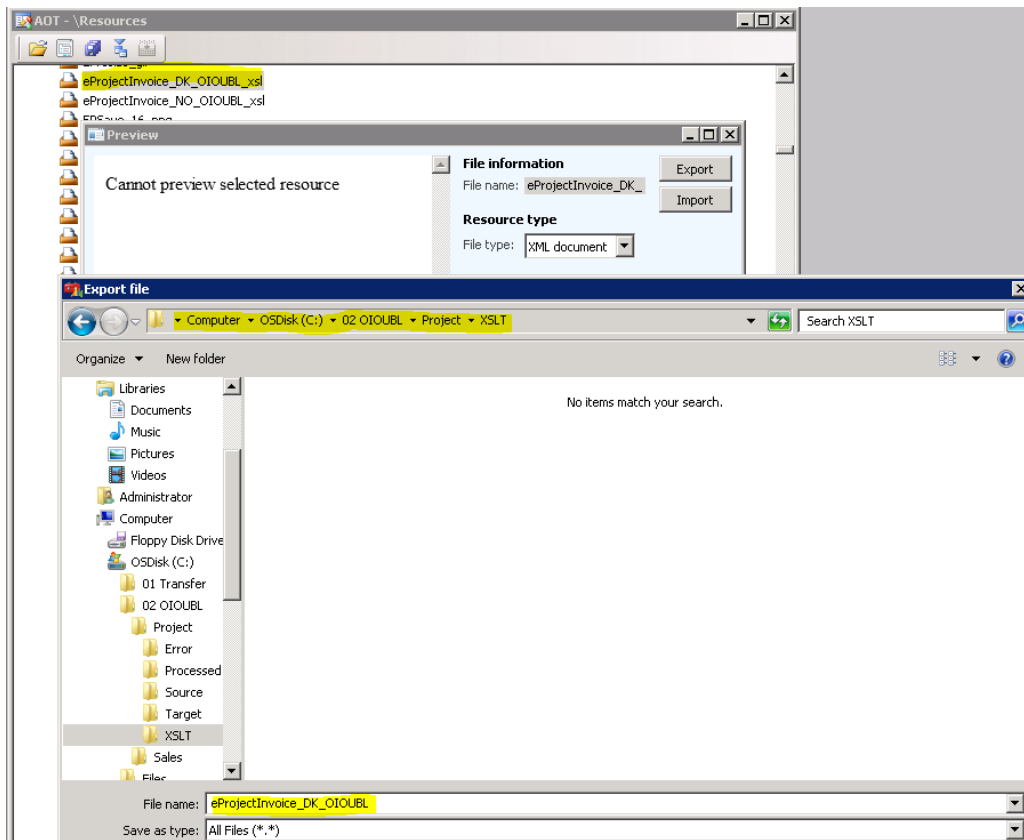
Target – Used for saving final OIOUBL file – files form here are sent to the public sector agency.

XSLT – Used for saving eProjectInvoice_DK_OIOUBL or eSalesInvoice_DK_OIOUBL file.

c. In AOT | Resources | Open and export following style sheets to the corresponding location:

Resource	Location
eProjectInvoice_DK_OIOUBL_xsl	\\Server\OIOUBL\Project\XSLT
eSalesInvoice_DK_OIOUBL_xsl	\\Server\OIOUBL\Sales\XSLT

Example:

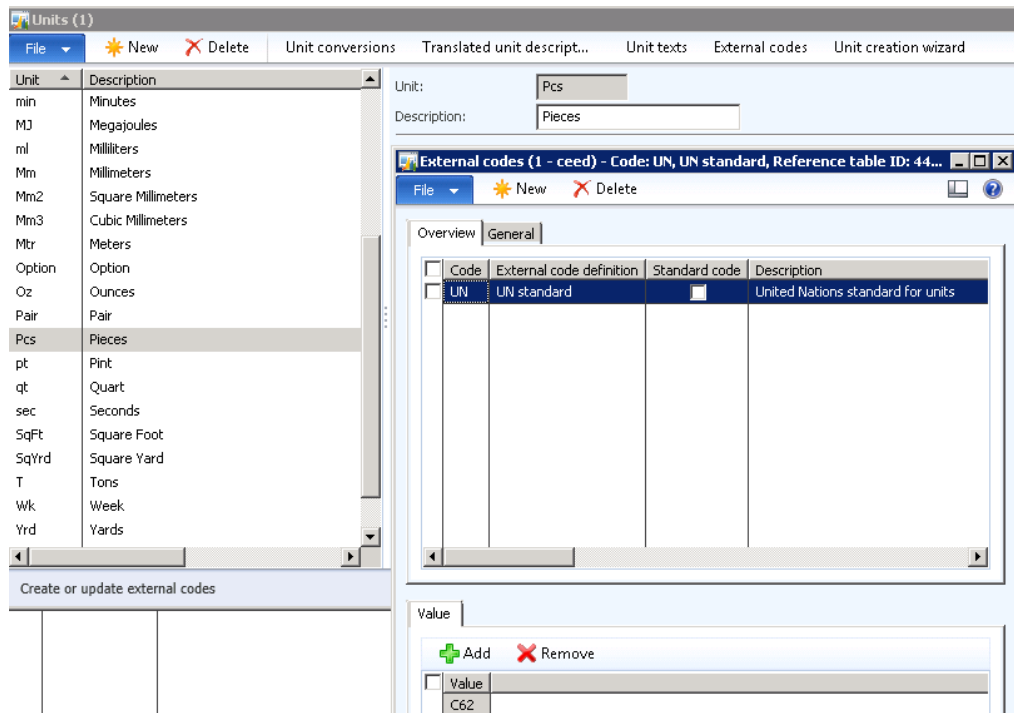


d. Unit codes

You must indicate a unit for which you specified the external code according to the United Nations Center for Trade Facilitation and Electronic Business Information Content Management Group (UN/CEFACT ICG) standards ([here](#)).

Example: Company doesn't use the UN standard codes but uses codes like Pcs for piece:

Organization administration | Setup | Units | Units:



In order to get the corresponding value (here C62) in UN standard, user needs to setup External code for the unit(s) used. We come back to this issue in next chapter - Set up AIF for OIOUBL electronic invoicing – step f.

B. Set up AIF for OIOUBL electronic invoicing

Use the Outbound ports form to create an outbound port, set up services and adapters for the port, and specify the Application Integration Framework (AIF) settings that are required to generate Offentlig Information Online Universal Business Language (OIOUBL) electronic invoices.

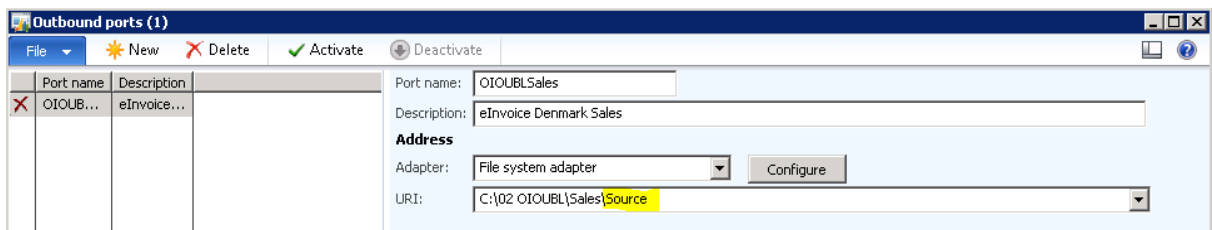
You must scan for new adapters and services before you can set up outbound ports for the first time. The port setup is affected when there is a change in the Application Object Tree (AOT). You must also scan the adapters and services every time that a change that affects the port configuration is made to the AOT.

Click System administration > Setup > Services and Application Integration Framework > Outbound ports.

- a. In the Port name and Description fields, enter a name and a description for the outbound port.

In the Adapter field, select File system adapter. This adapter is used to create and save the OIOUBL electronic invoices.

In the URI field, specify the location of the Source folder where you want to save the sales invoices (ref. the folders setup in point A.).

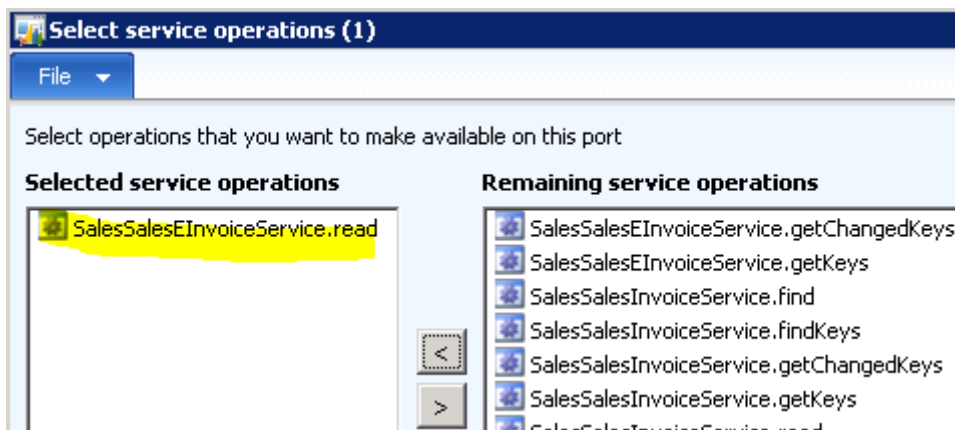


Port name	Description
OIOUB...	eInvoice...

Port name: OIOUBLSales
Description: eInvoice Denmark Sales
Adapter: File system adapter
URI: C:\02 OIOUBL\Sales\Source

- b. Click the Service contract customizations FastTab, and then click Service operations.

In the Select serviceoperations form, select the SalesSalesEInvoiceService.read service operation for sales invoices, or the ProdProjEInvoiceService.read service operation for project invoices, and move it to the Selected service operations list.



Select operations that you want to make available on this port

Selected service operations

- SalesSalesEInvoiceService.read

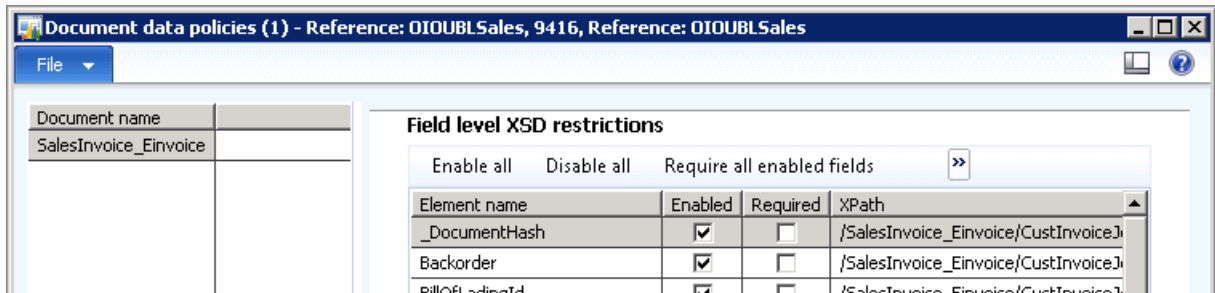
Remaining service operations

- SalesSalesEInvoiceService.getChangedKeys
- SalesSalesEInvoiceService.getKeys
- SalesSalesInvoiceService.find
- SalesSalesInvoiceService.findKeys
- SalesSalesInvoiceService.getChangedKeys
- SalesSalesInvoiceService.getKeys
- SalesSalesInvoiceService.read

Close the form.

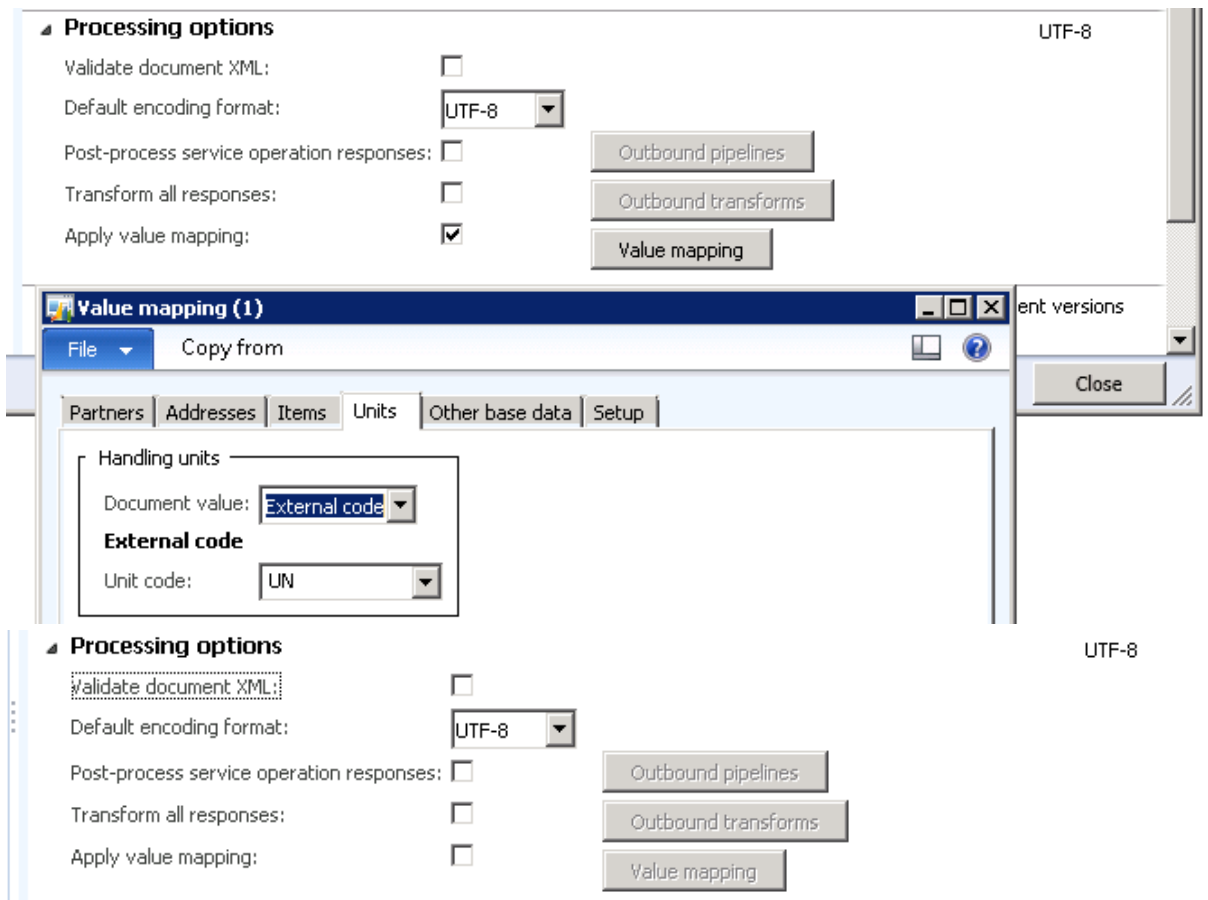
- c. In the Outbound ports form, select the Customize documents check box, and then click Data policies.

In the Document data policies form, click Enable all to select all XML schema elements.



Close the form.

- d. Click the Processing options FastTab, and then in the Default encoding format field, select UTF-8.
- e. Set Apply value mapping to True (marked)
- f. Click Value mapping and on the tab page Units, set Handling units / Document value to External code and choose the external code.



- g. Click the Troubleshooting FastTab, and then in the Logging mode field, select All document versions.

Select the Include exceptions in fault check box to display the X++ error messages.

Troubleshooting All document versions

Logging mode:

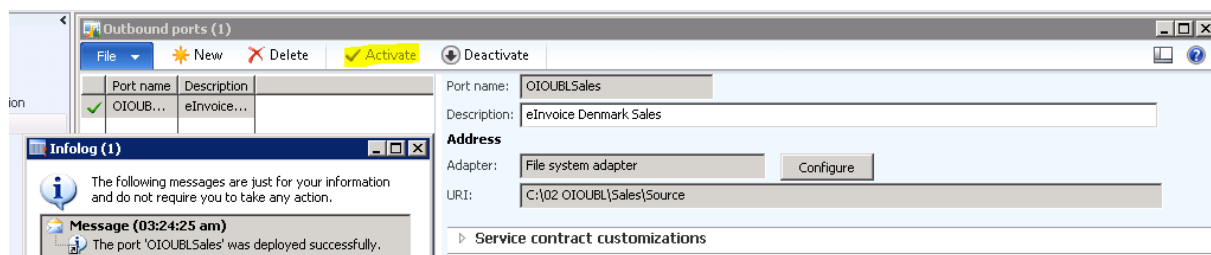
Include exceptions in Fault:

- h. Click the Security FastTab, and then in the Restrict to company field, select the company for which the electronic invoices are generated.

Security

Restrict to company:

- i. Click Activate to use the port to exchange data by using AIF.

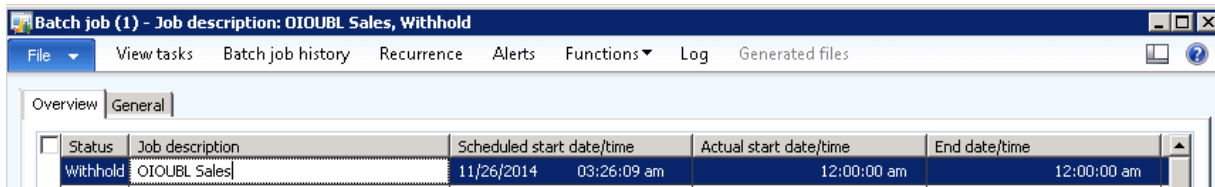


Close the form.

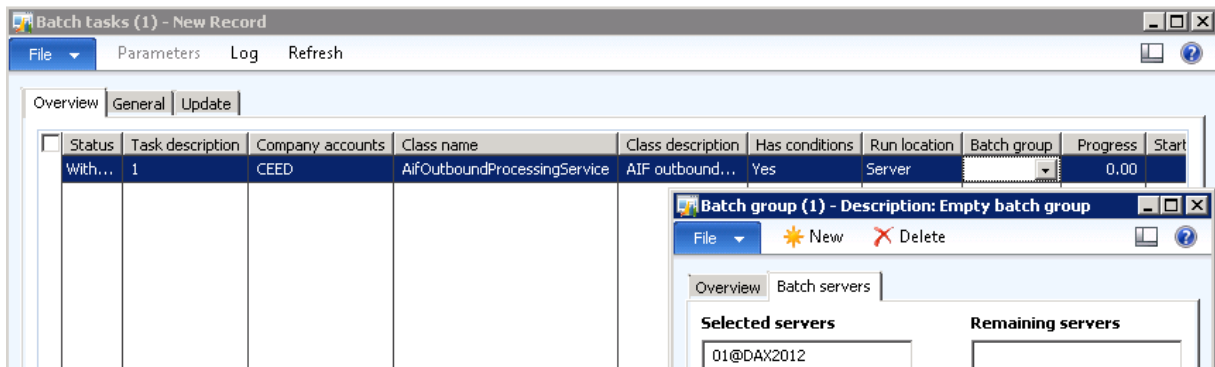
C. Set up batch processing for OIOUBL electronic invoicing

You must set up a batch job for sales outbound electronic invoices, and another batch job for project outbound electronic invoices.

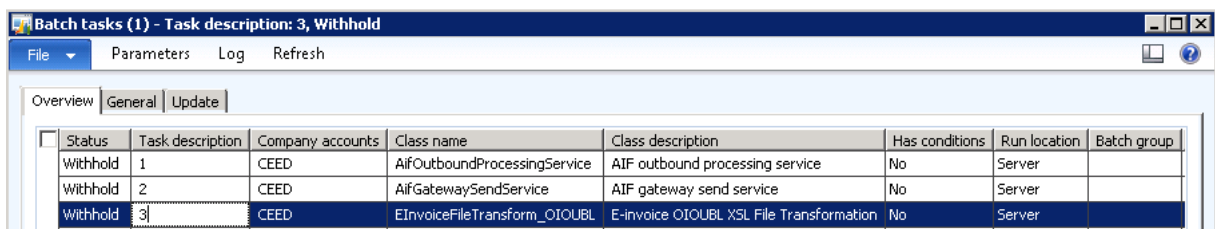
1. Click System administration > Inquiries > Batch jobs > Batch jobs.
2. Press CTRL+N to create a batch job, and then in the Job description field, enter a short description for the batch job.



3. Save the batch job, and then click View tasks.
4. In the Batch tasks form, press CTRL+N to create a batch task for the batch job, and then in the Class name field, select the AifOutboundProcessingService class name.
 - o In the Company accounts field, select the company you created the batch job for.
 - o Select batch group (note: batch group must have a server to process the task)



5. Create two more batch tasks using the following class names and follow the same instructions as in step 4:
 - o AifGatewaySendService
 - o EInvoiceFileTransform_OIOUBL



6. Select the batch task that uses the EInvoiceFileTransform_OIOUBL class name
 - o Click Parameters
 - o In the E-invoice OIOUBL XSL File Transformation form, specify the locations of the Source, Target, Processed, and Error file storage folders. For the XSLT file path, select the path for the eSalesInvoice_DK_OIOUBL file for sales outbound electronic invoices, or the path for the eProjectInvoice_DK_OIOUBL file for project outbound electronic invoices, and then close the form.

Click OK.

7. On the Batch task form, click the Overview tab.
8. Select the batch task that uses the AifGatewaySendService class name (the second task) to set up the order in which the batch tasks are run.
 - o In the lower pane, press CTRL+N to create a condition for the selected batch task to run after the batch task that uses the AifOutboundProcessingService class name (the first task) has ended.
 - o In the Task ID field, select the batch task that uses the AifOutboundProcessingService class name (First task).
 - o In the Expected status field, select Ended.

Task ID	Expected status	Actual status	Task description
5894	Ended	Withhold	1

9. Select the batch task that uses the EInvoiceFileTransform_OIOUBL class name (the third task) to set up the order in which the batch tasks are run.
 - In the lower pane, press CTRL+N to create a condition for the selected batch task to run after the batch task that uses the AifGatewaySendService class name (the second task) has ended.
 - In the Task ID field, select the batch task that uses the AifGatewaySendService class name (Second task).
 - In the Expected status field, select Ended.

Has conditions

Condition type

All Any

<input type="checkbox"/>	Task ID	Expected status	Actual status	Task description
<input type="checkbox"/>	5637	Ended	Withhold	2

[Go to previous](#)

Close the batch task form.

10. On Batch job form, choose Recurrence and define the desired recurrence (for testing purposes 2 minutes works fine).
11. After batch job setup, choose Functions Change status and change the status to Waiting.

D. Setup for company

The country code for company primary address is DNK in order to enable eInvoice field on the customer setup.

1. General ledger | Organization | Legal entities (here GBSI) – Primary address country code DNK for Denmark

Name:

Kana Name:

Company:

Addresses

[+ Add](#) [Edit](#) [Map](#) [More options](#)

Name or description	Address	Purpo...	Prim...
OIOUBL Company	Kanalvej 7 2900 Hellerup DNK	Business	Yes

2. Company VAT number:

Name:

Kana Name:

Company:

▸ **Addresses**

▸ **Contact information**

▾ **Tax registration**

Tax registration number:

3. Company Routing number and FI-Creditor ID

The routing number should be the same as the tax registration number.

Name:	Contoso Consulting GB
Kana Name:	
Company:	GBSI
Bank account information	
Bank accounts	
Bank account:	GBSI OPER
Giro account:	
Resident:	
Codes	
Routing number:	12345678
Central bank purpose code:	
Purpose text:	
FI-Creditor ID:	99999999

4. Sales tax code values

Sales tax code values used in Denmark are converted to sales tax (VAT) categories. In order to get the correct categories on the file, the sales tax code values used on the invoice must have the sales tax code value used in Denmark.

Rates used as of January 2016 with corresponding VAT categories:

Source:

OIOUBL Guidline UBL 2.0 Tax

Invoice and Credit note

Version: OIUOBL version 2.302

Date: Juli, 2015

TaxCategory:	Tax Scheme code:	Tax Scheme name:	Calculation formula:
StandardRated	63	Moms (VAT)	25%
ZeroRated	63	Moms (VAT)	0%

Example:

Sales tax group: **High**

Description: **High**

General

Setup

+ Add - Remove

<input type="checkbox"/>	Sales tax code	Exempt	Exempt code	Reverse charge	Use tax	Percentage/Amount	Name
<input type="checkbox"/>	High	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	25.00000	High

E. Set up customer accounts for OIOUBL electronic invoicing Company GBSI

Use the Customers form to specify the address, contact details and employee responsible for customers who you want to generate electronic invoices for. You can create contacts in the Contacts form and assign the contact to a customer account. The contact information is included when you generate electronic invoices for the customer.

Click Accounts receivable > Common > Customers > All customers.

Double-click a customer account for the public sector agency.

- In the Customers form, click Edit, and then click the Addresses FastTab to verify that the country/region code, ZIP/postal Code, and street name are entered for the primary address.
- Click the Invoice and delivery FastTab, and then in the EAN field, enter the 13-digit European Article Numbering (EAN) number that is assigned to the customer (example: 5798000392014 Danish Agency for Labour Market and Recruitment).

Invoice and delivery

Invoice

Invoice account:

Invoice address:

Number sequence group:

Associated payment attachment

On a customer invoice:

On a free text invoice:

On an interest note:

On a collection letter:

On a project invoice:

On an account statement:

Sales tax

Sales tax group:

Tax exempt number:

Prices include sales tax:

Packing duty license number:

Packing material fee

License number:

E-Invoice

eInvoice:

EAN:

- Mark the field for eInvoice.
- Fill in the Tax exempt number (example: 55568510)

Sales tax

Sales tax group: Norm

Tax exempt number: 55568510

Prices include sales tax:

Packing duty license number:

Tax exempt number	Company name	Country/region
55568510	Hellerup Power & Light Energy	DNK

- Click the Payment defaults FastTab, and then in the Method of payment field, select a method of payment for the customer. Payee bank account number is fetched from the bank account for customer default method of payment.

STB-DKK : Scandinavian Trade Bank

General		None	123456780	0040 440116243	Active for all transactions
Routing number type:	None	Prenotes			
Bank account:	STB-DKK	Prenote required:	<input type="checkbox"/>		
Routing number:	123456780	Prenote response days:	0		
Bank account number:	0040 440116243	Account active status			
Description		Active from:	<input type="text"/>		
Company statement name:	<input type="text"/>	Active to:	<input type="text"/>		
Destination name:	<input type="text"/>	Bank account status:	Active for all transactions		
Name:	Scandinavian Trade Bank	Credit limit:	<input type="text"/>		
Bank groups:	STB				
Additional identification		NDEADKKK	DK5000400440116243		
CIN:	<input type="text"/>	ESR:	<input type="text"/>		
SWIFT code:	NDEADKKK	Fee ESR account number:	<input type="text"/>		
IBAN:	DK5000400440116243	BESR ID number:	<input type="text"/>		
Company ID:	TESTI	Fee account:	<input type="text"/>		
Division:	<input type="text"/>	Post fee:	<input type="text"/>		
RFC number:	<input type="text"/>	Direct debit ID:	<input type="text"/>		
Post account:	<input type="text"/>	Clearing:	<input type="text"/>		
Sort code:	<input type="text"/>	Interbank clearing code:	<input type="text"/>		
Currency management		DKK			

- Click the Sales Demographics FastTab and enter an employee responsible in the field Employee responsible.

Sales demographics

Primary contact: Our Contact @Customer

Line of business:

Employee responsible: Ben Andrews

Segment:

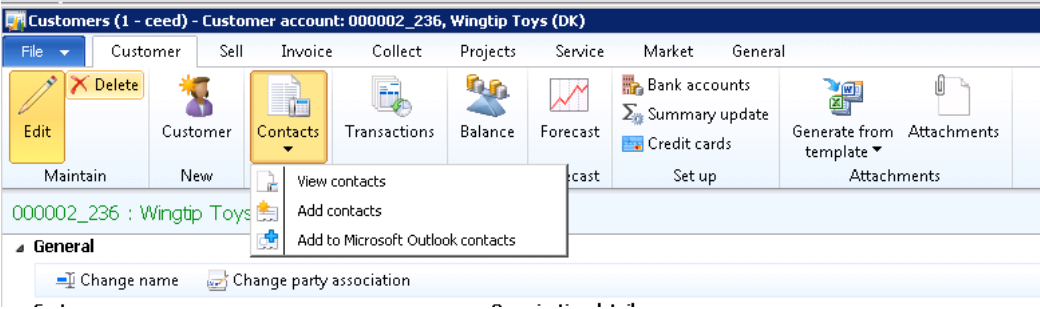
Subsegment:

Company chain:

Sales district:

Currency: DKK

On the Customers form, click Contacts > View / Add contacts – ensure you have customer contact person registered. Example:



Example:

000005_206 : Our Customer Contact

General

Change name

Contact	Name details
Contact ID: 000005_206	Display as: First Middle Last
Contact for: Hellerup Power & Light Energy	
Personal title:	Personal information
First name: Our	Gender:
Middle name: Contact	Marital status: None
Last name: @Customer	Other information
Personal suffix:	Address books:
Search name: Our Contact @Custor	Language: en-us

F. Notes

- a. Registering invoice; Customer requisition, Reference and Contact are mandatory:

Here the information is added on Free text invoice header:

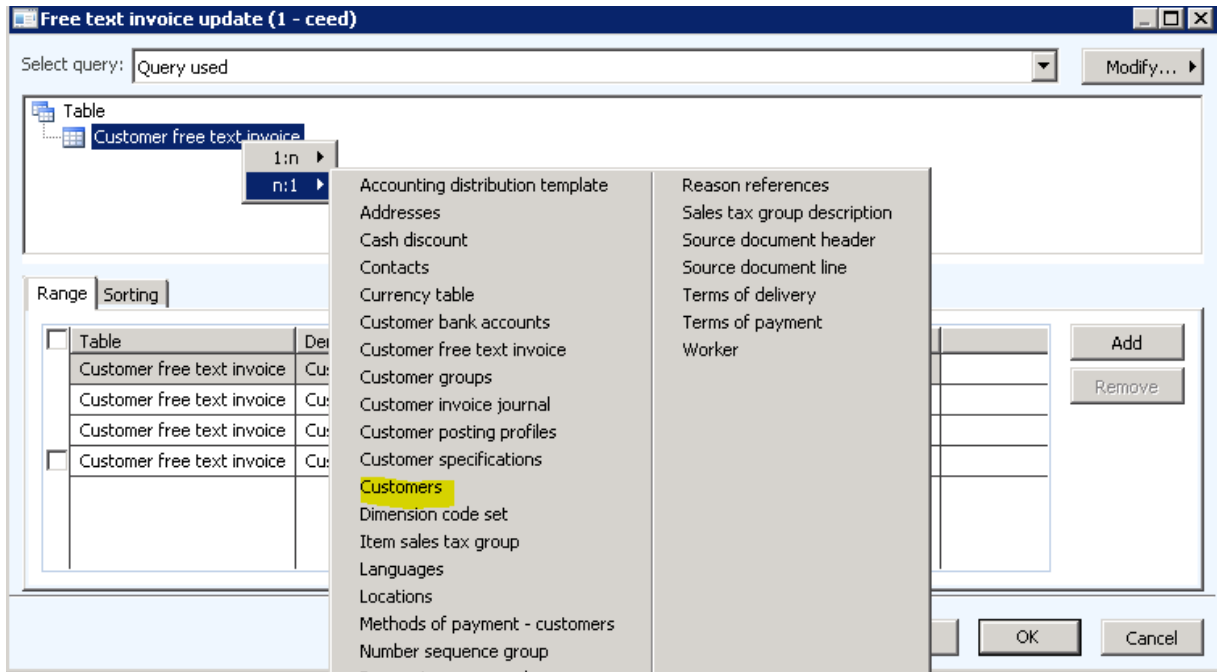
Customer		000004_236 000004_236	
Customer account:	000004_236	Administration	Recipient: June Low
Name:	Hellerup Power & Light Energy	Language:	en-us
One-time customer:	<input type="checkbox"/>	Workflow status:	
Address:	Nørre Voldgade 722 2000 Hellerup DNK	References	Customer requisition: Cust Req
Invoice account:	000004_236	Customer reference:	Cust Ref
Name:	Hellerup Power & Light Energy	Contact:	Our Contact @Customer

- b. When posting invoice, the invoice must be printed to Printer (in order to get the sent the invoice to the batch job queue)

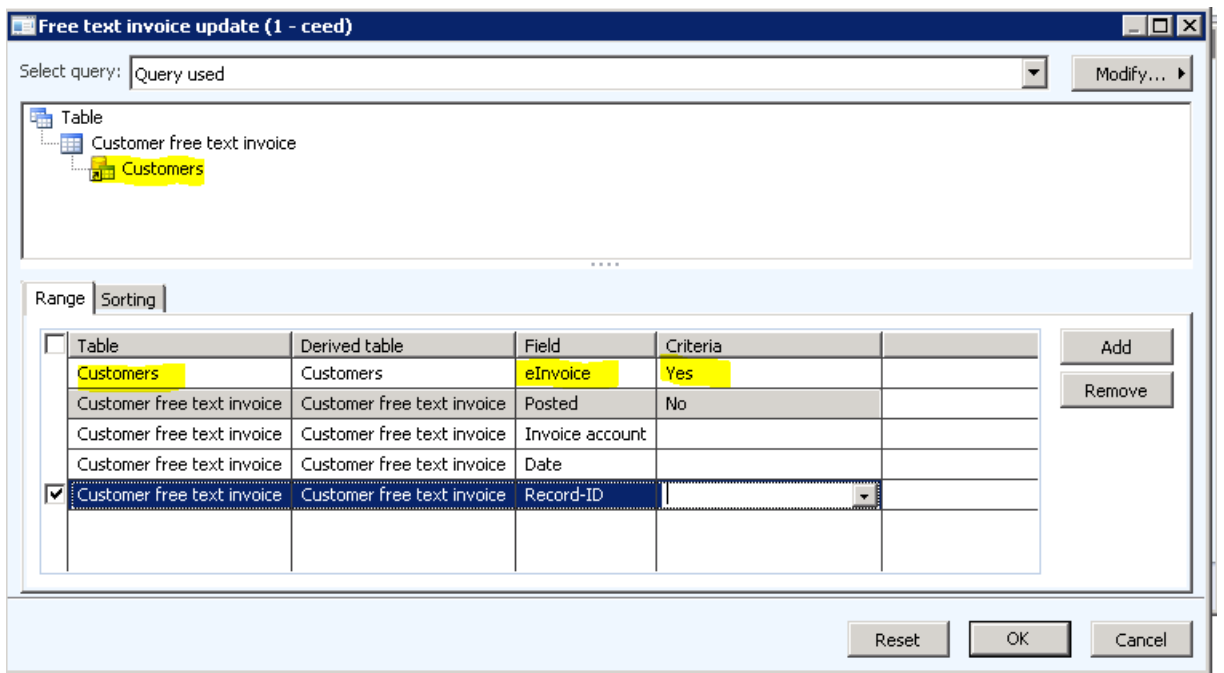
The screenshot shows the 'Post free text invoice (1)' dialog box with the 'Batch' tab selected. The 'Parameters' section has 'Posting' checked. The 'Print options' section has 'Print' set to 'Current', 'Print invoice' checked, and 'Use print management destination' unchecked. The 'Setup' section has 'Credit correction' unchecked and 'Credit limit type' set to 'None'. The 'Customer free text invoice' section shows 'Invoice account: 000004_236', 'Date: 11/26/2014', and 'Posted: No'. The 'Print destination settings' dialog box is overlaid, showing 'Print archive' selected in the list, 'Save in print archive?' unchecked, 'Name: Microsoft XPS Document Writer', 'Status: Ready', 'Type: Microsoft XPS Document Writer', 'Where: XPSPort', 'Jobs in list: 0', 'Page range' set to 'All' (From: 1, To: 1), and 'Copies' set to 1.

c. You can post and print several invoices by choosing Select on the post invoice form:

Right click the table (here as an example, Customer free text invoice) and choose Customer:



Add new line in the lower pain; Tabel Customers / Field elnvoice / Criteria Yes:



d. After posting and sending the invoice, you can find the job in the Queue manager at System administration | Periodic | Services and AIF | Queue manager:

Port name	Message ID	Direction	Status	Company accounts ID	Service operation ID	Error message
OIOUBLSales	{D27F70A1-32DB-432F-9BE9-63E81716D829}	Outbound	Ready	ceed	SalesSalesEInvoiceService.read	

- e. If you need to re-send the invoice to the batch queue, locate the invoice, go the invoice journal and choose Send electronically:

Sales order	Date	Invoice	Voucher	Currency	Invoice amount	Intercompany company	Intercompany purchase order	Posted via intercompany	Line-specific	Dimension acc	Original	Action
	11/26/2014	000001_238	30000000_245	DKK	125.00			<input type="checkbox"/>	<input type="checkbox"/>	123-456-789-d	Original	Copy

G. Resources

Setting up OIOUBL for Denmark:

<http://technet.microsoft.com/EN-US/library/hh227478.aspx>

Online OIOUBL Documentation:

<http://www.oioubl.info/classes/en/index.html>

Online OIOUBL Validator:

<http://www.oioubl.info/validator/default.aspx>

Online Styling for generating invoice printout:

<http://www.oioubl2.info/HTMLstyling/Default.aspx>