ELO for Microsoft Dynamics 365 Business Central

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ELO Integration Service for Business Central

Introduction

The ELO Integration Service for Business Central forms the technical platform for implementing the ELO Integration Client in a Microsoft Dynamics 365 Business Central system (referred to as Business Central in the rest of the document). Following installation, the ELO Integration Client is available as a FactBox in correspondingly configured objects in the Business Central client. You will find a list of the object pages extended with the ELO Integration Client under ELO Integration Client integration points.

When the ELO Integration Client is called within Business Central, a configurable path is created (assuming one doesn't already exist) and displayed in ELO. The functions of the ELO Integration Client, which can also be customized if required, are available to users here.

The ELO Integration Service for Business Central is available for both on-premises and cloud systems. Please note the different deployment methods within Business Central.

ELO basics

To use the ELO Integration Service for Business Central and the ELO Integration Client within Business Central, the ELO systems must meet the following requirements:

- ELOprofessional or ELOenterprise version 12 and higher
- Depending on the version, at least the following modules are required:
 - ∘ ELO 20:
 - ELOwf 20.05.000
 - ELO 12:
 - ELOwf 12.06.000
 - ELO REST API 12.04.000
- ELO Business Solutions Common version 1.07.000 or higher
- Microsoft Dynamics 365 Business Central on-premises version 16 or higher

The ELO license must also include the ELO Integration Client.

Business Central - On-Premises basics

A module within Business Central is required for communication between ELO and Business Central. This module has been developed in a separate ELO object range and therefore cannot conflict with other developments.

The download contains a package for the ELO Integration Service for Business Central, which you need to install in the *Business Central Administration Shell*. If you want to use this installation package later on, you need to import a new license with the following modules in Business Central:

• 70670580 ELO Integration Service for Business Central

If you also use the ELO Output Link for Business Central, you must add the following module to the license:

• 70670590 ELO Output Link for Business Central

To obtain these licenses, you must provide us with the Microsoft PartnerSource Business Center account number of the partner who issues the licenses for the Business Central systems. This must be an ELO authorized reseller of these two modules in the Microsoft PartnerSource Business Center.

Information

If you do not have a Microsoft PartnerSource Business Center account number, you must contact the customer, the Business Central implementation partner, or the issuer of the Business Central license.

ELO Integration Client integration points

- Posted Sales Shipment
- Posted Sales Invoice
- Posted Sales Credit Memo
- Posted Purchase Receipt
- Posted Purchase Invoice
- Posted Purchase Credit Memo
- Customer Card
- Vendor Card
- Sales Quote
- Sales Order
- Sales Invoice
- Sales Credit Memo
- · Purchase Ouote
- Purchase Order
- · Blanket Sales Order
- Blanket Purchase Order
- Purchase Invoice
- Purchase Credit Memo

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Sales Return Order

- Purchase Return Order
- Posted Return Shipment
- Posted Return Receipt
- Planned Production Order
- Released Production Order
- Item Card
- Service Invoice
- Service Credit Memo
- Posted Service Invoice
- Posted Service Credit Memo

Configuration in ELO

First, you need to install and configure the ELO Integration Service for Business Central in the ELO system.

You will find the necessary installation packages on the ELO SupportWeb under *Integration*. The ELO installation package contains the following files:

- erp.mbc.integrationservice
- erp.mbc.integrationservice.custom

The ELO Integration Client also requires a configuration file in the ELO app area.

elo.integration.Client

'elo.integration.client' configuration file

To use the ELO Integration Client, you need the configuration file *elo.integration.client* in JSON format, which is stored in the Administration folder. You will find this configuration file under this path:

//Administration// ELOapps//Configuration//elo.integration.Client

If this file already exists because the ELO Integration Client is already being used in other systems, you need to add the entry *mbc*. If it does not yet exist, create it with the following parameters. This is important for calling the URL.

```
{
  "mbc": {
   "noForm": false,
    "noFeed": false,
    "noFulltext": false,
    "noImagePreview": false,
    "rFInit": "RF erp mbc integrationservice service Init",
    "newDocVersFct": true,
    "saveDocFct": true,
    "gotoFct": true,
    "webClientURL": "http://serverurl:serverport/ix-repository/plugin/de.elo.ix.plugin.prox
    "editInOfficeFct": true,
    "removeEntryFct": true,
    "startWorkflowFct": false,
    "startWorkflowTemplates": null,
    "externalLinkFct": true,
    "folderMask": "(E10E1000-E100-E100-E100-E10E10E10E31)",
    "documentMask": "(E10E1000-E100-E100-E100-E10E10E10E30)",
```

```
"hasSearch": true,
    "referenceEntryFct": true,
    "refreshFct": true
}
```

Be sure to check the following parameters when creating or modifying the file:

- rFInit: Function that creates the folder path in ELO; provided with the *erp.mbc.integrationservice* package.
- webClientURL: URL to open the ELO Web Client when the Go to function is enabled. To
 prevent the user from having to log on multiple times, the proxy behind the ELO Indexserver
 must be configured. The ELO Web Client should be configured accordingly as a plug-in behind
 the ELOix proxy (recommended method).
- folderMask: Defines the metadata form that the ELO Integration Service for Business Central uses to create new structures based on the Business Central object.
- documentMask: Defines the metadata form that the ELO Integration Service for Business Central uses when filing documents from the ELO Integration Client within Business Central. You can use metadata forms that pass information onto the objects.

For more information on the parameters of this configuration file, refer to the documentation on the <u>ELO Integration Client</u>.

Configuring ELO Integration Service for Business Central

Once you have successfully installed the ELO packages, you will find the configuration app in the ELO Administration Console under:

Solutions > ELO for Microsoft Dynamics 365 Business Central > ELO Integration Service

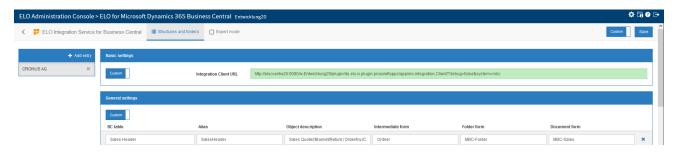


Click the *ELO Integration Service* tile to access the configuration interface of the ELO Integration Service for Business Central.



Configuration





In the first step, create a client or company on the *Structures and folders* tab. Once you have done this, you will see the configuration area under *Structures and folders* where you can create the following configurations:

- · Basic settings
- General settings
- · Structure and metadata matching
- Assignment of user and group rights

Basic settings

If necessary, enable expert mode for the next configurations.

Integration Client URL

In this field, enter the full HTTP address that is initially used to call the ELO Integration Client. The URL is structured as follows:

ELOix proxy address, path to ELOwf, and the ELO Integration Client app. The system comes at the end as well as the ID created in the JSON configuration file.

Example:

http://mbcdemo:9090/ix-MBCDEMO/plugin/de.elo.ix.plugin.proxy/wf/apps/app/elo.integration.Cl

General settings

Under *General settings*, you can create configurations for each Business Central object. As soon as you add a new entry, corresponding lines are automatically created in the *Structures and metadata matching* area. Lines are also created in the *Assignment of user and group rights* area.



BC table: In the *BC table* column, enter the Business Central table name (*database table*) you want to use.

Alias: The alias is a technical name you can define yourself. For example, you could copy the entry from the *BC table* field without spaces. The alias is used for unique identification later on.

Object description: This field can be used to describe the entry, for example, if you want to provide more information.

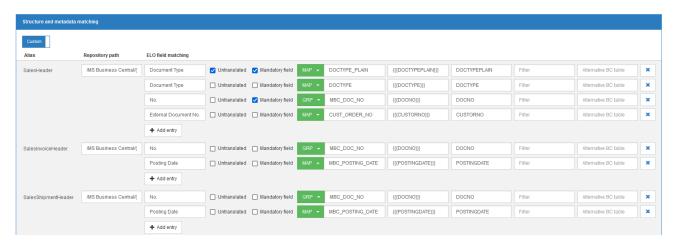
Intermediate form: In the *Intermediate form* column, enter the metadata form for folders that may have to be created on storage so that the specified path can be generated.

Folder form: The final metadata form is specified in the Folder form column, e.g. MBC folder

Document form: This is where you specify which metadata form to use when filing from Business Central. You can enter the same form as in the ELO Integration Client configuration file, or a separate one for each Business Central object.

Structure and metadata matching

As described in the chapter <u>General settings</u>, when you create an entry under <u>General settings</u>, a separate entry for the alias is automatically created in the <u>Structure and metadata matching</u> area.



Alias: This entry is copied directly from the *Alias* column under *General settings* and can also only be modified in this area.

Repository path: The filing path in ELO is defined in the *Repository path* column. In this field, you can also enter Business Central variables, e.g. using Handlebars syntax. You will find an example in the chapter <u>Implementation example 'SalesHeader'</u>

ELO field matching: This where you specify how to complete the fields on the metadata form defined under *Folder form* (see chapter <u>General settings</u>). In our example, this is the form *MBC folder*.



BC field name: Enter the name of the column in the BC table here.

Untranslated (expert mode): Enable this option to return the BC table values untranslated. These are the so-called *Options*. *Document Type* is such a column, since the *Document Type* is transferred either as an untranslated numerical value (e.g. 1 for orders) or as text in the current Business Central language (order).

Mandatory field (expert mode): Enable this option if you want this field to be mandatory. For example, this is important if you are using the value within a path. This can prevent incomplete paths from being created in ELO.

ELO field: Choose between *GRP* for metadata fields and *MAP* for MAP fields and enter the technical name of the field here. In MAP fields, it is possible to use iteration by attaching the value {i} to the technical name. This is useful in relation to the value in *Alternative table* if a table of lines is specified there and multiple values can be transferred.

If the metadata fields do not exist in the metadata form, the corresponding values will be lost and written as a warning in the log.

Value in Handlebars: The value entered here is stored in the corresponding ELO field in the ELO entry. To copy the value of the transfer parameter from the URL, it must be enclosed in triple curly brackets.

If the values are iterated, you can use the {i} identifier to indicate the Handlebar.

Please note

If an iteration is defined but there is no $\{i\}$ in the ELO field, all values will be concatenated in this field up to a maximum of 255 characters. Any values above this will be rejected.

Parameter: The parameter for mapping from the URL is stored here.

Key field: You can select one key field per BC table. The value of the key field is used to specify a property of the object that remains a unique identifier even when other data changes. For example, you can specify an ID that uniquely identifies an object. This ensures that an object is not created twice (with a new name) in the repository, for example. Instead, the corresponding folder is found and a new path is created according to the new name. The folder and its contents are moved to this

new path. The documents that were stored under the old name remain in the folder with the new name.

Filter (expert mode): Enabling this field sets a filter within Business Central. This function can be used if two entries have been created for *Sales Header*. For example, it is possible to restrict *Document Type* to use different configurations for orders and requests. Alternatively, you can also make the distinction in the path itself using Handlebars.

Alternative BC table (expert mode): Enter an alternative table here. A primary key must be used to establish a relation to the primary table. The classic case is the header table to line table relation, for example, *Sales Header* as the leading table and *Sales Lines* as the alternative table.

Implementation example 'SalesHeader'

General settings

BC table: Sales Header

Alias: SalesHeader

Object description: Sales Quote/(Blanket/Return) Order/Inv./Cr. Memo

Intermediate form: Folder

Folder form: MBC folder

Document form: Basic entry



Structure and metadata matching

Repository path:

```
/MS Business Central/{{{Client}}}/Sales/{{#ifCond DOCTYPEPLAIN '==' '0'}}Quotes{{else}}{{#ifCond DOCTYPEPLAIN '==' '0'}}
```

ELO field matching:

Document Type: X Untranslated X Mandatory field

• Field type: MAP

• ELO field: DOCTYPE_PLAIN

• Value in Handlebars:

```
{{{DOCTYPEPLAIN}}}
```

Parameter in URL: DOCTYPEPLAIN Document Type: O Untranslated O Mandatory field

Field type: MAP

• ELO field: DOCTYPE

• Value in Handlebars:

```
{{{DOCTYPE}}}
```

• Parameter in URL: DOCTYPE No.: O Untranslated X Mandatory field

• Field type: GRP

ELO field: MBC_DOC_NO

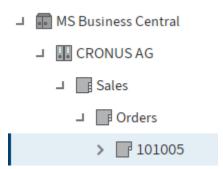
• Value in Handlebars:

{{{DOCNO}}}

• Parameter in URL: DOCNO



In this example, a child folder with the name of the client and the fixed value //Sales//Orders is created in the MS Business Central folder in ELO. Objects are stored in this folder under the DOCNUM. All values transferred with POSNO1, POSNO2 ... POSNOX are stored in the corresponding MAP field POSITION NO1, POSITION NO2 ... POSITION NOX.

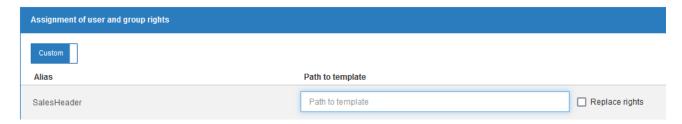


Assignment of templates, user and group rights

In this area, you can use a stored template (template structure) when using an entry for the first time as well as assign user and group rights. The required template can be created in the configuration area of Business Central under:

//Administration//Business Solutions Custom//erp.mbc.serviceintegration//Configuration//FolderTemplates

The template is only copied the first time the entry is created.



Path to template: Enter the path to the template structure here. For example, if you created a template structure *PurchaseOrder*, this would mean that when you call the ELO Integration Client in the Business Central purchase order object, assuming all conditions are met, the structure is created under:

// Administration // Business Solutions Custom // erp.mbc.integrationservice // Configuration // FolderTemplates // PurchaseOrder

At this point, you must use a separator to define a deeper folder structure. However, the separator used must be leading, e. g. if you enter /Vendor/Orders, the slash is recognized as a separator. Handlebars syntax is also allowed, which enables you to control templates flexibly.

If you use Handlebars syntax to create the structure, you can only use metadata from the fields of the initial template, in this case *MBC folder*.

Rights for users and groups



Replace rights: ELO takes on the rights of the parent element by default. If the *Replace rights* option is enabled, the rights of the parent element are discarded and only the set rights are assigned. Please note that this function only works if a folder structure does not yet exist.

Rights for users and groups: Enter the users or groups that you want to assign rights to here.

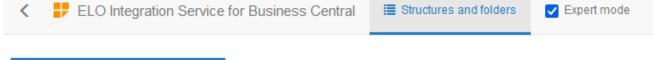
RWDELP: Use the check boxes to set the different permissions types for users or groups.

- R = View
- W = Change metadata
- D = Delete
- E = Edit
- L = Edit list
- P = Set permissions

For more information, refer to the documentation Concept for assigning rights and permissions.

Working with multiple companies/databases

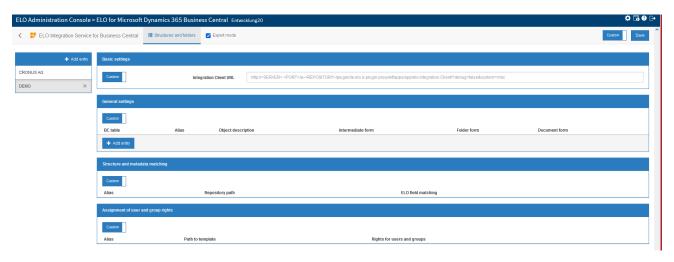
If you work with multiple companies/databases in Business Central but want to manage them in a single ELO repository, you can add an entry in the *integrationservice.config* file.





First, specify a name for the new entry. This name may only contain letters, numbers, and underscores. Then, create the entry and enter the corresponding data.

After you have confirmed the new entry, you will get an empty configuration interface.



You also have to create a new configuration entry in the configuration file *elo.integration.Client* to address the new client. You could create an entry *mbc2* as a copy of *mbc* and then also change the URL. In the example we used, it would look like this (see also chapter 'elo.integration.client' configuration file):

ELOix proxy address, path to ELOwf, and the ELO Integration Client app. The system comes at the end as well as the ID created in the JSON configuration file.

Example:

http://mbcdemo:9090/ix-MBCDEMO/plugin/de.elo.ix.plugin.proxy/wf/apps/app/elo.integration.Cl

Now you can configure the other parameters.

Configuration in Business Central

Deployment in Business Central - on-premises

After you have completed the configuration in ELO, you need to install Business Central. You can do the installation at the same time as the configuration in ELO. However, you need a corresponding ELO configuration to be able to configure the ELO Integration Service for Business Central in Business Central.

The required installation files for Business Central are part of the download package, which you will find in the ELO SupportWeb under *Integration > MS Business Central*.

Name
ELO Digital Office GmbH_ELO Integration Service for Business Central_XXXXX.app
ELO Digital Office GmbH_ELO Output Link for Business Central_XXXXX.app

Start the *Business Central Administration Shell* and deploy the installation package for ELO Integration Service for Business Central. In the following example, the package was deployed using these commands:

- Publish-NAVApp
- Sync-NAVApp

Implementation example:

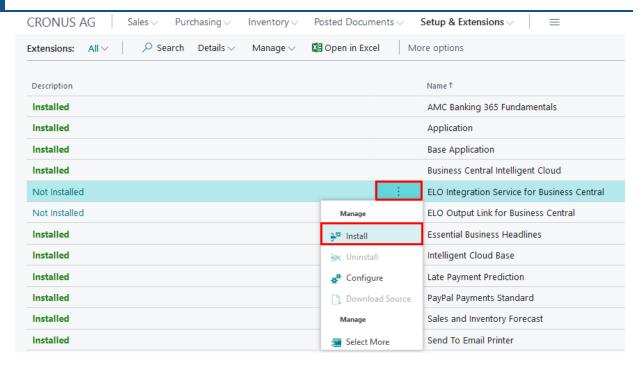
```
Publish-NAVApp -Serverinstance BC160 -Path "ELO Digital Office GmbH_ELO Integration Service Sync-NAVApp -ServerInstance BC160 -Name 'ELO Integration Service for Business Central' -Ver
```

Setup and extensions in Business Central on-premises

- 1. After the deployment, log on in the Business Central system.
- 2. Go to the Setup & Extensions menu, and select the Extensions menu item.

After successful deployment, you can install the package.

3. Click Show more options (button with three dots) and then select the Install menu item.



The package will be installed and the entry will be marked as *Installed*.



Information

If you want to install the ELO Output Link for Business Central in addition to the ELO Integration Service for Business Central, you must first install the ELO Integration Service.

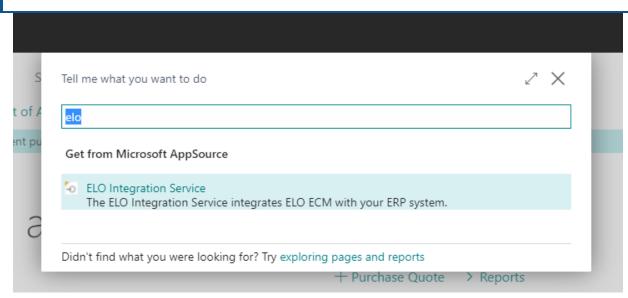
4. After the installation, log on to Business Central again.

Deployment in Business Central - Cloud

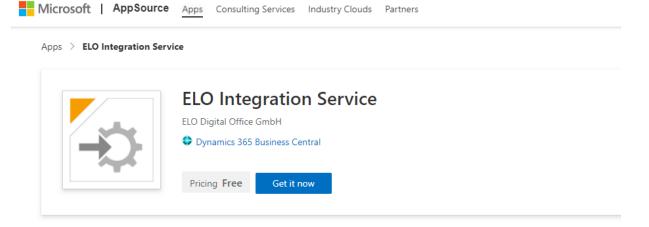
Microsoft AppSource provides an ELO Integration Service app for Business Central cloud systems.

You can search for the app in AppSource via the search in Business Central. Please note that this requires administrator rights outside of Business Central.

1. Under Get from Microsoft AppSource in the search, select the entry ELO Integration Service.



You will be forwarded to Microsoft AppSource and can download the app there.



Overview Ratings + reviews Details + support

The ELO Integration Service integrates ELO ECM with your ERP system.

The ELO Integration Service implements the ELO Integration Client right in your ERP system. Using the ELO Integration Client within Microsoft Dynamics 365 Business Central requires an ELO installation.

Visit our homepage for more information www.elo.com. ELO Digital Office offers a worldwide network of certified system vendors and IT consultants that support you in selecting, implementing, and customizing your ELO software. Contact one of our partners via the ELO PartnerFinder!

Following installation, the ELO Integration Client is available as an additional area in configured views of Microsoft Dynamics 365 Business Central. When called, a configurable path in the ELO system is generated – if one doesn't already exist – and shown within the ELO Integration Client. The ELO Integration Client is a customizable single-page web application that adds select ECM functions to the target system (in this case Microsoft Dynamics 365 Business Central).

Info: The ELO Integration Client is delivered as an ELO app via ELOwf (assuming you have a valid license).

Supported Editions:

The app supports the Essentials and Premium Editions of Microsoft Dynamics 365 Business Central.

Supported Countries:

Australia, Belgium, Brazil, Denmark, Germany, Finland, France, Greece, Indonesia, Ireland, Italy, Luxembourg, New Zealand, Netherlands, Norway, Austria, Poland, Portugal, Romania, Switzerland, Sweden, Singapore, Spain, South Africa, Czech Republic, Hungary, United States of America, United Kingdom.

2. Check and confirm your Microsoft profile information.

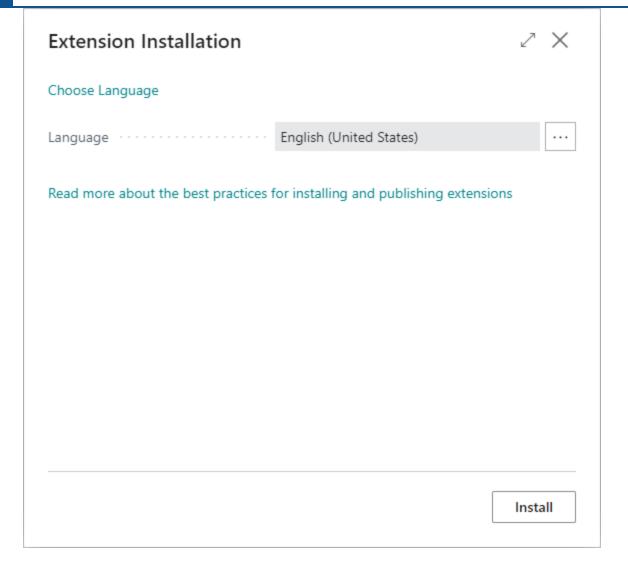


Continue

One mare thing

One more thing				
ELO Integration Service By ELO Digital Office GmbH				
This app requires some basic profile information. We have pulled your Microsoft Account data to help you get started. AppSource will save your information for next time.				
Name *				
Work email ★				
Job title				
Company				
Country / region *	~			
Phone number *				
✓ I give Microsoft permission to use or share my account information so that the provider or Microsoft can contact me regarding this product and related products and Microsoft may share contact, usage, and transactional information for support, billing, and other transactional activities. I agree to the provider's terms of use and privacy policy and understand that the rights to use this product do not come from Microsoft, unless Microsoft is the provider. Use of AppSource is governed by separate terms and privacy.				
You're signed in as				

3. Select the language you want to install the extension in.

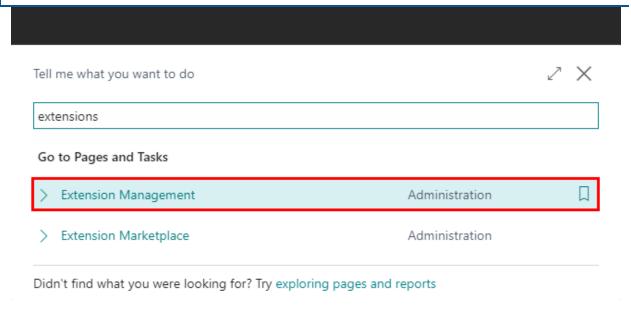


4. Begin installing the ELO Integration Service app on your Business Central Cloud system. In the next step, you can configure the extension outside of Business Central.

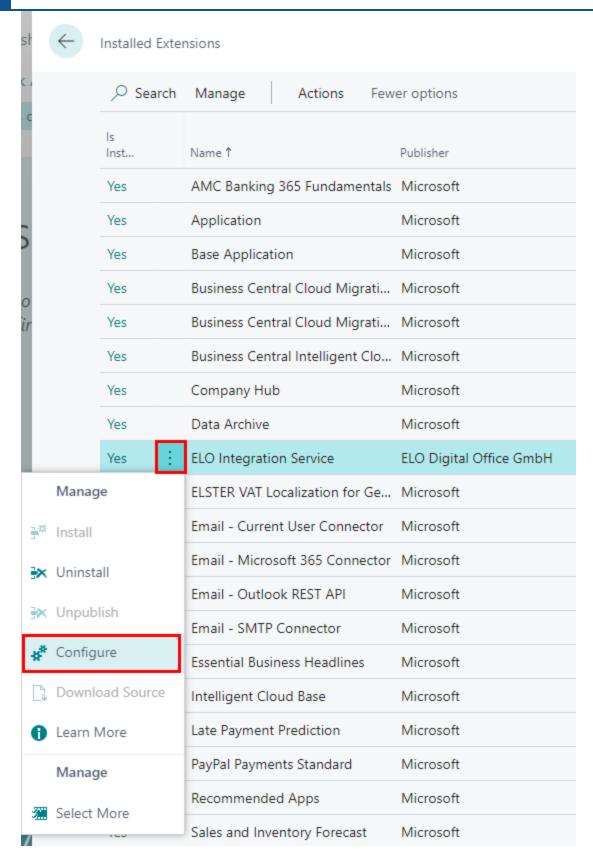
Fix error while loading the configuration

After successful installation, attempting to load the configuration from ELO may result in an error. In this case, you will have to check the ELO Integration Service extension settings and enable the function *Allow HttpClient Request*.

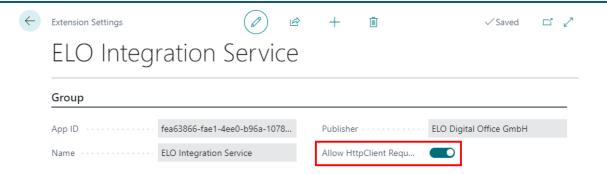
1. In Business Central, call the Extension Management function using the search.



2. Search for *ELO Integration Service* within the installed extensions and select the option *Configure* from the additional actions (button with three dots).



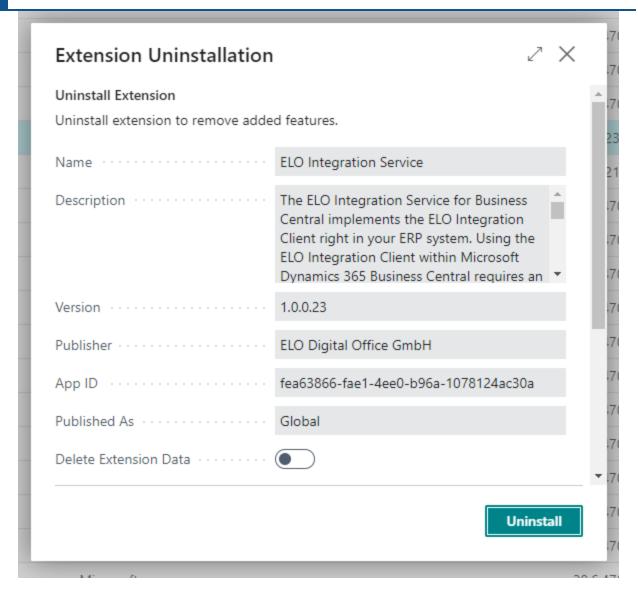
3. In the configuration area, enable Allow HttpClient Request.



Update apps in Business Central - Cloud

To update the ELO app in Microsoft AppSource, perform the following steps:

- 1. Log on to the Microsoft Dynamics 365 Business Central browser client.
- 2. In the global search, enter Extension Management and select the corresponding link.
- 3. Select the ELO app.

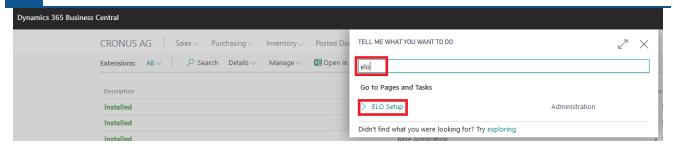


The Uninstall Extension dialog box opens.

- 4. Select *Uninstall*.
- 5. Switch to the Microsoft Dynamics 365 Business Central AppSource and install the app again.

Configuration of 'ELO Setup' in Business Central

Once you have completed the installation and logged on again, you can search for the *ELO Setup* configuration and click the entry to open it.

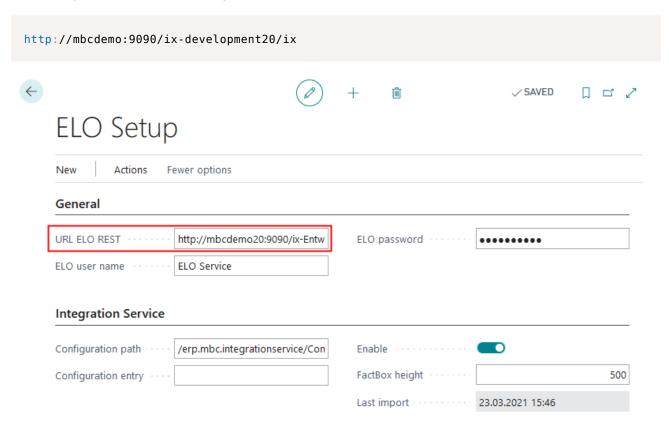


Please note

To be able to load the configuration and connect ELO to your Business Central Cloud system later, the two systems have to be able to communicate. Either your ELO system or at least the REST-URL used must be able to be reached externally, or you can configure an alternative, such as a Microsoft Application Proxy. In any case, your Business Central System will have to be able to reach the ELO system directly.

ELO Setup - General

Switch to editing mode and enter the Indexserver URL into the *URL ELO REST* field under *General*. In our example, this is the following address:



You need to enter an ELO user and the corresponding password as well. We recommend that you enter the user *ELO Service*.

Please note

For version ELO 12: In the *General* area, you have to enter the address of the ELO REST service in the *URL ELO REST* field. In our example, this is the following address:

http://mbcdemo:9090/ix-development20/plugin/de.elo.ix.plugin.proxy/rest/

ELO Setup - Integration Service

In the next step, you need to create the ELO Integration Service for Business Central configuration. The *Configuration path* field is usually already completed. If you want to use a different configuration in ELO, you can modify the configuration path. The configuration path in our example is as follows:

/erp.mbc.integrationservice/Configuration/integrationservice.config

The *Configuration entry* field can be left blank if there is only one configuration entry in the *integrationservice.config* file in ELO. In our example, Business Central uses the configuration entry *CRONUS AG*.

If multiple Business Central systems are connected, the corresponding ELO configuration can be assigned via this configuration entry.

Load configuration

After you have created or checked the configuration path and, where applicable, specified a configuration entry, you can download the ELO Integration Service for Business Central configuration from the ELO system using the *Actions* menu item *Load Integration Service configuration*. You must have already completed the configuration in the ELO system (see Configuring ELO Integration Service for Business Central).

ELO Setup



Information

Business Central stores the configuration in the cache at this point, so you need to load the configuration initially as well as when adjusting the configuration in ELO.

If Business Central successfully loaded the configuration, you will see a success message.



ОК

FactBox height

This parameter allows you to set the size of the ELO Integration Client in the Business Central system. The default setting is 500 pixels.

Last import

This menu item tells you when the configuration was last uploaded from the ELO system.

Enable

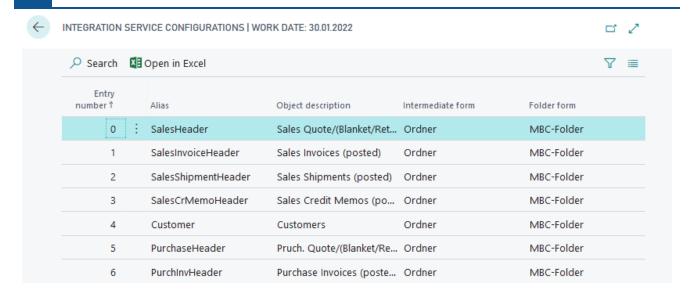
This function allows you to enable or disable the ELO Integration Client in the Business Central system.

ELO Setup - Check configuration

Under the menu item *Actions > Integration Service configuration* (*Integr. Serv. config.*), you can view and check the configured entries in ELO.

ELO Setup





ELO Setup - Debugging

In the *Debugging* area, you will see the URL of the Integration Client that is used in Business Central. This is the URL stored in the ELO Integration Service configuration in ELO (see chapter Basic settings).

Debugging



ELO Output Link for Business Central

Introduction

This document describes how to set up ELO Output Link for Business Central. ELO Integration Service for Business Central is required as the foundation for ELO Output Link to function. This not only forms the technical platform for implementing the ELO Integration Client in a Microsoft Dynamics 365 Business Central system (referred to as Business Central in the rest of the document), but also acts as the interface between ELO and Business Central for ELO Output Link for Business Central. In addition to filing document reports via defined event-based functions such as Post/Print document (see chapter Output Link integration points), the Send to ELO button is also implemented. The list also includes the pages that have the Send to ELO button.

ELO Output Link for Business Central is available for both on-premises and cloud systems. Please note the different deployment methods within Microsoft Dynamics 365 Business Central.

ELO basics

To use ELO Output Link for Business Central, the following system requirements must be met for the following ELO versions:

- ELOprofessional or ELOenterprise version 12 and higher
- Depending on the version, at least the following modules are required:
 - o ELO 20:
 - ELOwf 20.05.000
 - ELO 12:
 - ELOwf 12.06.000
 - ELO REST API 12.04.000
- ELO Business Solutions Common version 1.07.000 or higher
- Microsoft Dynamics 365 Business Central on-premises version 16 or higher
- Configured ELO Integration Service for Business Central

Microsoft Dynamics 365 Business Central - on-premises basics

To use ELO Output Link for Business Central, two modules within Business Central are required. These modules have been developed in a separate ELO object range and therefore cannot conflict with other developments.

The download contains a package for the ELO Integration Service for Business Central, which you need to install in the *Business Central Administration Shell*. If you want to use this installation package later on, you need to import a new license with the following modules in Business Central:

• 70670580 ELO Integration Service for Business Central

To use ELO Output Link for Business Central, you must add the following module to the license:

• 70670590 ELO Output Link for Business Central

To obtain these licenses, you must provide us with the Microsoft PartnerSource Business Center account number of the partner who issues the licenses for the Business Central systems. This must be an ELO authorized reseller of these two modules in the Microsoft PartnerSource Business Center.

Information

If you do not have a Microsoft PartnerSource Business Center account number, you must contact the customer, the Business Central implementation partner, or the issuer of the Business Central license.

Please note

In the Business Central versions 17, 18, and 19, it is not possible to intercept print jobs in the browser. Interception is only possible if a printer is configured.

As of Business Central version 20, a new event (OnAfterDocumentReady) is provided which can be used with the ELO Output Link for Business Central starting with version 1.0.1.20.

Microsoft Dynamics 365 Business Central - Cloud basics

Microsoft AppSource provided an ELO Output Link app for Business Central cloud systems. Using ELO Output Link requires the ELO Integration service. This app is also available from Microsoft AppSource.

Output Link integration points

Function	n BC Event/Page	Comment
Print	BC 16-19: OnAfterDocumentPrintReady BC >= 20: OnAfterDocumentReady	General print event. Only when a report is sent to a printer. Note the information about the Business Central versions on intercepting print jobs in the browser in the Microsoft Dynamics 365 Business Central – on-premises basics chapter.
Event		For purchase and sales documents. Also executed for e-mails, when sending to Word. If this flag is enabled, <i>sendByPrinting</i> has to be disabled, otherwise items will be filed twice.

Function BC Event/Page		Comment
	OnBeforeDoPrintSalesHeader	Send e-mail (sales order, sales quotation). Print document (sales complaint, sales frame order)
	OnBeforePrintSalesOrder	Print document (sales order, sales quotation)
	OnBeforePrintWithGUIYesNoVendor	Print document (purchase order, purchase frame order, purchase query, purchase complaint)
	OnAfterSendVendor	Purchase document, send e-mail (purchase request, purchase order)
Post	OnAfterPostSalesDoc	When posting sales documents
	OnAfterPostPurchaseDoc	When posting purchase documents
	Sales Order Posted Sales Shipment Posted Sales Invoice Posted Sales Credit Memo Posted Purchase Receipt Posted Purchase Invoice Posted Purchase Credit Memo Posted Return Shipment Posted Return Receipt Sales Quote	
Manual	Purchase Quote Purchase Order Blanket Sales Order Blanket Purchase Order Sales Return Order Purchase Return Order Planned Production Order Released Production Order Service Invoice Service Credit Memo Posted Service Credit Memo	Button on the page for manual transfer. Via customer app: Send Report2ELOFromRec function

There are no ELO Output Link for Business Central functions for event-based functions/pages that are not named here at this time.

Configuration in ELO

First, you need to install and configure the ELO Integration Service for Business Central in the ELO system.

You will find the necessary installation packages on the ELO SupportWeb under *Integration*. The ELO installation package contains the following files:

- erp.mbc.outputlink
- erp.mbc.outputlink.custom

Configuring ELO Output Link for Business Central

Once you have successfully installed the ELO packages, you will find the configuration app in the ELO Administration Console under:

Solutions > ELO for Microsoft Dynamics 365 Business Central > ELO Output Link



Click the *ELO Output Link* tile to access the configuration interface of ELO Output Link for Business Central.



Configuration



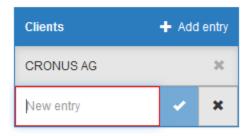
Add client/company

First, you will have to add a client or company. Once you have created a client, you can no longer rename it.

Please note

Only edit the configuration in the *Business Solutions Custom* path to ensure the system can be updated in the future. When a module is updated, the configuration in the *Business Solutions* folder can be overwritten.





First, specify a name for the new entry. This name may only contain letters, numbers, and underscores. Then, create the entry and enter the corresponding data.

After you create a client, the following areas appear for further configuration:

- · General settings
- Structure and metadata matching
- · Assignment of user and group rights

General settings

In the *General settings* area, you define an *Identifier*. In standard scenarios, this can be the report ID, for example. With customer extensions within Business Central, this could also be an ID defined by development. The identifier helps you identify the configuration entry. As soon as you add a new entry in this area, corresponding lines are automatically created in the *Structures and metadata matching* and *Assignment of user and group rights* areas.



Identifier: In this column, you enter the report ID from Business Central, which is used to print documents there, for example.

Structure alias: The structure alias is a technical name that you defined in the ELO Integration Service for Business Central configuration. The alias is used for unique identification later on. It is used to identify the base path where the document will be filed.

Object description: This field can be used to describe the entry, for example, if you want to provide more information.

Version comment: The comment is entered for the document filed from Business Central and is visible in the document's feed. If a report/an object is printed again, ELO generates a new version, which is saved in the comment/feed with the entry configured here.

BC table: In the *BC table* column, enter the Business Central table name (*database table*) you want to use.

Document form: This is where you specify which metadata form to use for documents filed via ELO Output Link for Business Central. You can enter the same form as in the ELO Integration Client configuration file, or a separate one for each Business Central object.

Print: A document is filed when a document is printed in Business Central.

Event: A document is filed when an event takes place that generates a report within Business Central. The event in Business Central relates to the functions *Send/Attach as PDF/Print*.

Please note

Objects and reports that support the *Event* function within Business Central should not activate the *Print* function. Otherwise, the document would be filed with two versions. Printing can be used as a global event with Business Central.

Post: A document is filed when the object is posted in Business Central.

Please note

If technical errors are shown during posting in Business Central (within an object, for example a *customer order*, that supports and has been configured for Output Link), Business Central may not correctly forward the event to ELO and the printout of the document will not be filed.

We therefore recommend combining the *Post* function with the job queue to file any documents that have not been filed later on.

Manual: A document is filed when a separate function is called in Business Central (*Send to ELO* button in Business Central).

Information

The filing functions are not available in all Business Central objects. You will find detailed information on which Business Central flags/events there are implementations for in the table *Output Link integration points*.

Only one version: No other versions will be filed. If a document already exists, the previous metadata remain unchanged.

Job: As soon as this option is enabled, the configuration entry in a defined entry in the job queue in Business Central is used for post-processing or automatic processing. See also Job queue.

Structure and metadata matching

As described in the chapter <u>General settings</u>, when you create an entry under <u>General settings</u>, a separate entry for the identifier is automatically created in the <u>Structure and metadata matching</u> area.



Identifier: This entry is copied directly from the *Identifier* column under *General settings* and can also only be modified in this area.

Repository path: The filing path in ELO is defined in the *Repository path* column. In this field, you can also enter Business Central variables, e.g. using Handlebars syntax.

Implementation example for Identifier 1305:

```
/Printed/{{{DOCNO}}}
```

ELO field matching: This where you specify how to complete the fields on the metadata form defined under *document form* (see chapter <u>General settings</u>). In our example, this is the form *MBC PrintedOrder*.

BC field name: Enter the name of the column in the BC table here.

Untranslated (expert mode): Enable this option to return the BC table values untranslated. These are the so-called *Options*. *Document Type* is such a column, since the *Document Type* is transferred either as an untranslated numerical value (e.g. 1 for orders) or as text in the current Business Central language (order).

Mandatory field (expert mode): Enable this option if you want this field to be mandatory. For example, this is important if you are using the value within a path This can prevent incomplete paths from being created in ELO.

ELO field: Choose between *GRP* for metadata fields and *MAP* for MAP fields and enter the technical name of the field here. In MAP fields, it is possible to use iteration by attaching the value {i} to the technical name. This is useful in relation to the value in *Alternative table* if a table of lines is specified there and multiple values can be transferred.

If the metadata fields do not exist in the metadata form, the corresponding values will be lost and written as a warning in the log.

Value in Handlebars: The value entered here is stored in the corresponding ELO field in the ELO entry. To copy the value of the transfer parameter from the URL, it must be enclosed in triple curly brackets.

If the values are iterated, you can use the {i} identifier to indicate the Handlebar.

Please note

If an iteration is defined but there is no $\{i\}$ in the ELO field, all values will be concatenated in this field up to a maximum of 255 characters. Any values above this will be rejected.

Parameter in URL: The parameter for mapping from the URL is stored here.

Filter (expert mode): Enabling this field sets a filter within Business Central. If two entries have been created for *Sales Header*, for example, it is possible to restrict *Document Type* to use different configurations for orders and requests. Alternatively, you can also make the distinction in the path itself using Handlebars.

This filter is used in the context of processing the job queue entry (*Job* option enabled) (not yet implemented).

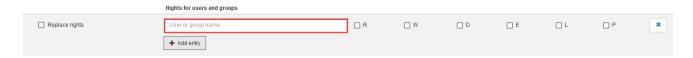
Alternative BC table (expert mode): Enter an alternative table here. A primary key must be used to establish a relation to the primary table. The classic case is the header table to line table relation, for example, *Sales Header* as the leading table and *Sales Lines* as the alternative table.

Key field (expert mode): You can select one key field per BC table. The value of the key field is used to specify a property of the object that remains a unique identifier even when other data changes. For example, you can specify an ID that uniquely identifies an object. New versions of the object are created at the new location when moving the object instead of creating it (and therefore a duplicate) at the old location, for example.

Assignment of user and group rights

This is where you assign user and group rights.

Rights for users and groups



Replace rights: ELO takes on the rights of the folder by default. If this option is enabled, the rights of the folder are discarded and only the set rights are assigned.

Rights for users and groups: Enter the users or groups that you want to assign rights to here.

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RWDELP: Use the check boxes to set the different permissions types for users or groups.

- R = View
- W = Change metadata
- D = Delete
- E = Edit
- L = Edit list
- P = Set permissions

For more information, refer to the documentation Concept for assigning rights and permissions.

Implementation example 'SalesHeader'

General settings

Identifier: 1305

Structure alias: SalesHeader

Object description: printed sales orders

Version comment: Sales Order Printed from MBC

BC table: Sales Header

Document form: MBC-PrintedOrder

Print: O Event: X Post: X

Manual: X Only one version: O Job: O



Structure and metadata matching

Identifier: 1305 (taken from *General settings*)

Repository subpath:

/Printed/{{{DOCNO}}}

ELO field matching:

BC field name: No.

· Field type: GRP

• ELO field: MBC_DOC_NO

•

Value in Handlebars:

```
{{{DOCNO}}}
```

• Parameter in URL: DOCNO

BC field name: Posting Date

• Field type: MAP

• ELO field: POSTING_DATE

• Value in Handlebars:

```
{{{POSTDATE}}}
```

• Parameter in URL: POSTDATE

BC field name: Document Type

• Field type: MAP

• ELO field: DOCTYPE

• Value in Handlebars:

```
{{{DOCTYPE}}}
```

Parameter in URL: DOCTYPE

BC field name: Line No.

• Field type: MAP

• ELO field: LINE_NO{i}

• Value in Handlebars:

```
{{{LINENO{i}}}}
```

• Parameter in URL: LINENO

BC field name: Description

• Field type: MAP

• ELO field: LINE_DESC{i}

• Value in Handlebars:

```
{{{LINEDESC{i}}}}
```

• Parameter in URL: LINEDESC

BC field name: Quantity

• Field type: MAP

• ELO field: LINE_QUAN{i}

• Value in Handlebars:

```
{{{LINEQUAN{i}}}}
```

• Parameter in URL: LINEQUAN

BC field name: Unit of Measure

• Field type: MAP

• ELO field: LINE_UNIT{i}

• Value in Handlebars:

```
{{{LINEUNIT{i}}}}
```

• Parameter in URL: LINEUNIT

BC field name: Unit Price

• Field type: MAP

• ELO field: LINE_PRICE{i}

• Value in Handlebars:

```
{{{LINEPRICE{i}}}}
```

• Parameter in URL: LINEPRICE

BC field name:

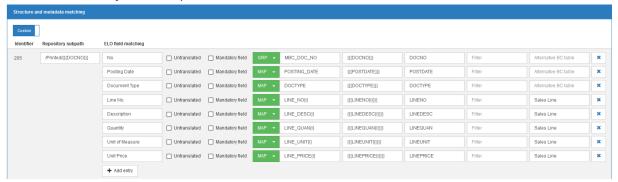
• Field type: GRP

• ELO field: MBC_KEY

• Value in Handlebars:

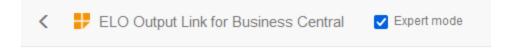
ORDER-{{{DOCNO}}}

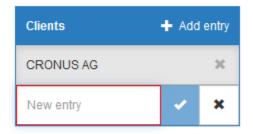
- Parameter in URL:
- (This field is a key field (expert mode))



Working with multiple companies/databases

If you work with multiple clients/databases in Business Central, create a new client in the ELO Output Link for Business Central configuration.





First, specify a name for the new entry. This name may only contain letters, numbers, and underscores. Then, create the entry and enter the corresponding data.

You can then configure the client as described.

Configuration in Business Central

Deployment in Business Central - on-premises

After you have completed the configuration in ELO, you need to install Business Central. You can do the installation at the same time as the configuration in ELO. However, you need a corresponding ELO configuration to be able to configure ELO Output Link for Business Central in Business Central.

The required installation files for Business Central are part of the download package, which you will find in the ELO SupportWeb under *Integration > MS Business Central*.

Name	
ELO Digital Office GmbH_ELO Integration	Service for Business Central_xxxxxx.app
ELO Digital Office GmbH_ELO Output Linl	k for Business Central_ xxxxxx .app

Start the *Business Central Administration Shell* and deploy the installation package for ELO Integration Service for Business Central. In the following example, the package was deployed using these commands:

- Publish-NAVApp
- Sync-NAVApp

Implementation example:

```
Publish-NAVApp -Serverinstance BC160 -Path "ELO Digital Office GmbH_ELO Output Link for Bus Sync-NAVApp -ServerInstance BC160 -Name 'ELO Output Link for Business Central' -Version 16.
```

Information

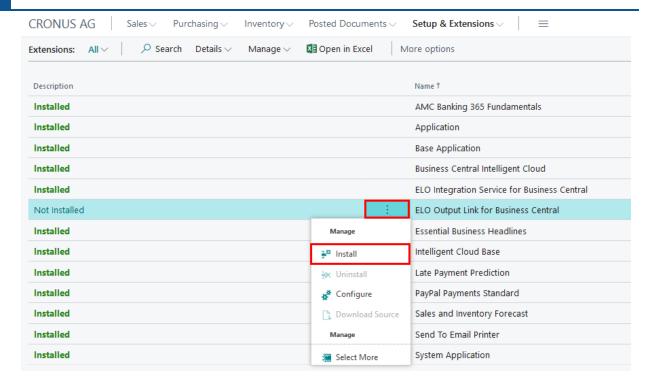
If you do not have a Microsoft PartnerSource Business Center account number, you must contact the customer, the Business Central implementation partner, or the issuer of the Business Central license.

Setup and extensions in Business Central on-premises

- 1. After the deployment, log on in the Business Central system.
- 2. Go to the Setup & Extensions menu, and select the Extensions menu item.

After successful deployment, you can install the package.

3. Click Show more options (button with three dots) and then select the Install menu item.



The package will be installed and the entry will be marked as *Installed*.

Please note

Install ELO Integration Service for Business Central first, before ELO Output Link for Business Central.

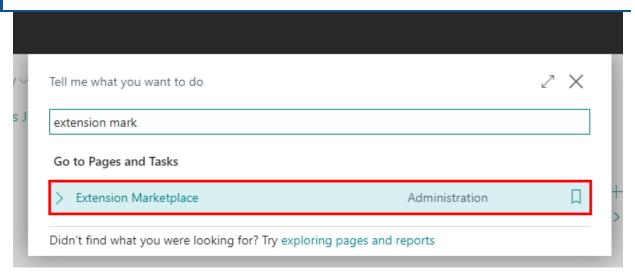
4. After the installation, log on to Business Central again.

Deployment in Business Central - Cloud

Microsoft AppSource provides an ELO Output Link app for Business Central cloud systems.

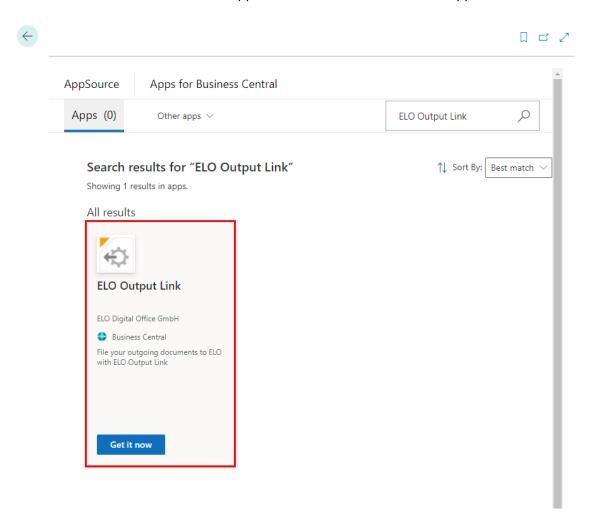
You can search for the app in AppSource via the search in Business Central. Please note that this requires administrator rights outside of Business Central.

1. Open the Extensions Marketplace from the search.

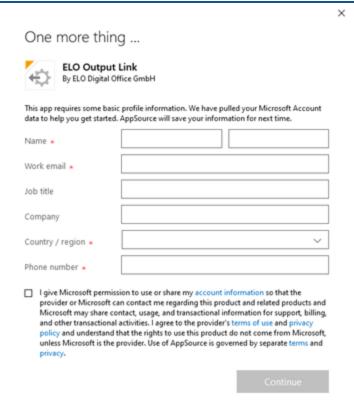


2. Enter *ELO Output Link* in the search field and select the app shown.

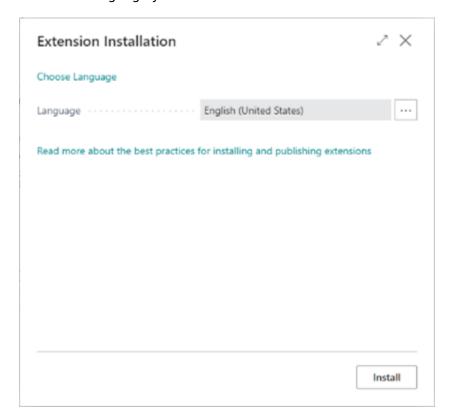
You will be forwarded to Microsoft AppSource and can download the app there.



3. First, check and confirm your Microsoft profile information.



4. Select the language you want to install the extension in.

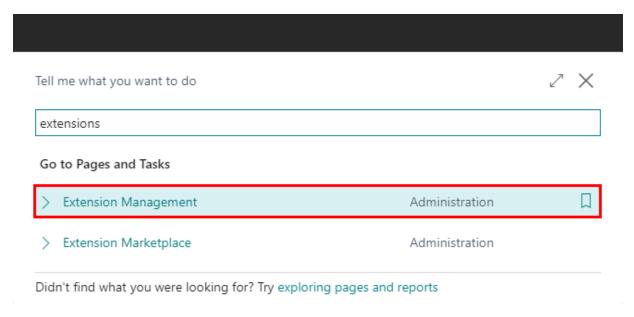


Begin installing the ELO Integration Service app on your Business Central Cloud system. In the next step, you can configure the extension outside of Business Central.

Fix error while loading the configuration

After successful installation, attempting to load the configuration from ELO may result in an error. In this case, you will have to check the ELO Output Link extension settings and enable the function *Allow HttpClient Request*.

1. In Business Central, call the Extension Management function using the search.



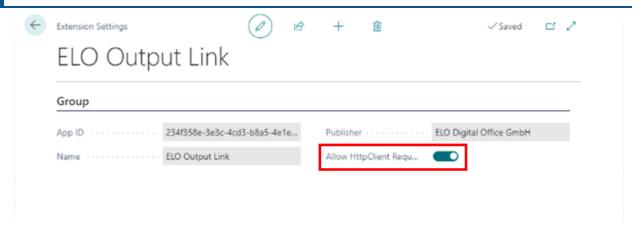
2. Search for *ELO Output Link* within the installed extensions and select the option *Configure* from the additional actions (button with three dots).



Extension Management | Work Date: 1/25/2024

Search Details	Manage More options	
Is Installed	Name ↑	Publisher
Yes	AMC Banking 365 Fundamentals	Microsoft
Yes	Application	Microsoft
Yes	Base Application	Microsoft
Yes	Company Hub	Microsoft
Yes Contoso Coffee Demo Dataset		Microsoft
Yes Contoso Coffee Demo Dataset (DE)		Microsoft
Yes	es Data Archive	
Yes	ELO Integration Service	ELO Digital Office Gr
Yes :	ELO Output Link	ELO Digital Office Gr
Y Manage	ELSTER VAT Localization for Germany	Microsoft
Y ≟* Install	Email - Current User Connector	Microsoft
→ Uninstall	Email - Microsoft 365 Connector	Microsoft
Y	Email - Outlook REST API	Microsoft
Unpublish	Email - SMTP API	Microsoft
⋠ [#] Configure	Email - SMTP Connector	Microsoft
y 🗋 Download Source	Essential Business Headlines	Microsoft
Y 🚺 Learn More	Late Payment Prediction	Microsoft
Y Manage	OnPrem Permissions	Microsoft
Y	OnPrem Permissions (DACH)	Microsoft
v Selectiviole	Payment Links to PayPal	Microsoft

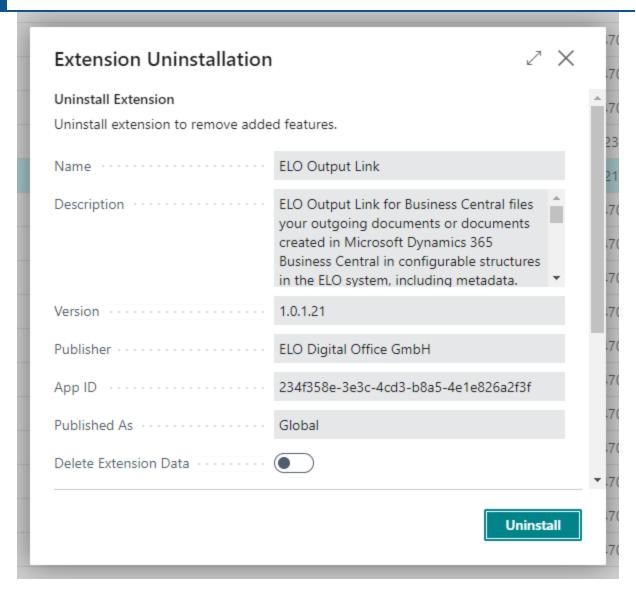
3. In the configuration area, enable *Allow HttpClient Request*.



Update apps in Business Central - Cloud

To update the ELO app in Microsoft AppSource, perform the following steps:

- 1. Log on to the Microsoft Dynamics 365 Business Central browser client.
- 2. In the global search, enter Extension Management and select the corresponding link.
- 3. Select the ELO app.

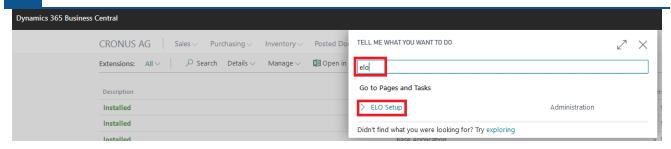


The *Uninstall Extension* dialog box opens.

- 4. Select Uninstall.
- 5. Switch to the Microsoft Dynamics 365 Business Central AppSource and install the app again.

Configuration of 'ELO Setup' in Business Central

Once you have completed the installation and logged on again, you can search for the *ELO Setup* configuration and click the entry to open it.



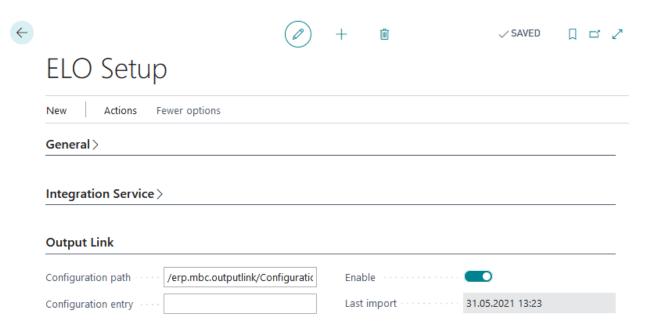
The *General*, *Integration Service*, and *Debugging* configuration areas are described in the documentation for the ELO Integration Service for Business Central.

Please note

To be able to load the configuration and connect ELO to your Business Central Cloud system later, the two systems have to be able to communicate. Either your ELO system or at least the Indexserver URL used must be able to be reached externally, or you can configure an alternative, such as a Microsoft Application Proxy. In any case, your Business Central System will have to be able to reach the ELO system directly.

ELO Setup - Output Link

In the next step, you need to create the ELO Output Link for Business Central configuration.



The *Configuration path* field is usually already completed. If you want to use a different configuration in ELO, you can modify the configuration path. The configuration path in our example is as follows:

/erp.mbc.outputlink/Configuration/outputlink.config

The *Configuration entry* field can be left blank if there is only one configuration entry in the *outputlink.config* file in ELO. In our example, Business Central uses this one configuration entry.

If multiple Business Central systems are connected, the corresponding ELO configuration can be assigned via this configuration entry.

Load configuration

After you have created or checked the configuration path and, where applicable, specified a configuration entry, you can import the ELO Output Link for Business Central configuration from the ELO system to Business Central using the *Actions* menu item *Load Output Link config.* You must have already completed the configuration in the ELO system (see chapter Configuring ELO Output Link for Business Central).

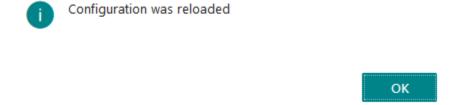
ELO Setup



Information

Business Central stores the configuration in the cache at this point, so you need to load the configuration initially as well as when adjusting the configuration in ELO.

If Business Central successfully loaded the configuration, you will see a success message.



Last import

This menu item tells you when the configuration was last uploaded from the ELO system.

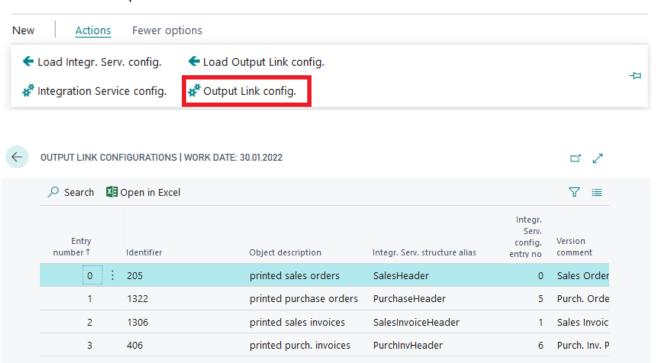
Enable

This function allows you to enable or disable ELO Output Link for Business Central.

ELO Setup - Check configuration

Under the menu item Integration Service configuration (*Integr. Serv. config.*), you can view and check the configured entries in ELO.

ELO Setup



General

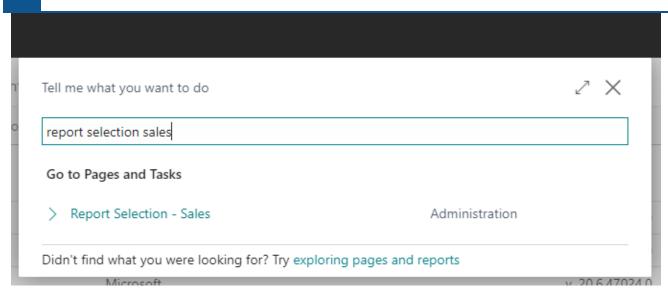
Among other things, Business Central differentiates between two types of document reports: reports in RDLC format (*Report Definition Language*, identifier beginning with 2xx for sales and 4xx for purchasing scenarios, for example) and *Word report layout* (beginning with 130* for sales and 132* for purchasing). This has to be taken into consideration depending on the customer system during creation. To find a used report ID within a Business Central object (for example a sales order), the ID can be shown via page validation (keyboard shortcut: CTRL + ALT + F1) in the corresponding report.

Information

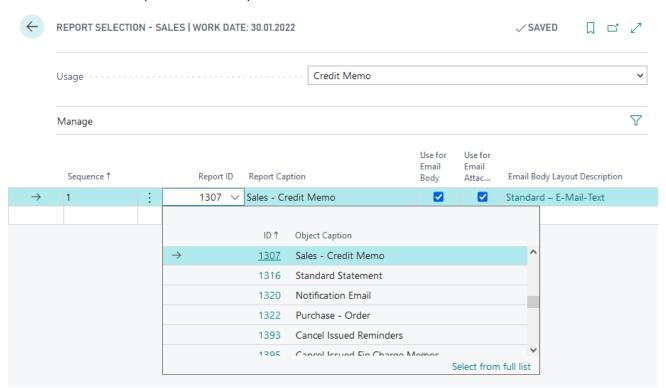
In Business Central, the term *Report* is also used for certain external documents such as sales invoices and order confirmations, which you send to customers as PDF files.

Source: Documentation for Microsoft Dynamics 365

For document reports, the ID can be analyzed via the Report Selection menu.



Via Report Selection – Sales you can view the reports selected: in this example, report ID 1307 – Sales - Credit Memo (in RDLC format) for a credit.



The report ID can now be applied to the Output Link configuration.

More information is available from the manufacturer (see source in the info box).

Information

In a customer production system, you may encounter customized reports that you will have to configure as identifiers within ELO.

Job queue

Within Business Central, you can use job queues to define static automated processes. These allow you to perform activities within the system without requiring an action. Job queues do not react to conditions within the system, but are instead automatically performed by the system itself based on a defined pattern. For example, job queues can be used to automatically repeat any failed transfers, for example when invoices aren't filed to ELO when printed because the server could not be reached. Job queues can also be used to transfer documents that already exist to the ELO system when introducing ELO at a company.

Please note

To use the job queue function, the Job box must be checked for the corresponding reports in the ELO configuration.

Configuration in ELO

To file the generated reports/documents in ELO, you will have to define multiple steps. First, you have to define a field in the Output Link configuration where you can filter the date range for the reports, for example. In our example, we use the field *POSTING_DATE* from Business Central for *Sales invoice - report ID 1306*.



The value \$Job_Range\$ also has to be entered in the Filter field in the Output Link configuration.

Information

After saving the configuration, remember to reload the scripts in ELO and to read the configuration back into Business Central.

Additional filters applying to fixed values can also be defined, for example if you want to select explicit reports. In the *Filter* field, enter the value of the corresponding DocType, for instance. You can also enter an explicit date to the *Filter* field. In this case, only postings/reports on this day are considered.

Configuration in Business Central

Open the *Job Queue Entries* list in Business Central and create a new report. In the *General* area, enable the *Show more* function and enter the required configurations.

Codeunit · 70670677 · elo-ol-batchjobs

Process Report	Actions Navigate Fev	ver option	ns		
General					Show less
Object Type to Run · · · ·	Codeunit	~	User ID · · · · · · · · · · · ·	ERP_ENTW_MBC\	
Object ID to Run · · · · ·	70670677		Maximum No. of Att		0
Object Caption to Run	elo-ol-batchjobs		Last Ready State	07.06.2021 10:50	
Description · · · · · · · · ·	elo-ol-batchjobs		Earliest Start Date/Ti		
Parameter String · · · · ·	1		Expiration Date/Time		
Job Queue Category		~	Status	On Hold	

Object Type to Run: CodeUnit

Object ID to Run: 70670677 (elo-ol-batchjobs)

Parameter String: 1 (as an example for 1 day back)

If you only want to run the report once, you can do so via *Menu > Job > Restart*. Once this is executed, the created report is removed.

To configure repeats for this report, you can configure this job with the desired parameters in the *Repeat* area. You can check via the *Job queue log entries* whether they are being run.