OIOXML electronic invoicing

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Table of Contents

OIOXML electronic invoicing

This information provides an overview of OIOXML electronic invoicing for Microsoft Dynamics™ AX. You can generate OIOXML files only if the configuration key for Denmark is selected.

The following topics are discussed:

- OIOXML electronic invoicing overview
- Prepare to configure OIOXML electronic invoicing
- Set up company information for OIOXML electronic invoicing
- Set up customer accounts for OIOXML electronic invoicing
- Set up AIF for OIOXML electronic invoicing
- Set up batch processing for OIOXML electronic invoicing
- Post sales order invoices for public sector organizations
- Post free text invoices for public sector organizations
- Post project or service transactions for public sector organizations

OIOXML electronic invoicing overview

You can use electronic invoicing in Microsoft Dynamics AX to send electronic invoices to public sector organizations in OIOXML format. This format is required in Denmark starting February 1, 2005, and is expected to be extended to other European Union countries/regions over time.

Each public sector organization is assigned a European Article Number (EAN) location to facilitate the handling of the invoices. You assign this number to the customer record in Microsoft Dynamics AX.

The electronic invoice that you send to your public sector customers includes required information, such as the EAN number of the public sector customer, the order number, contact person, dimension account number, and address information. Schematron validation rules are applied from within Microsoft Dynamics AX when the invoice is generated to help ensure that the correct information has been entered. If errors are found, you can correct them before you submit the OIOXML files to the value-added network service (VANS) network for delivery to the public sector organizations.

Within Microsoft Dynamics AX, the Application Integration Framework (AIF) is used to generate XML files for the invoices. The resulting files are then processed using XML transform files to produce the invoices in the required OIOXML format. You can set up batch processing for your invoices to automate this process.

If a customer has included a dimension account when placing an order, the customer is legally entitled to withhold payment until the dimension account is included in an invoice. You can specify the dimension account for either an invoice header or for the invoice lines.

Prepare to configure OIOXML electronic invoicing

Before you begin, be sure that Microsoft Dynamics AX is installed, the license key for AIF is activated, and the configuration key for Denmark is selected.

1. From PartnerSource (https://mbs.microsoft.com/partnersource) or CustomerSource (https://mbs.microsoft.com/customersource), download the OIOXML.zip file.

Note:

Search for OIOXML and select the download that is compatible with Microsoft Dynamics AX 4.0 SP1 and SP2.

1. Set up the following folder structure in a shared location that is accessible from the AOS computer.
   - \\Server\OIOXML\Project\Error
     \\Server\OIOXML\Project\Processed files
     \\Server\OIOXML\Project\Source
     \\Server\OIOXML\Project\Target
     \\Server\OIOXML\Project\XSLT
   - \\Server\OIOXML\Sales\Error
     \\Server\OIOXML\Sales\Processed files
     \\Server\OIOXML\Sales\Source
     \\Server\OIOXML\Sales\Target
     \\Server\OIOXML\Sales\XSLT

   The folders are used as follows:

   - **Error** – Folder to save error messages that are generated during the transformation of the XML file into OIOXML.
   - **Processed files** – Folder to save documents after they have been processed. The documents are moved from the Target folder to this folder.
   - **Source** – Folder to save the XML file that is generated by Microsoft Dynamics AX.
   - **Target** – Folder to save the OIOXML file after the XML file has been processed.
   - **XSLT** – Folder to contain the eProjectInvoice.xsl or eSalesInvoice.xsl file.
2. Extract the files from the OIOXML.zip file and copy them to the locations specified in the following table.

File	Location
asEINda.ald	C:\Program Files\Microsoft Dynamics\4.0\Application\Appl\Standard
axEINen-us.ald	C:\Program Files\Microsoft Dynamics\4.0\Application\Appl\Standard
eProjectInvoice.xsl	\\Server\OIOXML\Project\XSLT
eSalesInvoice.xsl	\\Server\OIOXML\Sales\XSLT

3. Start Microsoft Dynamics AX and import the PrivateProject_OIOXML.xpo file. To do this, open the AOT and click the **Import** button. Browse to the location of the xpo file and select it. In the **Import** form, select the **Application objects and labels** import option. Click **OK**.

Set up company information for OIOXML electronic invoicing

Complete this procedure for each company that you will use to generate electronic invoices.

1. Click **Basic** > **Setup** > **Company information**.
2. On the **Contact information** tab, enter the company registration number for your company in the **Routing number** field.
3. Click **Basic** > **Setup** > **Addresses** > **Country/region**.
4. Be sure that the **ISO** field for the country/region that is used for electronic invoicing complies with the two-character ISO standard.
5. Click **General ledger** > **Setup** > **Exchange rates**.
6. Be sure that the **ISO currency code** for the currency code that is used for electronic invoicing complies with the three-character ISO standard.
7. Click **Accounts receivable** > **Setup** > **Statistics** > **Line of business**.
8. Click **CRM** > **Setup** > **Contact management** > **Contact persons** > **Job titles**.
9. Set up the following job titles.
   - **Indkøbsansvarlig**
   - **BogHolder**
   - **Budgetansvarlig**
   - **Rekvirent**
10. To set up units, click **Basic** > **Setup** > **Units** > **Units**.
11. Set up the units according to the United Nations Center for Trade Facilitation and Electronic Business Information Content Management Group (UN CEFACT ICG) standard, if required for your organization.

Set up customer accounts for OIOXML electronic invoicing

Complete this procedure for each public sector organization that you are required to submit invoices in electronic format (OIOXML) for.

Note:

This procedure assumes that the configuration key for Denmark is selected.

1. Click **Accounts receivable** > **Customers**.
2. Select an account.
3. Click the **Setup** tab.
4. In the **EAN** field, enter the 13-digit European Article Numbering number that is assigned to the public sector organization.
5. Click the **Address** tab and enter address information. Enter information in the **Street name**, **ZIP/postal Code**, **City**, and **Country/region** fields.
6. Click the **Contact information** tab. Enter information in the **Line of business** and **Contact person** fields.
7. Click **Setup** > **Contact person**. On the **General** tab, select one of the following titles: **Indkøbsansvarlig**, **BogHolder**, **Budgetansvarlig**, or **Rekvirent**.

Note:

If you add a new customer account after the initial setup of OIOXML electronic invoicing is complete, you must update the **Constraints** list for the sales order endpoint and the project endpoint to include the new customer account. Click **Basic** > **Application Integration Framework** > **Endpoints**. In the **Endpoints** form, select an endpoint that uses the **readSalesInvoice_Einvoice** action, click the **Constraints** tab, and add the new customer account. On the **Overview** tab, select an endpoint that uses the **readProjInvoice** action, click the **Constraints** tab, and add the new customer account.

Set up AIF for OIOXML electronic invoicing

Use this procedure to specify the Application Integration Framework (AIF) settings that are required to generate OIOXML invoices. Complete this procedure for each company that you will use to generate OIOXML invoices.

For more information about setting up the AIF, see **Help** > **Administrator Help** > **Administering Dynamics AX** > **Managing external connections** > **Application Integration Framework**.

1. Click **Basic** > **Setup** > **Application Integration Framework** > **Global settings**.
2. In the **Default encoding format** field, select **UTF-8**.
3. Click **Basic** > **Setup** > **Application Integration Framework** > **Local endpoints**.
4. Select the company that you will use to generate the OIOXML invoices. Set up a local endpoint.

5. Click **Basic** > **Setup** > **Application Integration Framework** > **Transport adapters**.
6. Select the **AifFileSystemAdapter** adapter class and enter a name. Select the **Active** check box and in the **Direction** field, select **Receive Or Send**. This adapter is used to create and save the XML file.
7. Click **Basic** > **Setup** > **Application Integration Framework** > **Channels**.
8. To create a channel for sales invoices, enter a **Channel ID**, for example, **EInvoiceSales**, and a name. Select the **Active** check box and select the file system adapter. In the **Direction** field, select **Outbound**. In the **Address** field, enter the path to a folder to save the XML files (for example, the **\\OIOXML\Sales\Source** folder that you created in step 2 of the "Prepare to configure OIOXML invoicing" section).
9. To create a channel for project invoices, repeat step 8. Use **EInvoiceProject** as the name and **\\OIOXML\Project\Source** as the path to the folder.
10. Click **Basic** > **Setup** > **Application Integration Framework** > **Action**.
11. If no actions are displayed, click **Scan and register**.
12. Select the **readSalesInvoice_Einvoice** action and select the **Enable** check box.
13. Select the **readProjInvoice** action and select the **Enable** check box.
14. Click **Basic** > **Setup** > **Application Integration Framework** > **Endpoints**.
15. In the **Endpoint ID** field, enter an ID, for example, **SalesOIOXML**. In the **Local endpoint ID** field, enter or select the ID that you entered in step 4. The local endpoint indicates the company that is used to generate the electronic invoices.
16. In the **Outbound channel ID** field on the **General** tab, select the channel that you set up in step 8, for example, **EInvoiceSales**. In the **Default encoding format** field, select **UTF-8**.
17. On the **Constraints** tab, select the public sector organizations (customer records that have an EAN number assigned). For more information about setting up customers, open the **Customers** form and press F1.
18. On the **Users** tab, select the user or group who can use the selected endpoint.
19. Press CTRL+S to save the endpoint.
20. Click **Action policies**. In the **Endpoint Action Policies** form, specify the **Action ID** (**readSalesInvoice_Einvoice** or **readProjInvoice**) to use for the selected endpoint. In the **Status** field, select **Enabled** and in the **Logging Mode** field, select **Log All**.
21. Press CTRL+S to save the endpoint action policy.
22. In the **Endpoint Action Policies** form, click **Configure**. In the **Value Mapping - Endpoint ID** form, click the **Items** tab.
23. In the **Document value** field in the **Handling item numbers** field group, select **Not specified**. This is required to be able to generate invoices for free text invoices. In the other **Document value** fields on the **Items** tab, select **Our**.
24. Click the **Other base data** tab. In the **Document value** field in the **Handling currency codes** field group, select **ISO currency code**. In the other **Document value** fields on the tab, select **Our**.

25. Close the **Value Mapping - Endpoint ID** form.
26. In the **Endpoint Action Policies** form, click **Data Policies**. In the **Endpoint action data policies** form, click **Set** > **Enable all** to select all fields
27. Repeat steps 14 through 26 to set up an endpoint for project invoices.
28. In the **Endpoints** form, select the **Active** check box for both endpoints.

Set up batch processing for OIOXML electronic invoicing

Use this procedure to set up batch processing of OIOXML electronic invoices for public sector organizations. Complete this procedure for each company that you will use to generate OIOXML invoices.

Note:

For more information about setting up and using batch processing for AIF, see **Help** > **Administrator Help** > **Administering Dynamics AX** > **Managing external connections** > **Application Integration Framework** > **Managing. document exchanges** > **Start and stop the asynchronous Application Integration Framework (AIF) services**.

1. Click **Basic** > **Setup** > **Batch** > **Batch groups**.
2. Create a group for sales outbound electronic invoices and another group for project outbound electronic invoices.
3. Click **Basic** > **Setup** > **Batch** > **Journal types**.
4. Create a journal type for sales electronic invoices and another journal type for project electronic invoices.
5. Select the sales journal type, click the **General** tab, and add the following jobs to the list:
    - **AIFOutboundProcessingService**
    - **AIFGatewaySendService**
    - **EInvoiceXSLFileTransform**
6. Click the **Overview** tab, select the project journal type, click the **General** tab, and add the following jobs to the list:
    - **AIFOutboundProcessingService**
    - **AIFGatewaySendService**
    - **EInvoiceXSLFileTransform**
7. Click **Basic** > **Setup** > **Batch** > **Journal names**.
8. Select a journal, select a journal type, and enter a name.
9. Click **Processing**.
10. In the **Batch journal execution** form, click **Jobs**.

11. Set up the order in which to process the jobs, as follows:
    - **AIFOutboundProcessingService**
    - **AIFGatewaySendService**
    - **EInvoiceXSLFileTransform**
12. In the **Batch journal line** form, select the **EInvoiceXSLFileTransform** class name and click **Dialog**.
13. Specify the location of the folders that you created in step 2 of the "Prepare to configure OIOXML invoicing" section. For the **XSLT File path**, select the **eSalesInvoice.xsl** or **eProjectInvoice.xsl** file.
14. Repeat steps 7 to 13 to set up the batch journal for project invoices.
15. Click **Basic** > **Periodic** > **Batch** > **Batch journal execution**.
16. Select the journal name for sales invoices.
17. On the **Batch** tab, select the batch group for sales invoices.
18. Click **Recurrence**, set up the batch execution, and click **OK**.
19. Repeat steps 15 through 18 to set up the batch journal execution for project invoices.

Post sales order invoices for public sector organizations

Use this procedure to verify that information that is required to successfully transmit OIOXML electronic invoices for public sector organizations is entered. You can specify a dimension account for either the sales order header or for the sales order lines.

1. Click **Accounts receivable** > **Sales order**.
2. Select a sales order and verify that the sales order information is correct.
3. Click the **General** tab and verify that the **Contact person** field is filled in.
4. To specify a dimension account for the sales order header, clear the **Line-specific** check box and enter an account in the **Dimension account** field.

   To specify dimension accounts for each sales order line, select the **Line-specific** check box. For each sales order line, click the **General** tab in the lower pane and enter an account in the **Dimension account** field.
5. In the upper pane, click the **Other** tab and verify that the **Customer requisition** and **Customer reference** fields are filled in.
6. Click **Posting** > **Invoice**.
7. Select the **Posting** check box and the **Print invoice** check box. Click **Printer setup** > **Invoice** and verify that the printer destination in the **Send to** list is **Printer**.
8. Select other options, as needed.
9. In the **Posting invoice** form, click **OK**. When the batch journal for electronic sales invoices is processed, invoices for customers that have an EAN number assigned are generated as XML

files and automatically are converted to OIOXML files. The resulting OIOXML files are created in the shared folder that is specified for the EInvoiceXSLFileTransform batch journal line for the sales order batch journal.

10. To print a paper invoice, click **Accounts receivable** > **Sales order** and select a transaction. Click **Inquiries** > **Invoice** > **Show** > **Original** or **Copy**.

Post free text invoices for public sector organizations

Use this procedure to verify that information that is required to successfully transmit OIOXML electronic invoices for public sector organizations is entered. You can specify a dimension account for either the free text invoice header or for the free text invoice lines.

1. Click **Accounts receivable** > **Free text invoice**.
2. Select an invoice and verify that the information is correct.
3. Click the **Invoice lines** tab and enter information about the invoice lines.
4. Click the **Invoice** tab and verify that the **Customer requisition**, **Customer reference**, and **Contact person** fields are filled in.
5. To specify a dimension account for the free text invoice header, clear the **Line-specific** check box and enter an account in the **Dimension account** field.

   To specify dimension accounts for each free text invoice line, select the **Line-specific** check box. Click the **Invoice lines** tab, and for each line, enter an account in the **Dimension account** field.
6. Click **Posting** > **Free text invoice**.
7. In the **Post free text invoice** form, select the **Print invoice** check box and click the **Options** button.
8. In the **Printer setup** form, verify that the printer destination in the **Send to** list is **Printer**, and click **OK** to close the form.
9. In the **Post free text invoice** form, click **OK**. When the batch journal for electronic sales invoices is processed, invoices for customers that have an EAN number assigned are generated as XML files and automatically are converted to OIOXML files. The resulting OIOXML files are created in the shared folder that is specified for the EInvoiceXSLFileTransform batch journal line for the sales order batch journal.
10. To print a paper invoice, click **Accounts receivable** > **Free text invoice** and select a transaction. Click **Inquiries** > **Invoice** > **Show** > **Original** or **Copy**.

Post project or service transactions for public sector organizations

Use this procedure to verify that information that is required to successfully transmit OIOXML electronic invoices for public sector organizations is entered. You can specify a dimension account for either the project invoice or for the project invoice proposal lines.

1. Click **Project** > **Invoice projects**.
2. Select a project for a public sector organization and verify that the project information is correct.
3. Click the **General** tab and select a **Contact ID**. The **Contact person** automatically is displayed.
4. Click the **Other** tab and verify that the **Customer requisition** and **Customer reference** fields are filled in.
5. To specify a dimension account for the project invoice header, clear the **Line-specific** check box and enter an account in the **Dimension account** field.

   To specify dimension accounts for each project invoice line, select the **Line-specific** check box.
6. Click **Invoice** > **Invoice proposal** and click **Create invoice**.
7. In the **Invoice proposal** form, make appropriate selections and click **OK**.
8. After the invoice has been created, the dimension account for the project invoice header is shown on the **Overview** tab. If you selected the **Line-specific** check box in step 4, enter an account in the **Dimension account** field on the applicable line tabs (**Hour**, **Expense**, **Item**, **Fee**, **Subscription**, **On account**, and **Sales order**).
9. In the **Invoice proposal** form, click **Post invoice**.
10. In the **Post invoice** form, select the **Posting** check box and the **Print invoice** check box.
11. Click **Printer setup** > **Invoice** and verify that the printer destination in the **Send to** list is **Printer**.
12. Select other options, as needed, and click **OK**.
13. In the **Post invoice** form, click **OK**. When the batch is processed, invoices for customers that have an EAN number assigned are generated as XML files and automatically are converted to OIOXML files. The resulting OIOXML files are created in the shared folder that is specified for the EInvoiceXSLFileTransform batch journal line for the project batch journal.
14. To view the project invoice, click **Project** > **Invoice project** and select a transaction. Click **Invoice** > **Invoice journal**. Dimension account information is shown only for public sector customers.