dox42for Finance and Operations

Documentation
Version 2.1

Solutions Factory / dox42

WHAT IS DOX42 FOR FINANCE & OPERATIONS?

It is a tool which interacts with Dynamics 365 for Finances and Operations to create customized documents. dox42 for Finance and Operations can be used for creating special reports, documents or even etiquettes in different languages, this is possible because of the multiple data sources which can be integrate into one document at the same time.

dox42 for Finance and Operations is a supplementary package for dox42. dox42 for Finance and Operations is a Custom Data Source. It consists of two data sources:

- dox42 for Finance and Operations Data Source – Uses data from standard SSRS reports.
- dox42 for Finance and Operations OData Source – Uses data from the OData API.

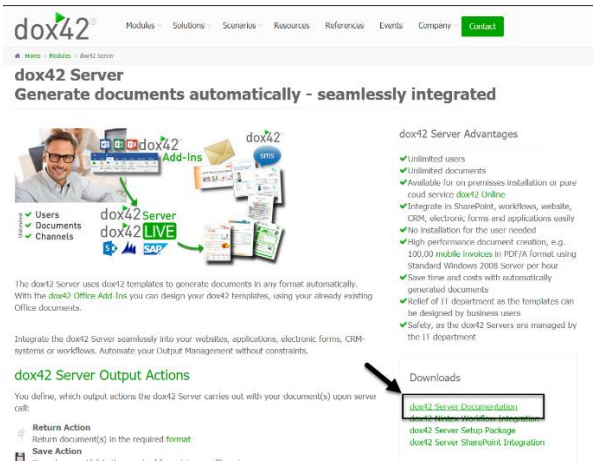
A dox42 Custom Data Source enables access to specific data sources or systems, additionally to the already predefined data sources.

INSTALLATION

Installation of the dox42 Server

How to setup the dox42 Server is documented on the dox42 Website:

https://www.dox42.com/Modules/dox42-Server

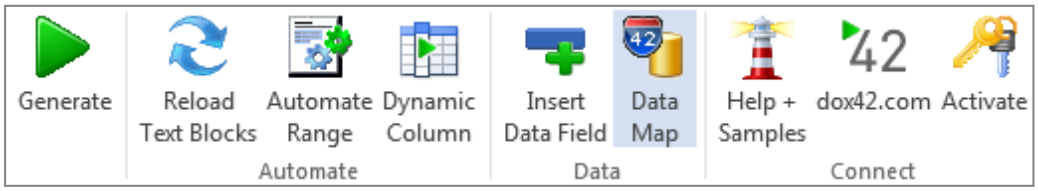


Installation of the dox42 for Finance and Operations Office Add-Ins

The download files for the Office Add-Ins are available on the dox42 website:

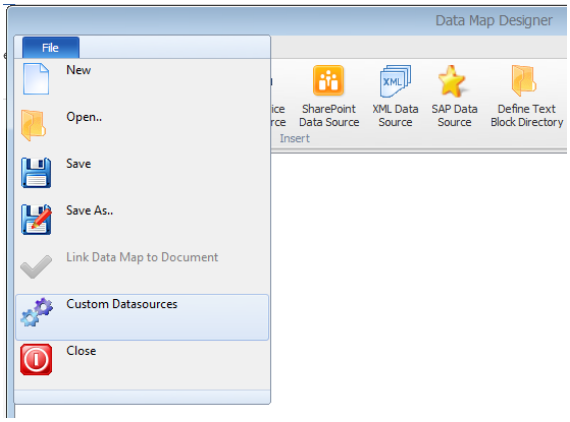
https://www.dox42.com/Modules/Download

Save the dox42 for Finance and Operations files to a fixed directory on the computer, which will be used for dox42 report design. Unzip the file **dox42forOperations-<Version Number>.zip.** The files will not be copied during installation and need to remain on the selected path, otherwise dox42 won't be able to find the binaries of the new data sources.

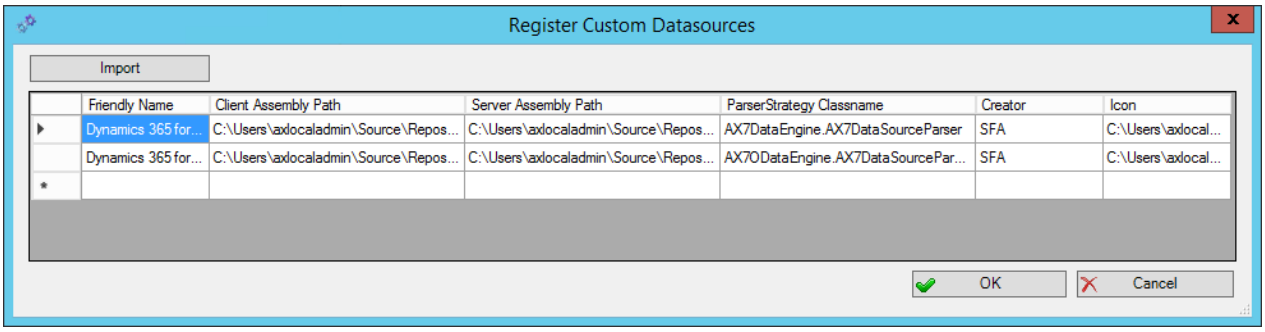


Start Word/Excel, activate the dox42-Ribbon and select **„Data Map"**.

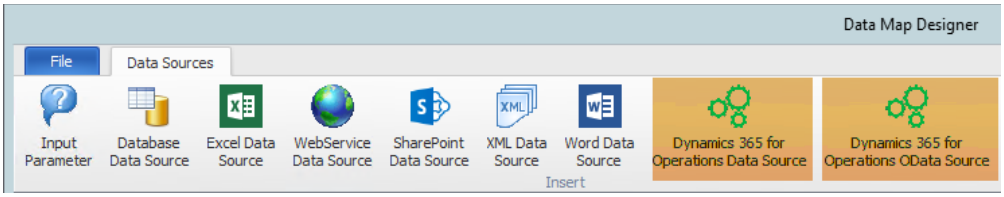
In the Data Map Designer select **„Data Map"**. Open the File-Menu and select **„Custom Datasources"**.



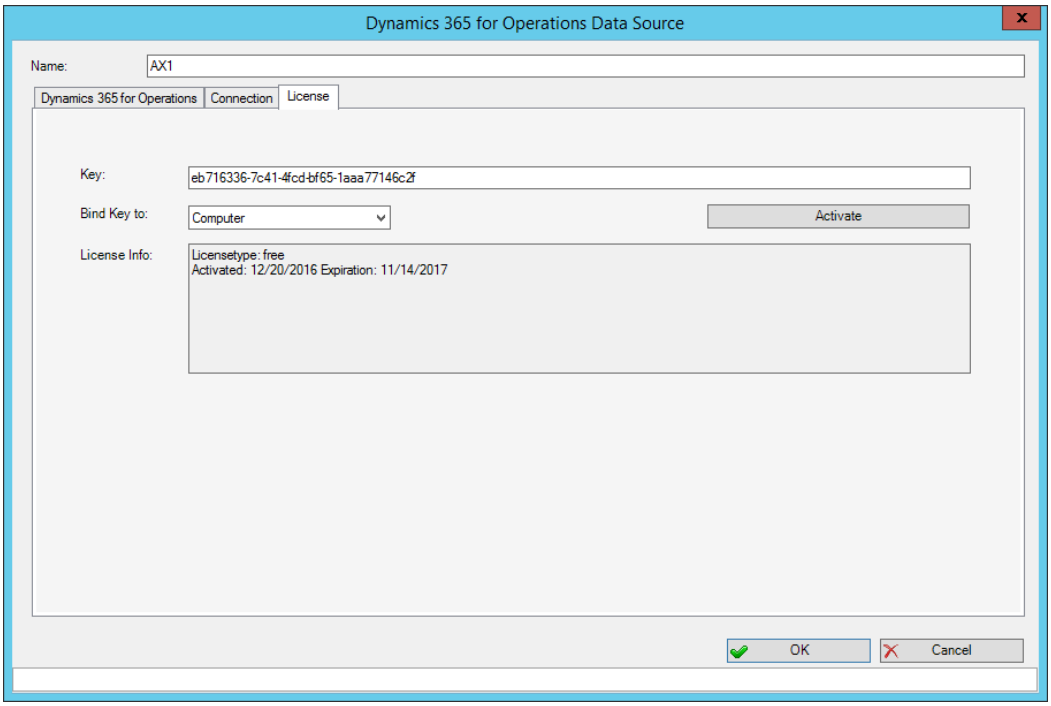
In the dialog **„Register Custom Datasources"**, import the configurations **(dox42OperationsDataSourceImport.config and dox42OperationsODataSourceImport.config)**. This way, the configurations will be defined in the Custom Data Source.



Now, the Custom Data Sources are ready for use as any other dox42 data source.



Next, the license key should be activated. To do that, simply click on "Dynamics 365 for Operations Data Source" and go to the tab called **"License".** Insert the license key here and click "Activate". After activating the license, the dialog can be closed with cancel or close button.
NOTE: The same key will also work for the OData Source.



Installation of dox42 for Finance and Operations for dox42 Server

To use the Custom Dynamics 365 for Operations Data Sources on the dox42 Server, please copy the following Assemblies in the /Bin directory on the dox42 Server:

- AX7DataEngine.dll
- AX7ODataEngine.dll

The new Custom Data Sources must be registered in the **web.config** of the server.

```
<customDataSources>
<add key="AX7DataEngine.AX7DataSourceParser"  value="AX Custom DS;c:\dox42Server\bin\AX7DataEngine.dll;"/>
<add key="AX7ODataEngine.AX7DataSourceParser" value="AX OData Custom DS;c:\dox42Server\bin\AX7ODataEngine.dll;"/>
</customDataSources>
```

Furthermore, please insert the license key in the **web.config**:

```
<appSettings>
        <add key="LicenseFilePath" value="c:\dox42Server\License" />
        <add key="LicenseKey" value="…"/>
        <add key="dox42AXLicenseKey" value="…"/>
        <add key="MailServer" value="smtp.1und1.de"/>
        <add key="dox42ServerMail" value="mydox42server@dox42.com"/>
        <add key="MailServerPassWord" value="…"/>
        <add key="SendErrorsToMail" value="mymonitoring@dox42.com"/>
        <add key="Certificate" value="c:\ dox42Server\Certs\Certificate.pfx"/>
        <add key="CertificatePassWord" value="…"/>
        <add key="CheckServiceHeader" value="true"/>
        <add key="UserPermissionODBCConnectionString"
            value="Driver={SQL Server Native Client 10.0};Server=…;Database=…;Uid=…;Pwd=…;"/>
        <add key="CheckUserPermissionSQL"
            value="SELECT COUNT(*) FROM Users where Username =
            '%username%' and Password = '%password%'" />
        <add key="ThrowExceptionOnError" value="false"/>
</appSettings>
```

For further details also take a look at the dox42 Server Documentation: www.dox42.com/dox42Server.aspx.

Installation of dox42 in Dynamics 365 for Finance & Operations

Dox42 for Finance & Operations adds a "dox42" package to Dynamics 365 for Finance & Operations. The package contains all the integration components needed to seamlessly create documents directly from the Dynamics web client.

You could either install the Deployable Package or the Source Code. The Deployable Package contains the binaries only, the Source Code can be useful in case you want to develop your own extensions or if you want to debug something.

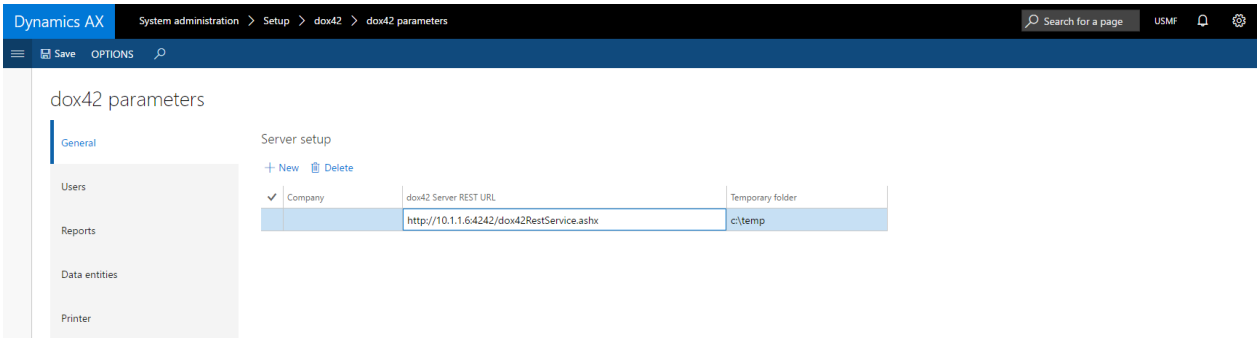
Regardless of which option you chose, we recommend integrating the solution into your Azure Dev Ops Repository. This allows to deploy the dox42 package as part of your regular build and release process.

You will find further information on https://docs.microsoft.com/en-us/dynamics365/unified-operations/dev-itpro/deployment/apply-deployable-package-system as well as https://docs.microsoft.com/en-us/dynamics365/unified-operations/dev-itpro/dev-tools/manage-runtime-packages.

After successfully installing the deployable package, the next step is to configure Dynamics 365 for Operations to work with the dox42 Server.

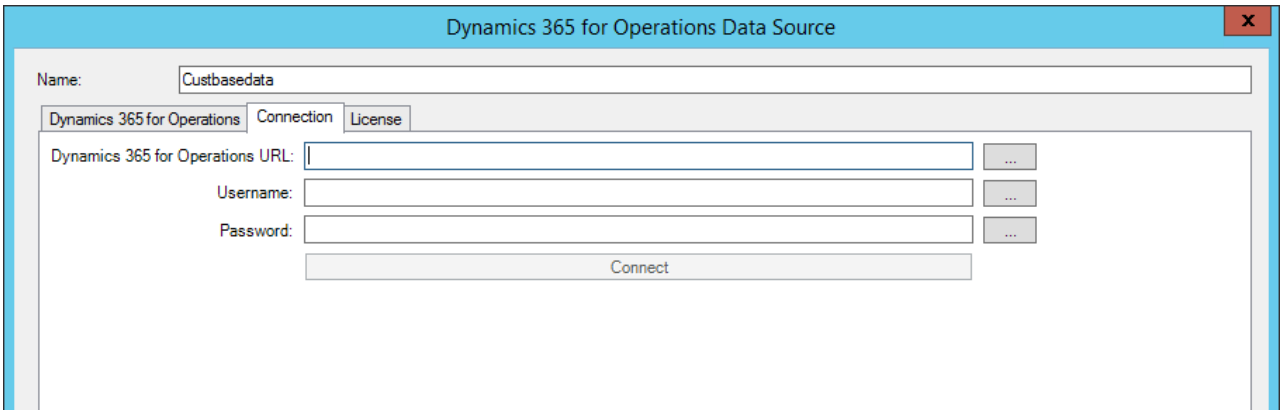
Under **System administration > Setup > dox42 > dox42 parameters**, select the **General** tab page. Create a new Server setup record by clicking on **New**.

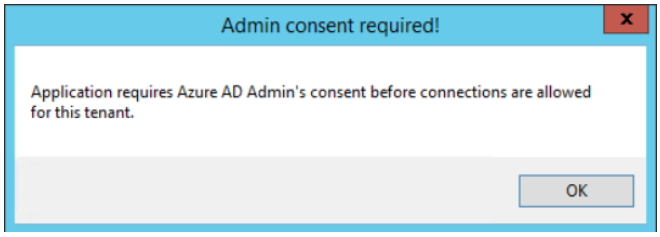
Under the column **dox42 Server REST URL**, enter the path to the dox42 server service. At **temporary folder**, enter the directory which Dynamics 365 for Operations and dox42 will use, to store temporary files.

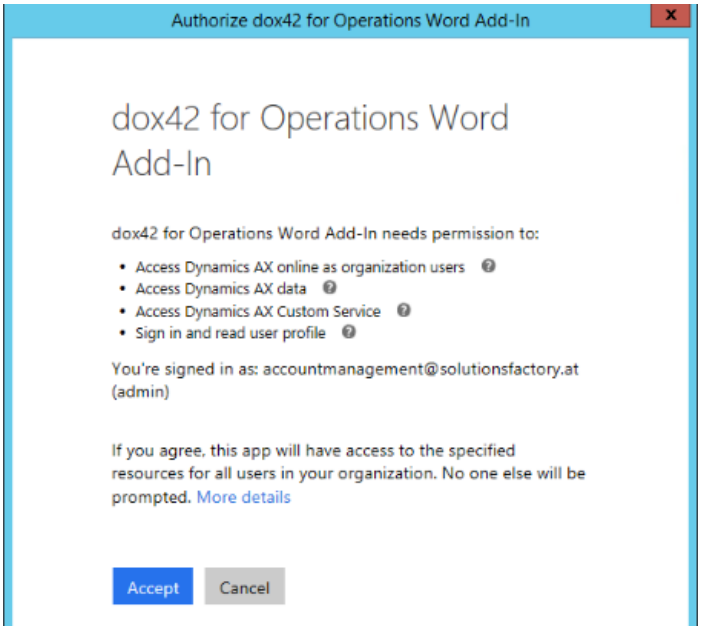

Dynamics AX
System administration > Setup > dox42 > dox42 parameters
Search for a page
USMF
Save
OPTIONS
dox42 parameters
General
Users
Reports
Data entities
Printer
Server setup
New
Delete
Company
dox42 Server REST URL
Temporary folder
http://10.1.1.6:4242/dox42RestService.ashx
c:\temp

dox42 for Finance and Operations Setup Connection to Dynamics 365 for Operations

To establish a new connection to your dox42 for Finance and Operations instance, simply fill out the form in the “Connection” tab. Please note, that on the first run through of the authentication process, an Azure AD Admin must approve/consent the application, to allow the sign in of users and access to the data.







You can use data fields of another data source for every value in the “Connections” tab. This way, you can enter username and password once in a central place and use it for different connection, more is described in later chapters.

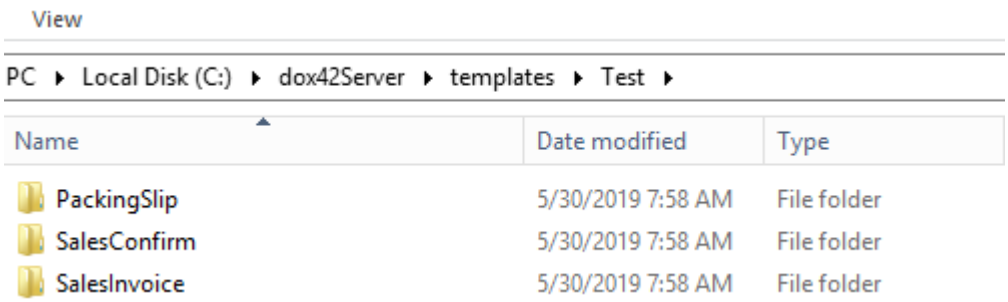
WORKING WITH DOX42 REPORTS

Basic setup

Creating a folder structure for efficient working

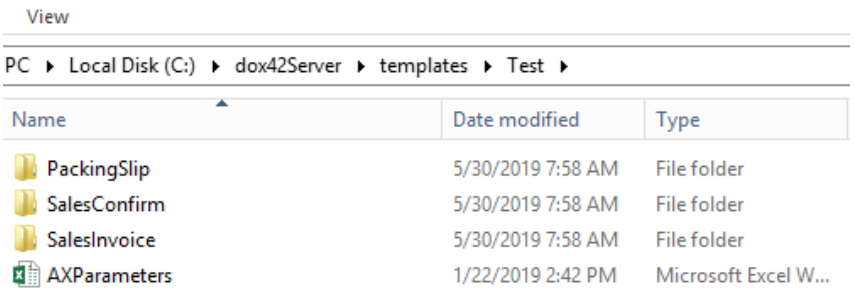
1 Create one folder for each environment

2 Create a folder for each report which should be designed in dox42



3 Insert a Word document into the report folder which will be used as a template to design the report.

4 Create an Excel document and save it on the root folder above the system folder, this file will be used for saving the connection information (in this case it is named “AXParameters”)



Components of a report

A report consists of the following components:

- Word document with a Add In
  This Word document shows the basic structure of the report, it contains all design components which are later represented in the finished report.

- Connection Excel file:
  The connection file stores all the information which are needed to create a connection to the Dynamics 365 for Finance and Operations

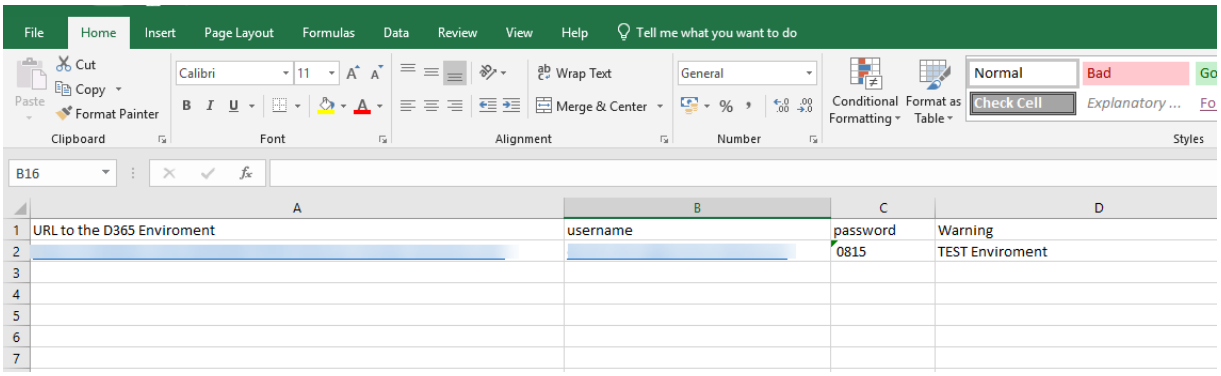
- Data Map
  The Data Map is necessary to get access to all required information like the connection Excel file or the data sources.

Setup of the connection Excel file

The connection Excel file is a file which stores all needed information to create a connection to the Dynamics 365 for Finance and Operations environment. How to use it will be described in the chapter below.

Setup the connection Excel file with the columns

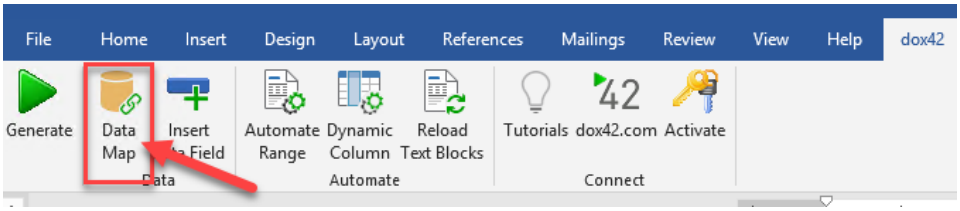
- **URL**: D365 for Finance and Operations URL
- **Username**: The AAD User
- **Password**: password (we recommend using an encrypted password as described later in the document)
- **Warning message**: warning message (will be shown as a watermark).
  Usage: e.g. if the sales invoice is printed from the test environment, to clearly show it is not an original sales invoice from a live environment



Creating a standard Data Map

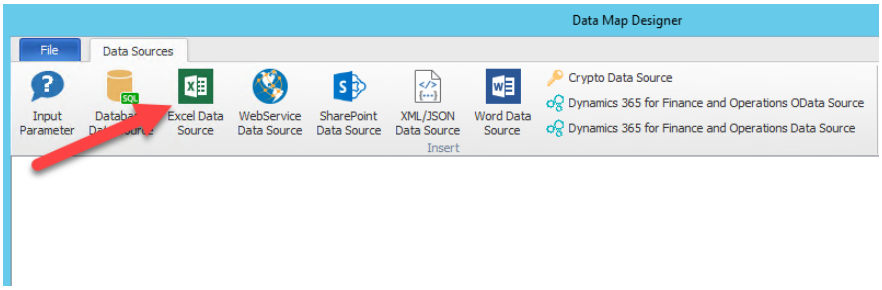
The advantage of having a standard Data Map is that it can be copied and used for other reports with minimal effort.

Open the Data Map of a template by going to the tab “dox42” and clicking on the button “Data Map”.



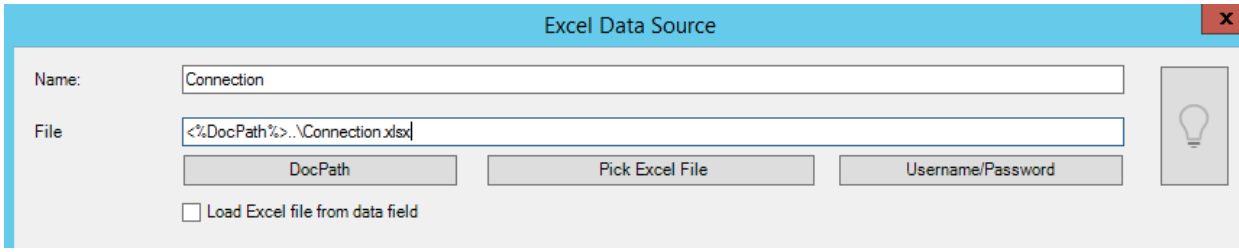
1 Setting up the connection Excel file

a. Click on the “Excel Data Source”



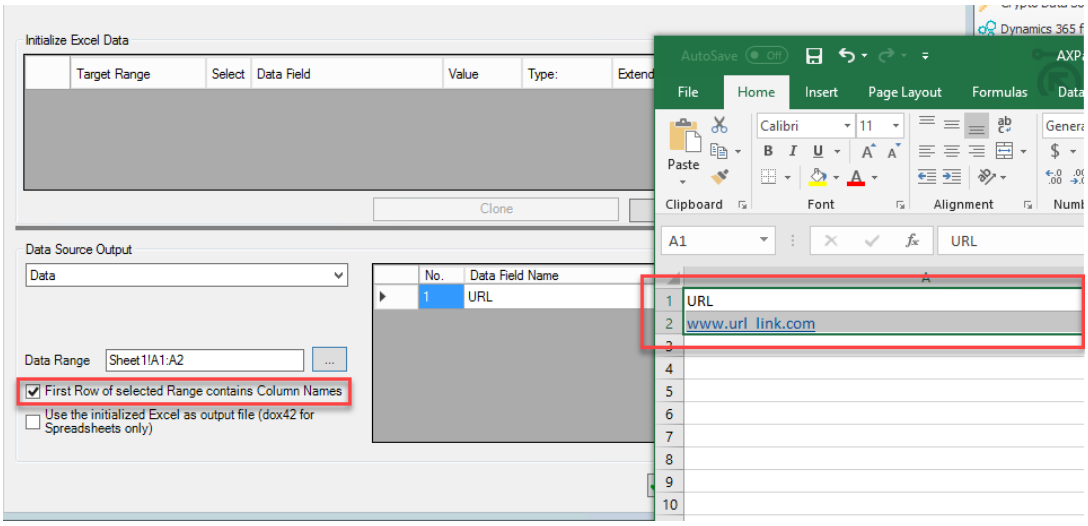
b. Insert a name for the connection file

c. Insert the path from the connection file, always using the “<%DocPath%>“. The “...\” tells the system to look a level above in the folder structure and there it will find an Excel file named “Connection.xlsx”. Using the “DocPath” makes it possible to copy the data map and insert it to another report folder without the need of changing the path.



d. Mark the checkbox “First Row of selected Range contains Column Names”

Click on the button with the three dots to select the fields from the Excel file. Mark the area with all the data. An example is displayed on the picture below.



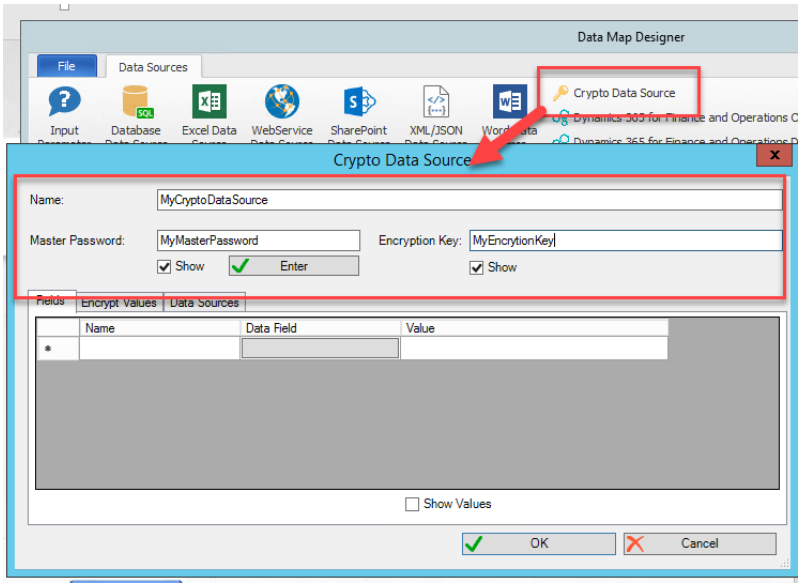
e. Click the button “ok”, now the connection file is setup.

2 Creating a **Crypto Data Source**

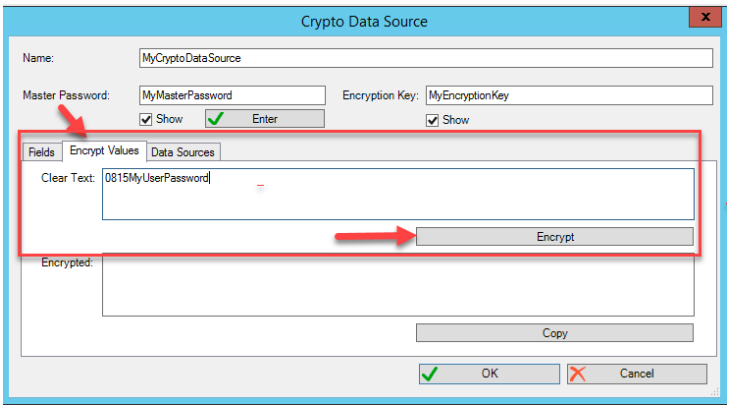
a. Click on the button “Crypto Data Source” in the Data Map

b. Insert a name for the Crypto Data Source

c. Enter a “Master Password” and an “Encryption Key”, which will be used to encrypt the password

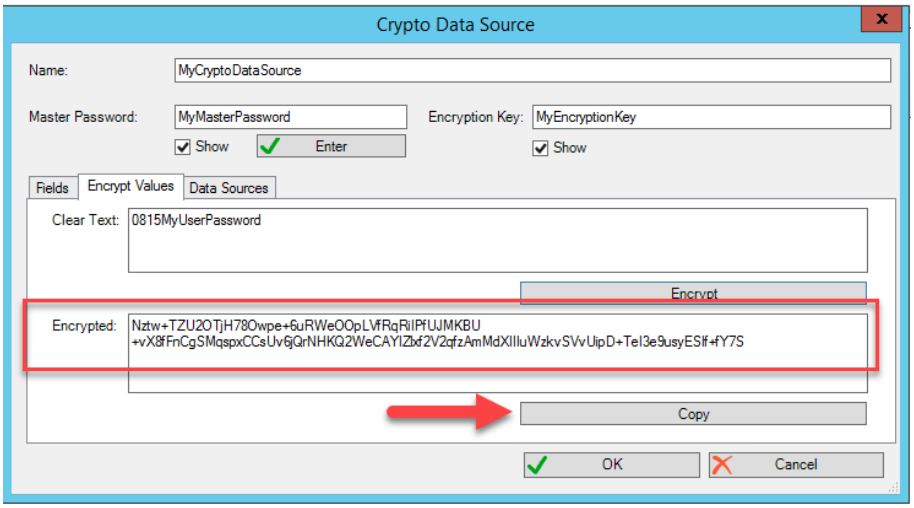


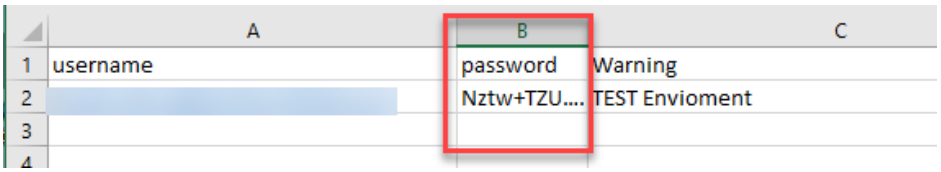
d. Click on the tab “Encrypt Values” and insert the password from the ADD User inside the field “Clear Text”.



e. Click on the button “Encrypt”

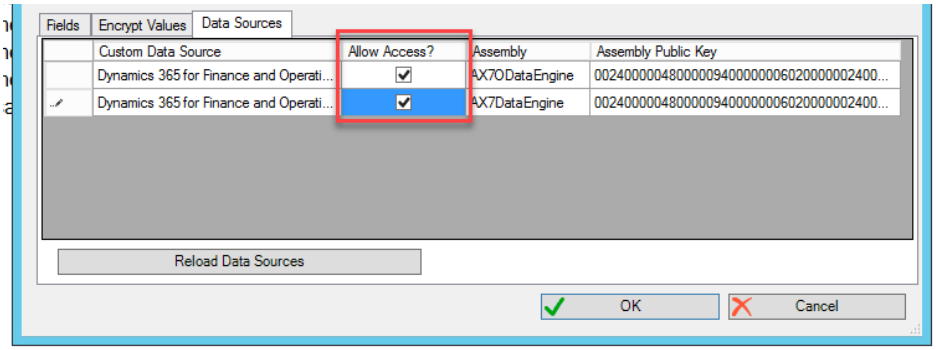
f. Copy the displayed result in the area “Encrypted” and insert it in the connection Excel file instead of the cleartext password





	A	B	C
1	username	password	Warning
2		Nztw+TZU....	TEST Enviroment
3			
4			

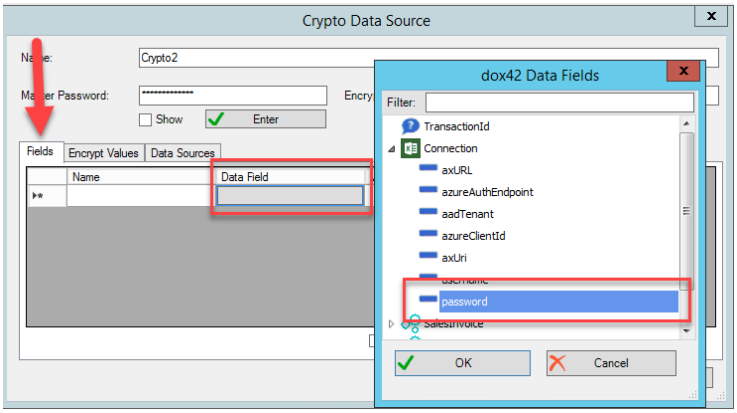
g. Click on the tab “Data Sources” and allow access to the Customer Data Sources like in the picture below.



h. Click the button “OK”

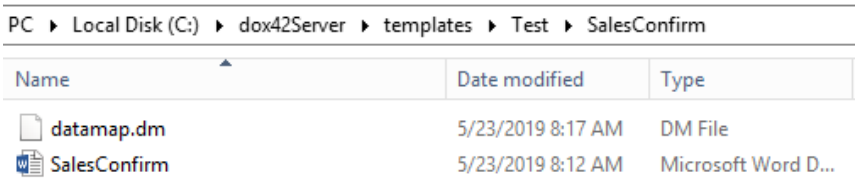
i. Open the new Crypto Data Source and click on the tab “Fields”

j. Insert a password field, with a double click on the field “Data Field”, a lookup window will appear, illustrated in the picture below. Select the password field from the connection Excel file.



k. With a click on the button “ok” the Crypto Data Source is setup

Save the Data Map in the same folder as the template. This Data Map can be copied and used in every template which works with the same Dynamics 365 for Finance and Operations environment. Each report needs a Data Map. Copy the standard Data Map and insert it into each report folder.



Create your first dox42 report

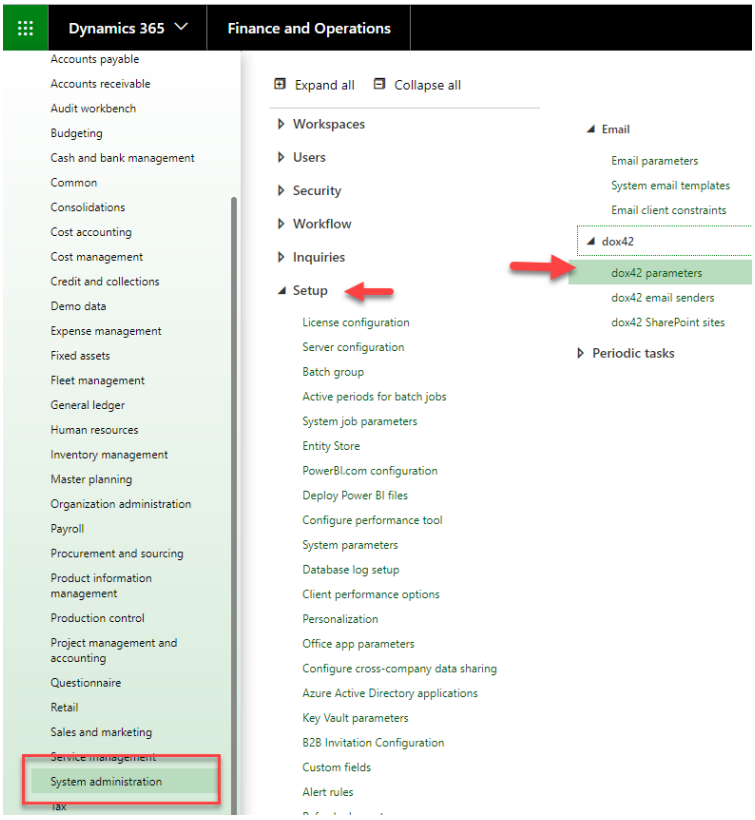
This chapter will describe how to setup a report from copying the standard Data Map to display it in Dynamics 365 for Finance and Operations.

The basic steps for creating any dox42 report in Dynamics 365 for Finance and Operations

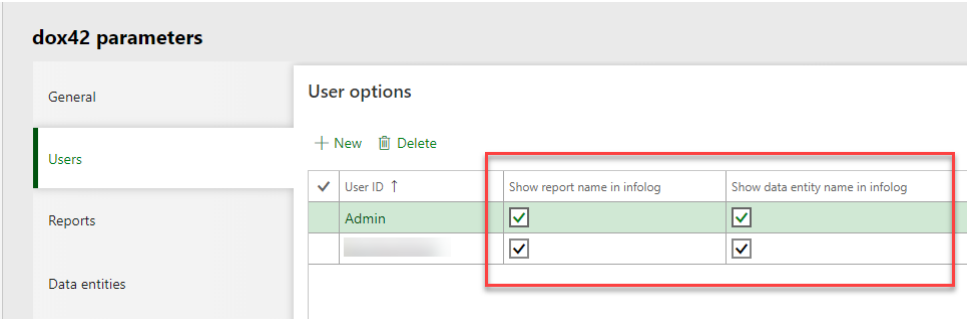
This chapter describes the presetting which are required for designing a new dox42 report, in the D365 for Finance and Operations environment.

1 Get to know which report is called

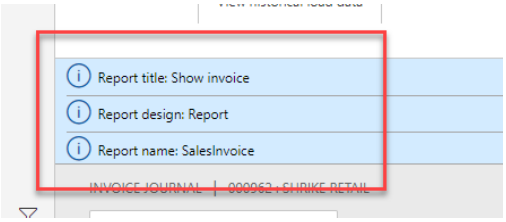
a. Go to **System administration > Setup > Business intelligence > dox42 > dox42 parameters**



b. In the tab “Users” add a new entry with the currently signed in User ID and check the **“Show report name to Infolog”** and **“Show data entity name in Infolog”** checkbox.



c. Switch back to the report (in D365) which should be designed in dox42 and print the report. An Infolog will appear with the name and the design name of the report. This information will be needed in the next step.

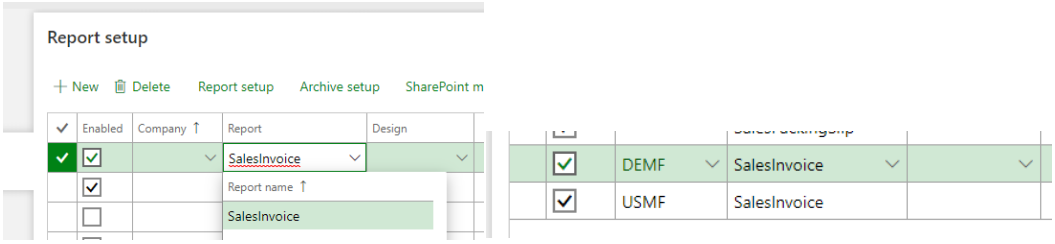


2 Setup the report

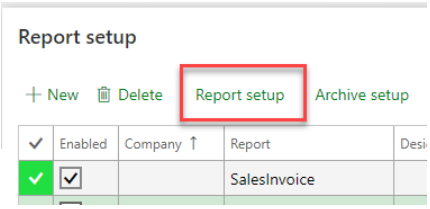
a. In the **dox42 parameters**, select the tab “Reports”

b. Create a new record.

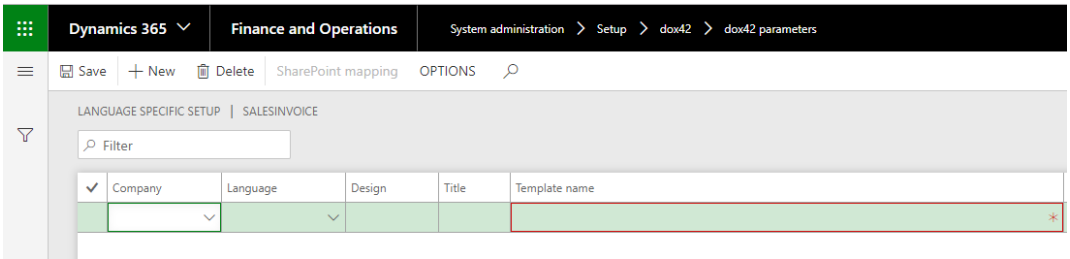
c. Select the report name which was displayed in the first step. D365 provides to possibility to setup the same report multiple times and divide it by the company like in the second picture below.



d. Mark the report and click on the button “Report setup” and create a new record



e. Insert the path of the template e.g. C:\dox42Server\templates\Test\SalesInvoice\SalesInvoice.docx



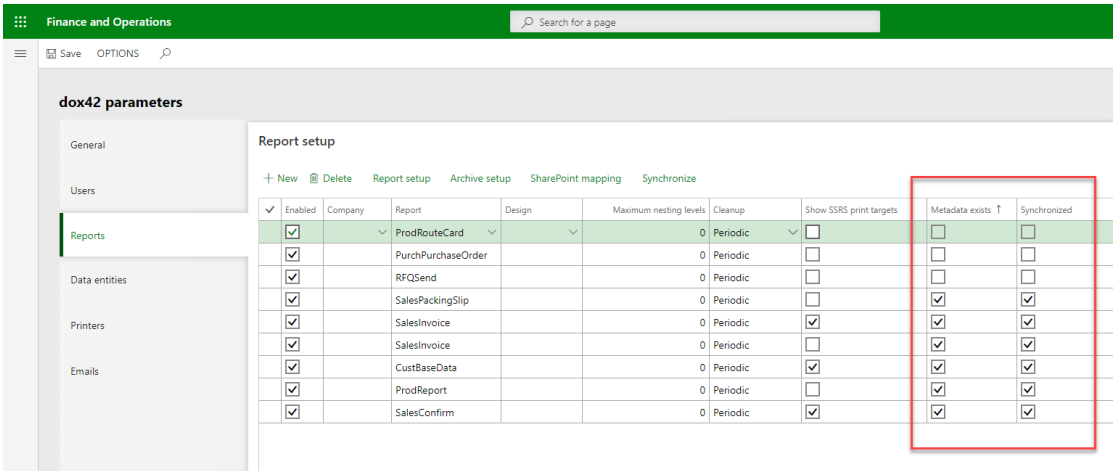
It is possible to create more than one template for the same report and divide it by company and/or by language.

Language	Design	Title	Template name
en-us			C:\dox42Server\templates\Test\SalesInvoice\SalesInvoice_EN.docx
de-at			C:\dox42Server\templates\Test\SalesInvoice\SalesInvoice_DE.docx

3 Get the Metadata for the report

a. Print the report

b. Check if the checkboxes by the report setup are marked like in the picture below, the system will automatically synchronize the report.



Now the report is available for the templates on the dox42 Server, which are needed below.

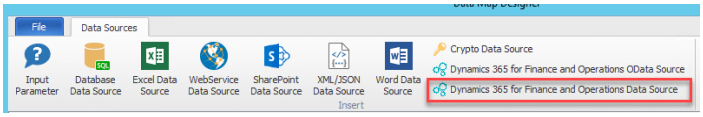
Setup the Data Source

This chapter will describe the basic steps to setup a Data Source as well as the first steps of designing a report. Data Sources are always setup the same way. For each table of the report is a new Data Source needed. In a chapter before a standard Data Map was created and copied into the folder of the reports.

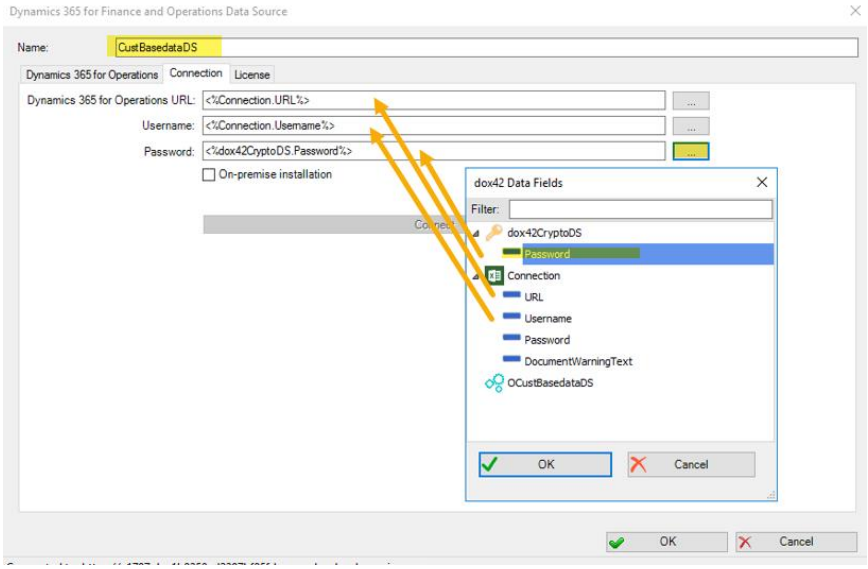
1 Setting up the Data Source

a. Open the standard Data Map of the template which should be designed

b. Choose the Dynamics 365 for Finance and Operations Data Source



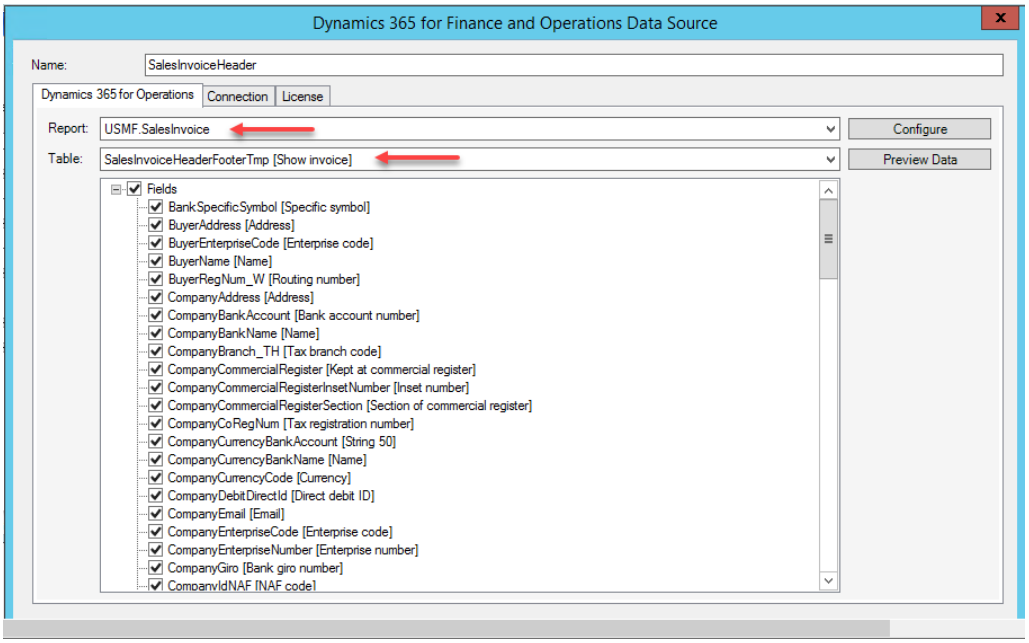
c. Choose the tab “Connection”. Click on the button with the three dots and choose the fields from the connection file for URL and Username, for the password choose the Crypto Data Source as illustrated in the picture below.



d. Check the connection by clicking on the button “Connect”.

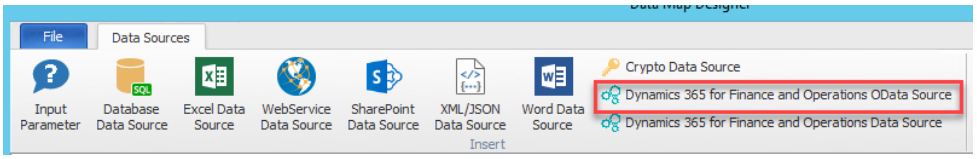
e. Click on the tab “Dynamics 365 for Operations” and choose the desired report. Select the needed table and mark all the fields as displayed in the picture below. The fields of the table will be displayed in the box “dox42 Data Fields”, described in the third step.

Note: a report contains often more than one table, e.g. a SalesInvoice has a SalesInvoiceHeader table and SalesInvoiceLines table, for each table is a new Data Source needed.



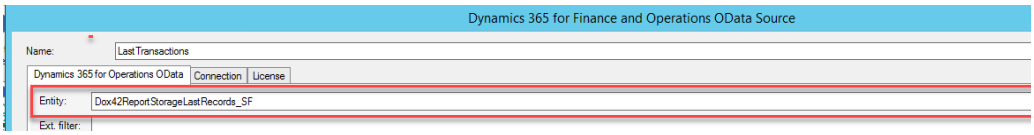
2 Getting always the last transaction ID, if the generate button is clicked (the generate button is described in the chapter below).

a. Create an OData Data Source by clicking on the Data Source “Dynamics 365 for Finance and Operations OData Source”

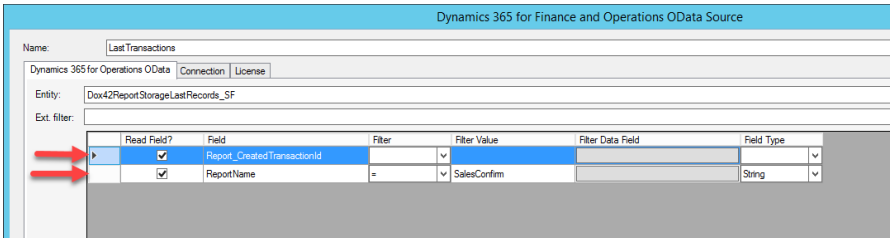


b. Insert a name and click on the tab “Connection”, setup the connection like before by the “Dynamics 365 for Finance and Operations Data Source” data source.

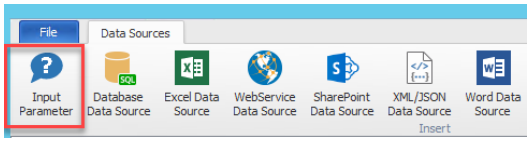
c. Search in the entity drop-down menu for the report “Dox42ReportStorageLastRecords_SF”



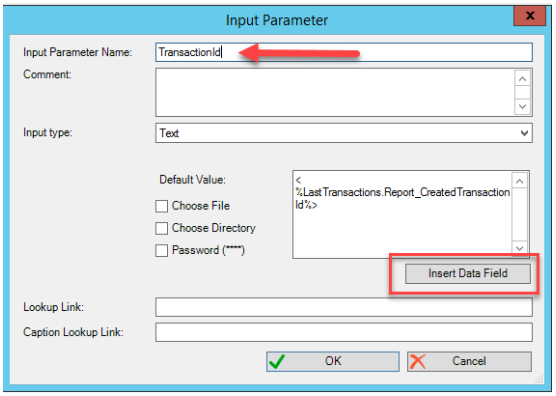
d. Setup the fields like in the picture below.



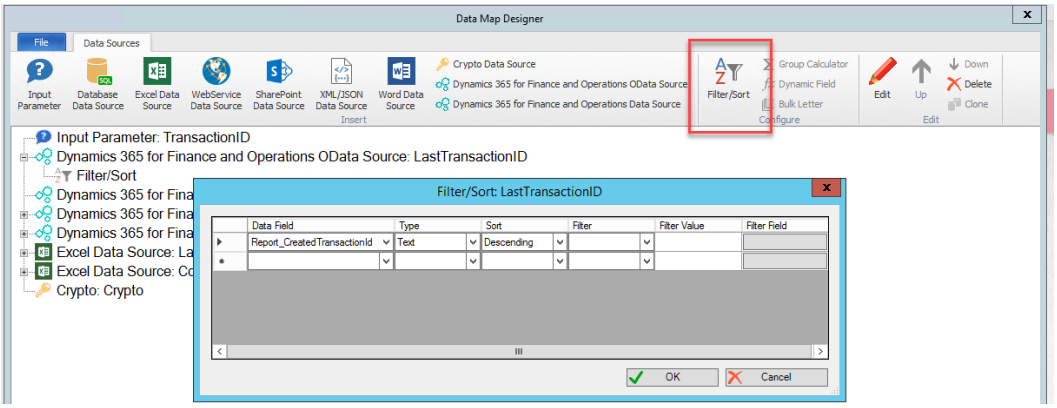
e. Click on the button “Input Parameter”



f. Insert a name. Click on the button “Insert Data Field” and choose from the OData Source the field “Report_CreatedTransactionID”. The result is displayed in the **Error! Reference source not found.**.



g. Mark the OData Source and click on the button “Filter/Sort”, displayed in the picture below. A lookup window will appear. Insert the data which are shown in the picture below. The data in the OData Source have to be sorted, that the report always uses the last transaction ID when generating a report.

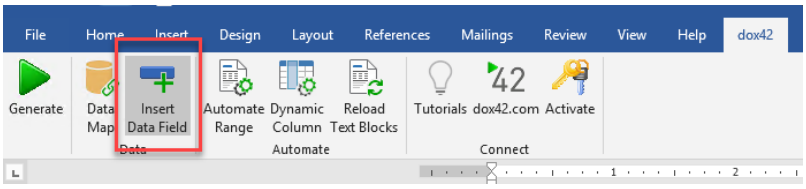


3 Insert placeholders into the template with the button “Insert Data Field”

Those placeholders represent the data fields which were marked in the first step while creating the “Dynamics 365 for Finance and Operations Data Source”.

a. Create e.g. a simple table in the template.

b. Click on the button “Insert Data Field”, a data box will appear with all the components of the Data Map.



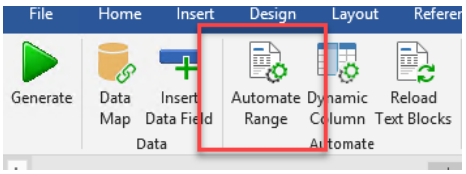
c. Choose one field and drag it to the desired place.

d. Select the desired data format for the selected field, further details are described in the “Data formats” chapter.

4 Setting an automatic range to show e.g. invoice lines in a table

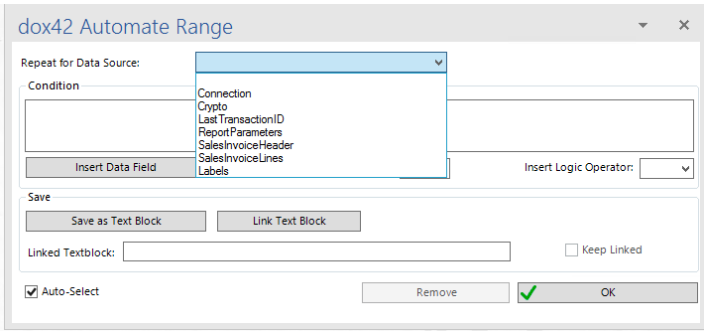
a. Mark the field with the placeholder, which should be in the range.

b. Click on the button “Automate Range”



c. Select the required data source from the drop-down menu “Repeat for Data Source”

If only one condition is required and no loop with condition, no data source needs to be selected.

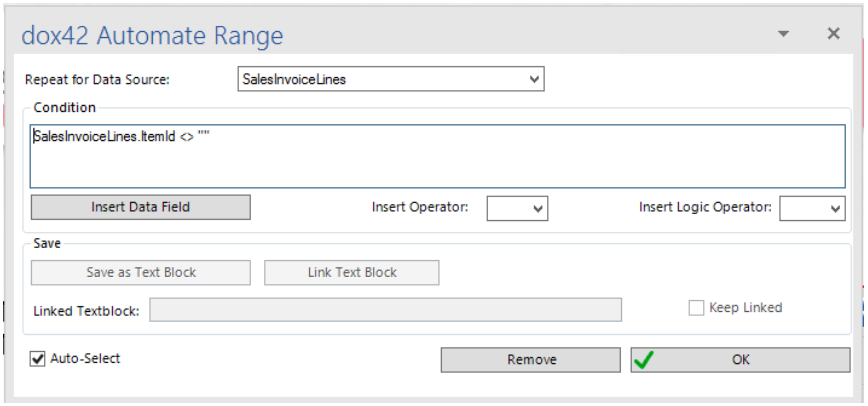


d. Click on the button “Insert Data Field” and choose the field which are required for the condition.

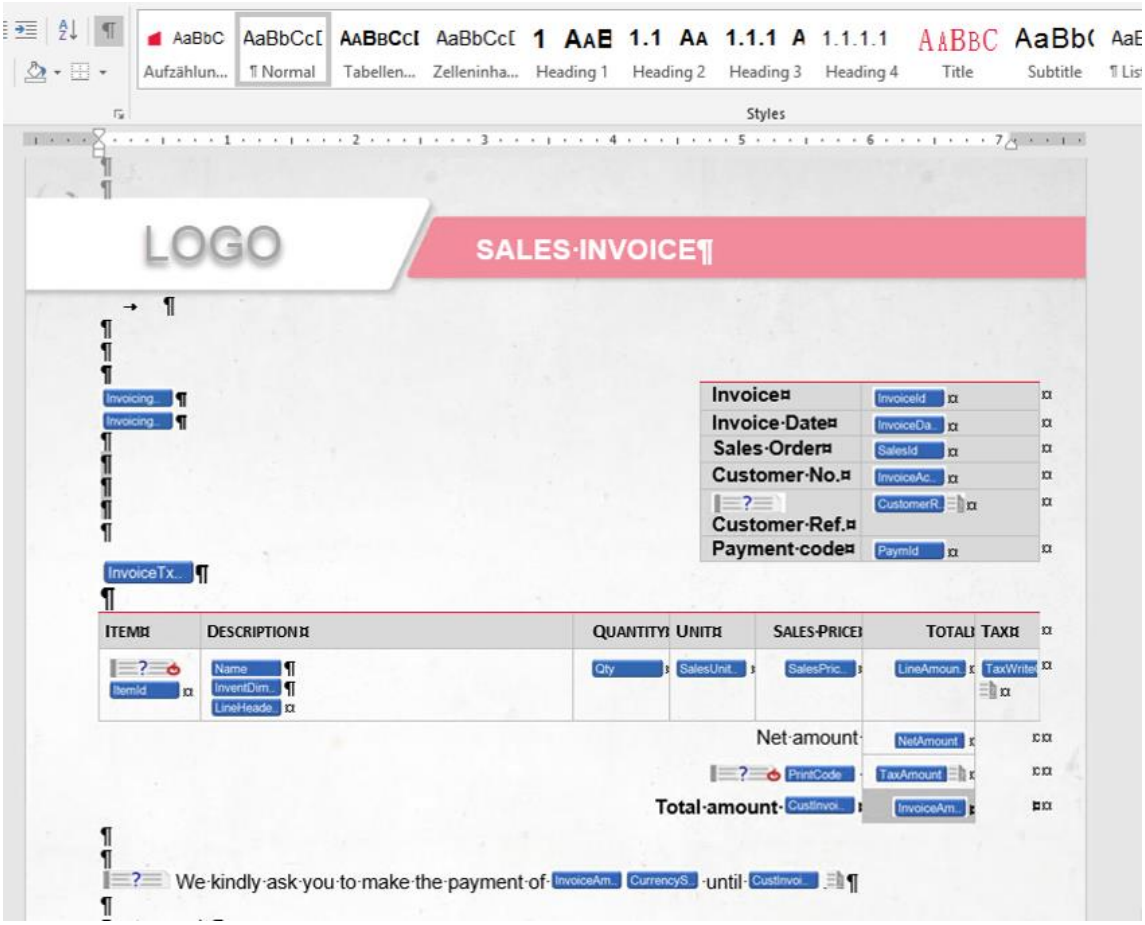
e. Select an operator from the drop-down menu “Insert Operator”.

   If more than one condition is need, it is possible to combine the condition with the operators from the drop-down menu “Insert Logic Operator”.

The picture below is an example for a condition loop in a SalesInvoice template, which has the meaning “as long as the ItemId is not empty, print the next line”.



A finished SalesInvoice template could look like the image below:

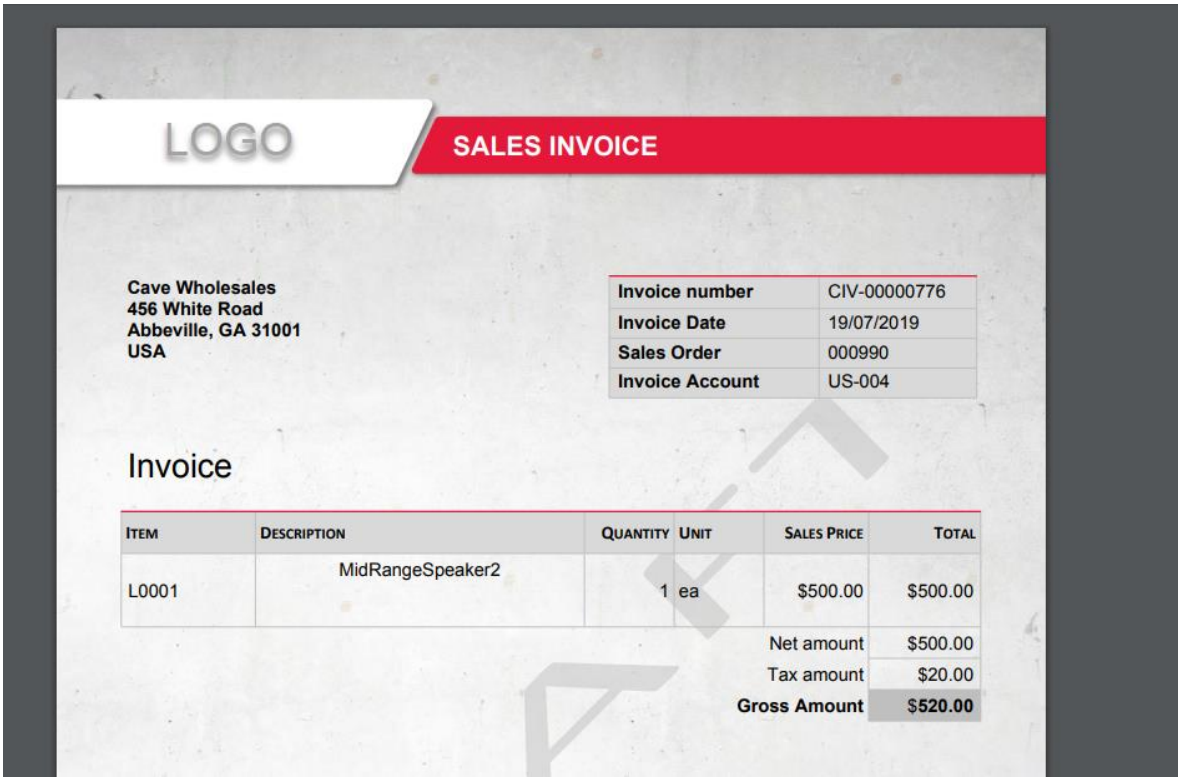


5 Switch to the Dynamics 365 for Finance and Operations and print the report to the screen.

a. Go to the report which should be printed for example the sales invoice

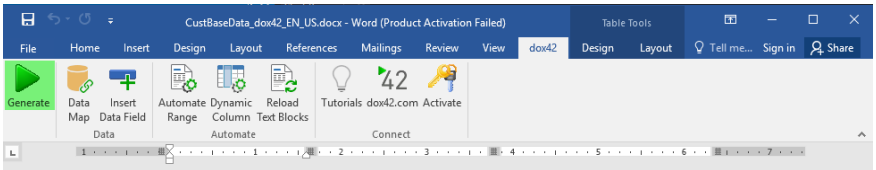
b. Mark the sales invoice which should be posted

c. Dynamics 365 for Finance and Operations will automatically choose the dox42 report, if it is setup and activate in the dox42 parameters.



The button "Generate"

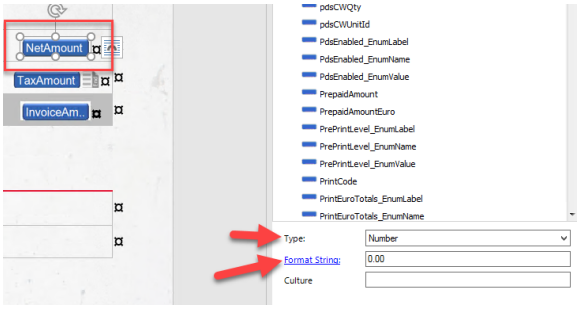
Word as many design tools that makes is easy to design a perfectly looking report, but it is necessary that changes are shown as quickly as possible to save time while for example testing a new layout. Therefore, dox42 provides the generate button, which will demonstrate how the report will look like in Dynamics 365 for Finances and Operations.



If the generate button was clicked a transaction Id appears, in this case it is the last transaction id because of the setup in the chapter before. The data from the last printed report can be reused, which allows to check changes to the layout with the same data.

Data formats

There are different types and formats you can select for the placeholder. The picture below illustrates where the format of the placeholder is determined.



The “Format String” is colored blue, because it is a link to a website which describes all available data formats:

https://docs.microsoft.com/en-us/previous-versions/dotnet/netframework-4.0/dwhawy9k(v=vs.100)

Define a format

1. Choose the type which the placeholder should have by selecting it from the drop-down menu “Type”
    a. If the placeholder is a simple text, there is no need for a type
2. Decide in which format the placeholder should be displayed
    a. Hard-coded like “0.00” or “dd/MM/yyyy”
    b. Predefined formats like “C”, it is used to format a currency field. A detailed description can be found in the link above.

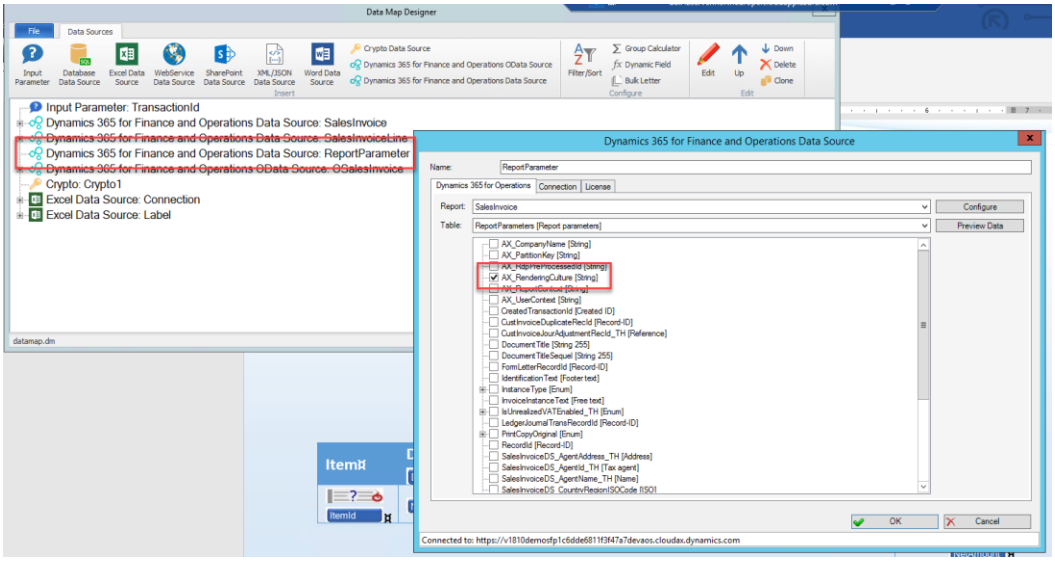
The AX_RenderingCultureParameter

There is a special parameter for different formatting preferences for example the English format with a dot and the German format with a comma, it called “AX_RenderingCulture”. Possible values are en-us, de-at, ….

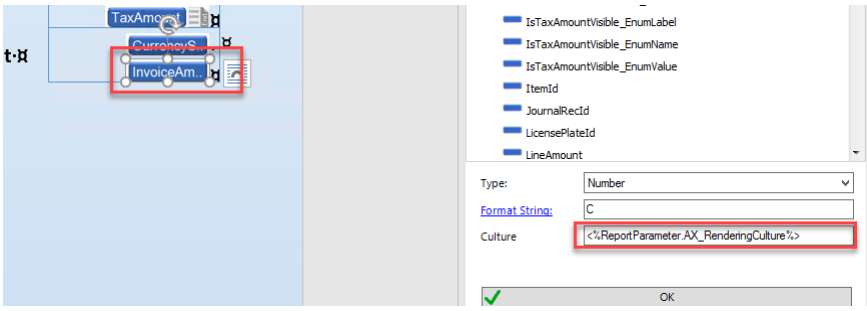
The rendering culture can be used to format data fields according to the report language. To do so, it is necessary to include the ReportParameter table in the Data Map.

The best way is to clone one of the data sources, because there is no need to fill out the connection setup again.

1. Clone a Data Source (e.g the SalesInvoice)
    a. Mark the Data Source and click on the button “Clone” (on the right side of the Data Map)
    b. Rename the Data Source and search in the drop-down menu “Table” for the ReportParameter
    c. Mark the field “AX_RenderingCultureParameter”



d. Mark a placeholder with the format “Number” and insert into the field “Culture” the following text: ““<%ReportParameter.AX_RenderingCulture%>”. The picture below illustrates it.



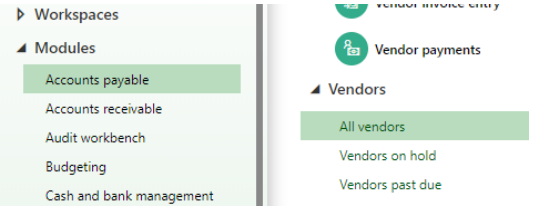
e. Make sure you click the button “OK”, because only then the parameter gets activated.

Create your first Data Entity based (OData) report

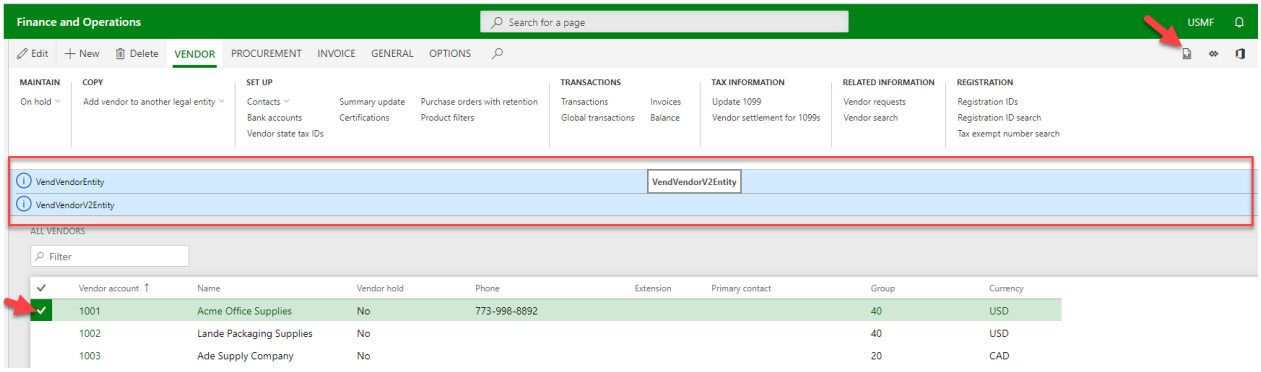
The difference between a “Data Source” based report and an OData report is, that an OData report is built up by data entities. Setting up an OData report is like setting up a “normal” report. A “Data Source” report can use all data which is sent to SSRS. If you require additional information you can extend the data source. However, you can also use an OData data source to add information without changing the SSRS data provider. It is possible to mix OData and SSRS data sources and use them in one template. On the other hand, for some reports it is not required to create the SSRS data source, you can just use a data entity to create a report without SSRS data provider.

Setup the OData report in Dynamics 365 for Finance and Operations

1. Switch to the desired information like “All vendors”



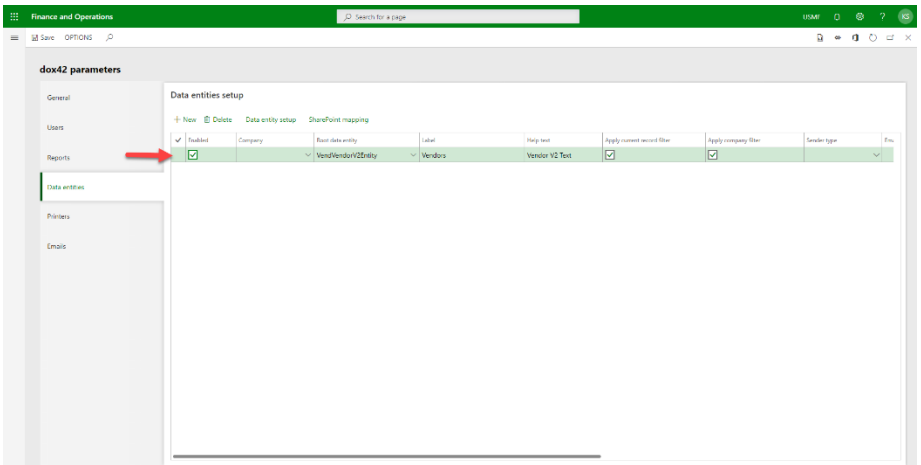
2. Mark one vendor and click the button “dox42” (on the right side), shown on the picture below. The name of the entity will be shown also illustrated on the picture below.



3. Switch to the dox42 parameters

4. Click on the tab “Data entities“

5. Choose the Root data entity (which was shown before)

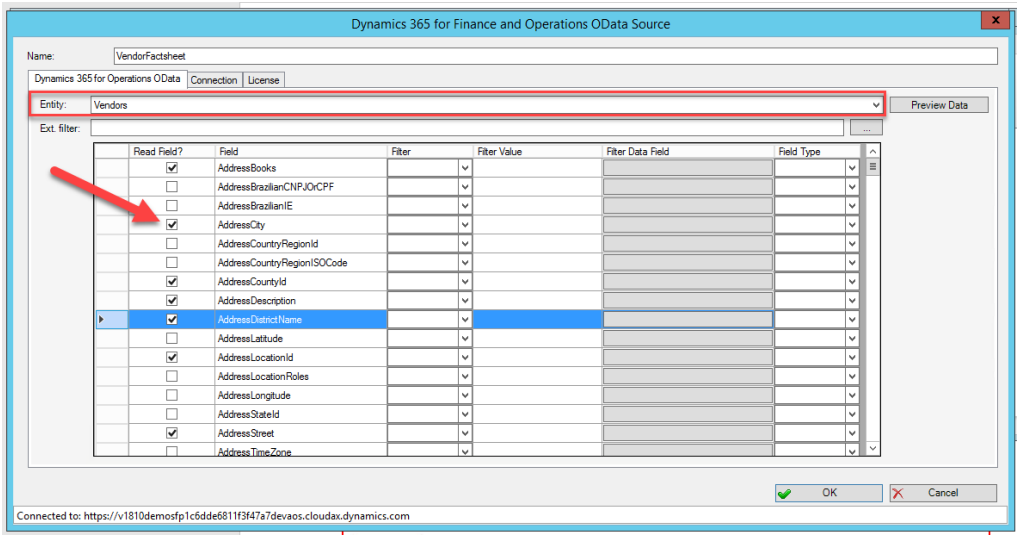


6. Click on the button “Data entity setup” and insert the path to the template.

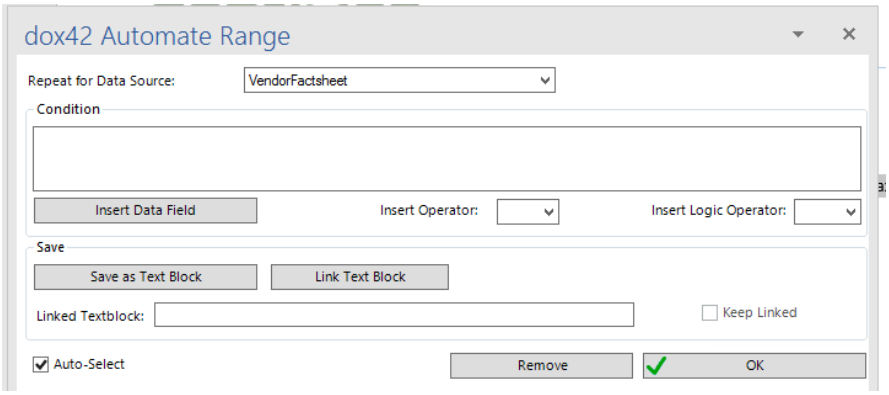
Building an OData vendor factsheet

1. Create a new Word template and insert into the Data Map a “Dynamics 365 for Finance and Operations OData Source” data source.

2. Select from the drop-down menu the entity “Vendor”, in the OData Source and mark the fields which are required for the report.



3. Design the template and define a loop like in the picture below.



Complete the template by inserting all required placeholders.

Supplier Master Data

This supplier master data sheet confirms legally binding information such as address, bank and tax master data of the supplier.

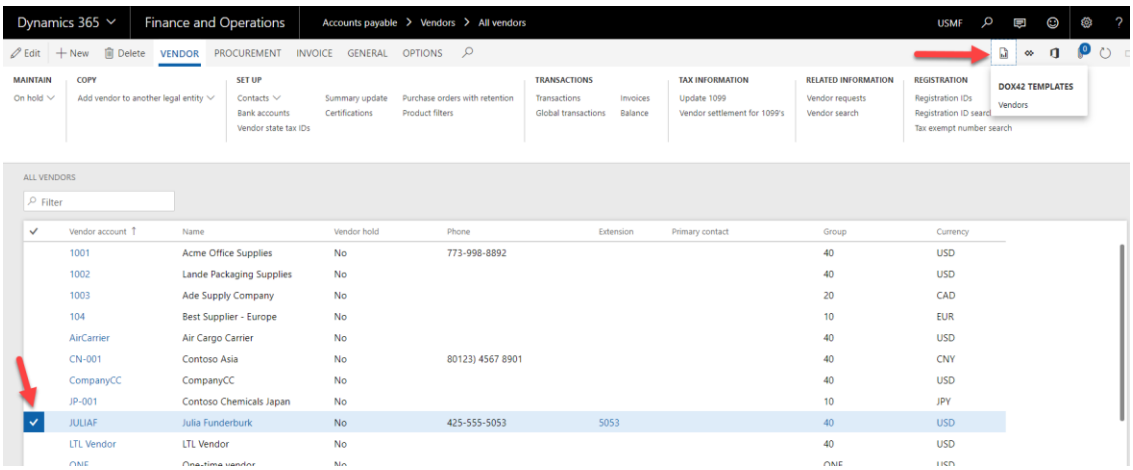
Contact address for master data management VendorOrg..

Your vendor number (with us): VendorAcc..
Company: VendorOrg..
Address: AddressSt..
AddressCi.., AddressZi..
AddressCo..
E-Mail: PrimaryEm..
Telephone: PrimaryPh..

In case of questions concerning this supplier master data sheet please contact us under the above mentioned contact data.

Address	
Street	AddressSt..
Location	AddressCi..
Zip code	AddressZi..
Country	AddressCo..
Banking information	
Currency	CurrencyC..
Payment terms	DefaultPa..
Method of payment	DefaultVe..
Discount	CashDisco..

4. Call the report from the D365 environment, the picture below illustrates it.

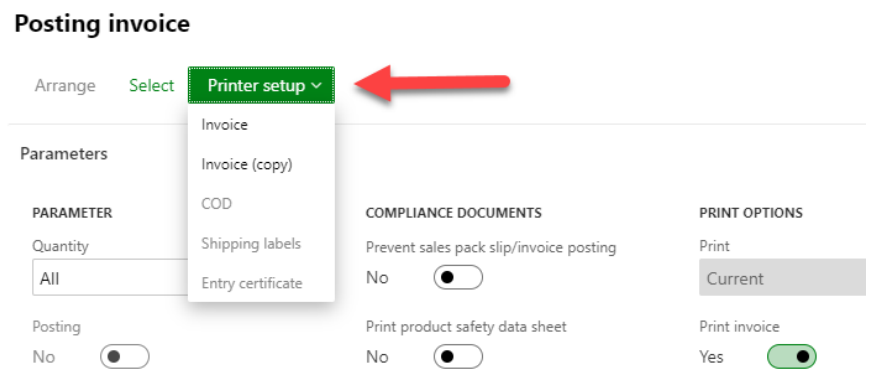


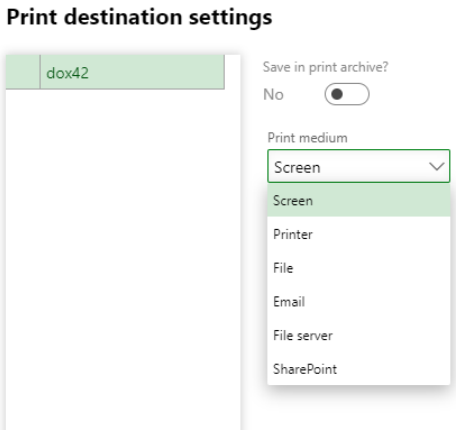
D365 INTEGRATION

Seamless integration – Regular Report, Data Entity Based report

Configure report destinations

If e.g. a sales invoice is posted there is the possibility to select different print destinations, by clicking on the button “Printer setup” as displayed in the picture below.





The behavior of the different print medium options is described below.

Screen

The report will be printed on the screen. This option will always be selected, if no other setup is done.

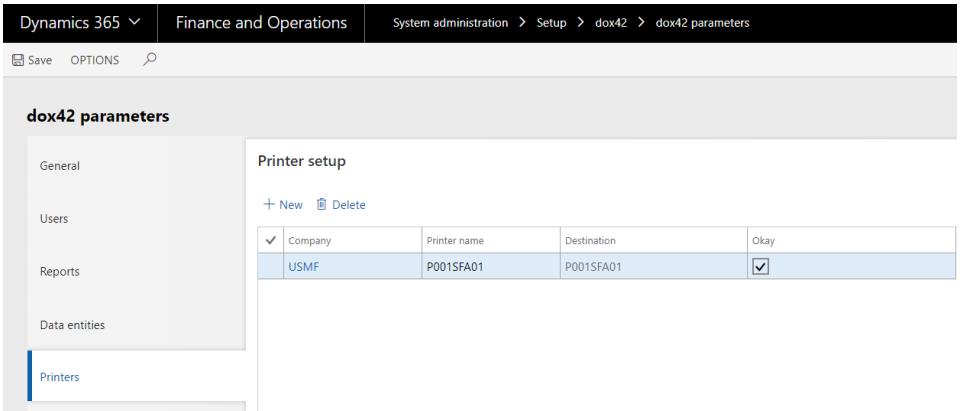
Printer

This option sends the document to the printer, if the following printer setup was performed. As a prerequisite for using physical printers, the Document Routing agent is required. The setup is documented on a Microsoft docs site.

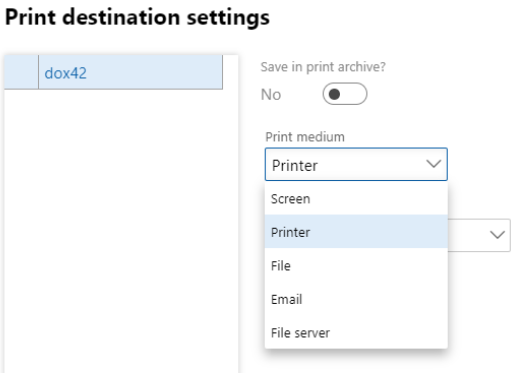
https://docs.microsoft.com/en-us/dynamics365/unified-operations/dev-itpro/analytics/install-document-routing-agent

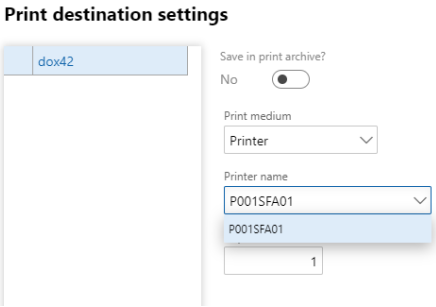
Additional steps to setup the document routing for dox42

- Register the printer in the tab “Printers”, which were defined during the setup of the document routing agent



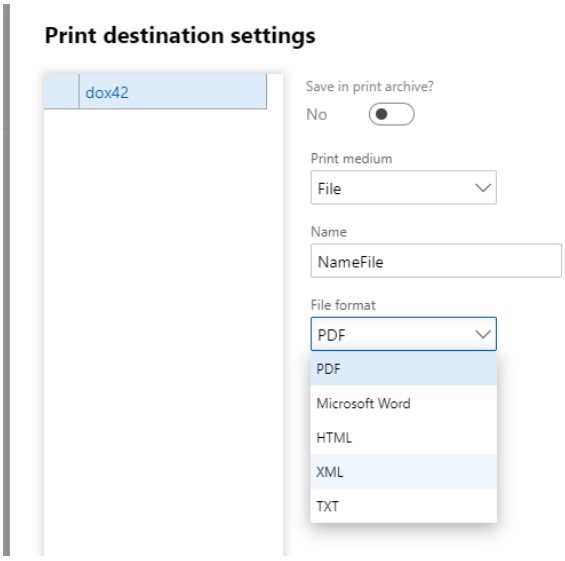
- Select the printer as the Print medium and then select the desired printer from the drop-down menu “Printer name”.





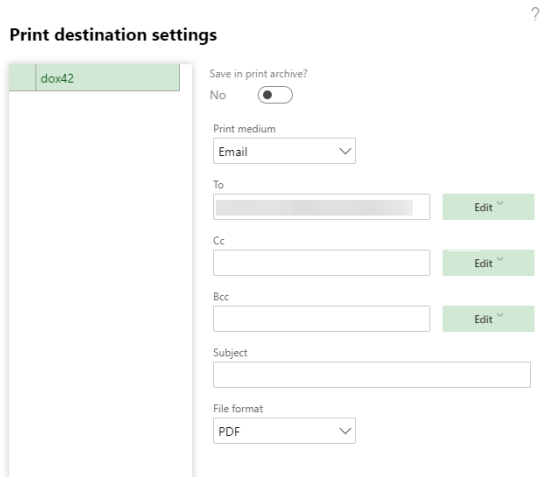
File

If this option is selected, the report will be downloaded in the predefined format. Select “File” as print medium and enter a name as well as a format.



E-Mail

D365 provides the feature to send reports via email. If this option was chosen a window like in the picture below appears.

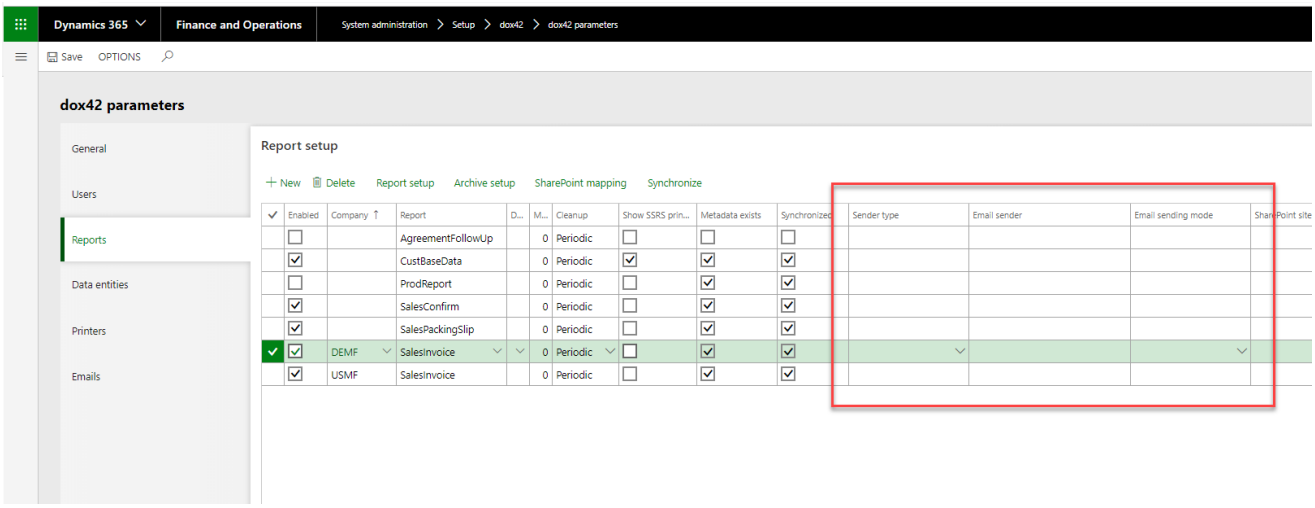


How to setup the email parameters is explained this section. Switch to the dox42 parameters.

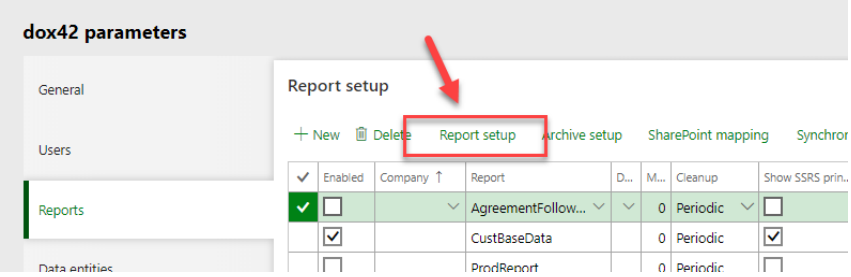
Module "System administration" > "Setup" > "dox42" > "dox42 parameters" > tab "Reports"

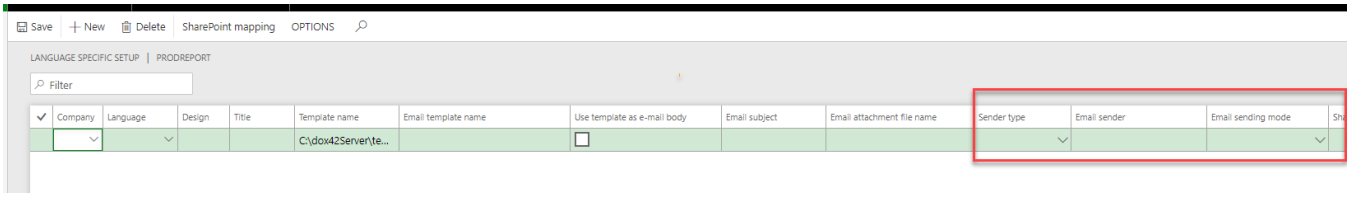
There are two ways to setup emailing parameters for a report.

The first option is to setup the emailing in the general report setup, illustrated in the picture below.

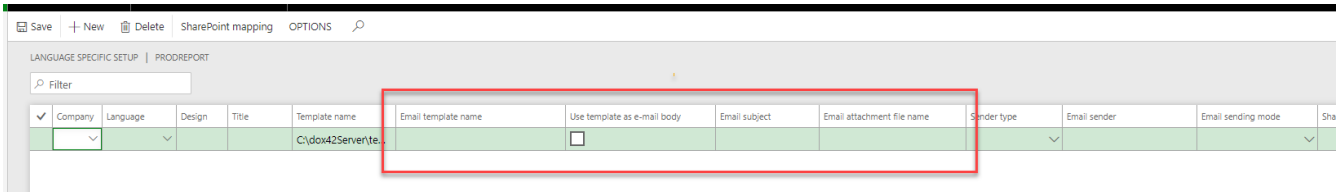


The second option is to setup the sending of emails in the report specific setup. The form of the specific report setup can be accessed by marking a report and clicking on the button “Report setup”, illustrated on the picture below.



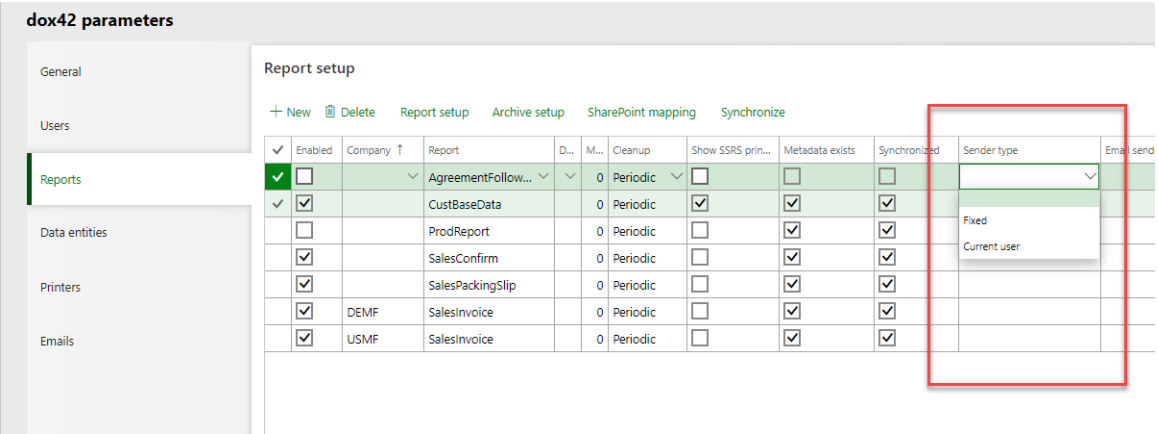


The difference between the two ways of setting up the emailing is that in the general report setup is it not possible to insert a “Email template”, “Email subject” or an “Email attachment file”. Those fields are only available in the specific report setup (displayed in the picture below).



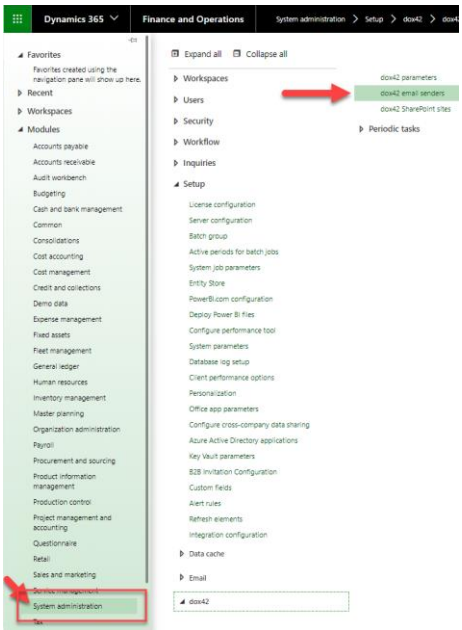
The different setups of the fields “Sender type”, “Email sender” and “Email sending mode” are explained in this section. It does not matter if the setup of those fields is in the general report setup area or in the specific report setup area.

The field “Sender type”

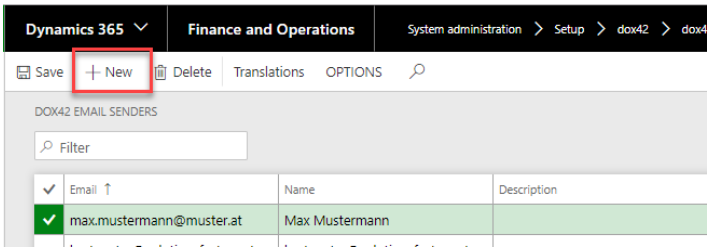


There are two types available “Fixed” and “Current user”. If the “fixed” option was selected, then a fixed email must be selected in the field “Email sender”. The available email addresses are registered in the “dox42 email senders”. How an email address is registered in the “dox42 email senders” is illustrated in the following screenshots.

Module “System administration” > “Setup” > “dox42 email senders”



With a simple click on the button “+New” it is possible to register a new email address.

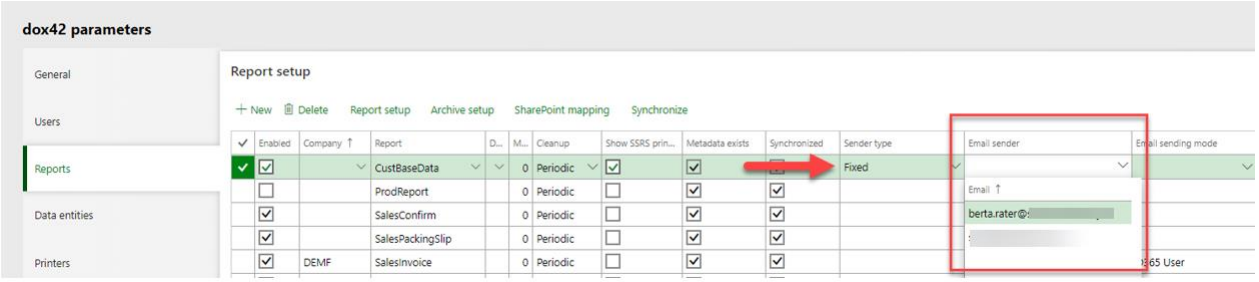


This email address will be used as sender.

If the “current” option was selected the email of the currently logged in user will be used.

The field “Email sender”

The field “Email sender” will only be used, if the field “Sender type” has the value “Fixed”.



The field “Email sending mode”

The field “Email sending mode” defines which of the setups is used for sending the email. In order to decide which value should be set in the field “Email sending mode”, it is necessary to know how each sending mode behaves. There are three sending modes/transmitter types:

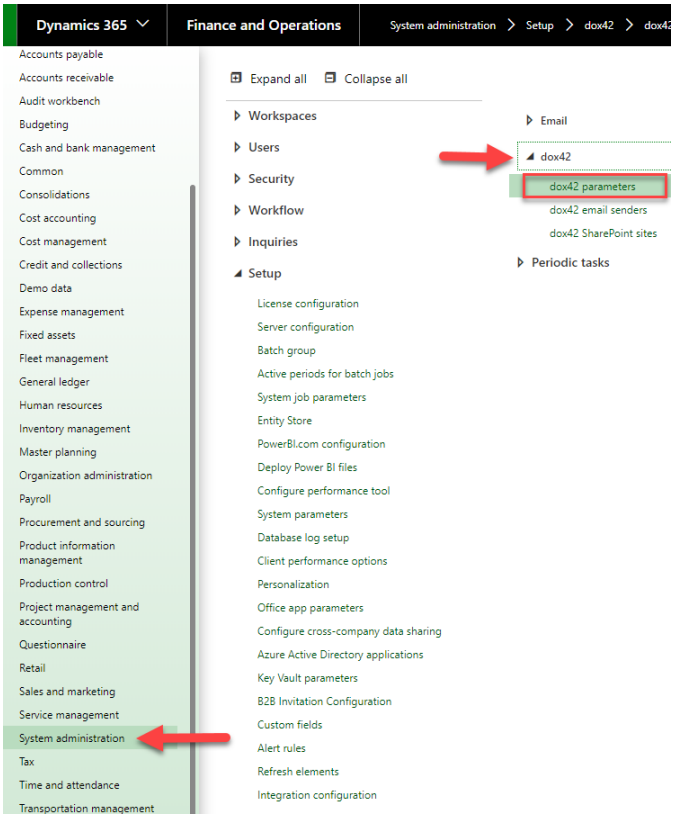
- EML – A file is downloaded in EML Format, which can then be sent via email.
- SMTP – just sends the email
- Exchange – just sends the email

The options for the field “Email sending mode” are:

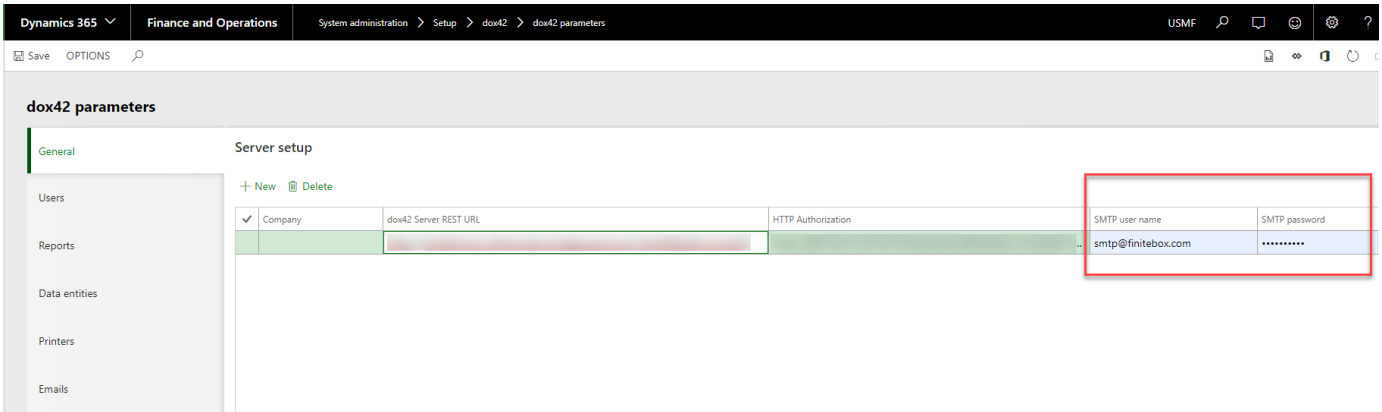
- dox42 Server
- D365 Server
- D365 User

The “**dox42 Server**” uses SMTP to send emails, the setup for SMTP parameters are on the dox42 parameters. How to get to the dox42 parameters is illustrated below.

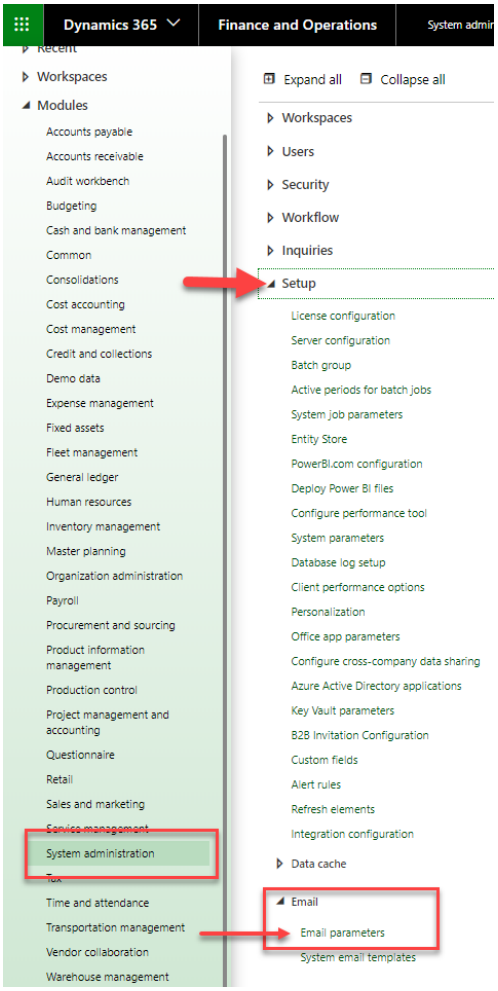
“System administration” > “Setup” > “dox42” > “dox42 parameters”



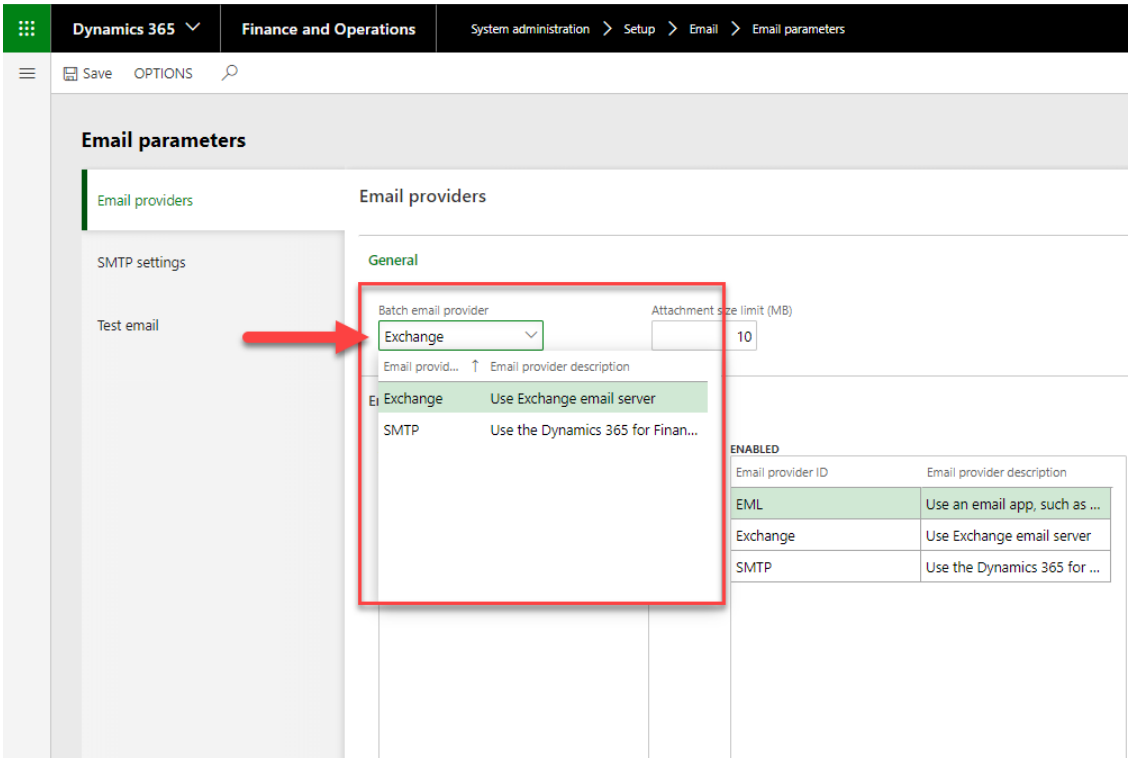
Insert the email address in the field “SMTP user name” and insert the password in the field “SMTP password” as displayed in the image below.



If the option “**D365 Server**” is chosen, the D365 uses the setup which is defined in the “Email parameters”. The form of the “Email parameters” is in the module “System administration” > “Setup” > “Email” > “Email parameters”, illustrated in the picture below.



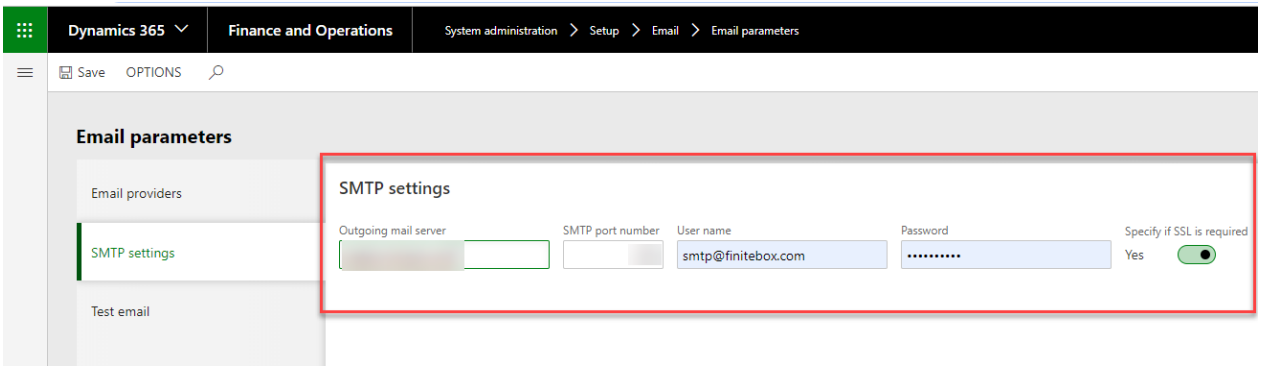
There are two options available “Exchange” and “SMTP”, displayed in the picture below.



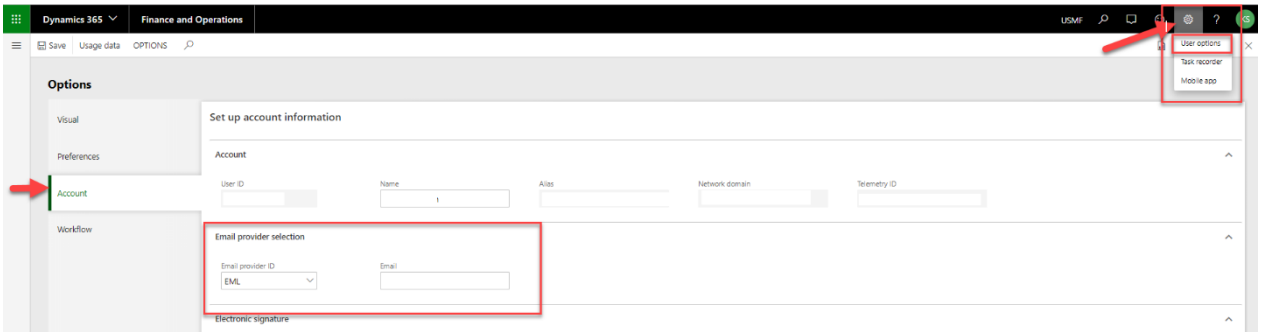
If SMTP is selected, a correct setup in the Email parameters is needed as described below, this is valid for the “D365 Server” as well as for the “D365 User” Email sending mode.

Switch to the module “System administration” > “Setup” > “Email” > “Email parameters”

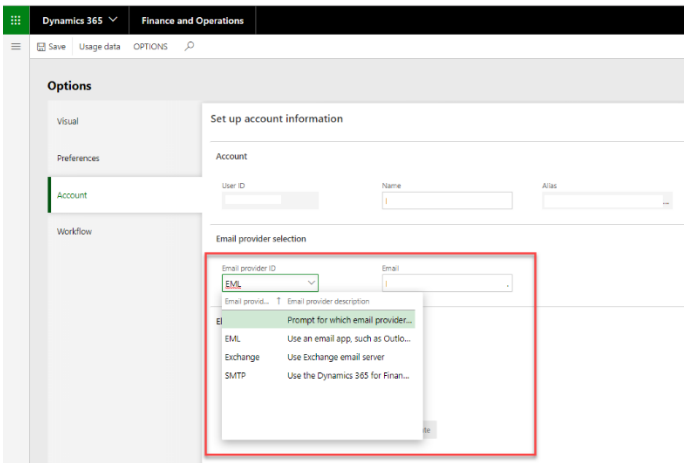
Click on the tab “SMTP settings” and fill in all parameters. Make sure the checkbox “Specify if SSL is required” is set to true.



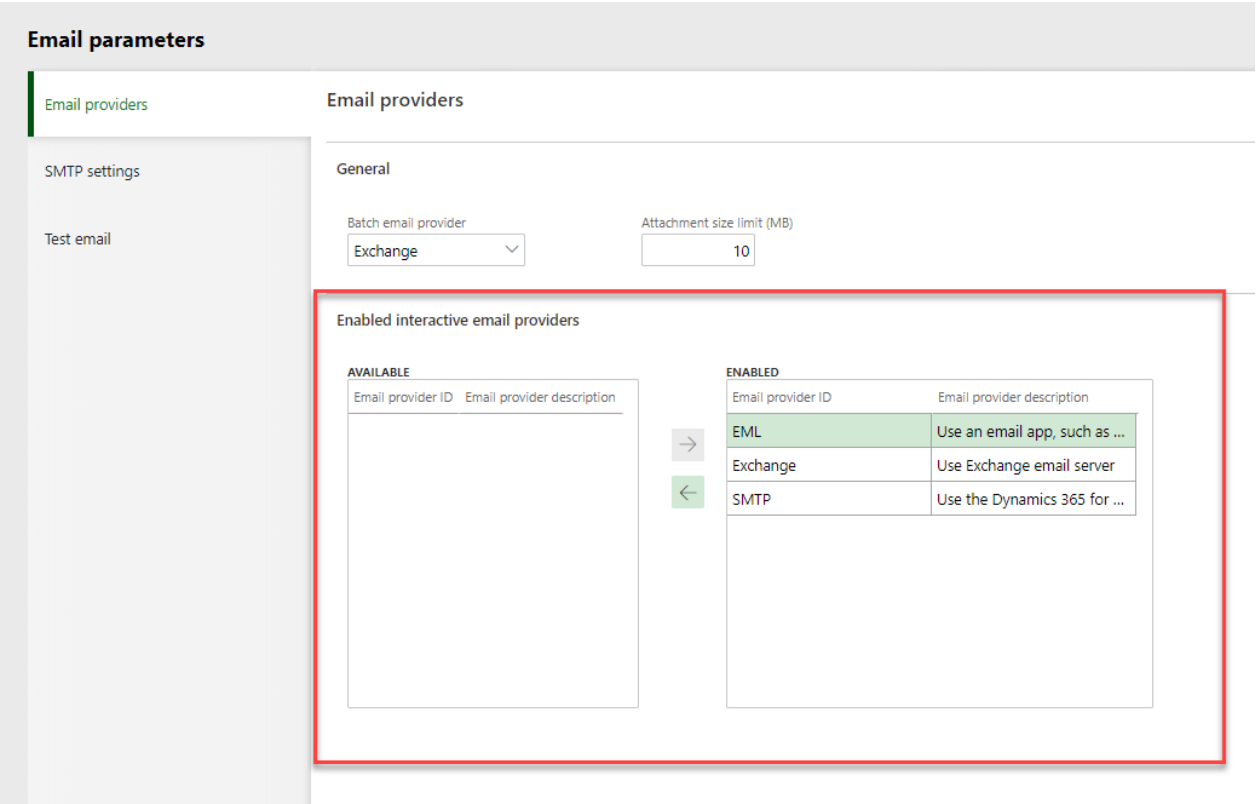
If the option “**D365 User**” is chosen, then D365 will use the setup at the D365 user account. How to get to the mask of the user account is illustrated in the picture below.



The drop-down menu “Email provider ID” displays all available option.



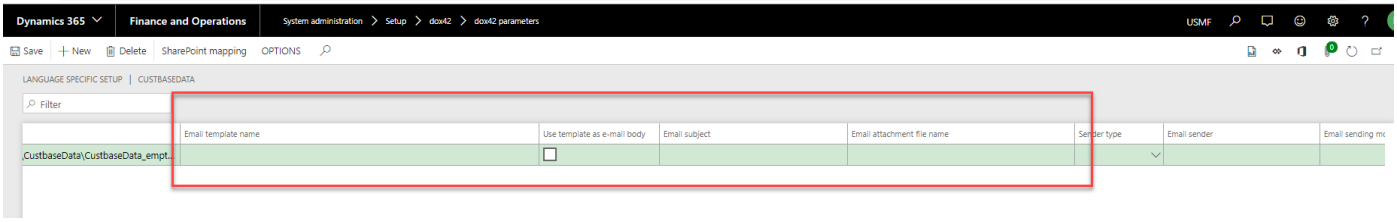
Which options are displayed is predefined in the “Email parameters” in the area “Enabled interactive email providers”.



Everything that is moved to the "ENABLED" side will be displayed at the user options.

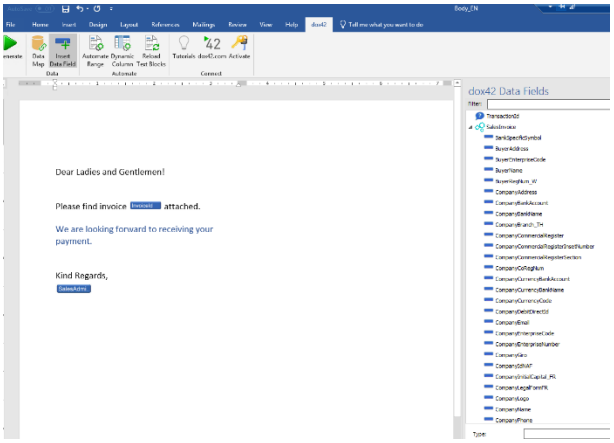
Setting up the additional parameters in the specific report setup

As mentioned before, there are additional fields in the specific report setup.



In the field "**Email template name**" it is possible to setup a body for the email. How to do that is explained below:

Create a simple report like in the picture below. How to setup dox42 templates is illustrated in the chapter "Create your first dox42 report".



Save it in the same folder as the template of the report and insert the path in the field “Email template name”. An example is illustrated below.

Template name	Email template name	Use template as e-mail body
C:\dox42Server\templates\TEST\SalesInvoice\SalesInvoiceTemplate.docx	C:\dox42Server\templates\TEST\SalesInvoice\EMailBody_EN.docx	☐

In the field “**Email subject**” it is possible to setup a subject for the email

Case 1-Write a hard-coded text in the field “Email subject”

Case 2-Use field from the data provider: “<%DataSource.Field%>”

Case 3-Combine case 1 and case 2 by writing an email subject like:

Email subject
Invoice <%SalesInvoiceLines.InvoiceId%>

The field “**Email attachment file name**” provides the option to name the attachment file, which will be sent via Email.

Setup the field:

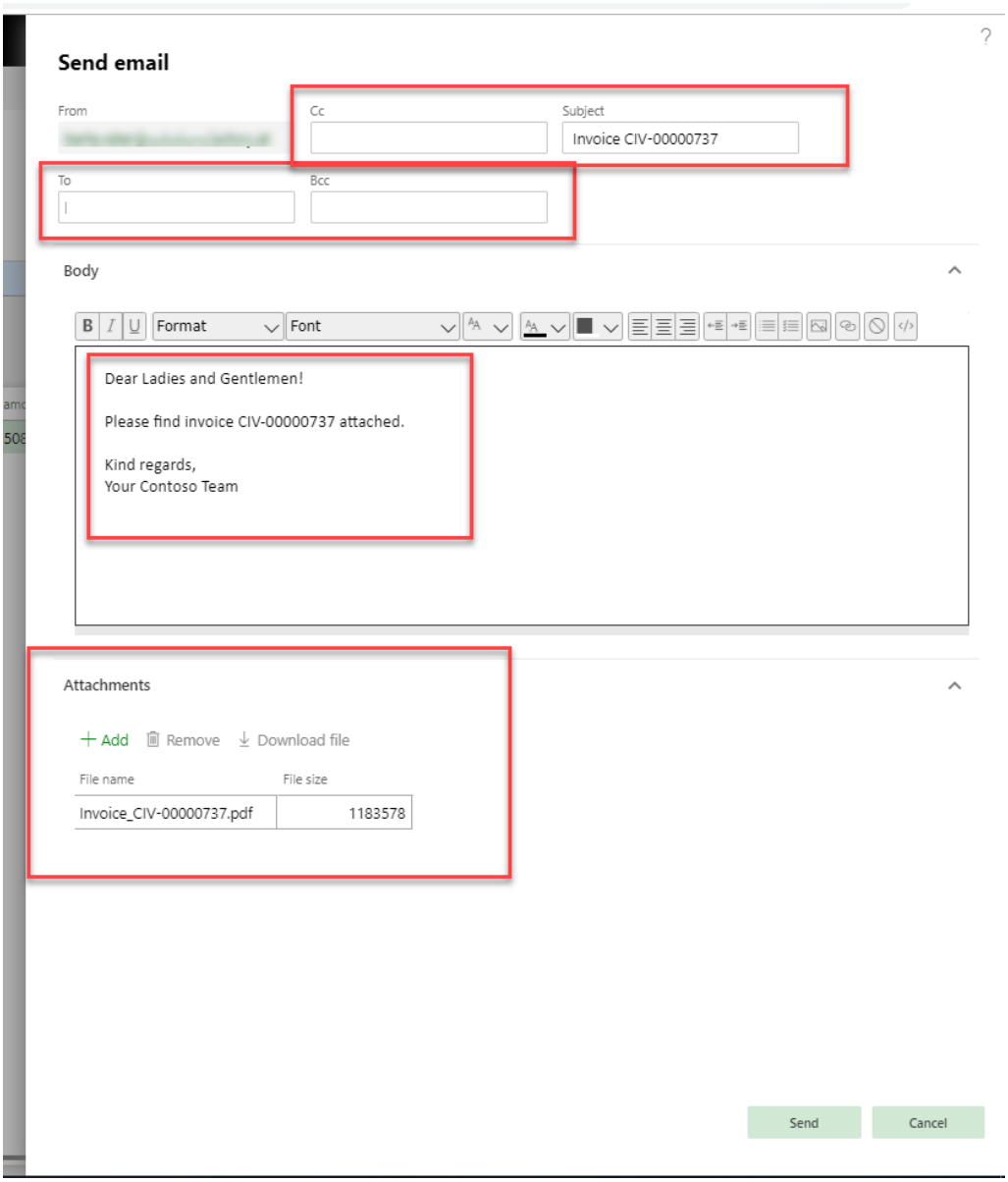
Insert the desired name for the e.g. invoice report. All formats, which are explain by the email subject, can be use by the email attachment file name as well. -coded text.

Email attachment file name
<%SalesInvoiceLines.InvoiceId%>.pdf

This will result in an attachment filename like this:

The difference, for the user, between the option “D365 Server” and the option “D365 User”

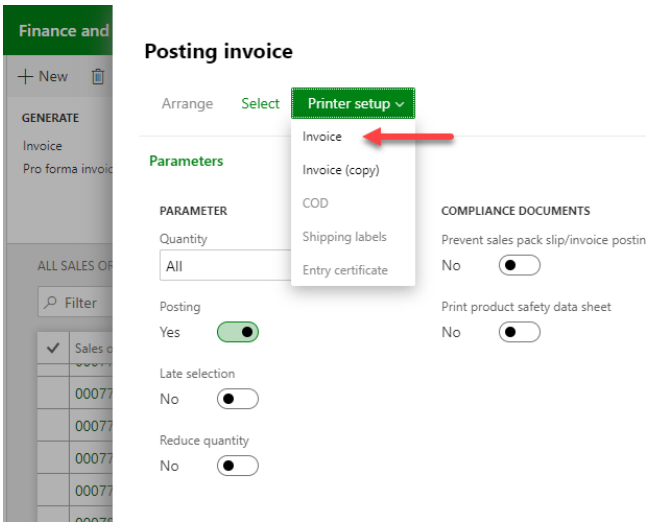
If the “D365 User” is selected it is possible for the user to customize each email. The picture below displays which areas are possible to modify.



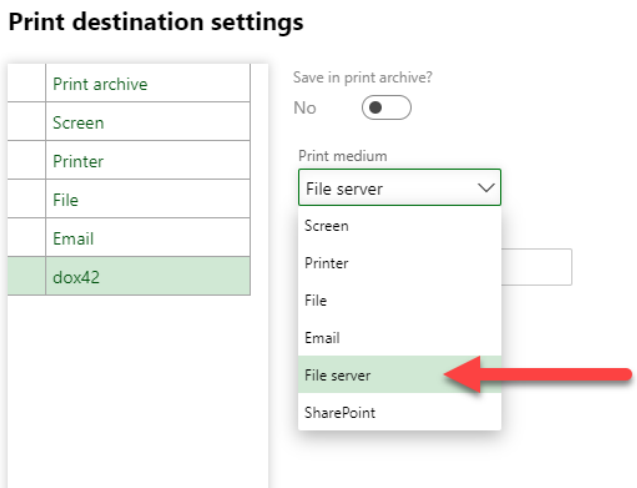
If the D365 Server option is selected, D365 simply sends the email, there is no possibility to change the email.

File Server

If this option is selected, the report will be archived in the predefined format. If a sales invoice is posted, it is possible to select the option "File Server" in the Printer setup. The report is then archived in the specified path. The setup to save a report in multiple formats in the background is described in the chapter "Archiving of documents".

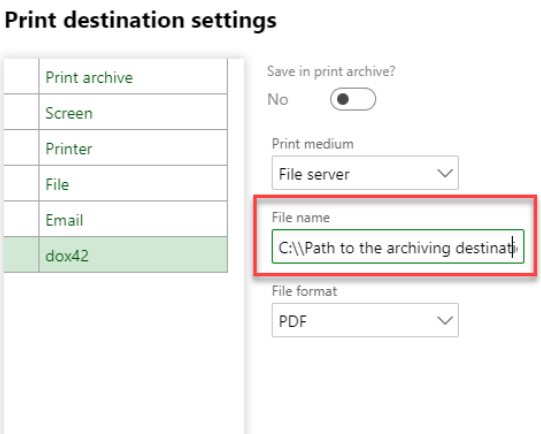


In the drop-down menu “Print medium” choose the “File Server”.

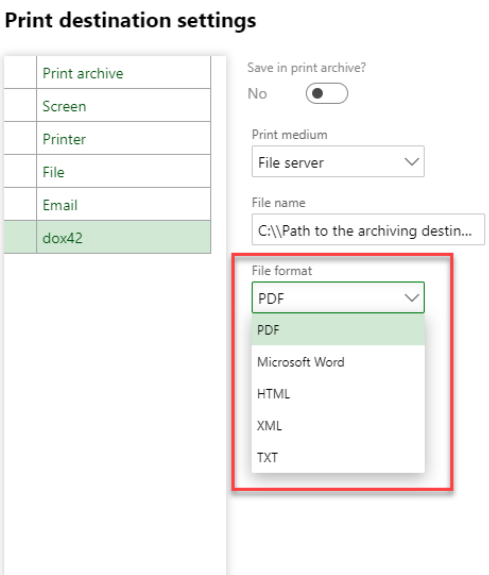


Insert the path to the folder in which the report should be archived, at the end of the path write the name which the report should get.

Example: C:\\Path to the archiving destination\ <% SalesInvoiceLines.InvoiceID%>



Next step is to choose a format from the drop-down menu “File format”.



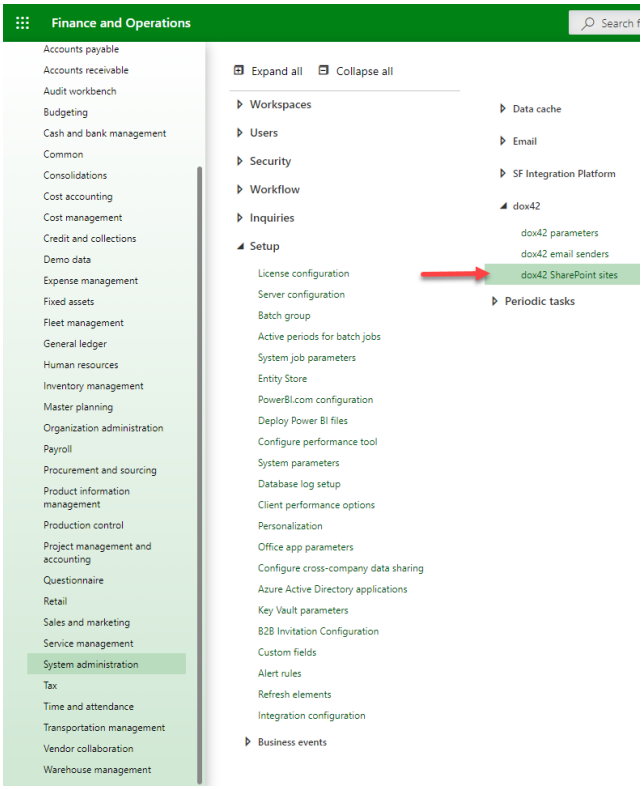
That's all you need, the report is now available in the specified folder, but is not displayed on the screen.

SharePoint

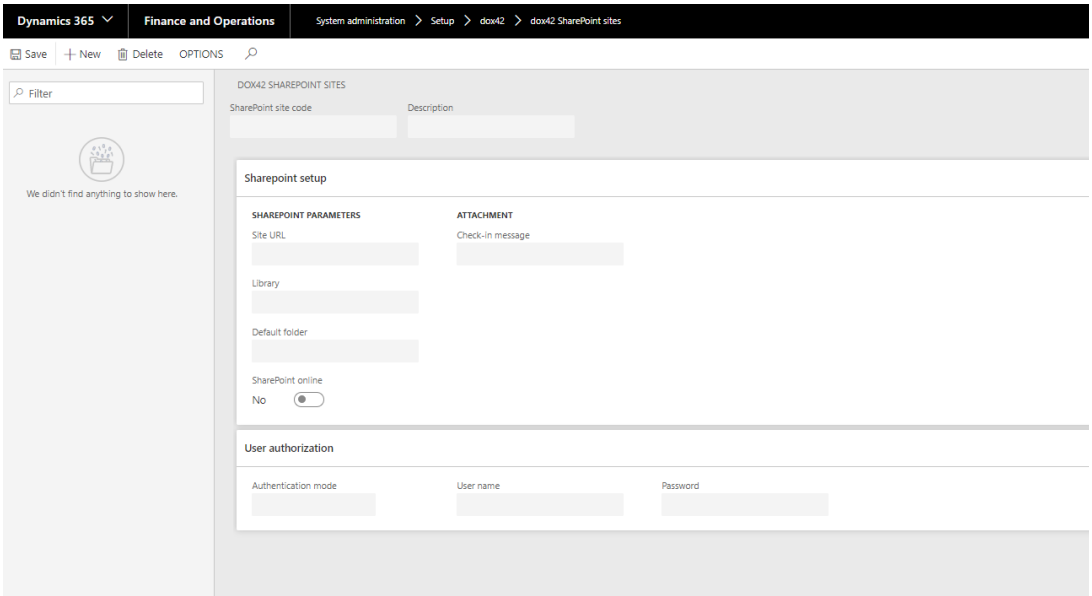
The option SharePoint provides the possibility to archive the reports on the SharePoint. The required setup steps are described below.

Note: It is not possible to use it as a regular print destination, the following setup must be done.

Determine library and folder in Sharepoint. Open dox42 Sharepoint sites in D365. Module “System administration” > “Setup” > “dox42” > “dox42 SharePoint sites”



The mask displayed in the image below opens.



Switch to the Sharepoint folder where the report should be saved and copy the link.
The link will look similar to this example:

https://
company.sharepoint.com/SPlayground/dox42%20Sharepoint%20Archiving%20V1810DemoSF1Eins

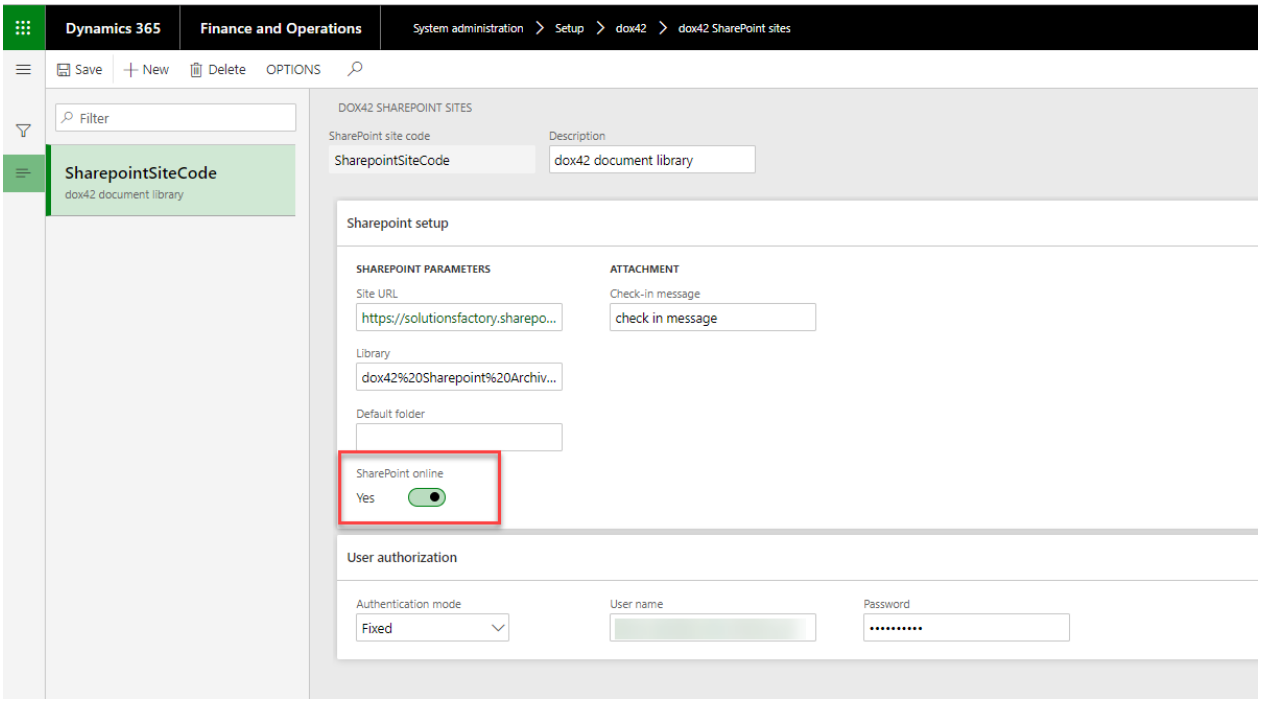
The link consists of the following components:

- Link to the Sharepoint: *https://company.sharepoint.com*
- Name of the Site: */SPlayground*
- Name of the Library: *dox42%20Sharepoint%20Archiving%20V1810DemoSF1Eins*

Now create a new Sharepoint site in D365 by clicking on the button “New” and fill in the parameters as follows:

- Site URL: *https://company.sharepoint.com/SPlayground*
- Library: *dox42%20Sharepoint%20Archiving%20V1810DemoSF1Eins*
- Check-in message: just an information
- User authorization: User parameters of a user with is authorized to write on the SharePoint

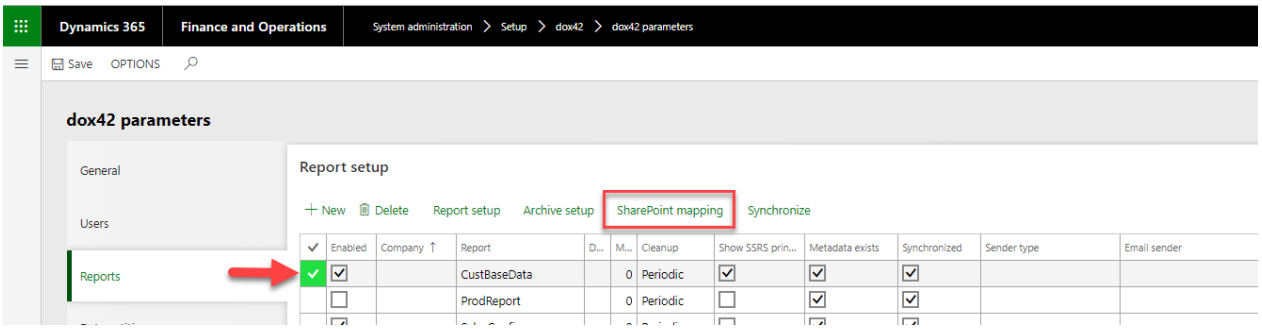
Make sure that the field “SharePoint online” is set to “Yes”.



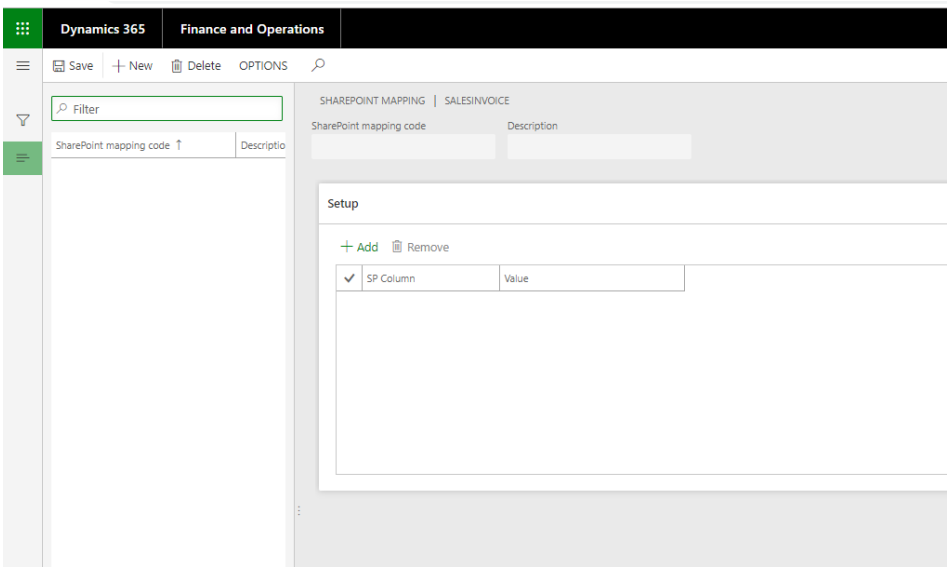
NOTE: There is no “ - “ allowed in the names

Switch to the dox42 parameters to setup a SharePoint mapping.
(System administration > dox42 > dox42 parameters)

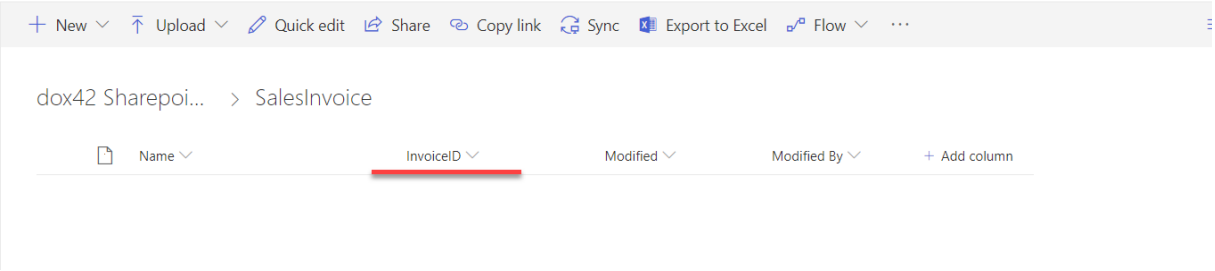
Mark the desired report and click on the button “SharePoint mapping”.

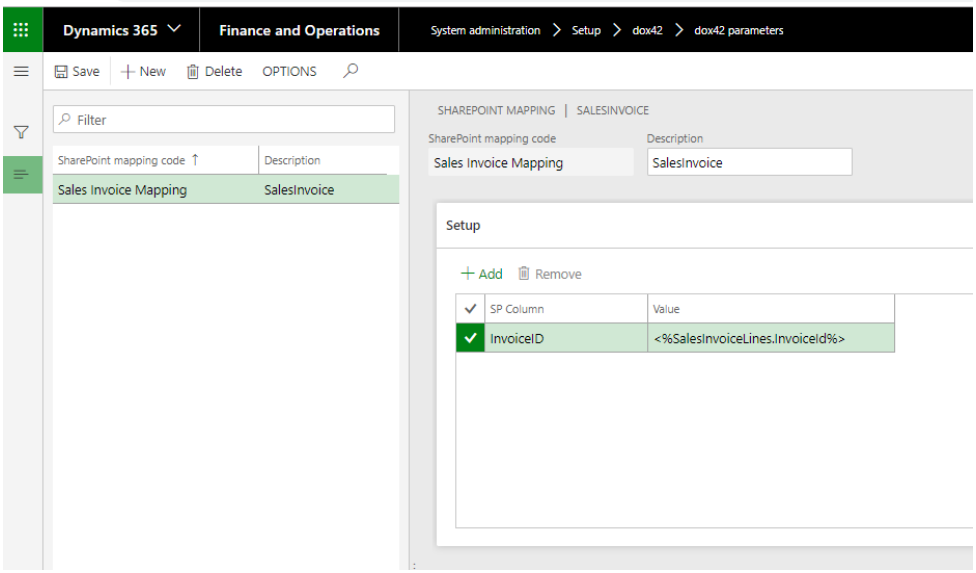


The mask displayed in the image below opens.



Add the columns which should be filled on the Sharepoint, in the “Setup” area. The column “Name” on the Sharepoint will be automatically filled, but for example the columns “InvoiceID” have to be inserted at the setup-area in the Sharepoint mapping.

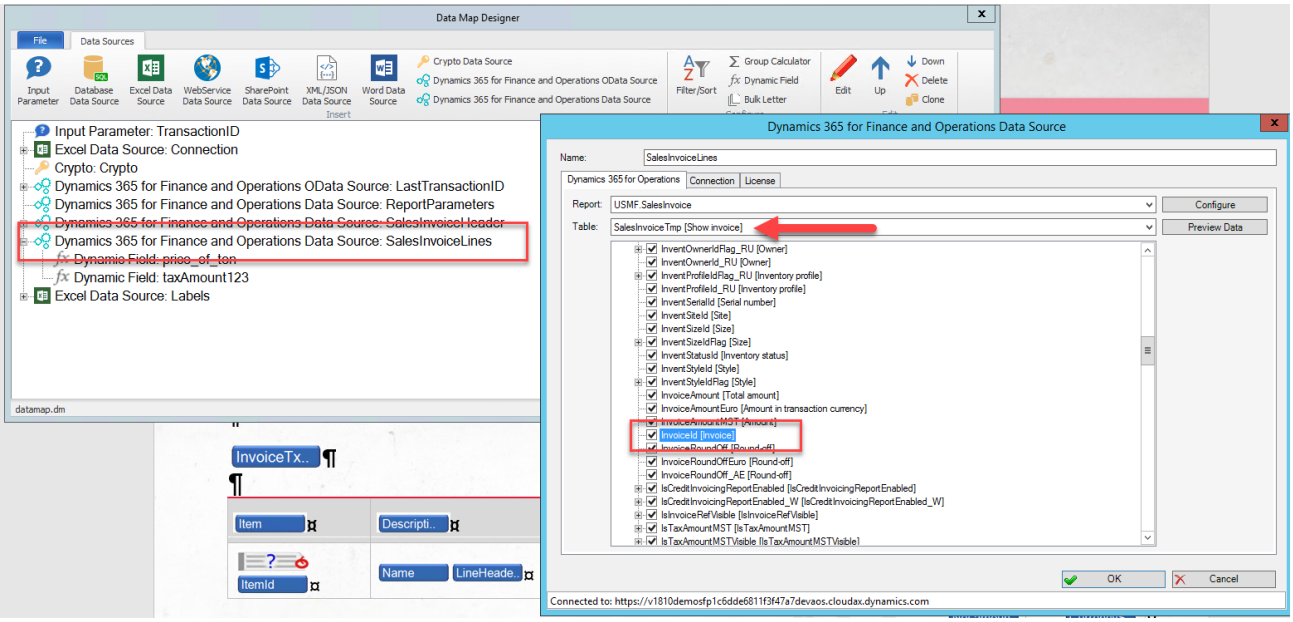




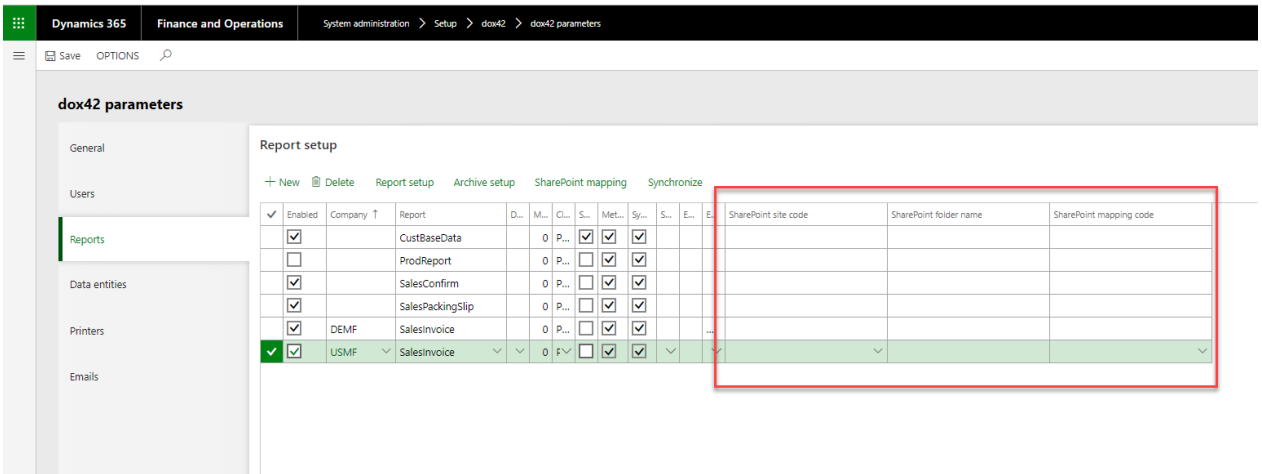
If the column “InvoiceID” on the Sharepoint should be filled, the value field looks like this:

<%SalesInvoiceLines.InvoiceId%>

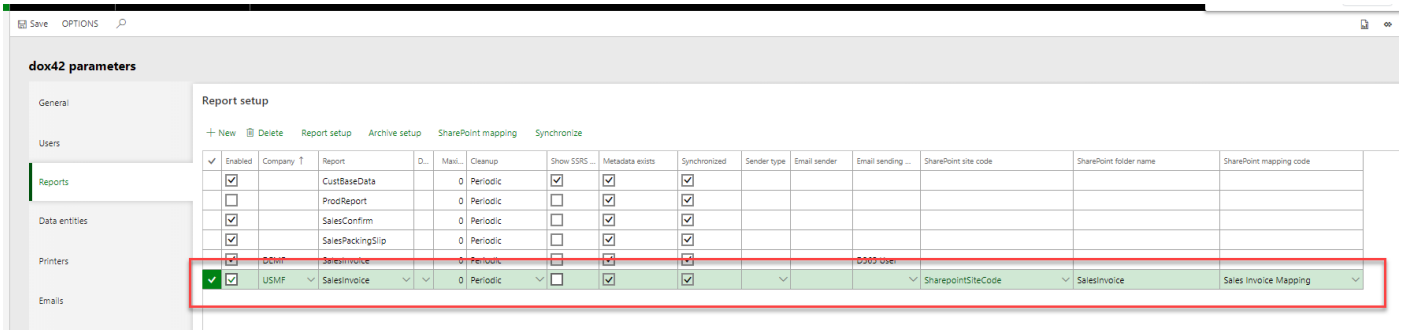
“SalesInvoiceLines” is the table in which the “InvoiceId” is stored. The name of the table as well as the name of the field can be looked up in the Datamap of the report.



Save the Sharepoint mapping and switch to the dox42 parameters. The linking of the report with the Sharepoint setup is done in the dox42 parameters.

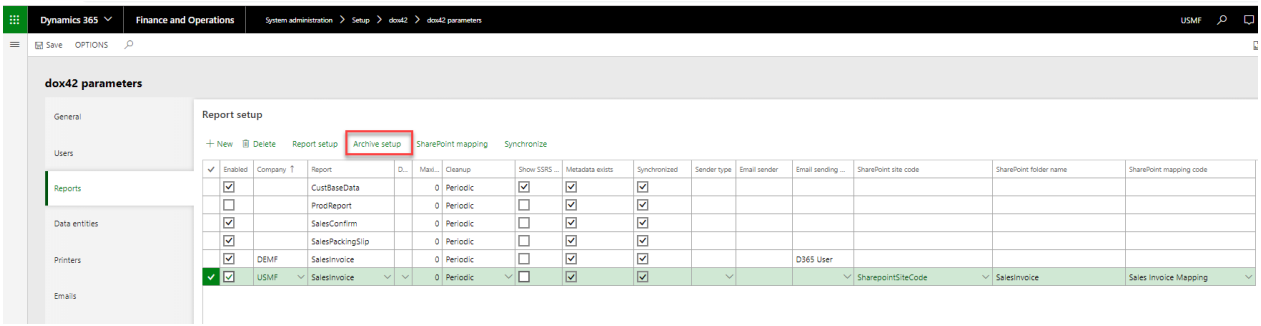


Insert the “SharePoint site code”, which contains the location as well as the library of the SharePoint. The field “SharePoint folder name” defines in which folder, on the SharePoint, the report should be saved. The SharePoint mapping code contains the information how the columns on the SharePoint are filled.

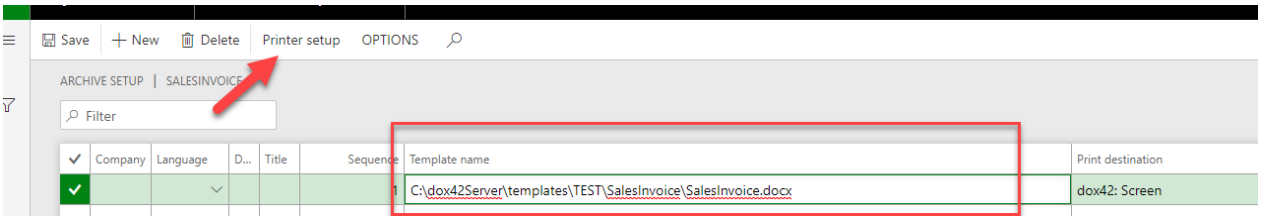


The next step is to setup the printer management for the SharePoint.

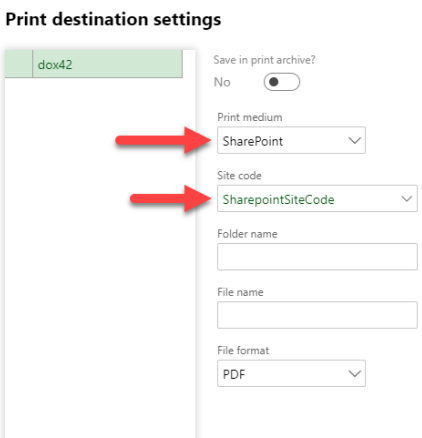
- Mark the desired report and click on the button “Archive setup”



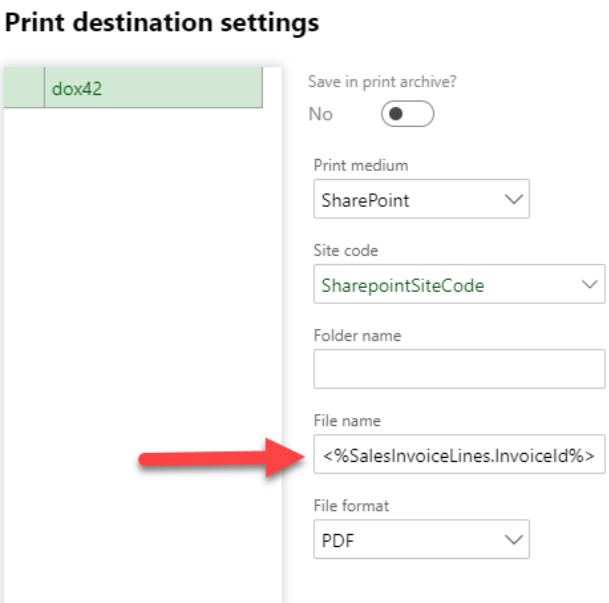
- Click on the button “new” and insert the path of the template in the field “Template name”, then click on the button “Printer setup”



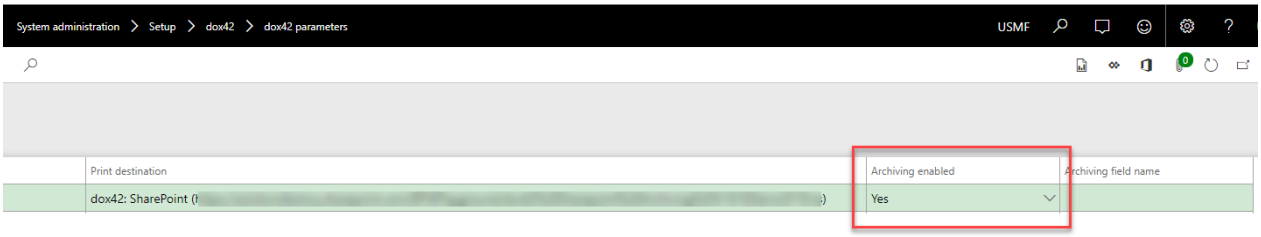
- Select the option “SharePoint” in the drop-down menu “Print medium” and fill in the field “site code”.



The field “File name” provides the possibility to give the files a dynamic name (e.g. the InvoiceID or SalesOrderID).



Set the value of the field “Archiving enabled” to “yes”, in the “Archive setup”.



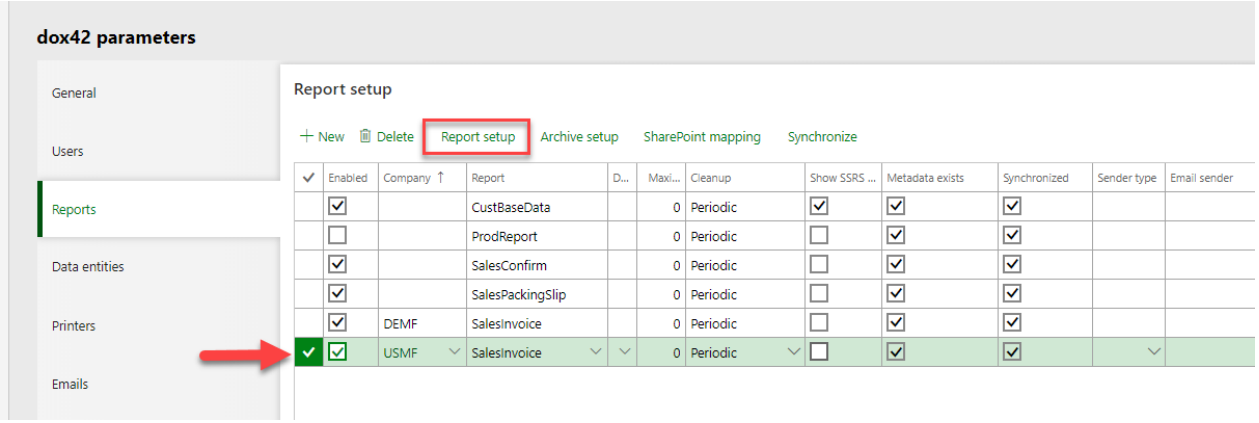
Now the setup for the archiving on the Sharepoint is finished. If a sales invoice is printed it will automatically be archived on the SharePoint.

Note: If side code and report setup have different folders, D365 chooses the folder from report setup

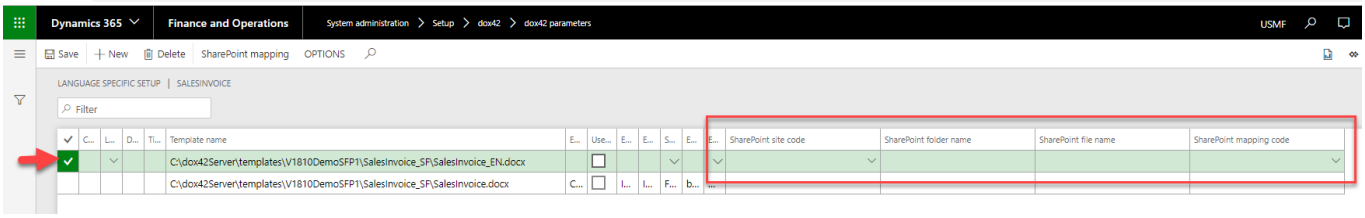
Setting up the SharePoint archiving for different templates

In the specific setup form of a report it is possible to create several templates for different companies/languages and setup different site codes, folders and mappings for archiving. The images below illustrate how to get to the specific report setup.

Mark the desired report and click on the button “Report setup”.



The setup in the report itself has the highest priority and will used even if outside the report is also a SharePoint setup



Archiving OData report (Data entities)

There is not really a different between archiving OData reports and “normal” reports. Everything is available at the Data entities setup.

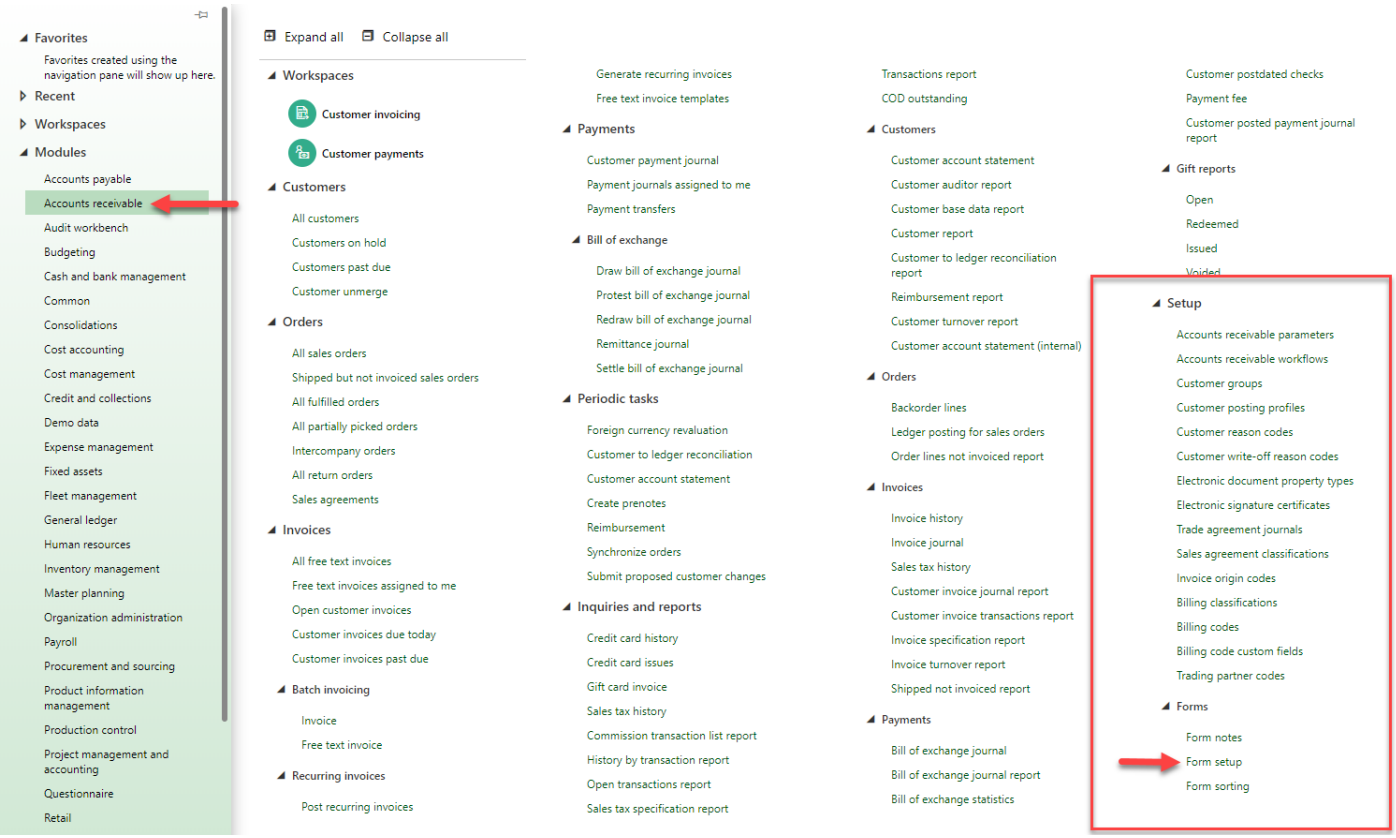
Note: It is unavailable to show data entity report on screen and archive it in SharePoint. It only possible to archive it or show it on the screen.

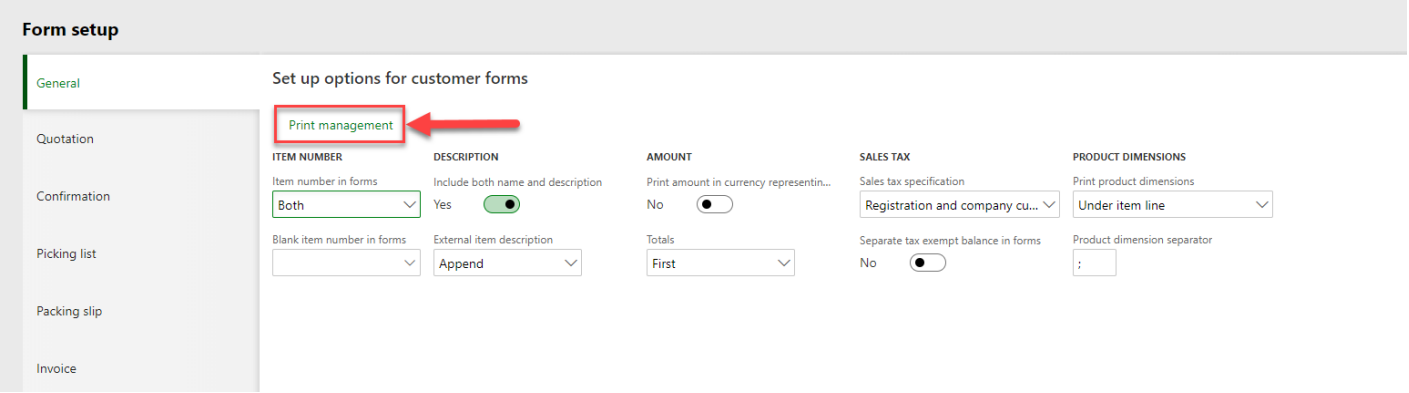
Print management

The print management is an important feature, it is one way to define how the report will be handled.

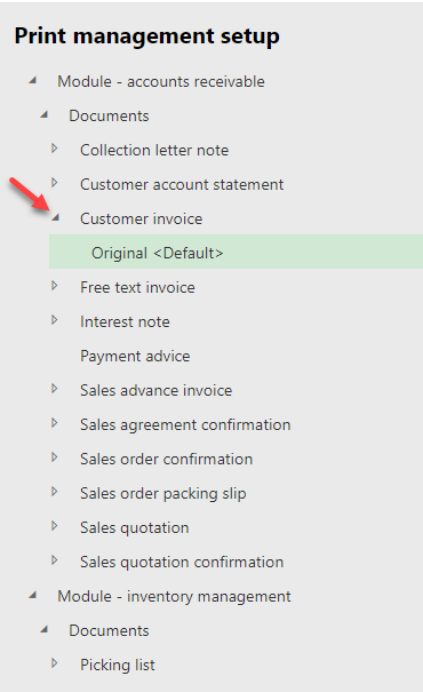
How to get there?

In every module with a form setup it is possible to use the print management. How to get to the print management is illustrated in the pictures below.

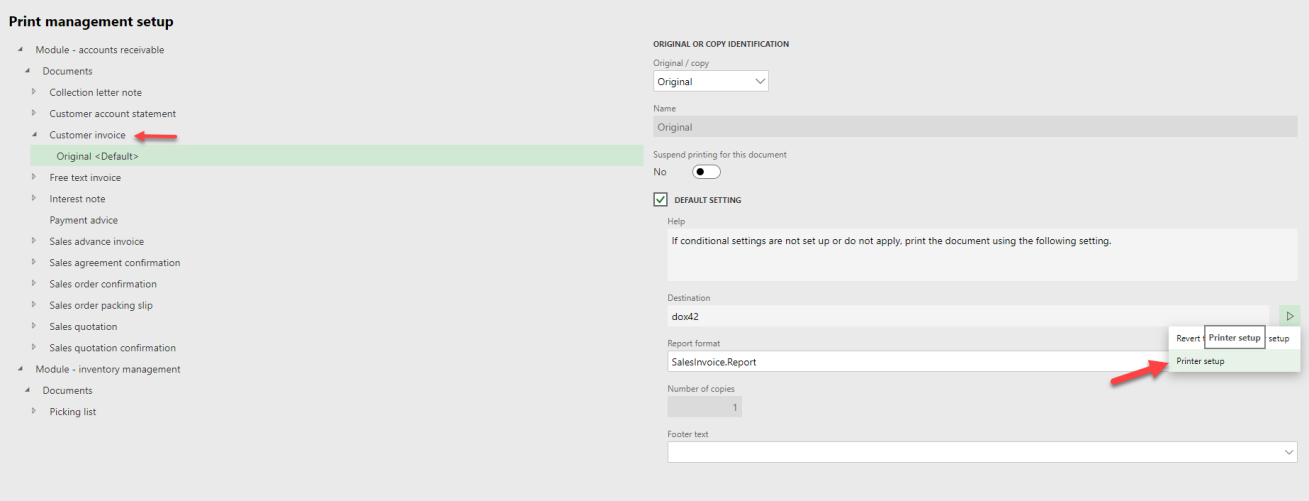


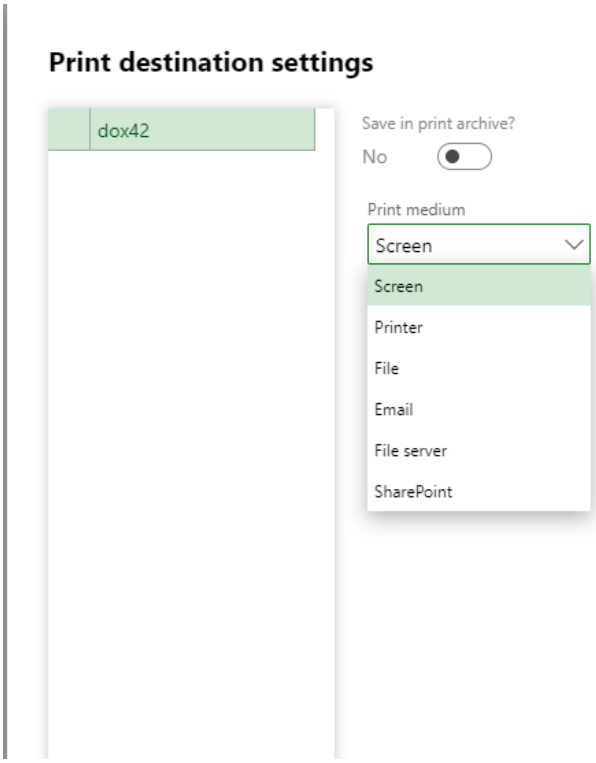


A mask like in the picture will appear, it displays all the reports which are available for the printer setup. A click on the little triangle will display the different instances of the reports.



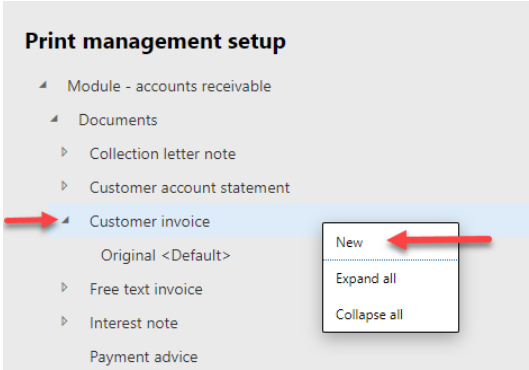
A click on the “Printer setup” button will lead to the printer destination settings, in which it is possible to decide how the report should be processed.





The behavior of the different print mediums is explained below.

Dynamics 365 for Finance and Operations provides the functionality to add more than one instance (right click on the report name, the report will be processed in all the defined ways.



Possible print mediums in the print management:

- Printer

  If the “printer” is selected, a printer must be chosen on which the report should be printed.

- Screen

  The report will be printed on the screen in Dynamics 365 for Finance and Operations.

- File

The report will be downloaded in the chosen format.

- **Email**

  This setup is needed for the feature of sending reports via email. Sending reports via email is described in the chapter “Send documents via email”.

- **File server**

  The file server setup is required if the report should be stored in a folder, described in the chapter “Configure report destination”.

- **SharePoint**

  To store reports on the SharePoint the SharePoint setup is needed, described in the chapter “Configure report destination”.

Emails

D365 provides the feature to send reports via Email. In this section the following parts will be explained:

- the ways of defining a recipient
- send emails via print management

Defining a recipient

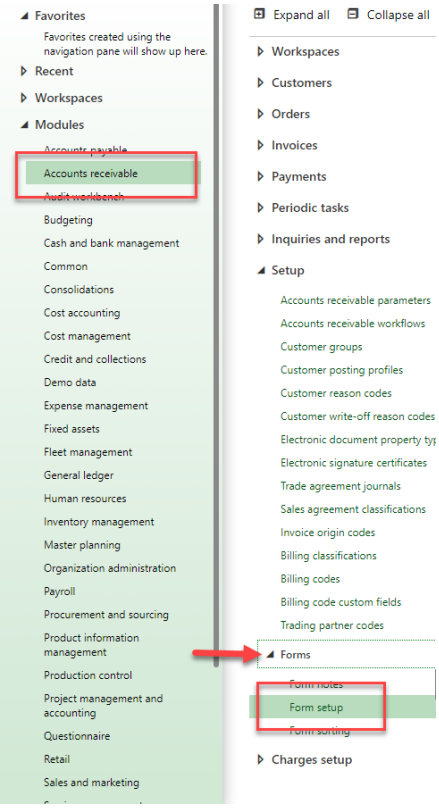
There are two different ways to setup the recipient of an email, the manual way and the dynamic way.

The manual way – using a fixed email address as the recipient

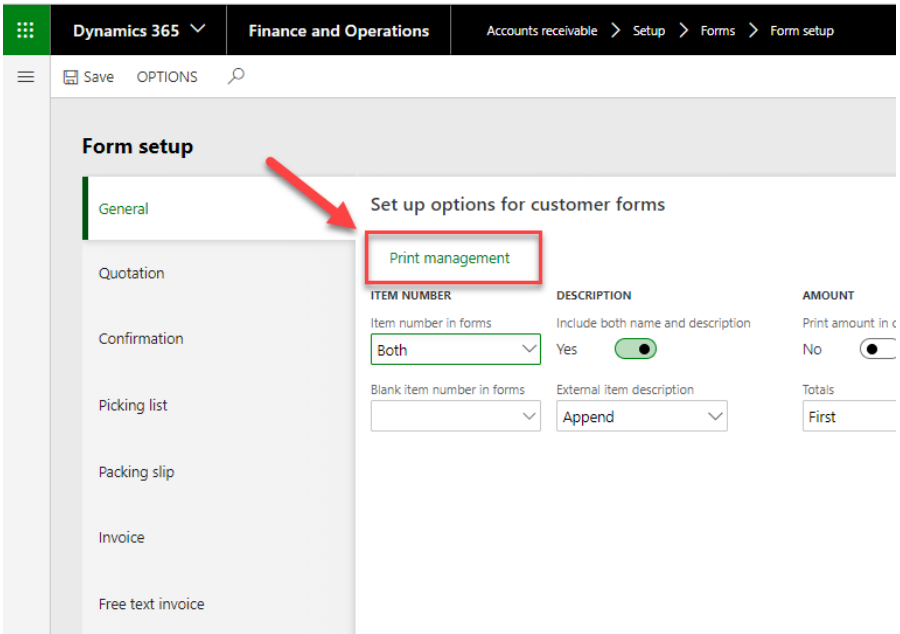
The recipient of the email is always specified in the print management, regardless of whether the manual or dynamic way is selected.

Switch to the print management of the desired report (e.g. SalesInvoice):

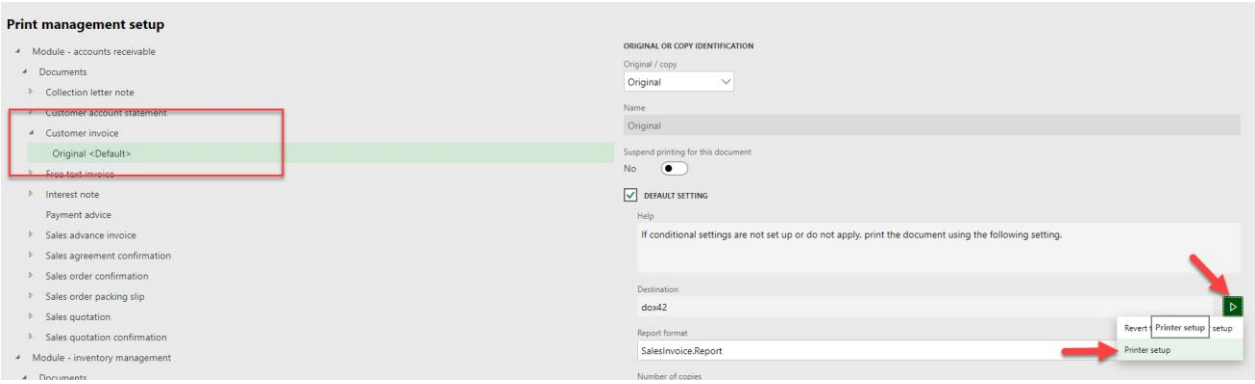
- Choose the module e.g. “Accounts receivable” > “Setup” > “Forms” > “Form setup”



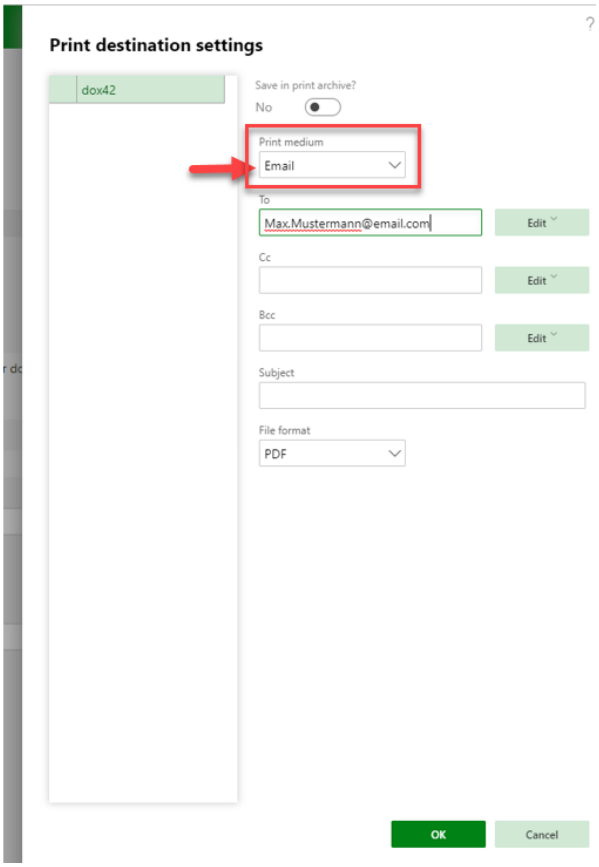
- Select the desired report and click on the button “Print Management”



- Select the desired report and click on the “Arrow” button. Select the option “Printer setup”



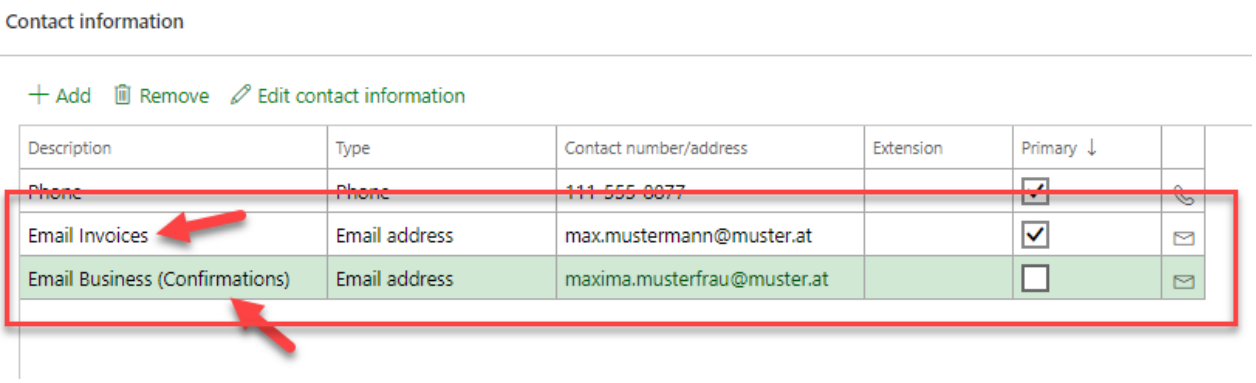
- Select from the drop-down menu “Print medium” the element “Email” and insert the email addresses.



D365 will now send every email to this email address.

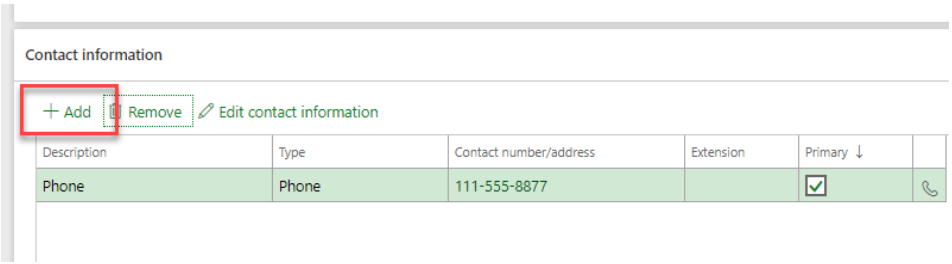
The dynamic way – using different purposes (best practice for form letters)

D365 provides the feature to set different purposes in the email address setup. Those purposes are used to decide to which email address the report will be sent. For example, there might be an email address for sales invoices and an email address for confirmations, as shown in the picture below. This setup is ideal for form letters like the sales invoice.

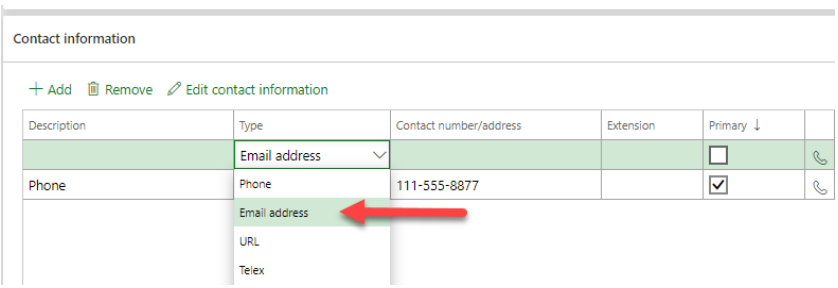


Setup the purpose of an email address:

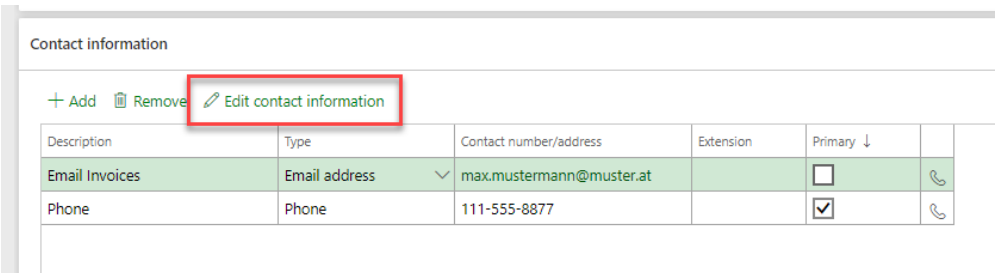
- switch to the contact information of a customer or vendor
- click on the “Add” button



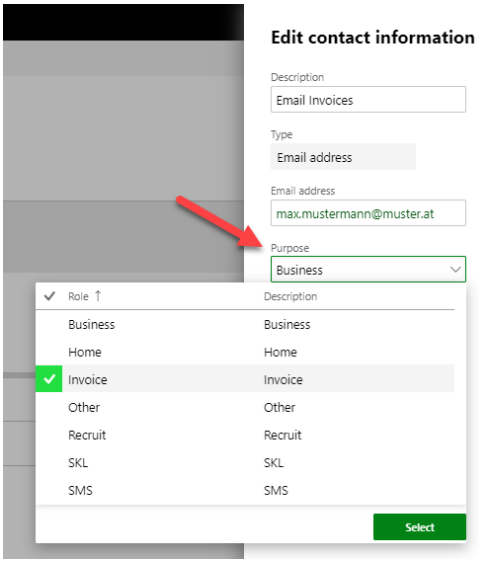
- Insert all required information (description, type, email address)



- Click on the button “Edit contact information”



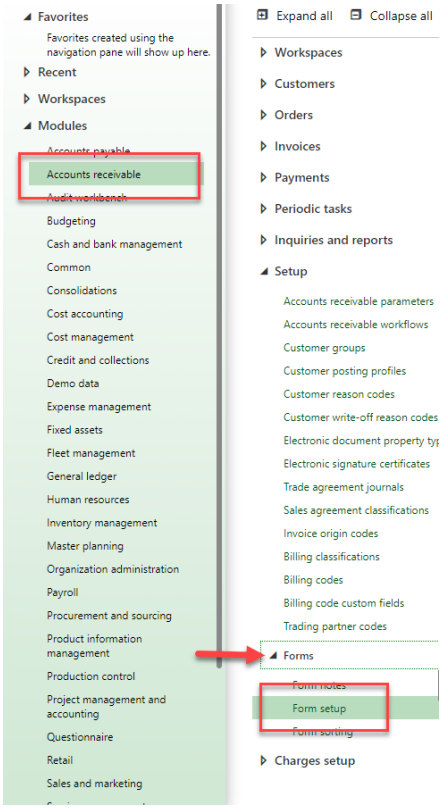
- Select the desired purpose for the email address (in this case “Invoice”)



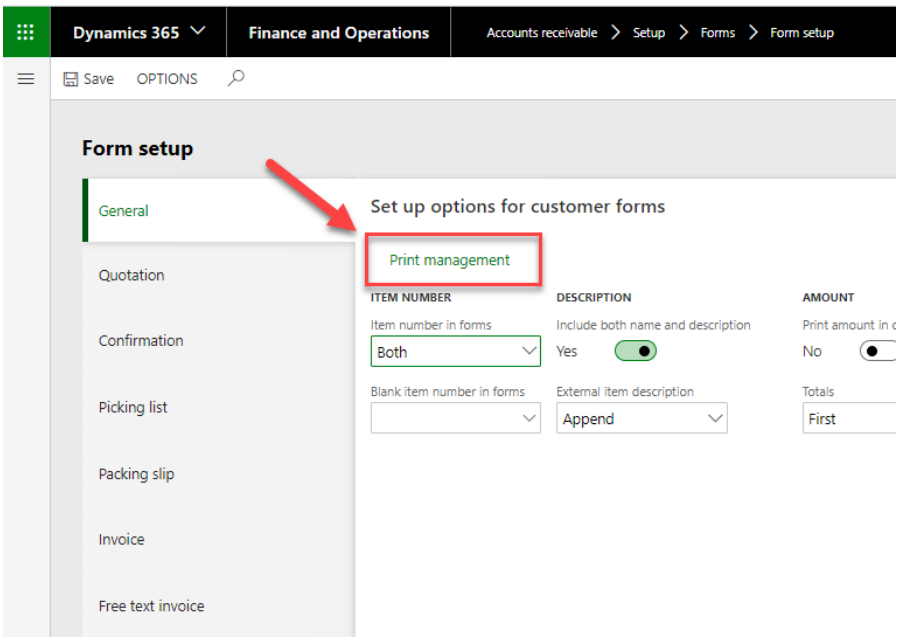
Note: it is possible to select multiple purposes for one email address.

Setting up the print management for using the purposes of the email addresses:

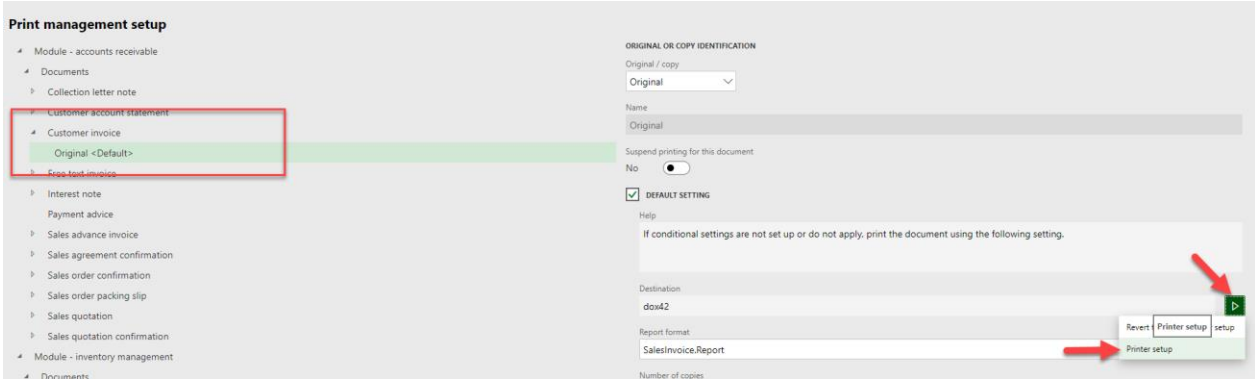
- Switch to the form setup of the desired report (e.g. SalesInvoice)



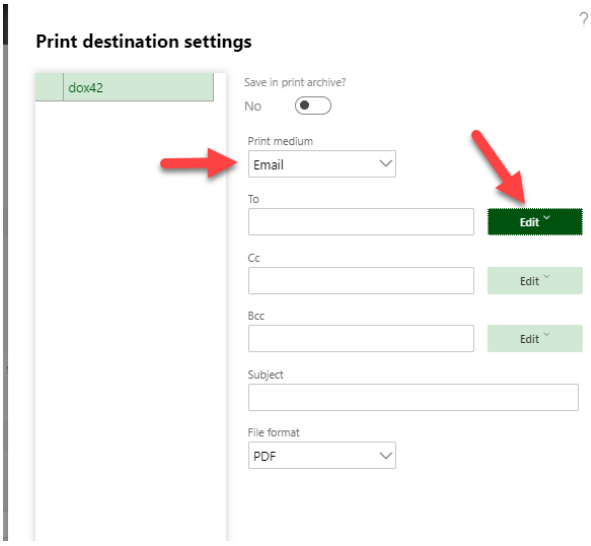
- Click on the button “Print management”



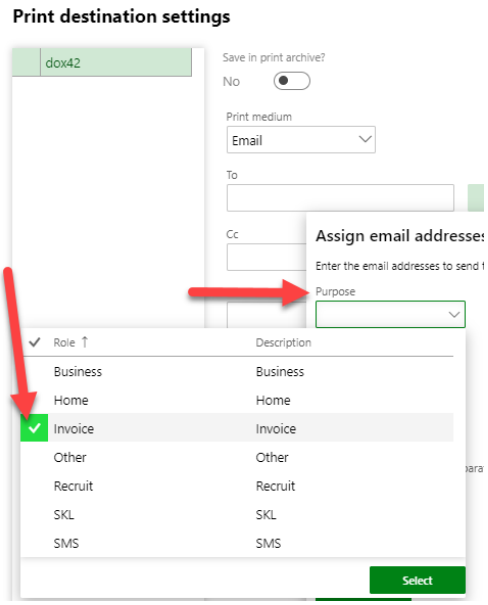
- Select the desired report and click on the “Arrow” button. Select the option “Printer setup”.



- Choose the print medium “Email” and click on the button “Edit”.



- Select the desired purpose



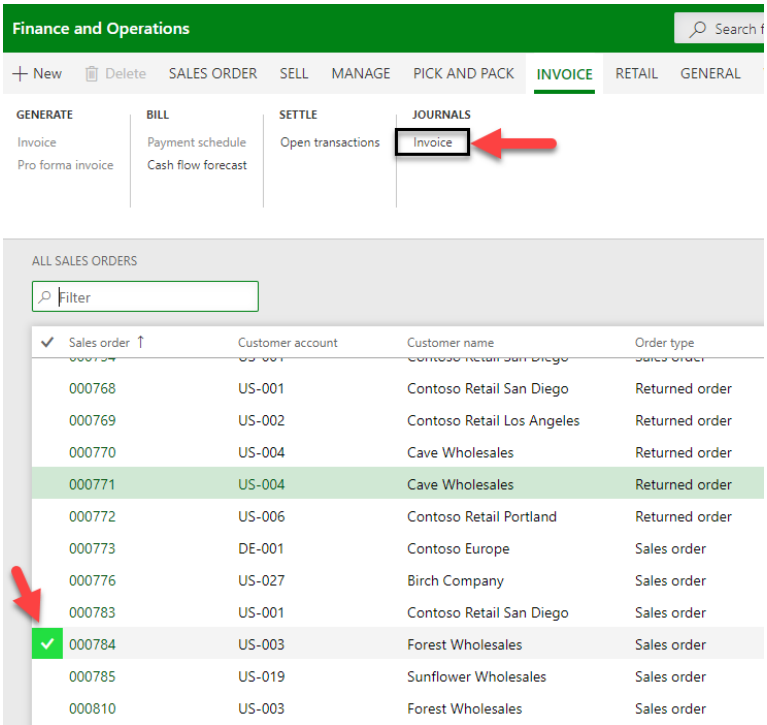
If an email is sent, then the D365 will check which email addresses are assigned to this purpose. How to send emails will be explained at the end of this chapter.

Using the print management as print destination

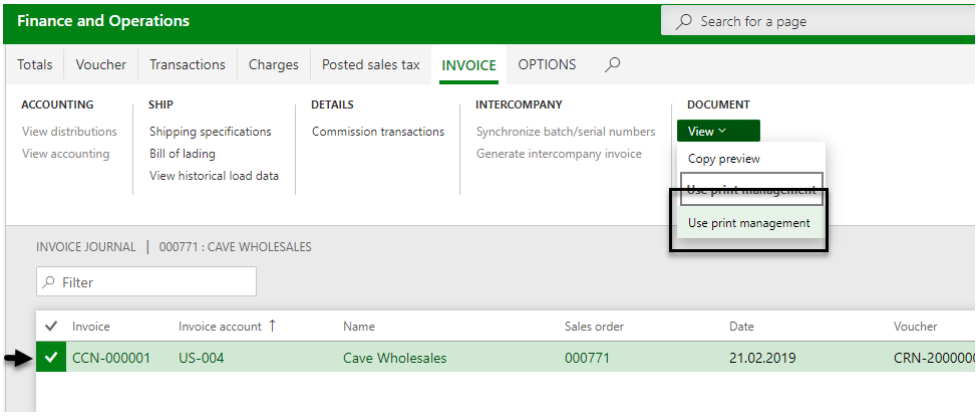
The next section describes how to use the print management as print destination while e.g. posting a sales invoice.

Journals

Mark e.g. the sales invoice which should be printed to the print destination which is setup in the print management.

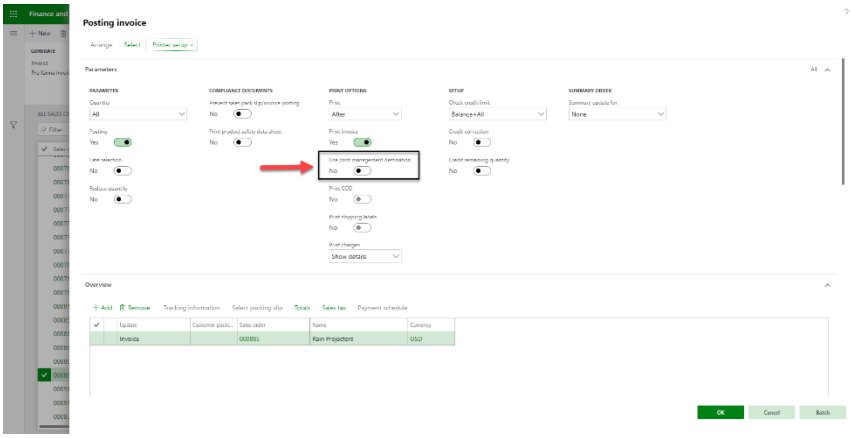


Click on the drop-down menu “View” and choose the “Use print management”



Using the print management while posting

Mark the invoice which should be posted and click on the button “Invoice”. Set the checkbox “Use print management” to yes.



Archiving of documents

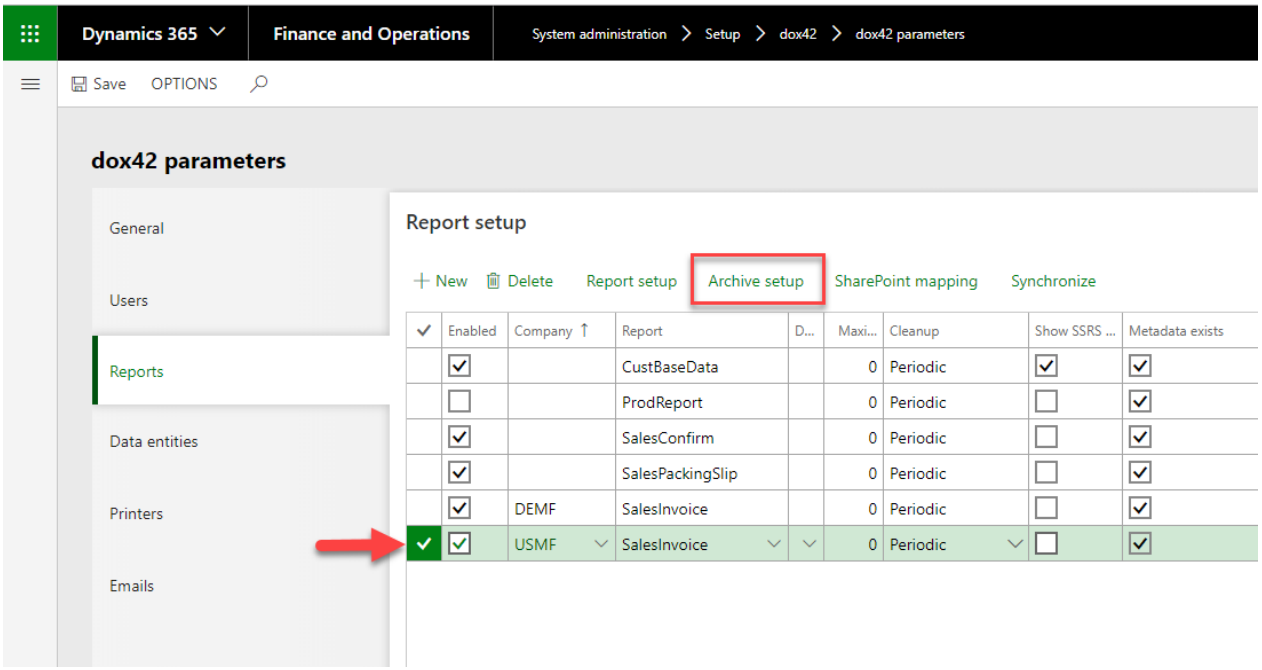
Dynamics 365 for Finance and Operations provides the feature to archive a dox42 report, in folders or on SharePoint.

Archiving means to save a report to an additional destination to have the original printout available in the future. E.g. if a document is usually not required on paper, it can be printed to the screen and additionally archived as a file.

There are two ways to archive a dox42 report, both are described below.

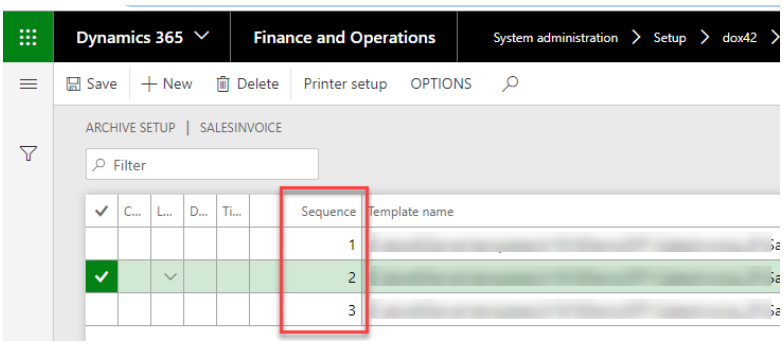
Folder (File Server)

This part describes how to archive reports in the background in different formats in a folder while posting a e.g. a sales invoice. Switch to the dox42 parameters and mark the report which should be archived. Click on the button “Archive setup”.



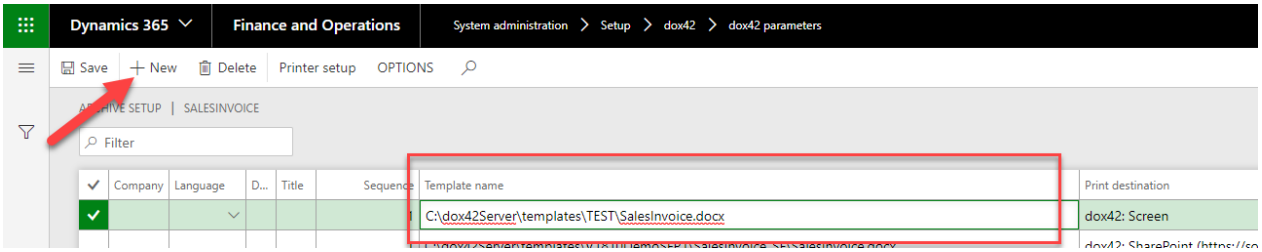
Create a new line in the “Archive setup” by clicking on the button “new”.

The field “Sequence” determines which archiving setup will be executed first.

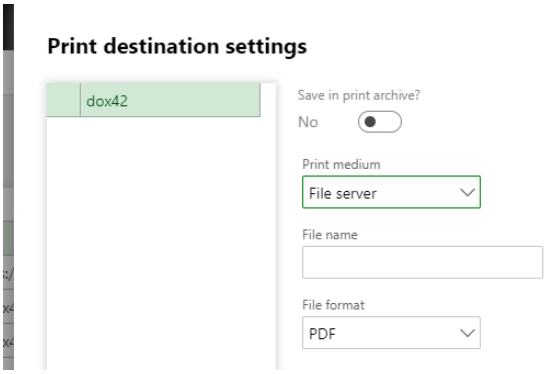


Note: It is always an advantage to have the XML-file also, it is created the same way., but make sure the ranking of the lines is right. The ranking is determined with the sequence number in the picture. The PDF-file should always be the first row.

Insert the path of the template.



Click on the button “Printer setup” and select from the drop-down menu “Print medium” the “File server”.



Insert the path of the storage folder and add at the end of the path, how the file should be named. E.g.:

C:\dox42Server\templates\TEST\SalesInvoice\Storage\Invoice <%SalesInvoiceLines.InvoiceID%>

The field "File format" defines in which format the file will be saved. Click on the button "ok".

Scroll to the right and setup the fields "Archiving enabled" and "Archiving field name" as followed. If the value of the field "Archiving enabled" is set to "Yes", then the report will always be archived. If the value of the field "Archiving enabled" is set to "Depending on the field value" then D365 will check the value of the field "Archiving field name". For example, only a posted sales invoice should be archived, the setup would look like this:

	Archiving enabled	Archiving field name
...	Depending on the field value	SalesInvoiceLines.InvoiceId

There are no "<% %>" required, because the value is processed via D365 and not via dox42.

SharePoint

There is also the possibility to archive reports on the SharePoint, the required setup is described in the SharePoint setup section.

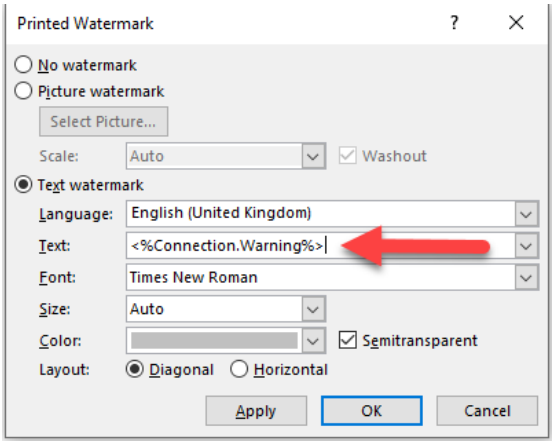
TIPPS & TRICKS

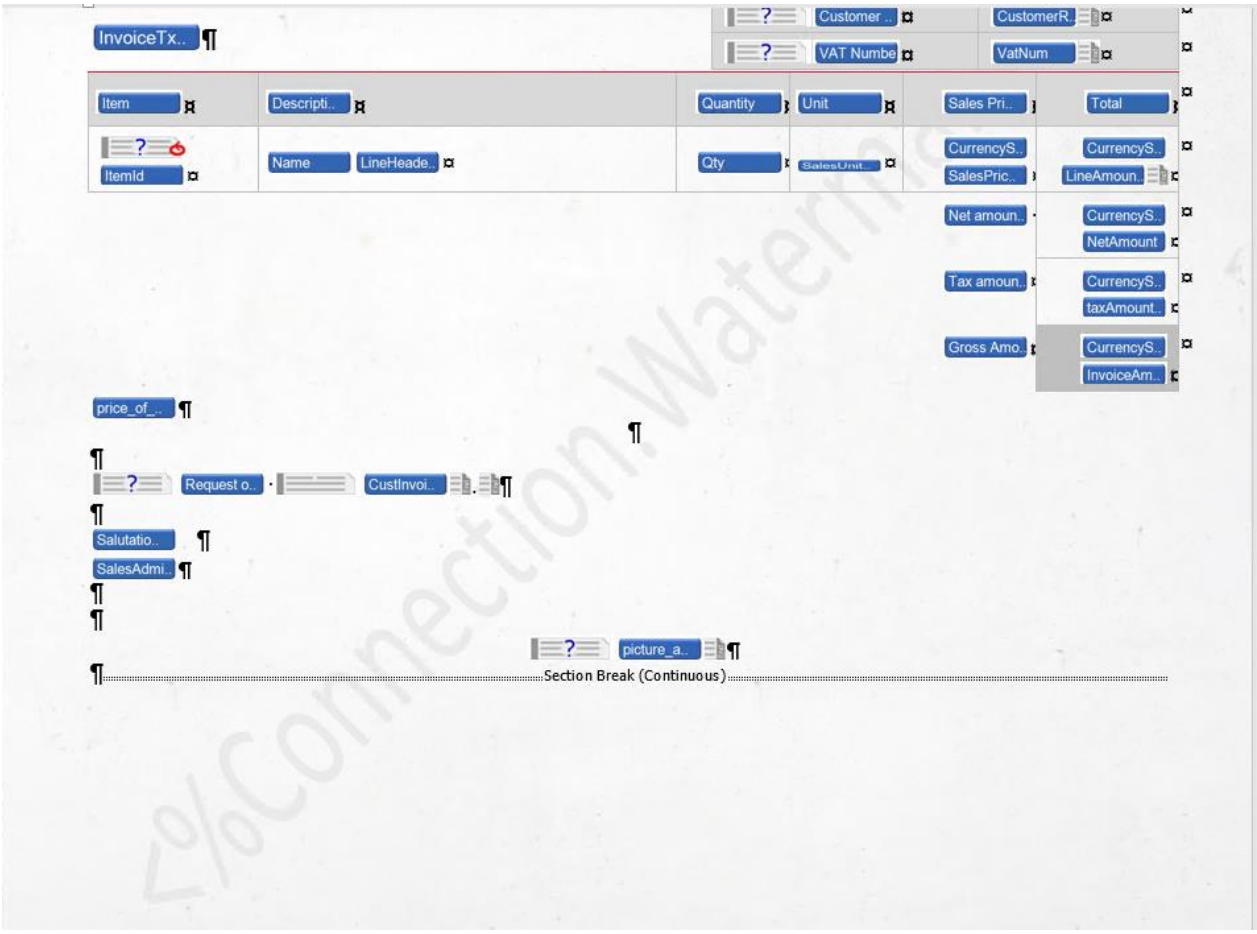
Creating the warning text as a watermark

Create a normal Word "Custom_Watermark".

Insert into the text field the following: "<%Connection.Warning%>" and click "ok".

"Connection" stands for the name of the connection Excel file and "Warning" for the column.

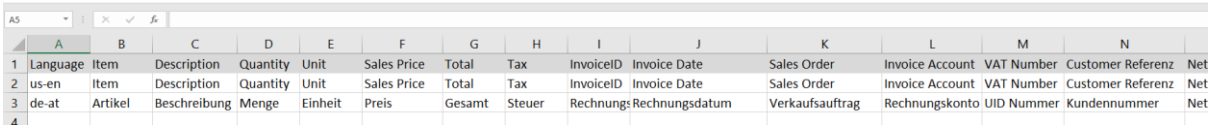

Printed Watermark
No watermark
Picture watermark
Select Picture...
Scale:
Auto
Washout
Text watermark
Language:
English (United Kingdom)
Text:
<%Connection.Warning%>
Font:
Times New Roman
Size:
Auto
Color:
Semitransparent
Layout:
Diagonal
Horizontal
Apply
OK
Cancel


InvoiceTx..
Customer ..
CustomerR..
VAT Numbe
VatNum
Item
Descripti..
Quantity
Unit
Sales Pri..
Total
ItemId
Name
LineHeade..
Qty
SalesUnit..
CurrencyS..
SalesPric..
LineAmoun..
Net amoun..
NetAmount
Tax amoun..
taxAmount..
Gross Amo..
InvoiceAm..
price_of_..
Request o..
CustInvoi..
Salutatio..
SalesAdmi..
picture_a..
Section Break (Continuous)
<%Connection.Warning%>

Use Labels from an Excel document

Normally the headlines of the placeholders are written hard-coded into the report. If you need to support multiple language that has the disadvantage of needing a separate report for each language. The solution is to use labels instead of hard-coded text.

1. Create an Excel file with the required languages like in the picture below. Make sure the Excel file has a column “Language” with the abbreviation.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	Language	Item	Description	Quantity	Unit	Sales Price	Total	Tax	InvoiceID	Invoice Date	Sales Order	Invoice Account	VAT Number	Customer Referenz	Net
2	us-en	Item	Description	Quantity	Unit	Sales Price	Total	Tax	InvoiceID	Invoice Date	Sales Order	Invoice Account	VAT Number	Customer Referenz	Net
3	de-at	Artikel	Beschreibung	Menge	Einheit	Preis	Gesamt	Steuer	Rechnungs	Rechnungsdatum	Verkaufsauftrag	Rechnungskonto	UID Nummer	Kundennummer	Net

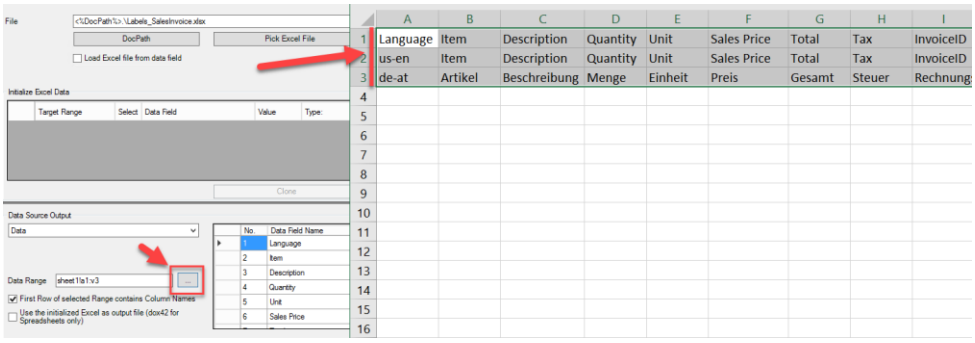
2. The Excel language file is integrated to the Data Map the same way as the connection file

   a. Click on the button “Excel Data Source”

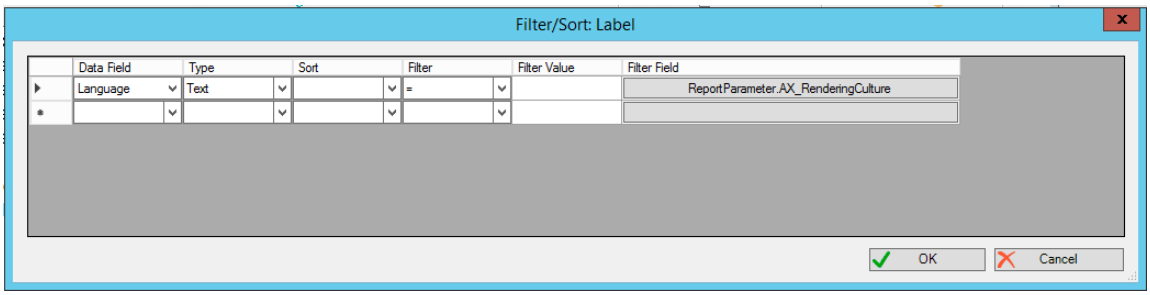
   b. Name the file and use the DocPath

   c. Mark the checkbox “First Row of selected Range contains Column Names”

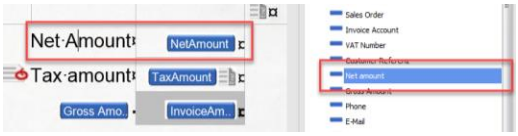
   d. Click on the button with the three dots and select the data like in the picture below.



   e. Filter the Excel language file like in the picture below.



   f. Change the hard-coded text label in the report with the label placeholder.

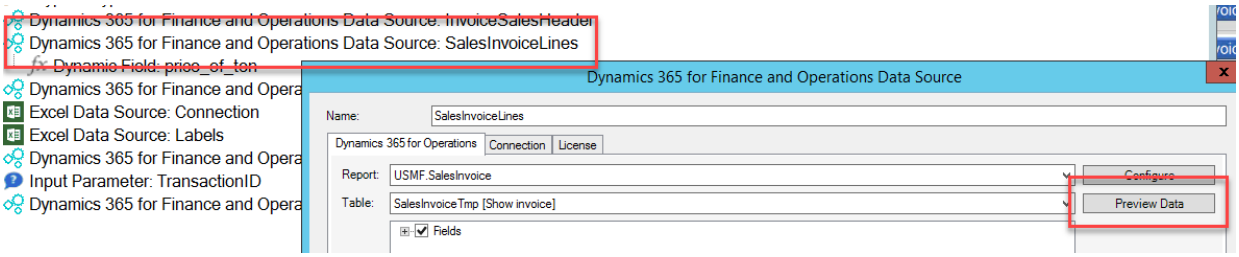


Display the tax groups in a sales invoice

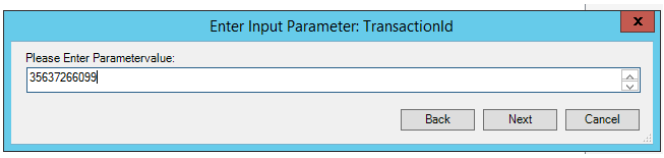
This chapter will describe how to display the tax groups on the sales invoice. Therefore, its needed to look at the data which are sent by D365 to dox42. This is possible with the button “Preview data”.

1. Take a look at the previous data

    a. Double click on the Data Source, tab “Dynamics 365 for Operations”



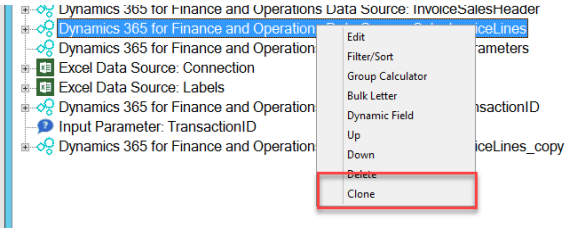
    b. Click the button “Preview Data” and then click the button “next”. The data of the next report will be shown.



    c. Look for the field which contains the tax group

2. Clone the Data Source

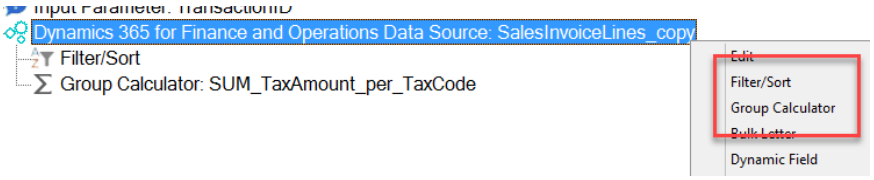
    a. Right click on the Data Source



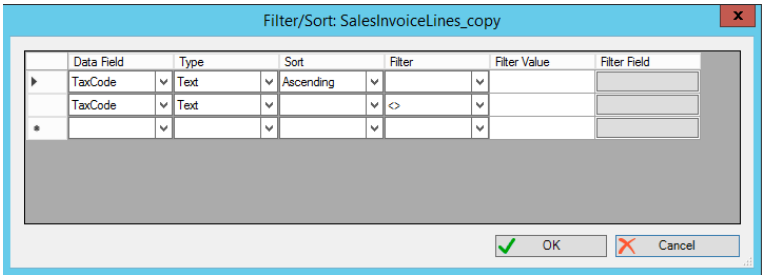
    The reason why the Data Source have to be cloned is, that a special filter is needed which will then only displays the tax groups.

3. Filtering the Data Source

    a. Right click on the Data Source, select the “Filter/Sort” button



b. Insert the values which are shown on the picture below. The “<>” stands for the filter value of “not empty”.



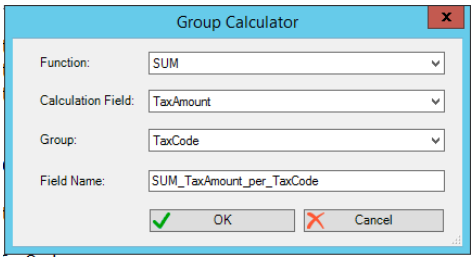
Picture 1: Setup the filter of the Data Source

4. Create a group calculator to sum up the amount of every tax group

   a. Right click on the Data Source

   b. Select the group calculator

   c. Insert the values like in the picture below

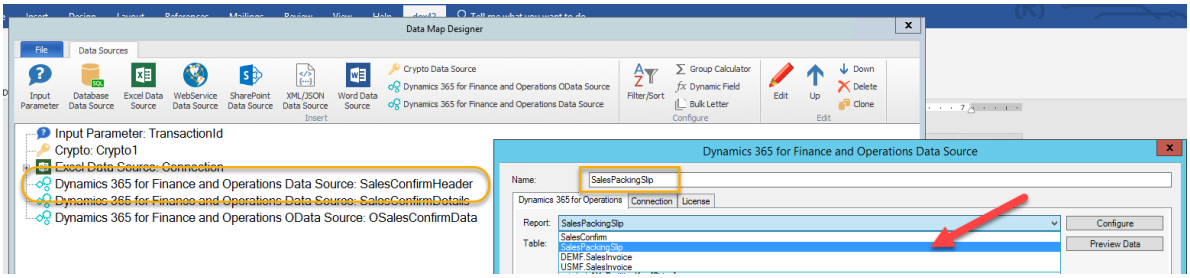


Reuse a layout for a different report

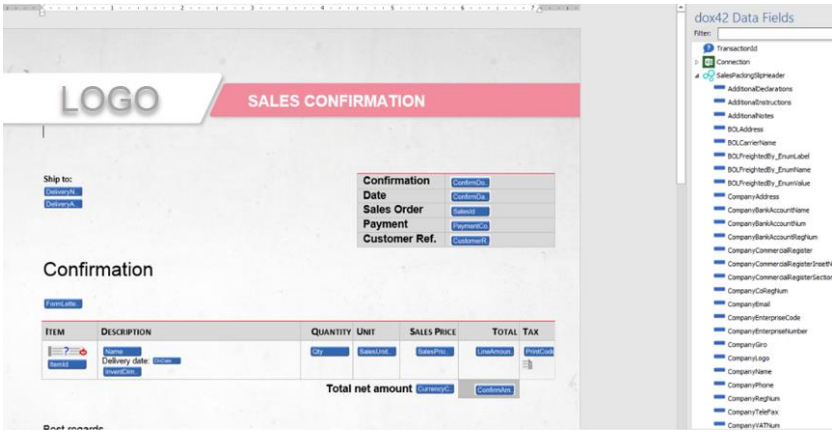
This chapter is an illustration on how easy it is to adapt a e.g. sales confirmation to a packing slip.

1. Copy the template and the Data Map

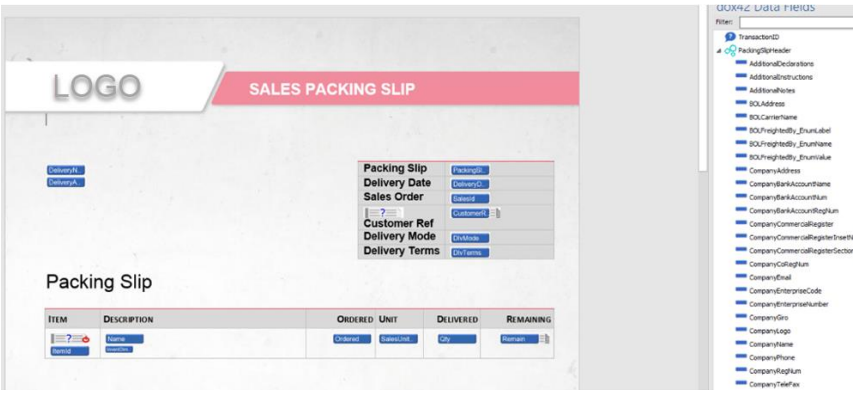
2. Change the Data Sources of the template



3. Replace the components from the sales confirm with the components of the sales packing slip components



4. Redefine the layout of the template



ADVANCED DOX42 FEATURES

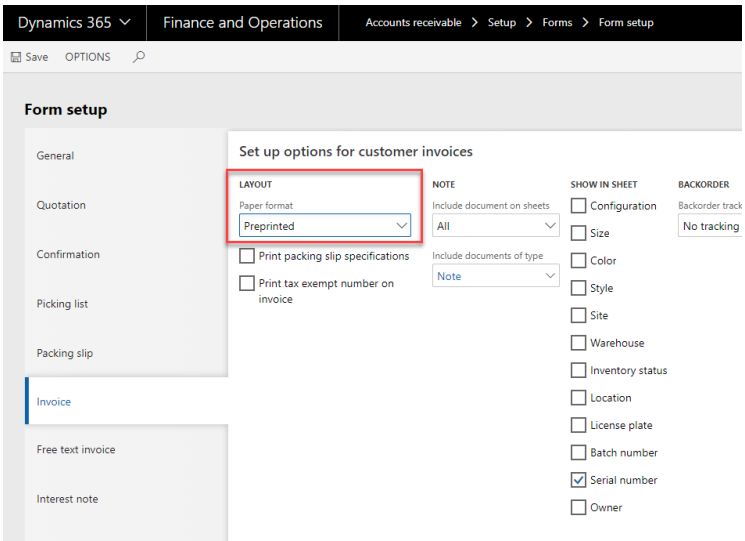
Printing with and without a blank paper

Often there is a problem with printing on preprinted paper, for example some printing papers contain the logo and some printing papers are blank. It should be decided automatically if the e.g. the logo will be printed on the report or not. Dynamics 365 for Finances and Operations provides the possibility to define on which paper the report should be printed, it is decide by using the parameter “PrePrintLevel_Enum”.

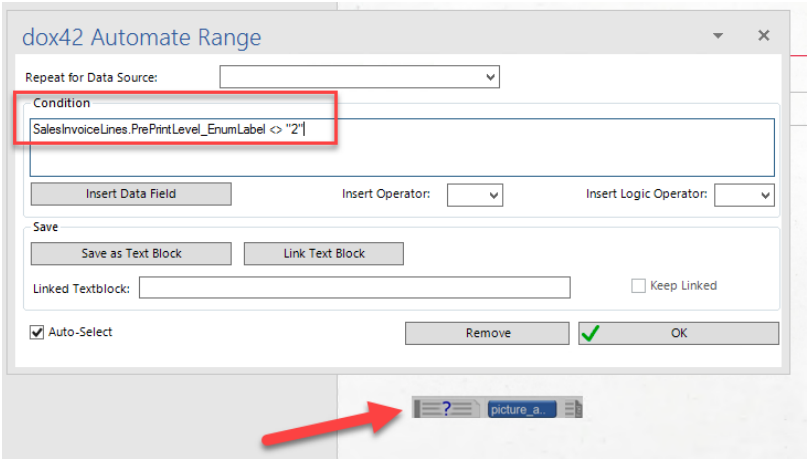
- Blank paper has the value “0”
- Partly preprinted has the value “1”
- Preprinted has the value “2”

Printing the sales invoice on a preprinted paper

1. Click on the module “Accounts receivable” then on the submodule “Setup”, in this submodule is the forms setup.
2. Choose the tab “Invoice” and decide on which paper format the invoice should be printed, illustrated in the picture below.



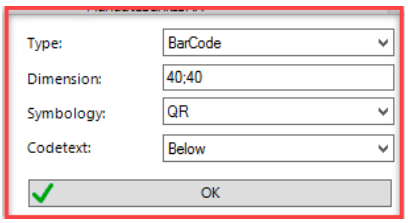
3. Switch to the template and define a condition on the element which should only be printed if the paper is partly printed or blank.



Creating a Barcode

There is also the option to display the placeholder as a barcode by simple inserting the type “BarCode” in the type-definition field. How the barcode is displayed can be determined in the fields below, an example is illustrated on the picture below.

The dimension of the barcode is determined in the field “Dimension” make sure a “;” is used to separate the dimension numbers.



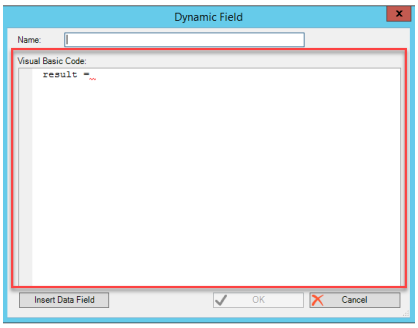
Dynamic field

A dynamic field in which it is possible to program e.g. some conditions or add a link. The programming language is Visual Basic.

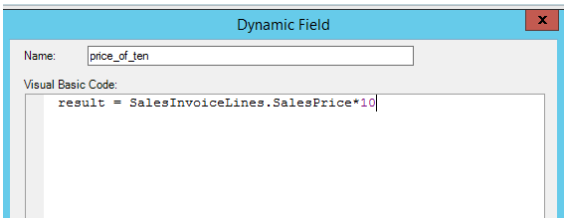
Note: Dynamics 365 and dox42 have different rounding setups. Dynamics 365 for Finance and Operations has the standard rounding setup, always using D365 for business calculations.

1. Creating a dynamic field
    a. Right click on the Data Source

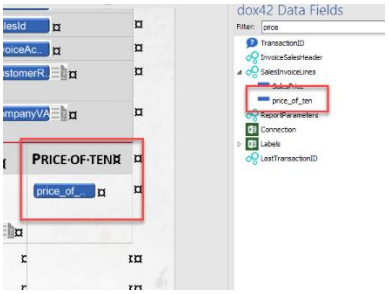
b. Selecting the field “Dynamic Field”, a window will pop up like displayed in the picture below.



c. Insert a name. Select a data field from the Data Sources with the button “Insert Data Field” e.g. the sales price and multiple it with 10.

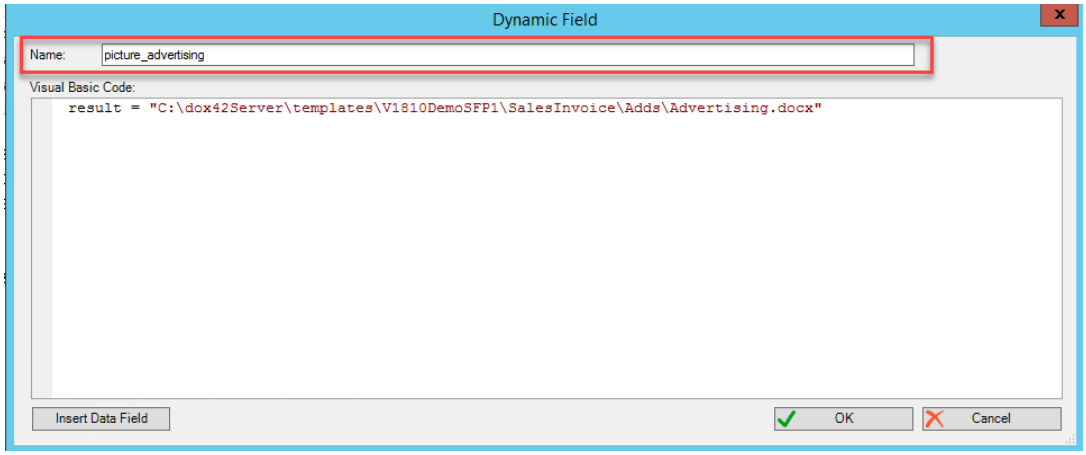


d. Select the dynamic field from the data box and drag it in the desired place.

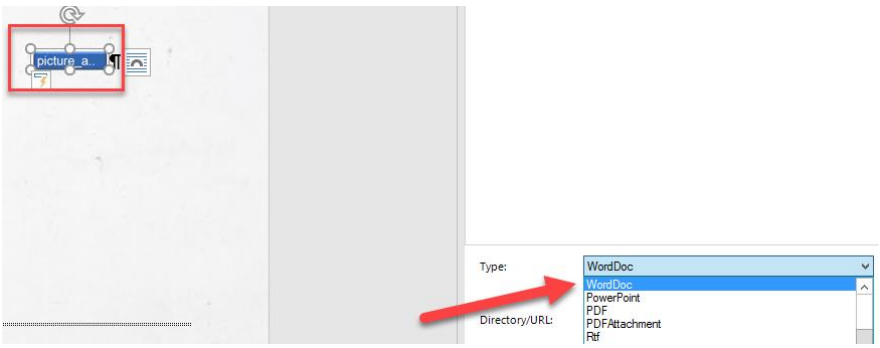


Adding a picture with a dynamic field

1. Create a Word document and add a picture, which should be shown later in the report
2. Copy the link of the path
3. Create a dynamic field. Name it and insert the link of the field



4. Select the dynamic field from the data box and define the type “WordDoc”.



A dynamic field is like a normal placeholder, there is for example also the possibility to set conditions.

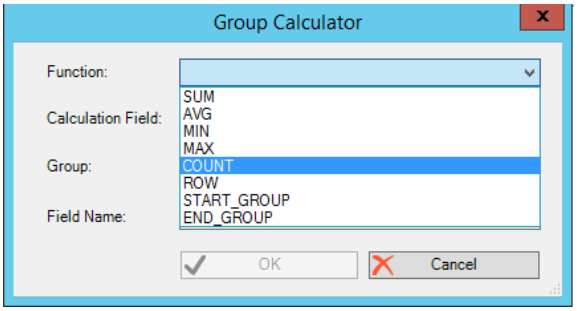
Group calculator

It is a feature with provides different kinds of calculations tools.

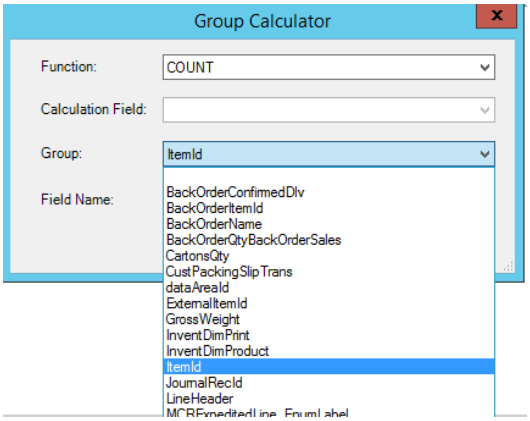
1. Creating a Group Calculator field

    a. Right click on a Data Source.

    b. Selecting the desired function for example “COUNT” for counting



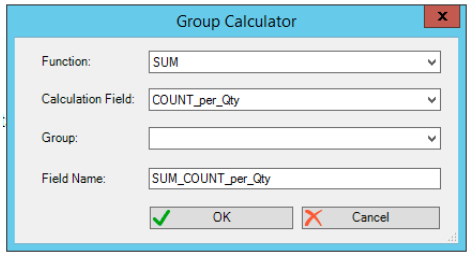
    c. Decide which field should be counted.



d. Insert a field name.

Count the lines of a packing slip

1. Create a group calculator which counts the ItemID
2. Create a second group calculator and insert in the field “Calculation Field” the before created group calculator field like in the picture below.



3. Insert the group calculator field in the desired place on the report.

SUPPORT

Should you have any questions, please do not hesitate to contact support@dox42.com. We are happy to help you!

Good luck with dox42!

Your dox42 Team