

sBarcode - The barcode generator for Microsoft Dynamics 365 Business Central

User Manual for Version 3



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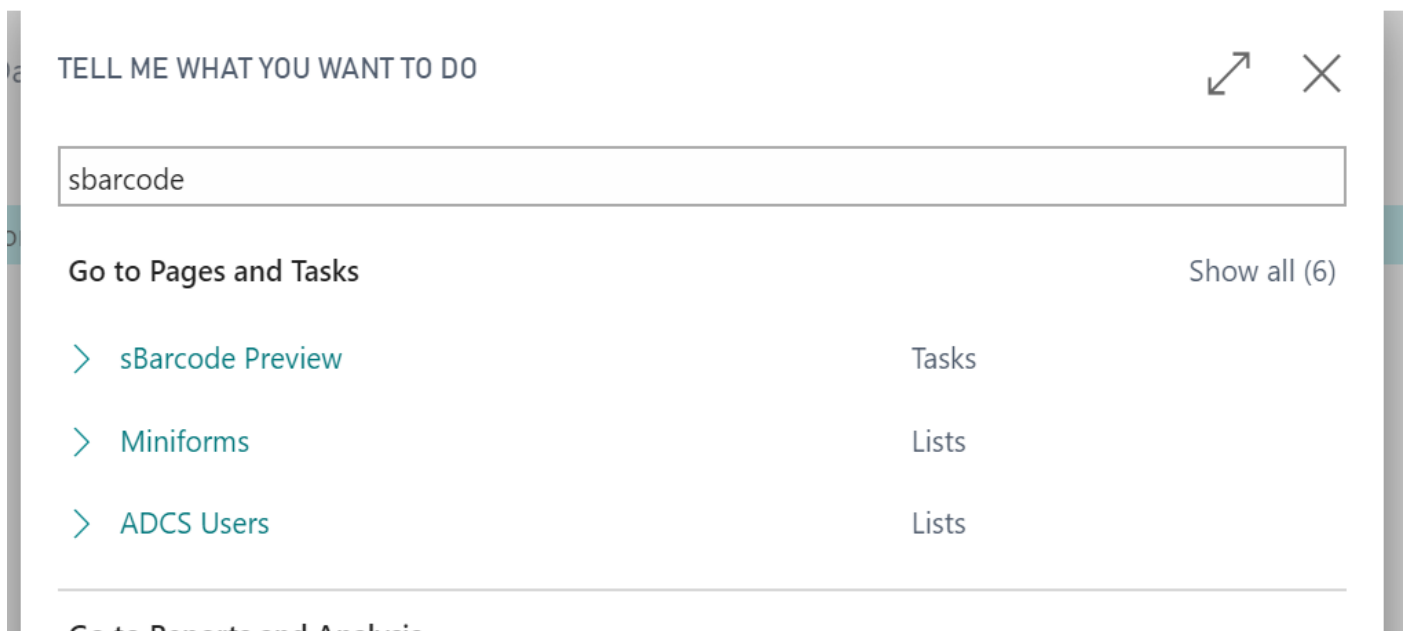
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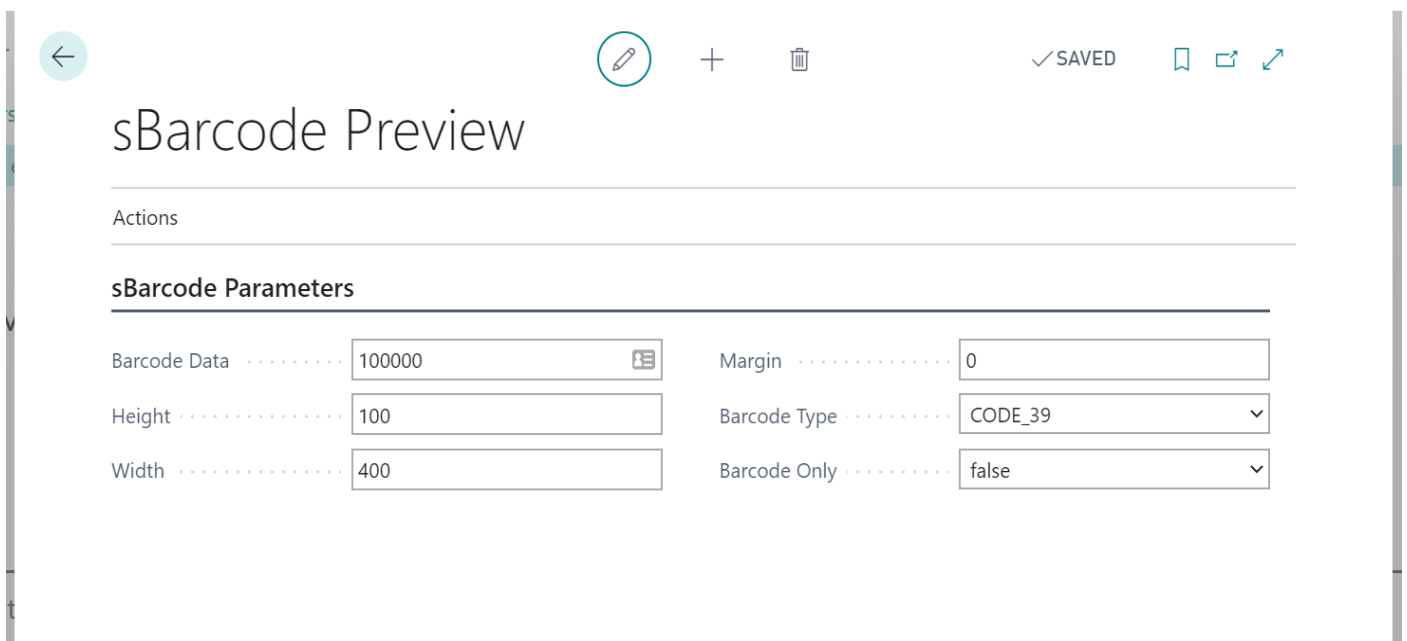
I. Preview generated barcodes

sBarcode includes a small application that allows you to preview the barcode generation.

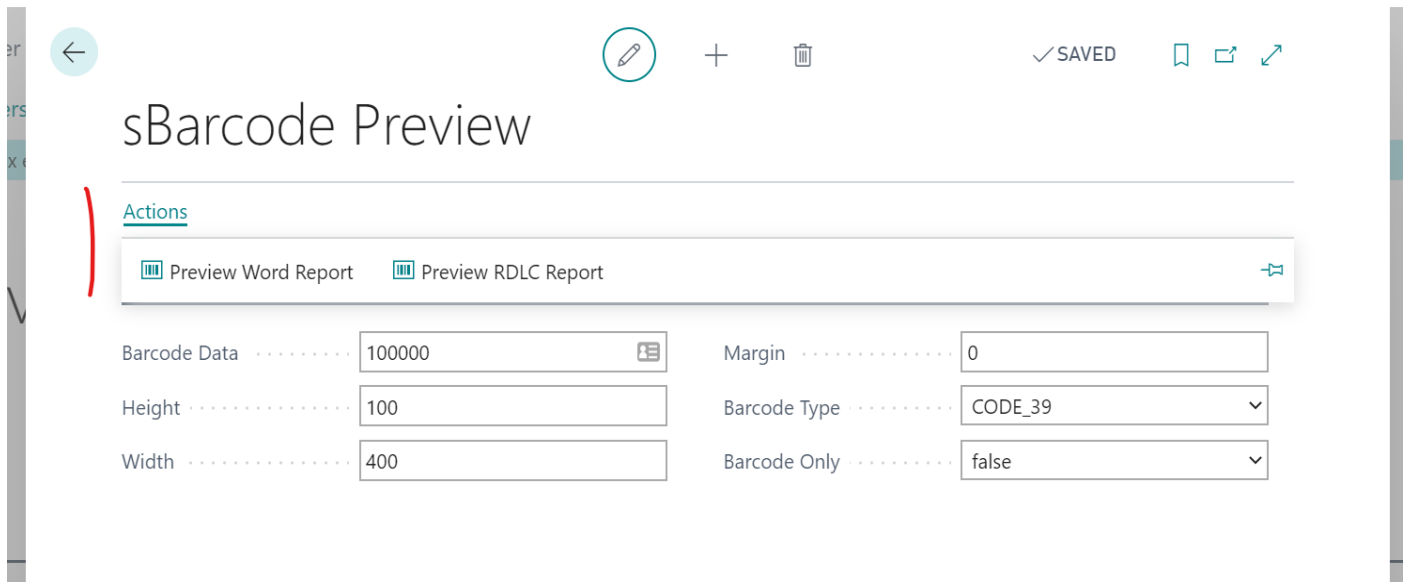
1. From the search bar enter "sBarcode Preview"

A screenshot of a search interface. At the top, there's a search bar with the placeholder text "TELL ME WHAT YOU WANT TO DO". Below the search bar, the text "sbarcode" is entered. To the right of the search bar are two icons: a magnifying glass and a close button (X). Below the search bar, there's a section titled "Go to Pages and Tasks" with a "Show all (6)" link to the right. Under this section, there are three items listed: "sBarcode Preview" (with a right arrow icon), "Miniforms" (with a right arrow icon), and "ADCS Users" (with a right arrow icon). To the right of these items, the word "Tasks" is aligned with "sBarcode Preview", and "Lists" is aligned with "Miniforms" and "ADCS Users".

2. In the card you can define various parameters of the barcode and preview the results. For now, we just take the default values given.

A screenshot of the "sBarcode Preview" card. At the top, there's a title "sBarcode Preview". Below the title, there's a section titled "Actions". Under "Actions", there's a section titled "sBarcode Parameters". This section contains two columns of parameters. The first column has "Barcode Data" (value: 100000), "Height" (value: 100), and "Width" (value: 400). The second column has "Margin" (value: 0), "Barcode Type" (value: CODE_39), and "Barcode Only" (value: false). Each parameter has a corresponding input field or dropdown menu.

3. From the Actions menu select „Preview Word Report“

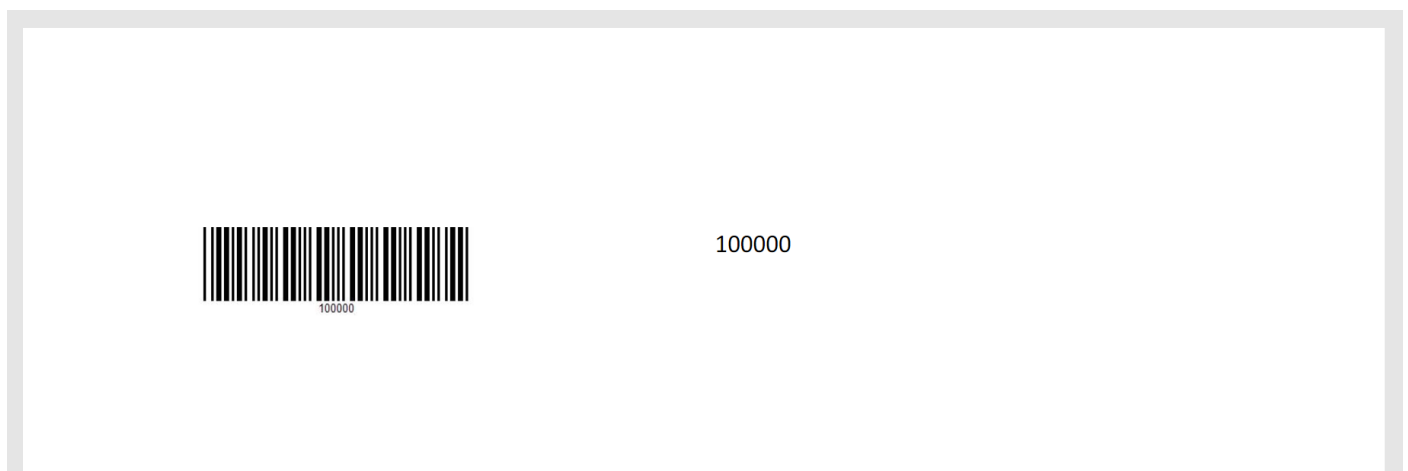


The screenshot shows the 'sBarcode Preview' window. At the top, there's a navigation bar with a back arrow, a pencil icon, a plus icon, a trash icon, and a 'SAVED' status. Below the title 'sBarcode Preview', there's an 'Actions' section with two buttons: 'Preview Word Report' and 'Preview RDLC Report'. The 'Preview Word Report' button is highlighted with a red bracket. Below the actions, there are two columns of input fields. The left column contains 'Barcode Data' (100000), 'Height' (100), and 'Width' (400). The right column contains 'Margin' (0), 'Barcode Type' (CODE_39), and 'Barcode Only' (false).

4. The PDF file will now download



5. A preview report is generated illustrating the barcode



II. How to integrate in Word Report

The guide will provide an overview for integrating the barcode solution into your Word Reports.

A. Prepare the AL Code

1. Ensure that the IBODigital sBarcode extension is installed from [Microsoft AppSource](https://appssource.microsoft.com/en-us/marketplace/apps?product=dynamics-365-business-central).
(<https://appssource.microsoft.com/en-us/marketplace/apps?product=dynamics-365-business-central>)
2. Prerequisite for developer is that you need to know how to configure `app.json` and `launch.json`.

Example `launch.json`

```
{
  "version": "0.2.0",
  "configurations": [
    {
      "type": "al",
      "request": "launch",
      "name": "Microsoft cloud sandbox",
      "startupObjectId": 22,
      "startupObjectType": "Page",
      "breakOnError": true,
      "launchBrowser": true,
      "enableLongRunningSqlStatements": true,
      "enableSqlInformationDebugger": true,
      "sandboxName": "Sandbox",
      "serverInstance": "Sandbox"
    }
  ]
}
```

Example app.json

```
{
  "appId": "3a166617-0b1b-4aa6-a151-6f9820c6dcdbd",
  "publisher": "IBO Digital",
  "name": "Barcode Report",
  "version": "1.2.15.4",
  "dependencies": [
    {
      "appId": "3a166617-0a1c-4cc6-a151-6f9810c6dcdbd",
      "publisher": "IBODigital GmbH",
      "name": "sBarcode",
      "version": "1.3.15.4"
    }
  ],
  "idRanges": [
    {
      "from": 50900,
      "to": 50901
    }
  ]
}
```

Note: You might need to change version in `app.json` as per the recent installed version.

Note: You may need to adjust the ID ranges of the application depending upon your current install environment.

3. Once all basic configuration is done & you need to download the latest symbols (View ⇒ Command Pallet ⇒ AL: Download Symbols), delete the "HelloWorld.al" file and create a Microsoft Word report file "WordReportExample.al" as shown below.

In this example we are create a report based upon the Sales Header dataset.

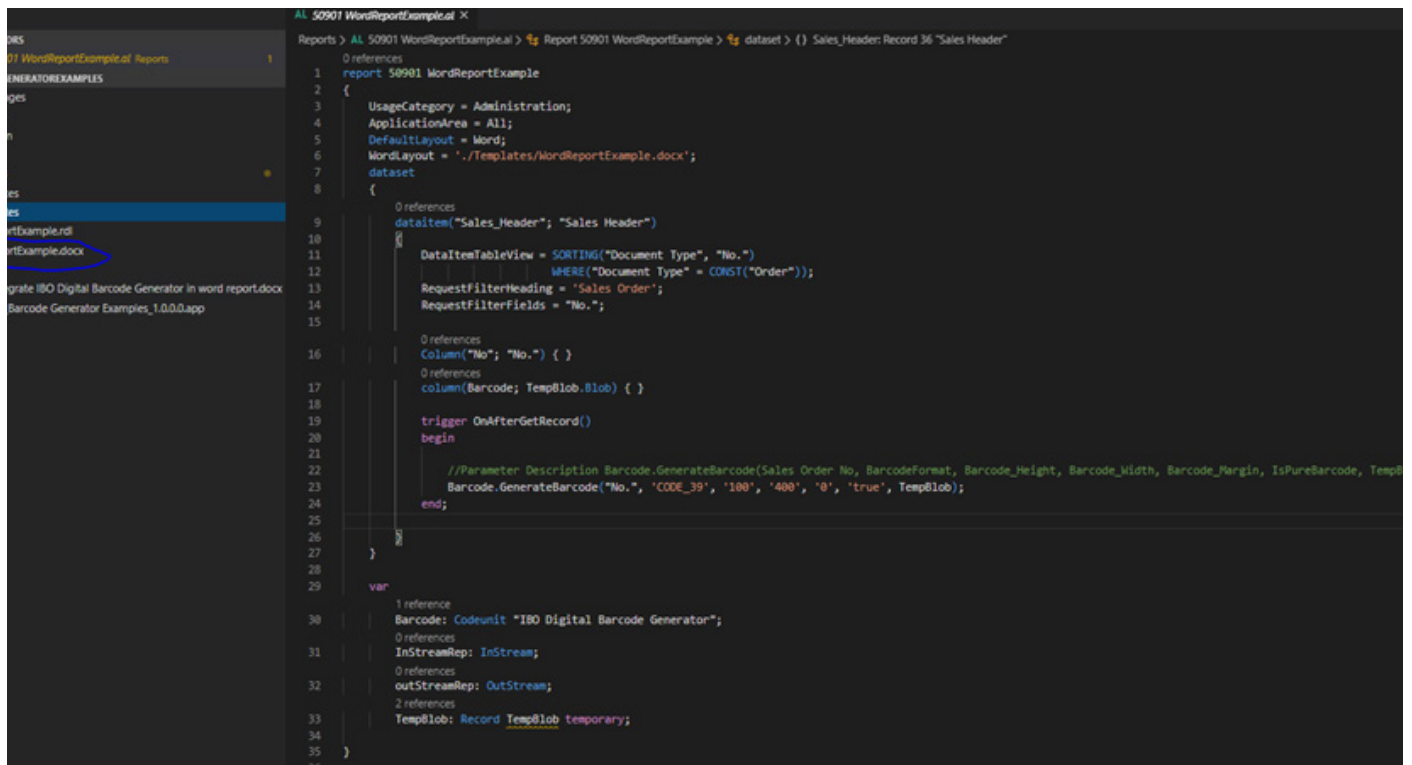
```
report 50901 WordReportExample
{
    UsageCategory = Administration;
    ApplicationArea = All;
    DefaultLayout = Word;
    WordLayout = './Templates/WordReportExample.docx';
    dataset
    {
        dataitem("Sales_Header"; "Sales Header")
        {
            DataItemTableView = SORTING("Document Type", "No.")
                                WHERE("Document Type" = CONST("Order"));
            RequestFilterHeading = 'Sales Order';
            RequestFilterFields = "No.";

            Column("No"; "No.") { }
            column(Barcode; TempBlob.Blob) { }
            trigger OnAfterGetRecord()
            begin
                //Parameter Description Barcode.GenerateBarcode(-
                Sales Order No, BarcodeFormat, Barcode_Height, Barcode_Width, Barcode_
                Margin, IsPureBarcode, TempBlob);
                Barcode.GenerateBarcode("-
                No.", 'CODE_39', '100', '400', '0', 'true', TempBlob1);
                TempBlob1.CreateInStream(InStreamRep);
                TempBlob.Blob.CreateOutStream(outStreamRep);
                CopyStream(outStreamRep, InStreamRep)
            end;
        }
    }

    var
        Barcode: Codeunit "IBODigital sBarcode";
        InStreamRep: InStream;
        outStreamRep: OutStream;
        TempBlob: Record TempBlob temporary;
        TempBlob1: Codeunit „Temp Blob“;
}
```

4. Publish the report by going to View ⇒ Command Pallet ⇒ AL Publish

5. Once the report is published, it will automatically generate the "WordReportExample.docx" under Templates folder

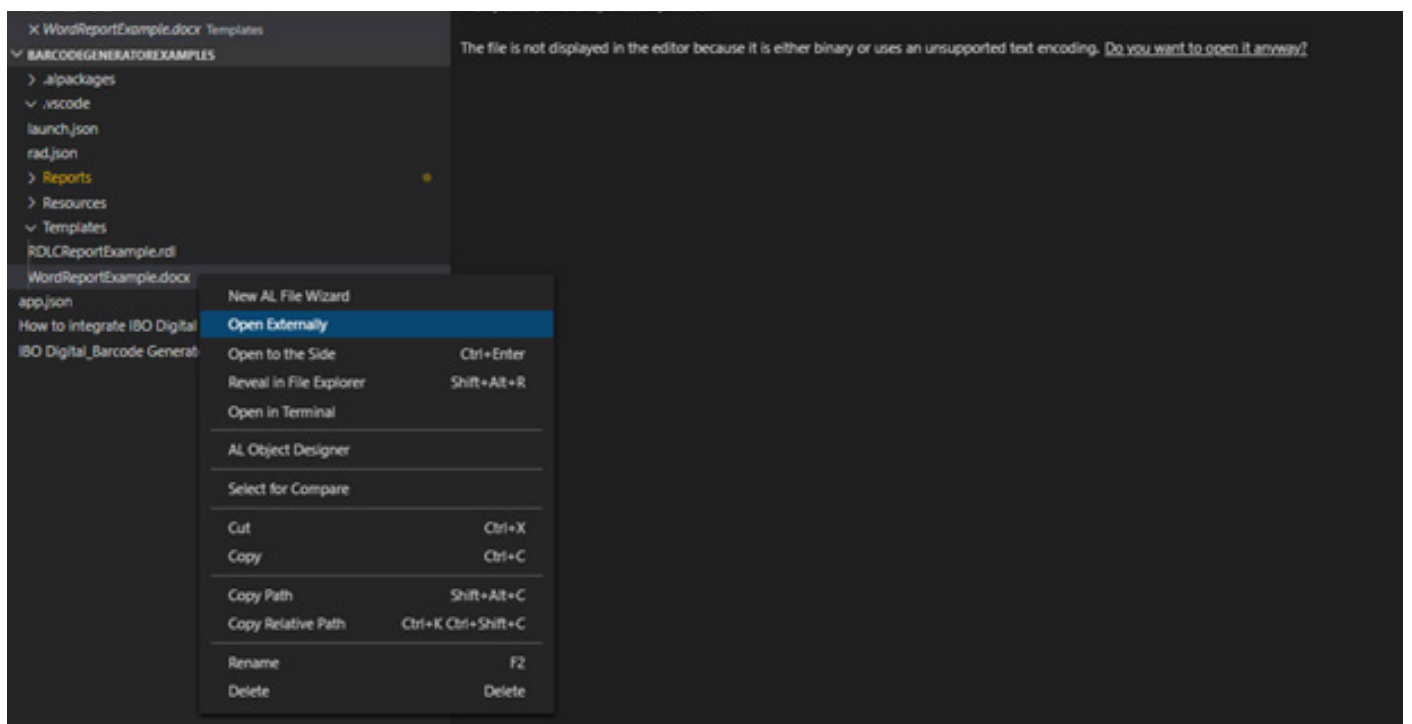


```

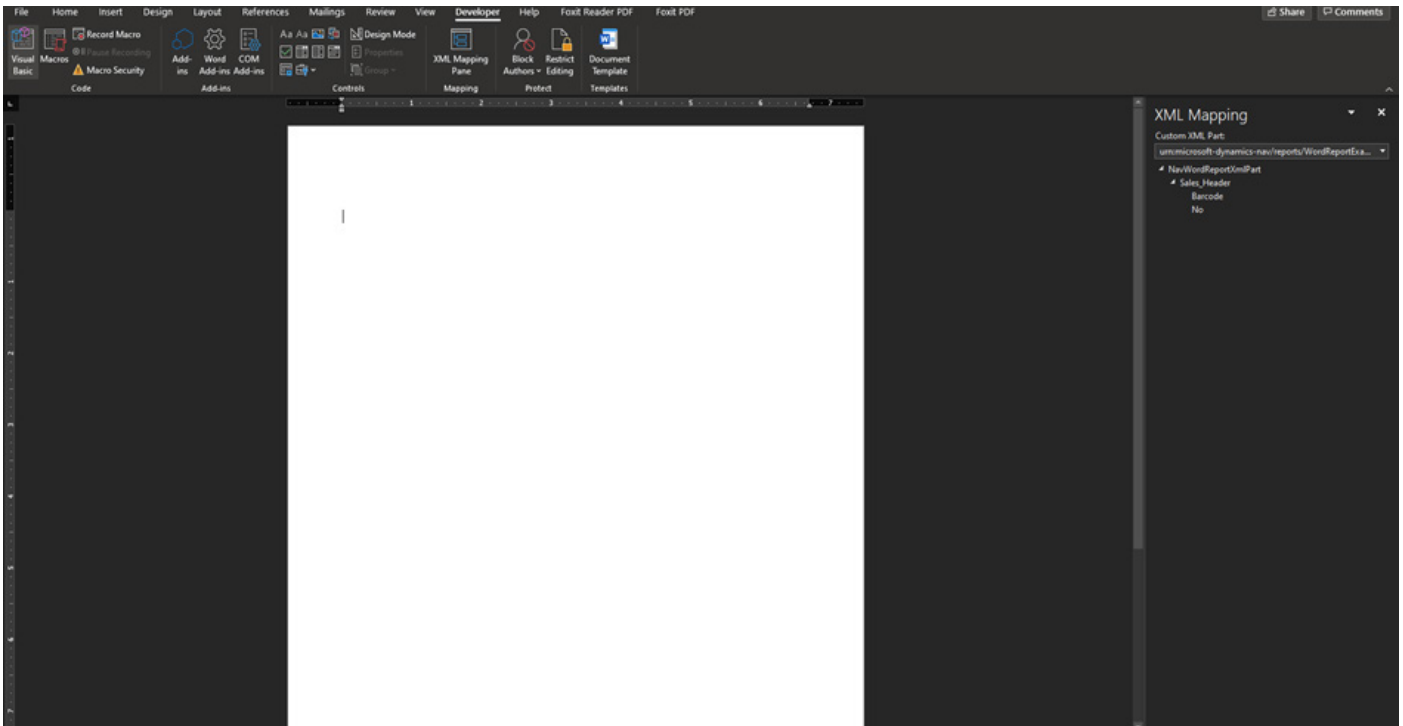
1 report 50901 WordReportExample
2 {
3     UsageCategory = Administration;
4     ApplicationArea = All;
5     DefaultLayout = Word;
6     WordLayout = './Templates/WordReportExample.docx';
7     dataset
8     {
9         0 references
10         dataitem("Sales_Header"; "Sales Header")
11         {
12             DataItemTableView = SORTING("Document Type", "No.");
13             WHERE("Document Type" = CONST("Order"));
14             RequestFilterHeading = "Sales Order";
15             RequestFilterFields = "No.";
16
17             0 references
18             Column("No"; "No.") { }
19             0 references
20             column(Barcode; TempBlob.Blob) { }
21
22             trigger OnAfterGetRecord()
23             begin
24                 //Parameter Description Barcode.GenerateBarcode(Sales Order No, BarcodeFormat, Barcode_Height, Barcode_Width, Barcode_Margin, IsPureBarcode, TempBlob);
25                 Barcode.GenerateBarcode("No.", 'CODE_39', '100', '400', '0', 'true', TempBlob);
26             end;
27         }
28     }
29
30     var
31         1 reference
32         Barcode: Codeunit "IBO Digital Barcode Generator";
33         0 references
34         InStreamRep: InStream;
35         0 references
36         OutStreamRep: OutStream;
37         2 references
38         TempBlob: Record TempBlob temporary;
39     }

```

6. Open a "WordReportExample.docx" file in Microsoft Word (right click "Open Externally")



7. Open XML Mapping Pane from Developer's tab. If the Developer tab is not shown, you can enable it by selecting File ⇒ Options ⇒ Customize Ribbon ⇒ enable the Developer tab in the right list box.

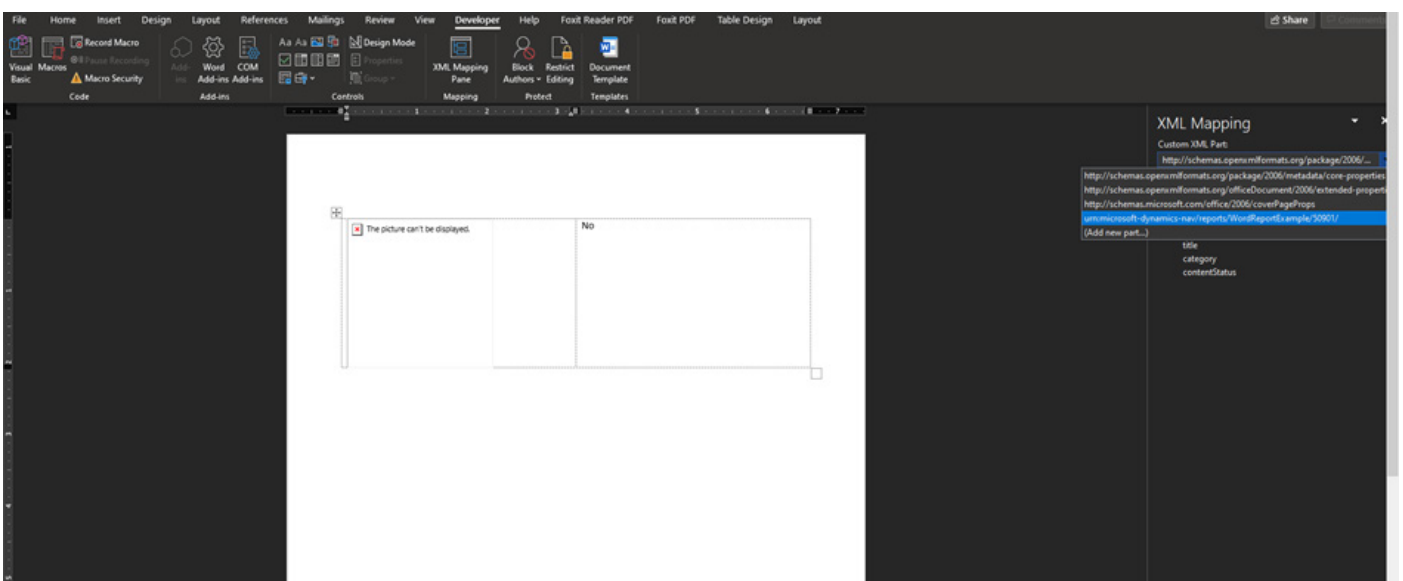


8. Add the fields in the report by selecting the mapping part `urn:microsoft-mapping-part/reports/WordReportExample`. As we are creating a Sales Report the Barcode and Number options appear under Sales_Header.

9. Right click on the Barcode. Select "Insert Content Control" ⇒ "Picture"

10. For the Number select "Insert Content Control" ⇒ Plain Text

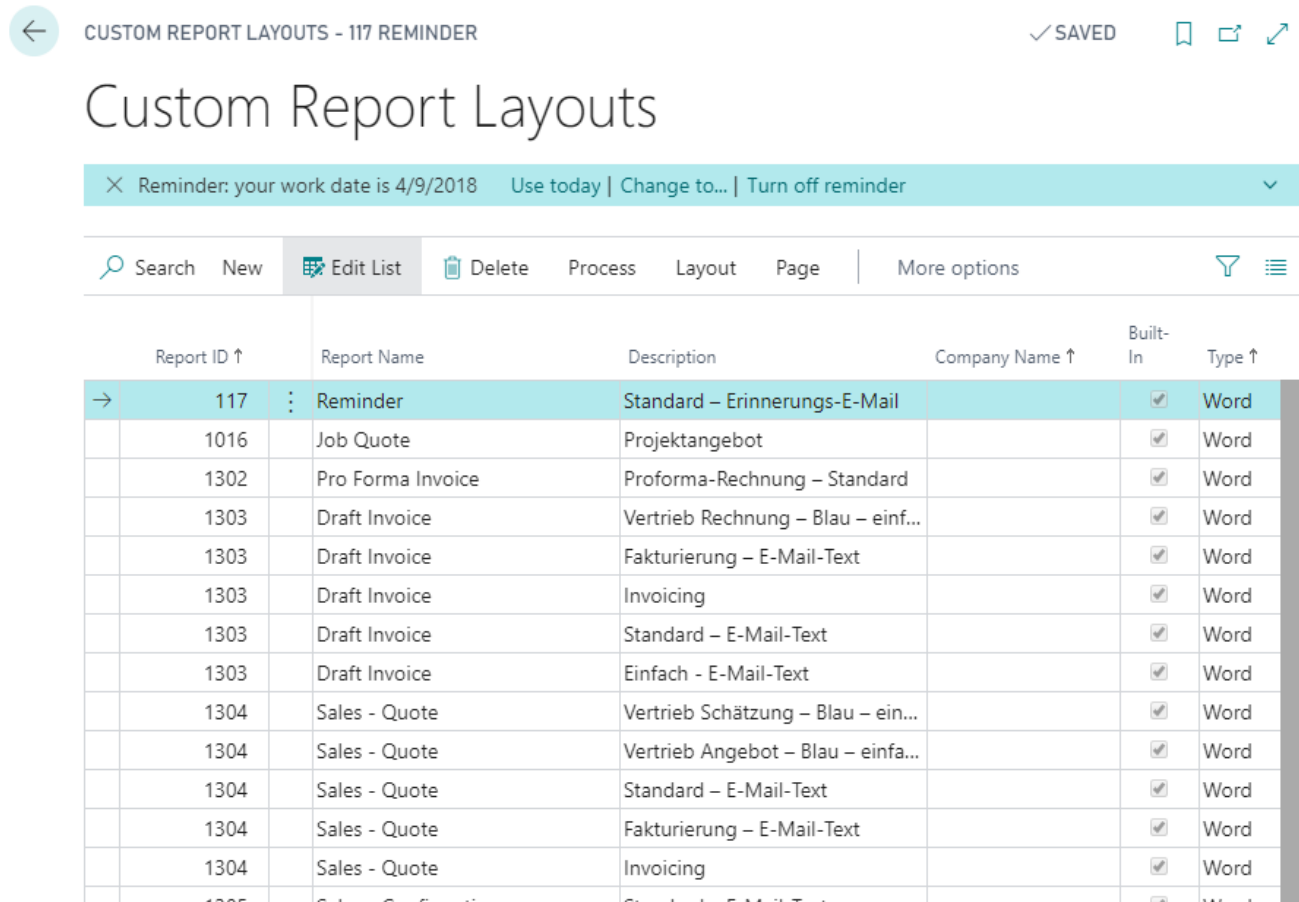
11. Once done save and close the "WordReportExample.docx" file



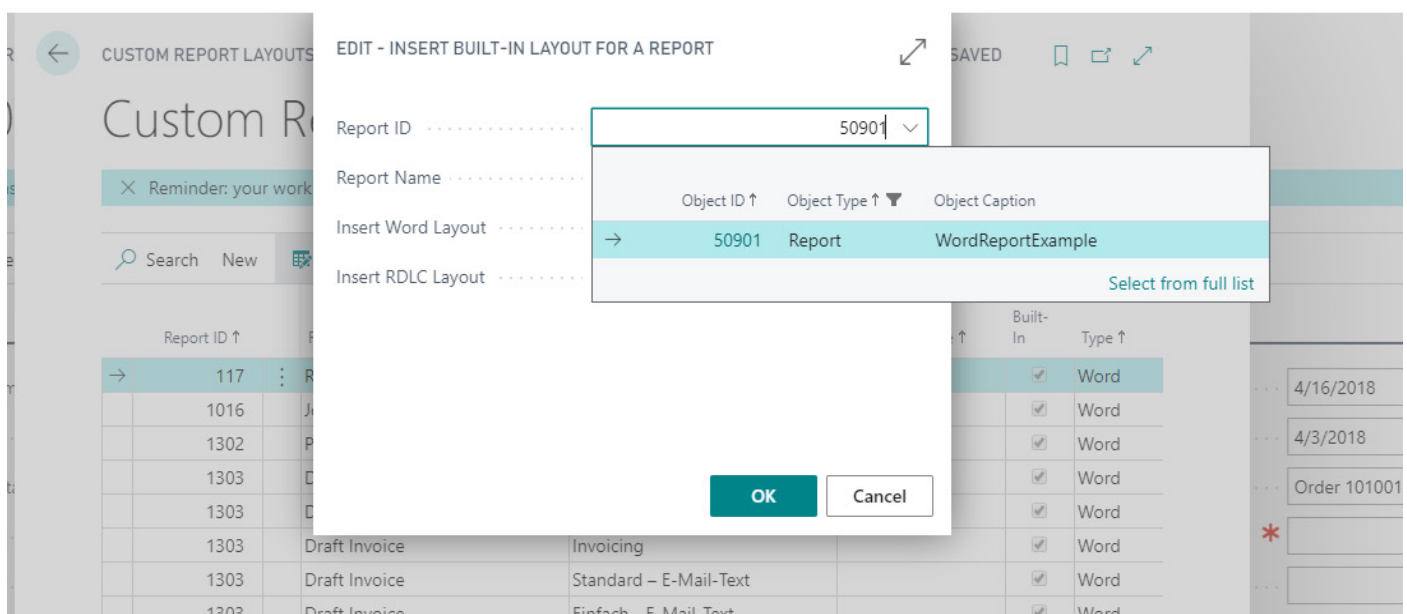
7. Publish the report to Microsoft Dynamics 365 Business Central: View ⇒ Command Pallet ⇒AL: Publish

B. Using the Word Report in Microsoft Dynamics 365 Business Central

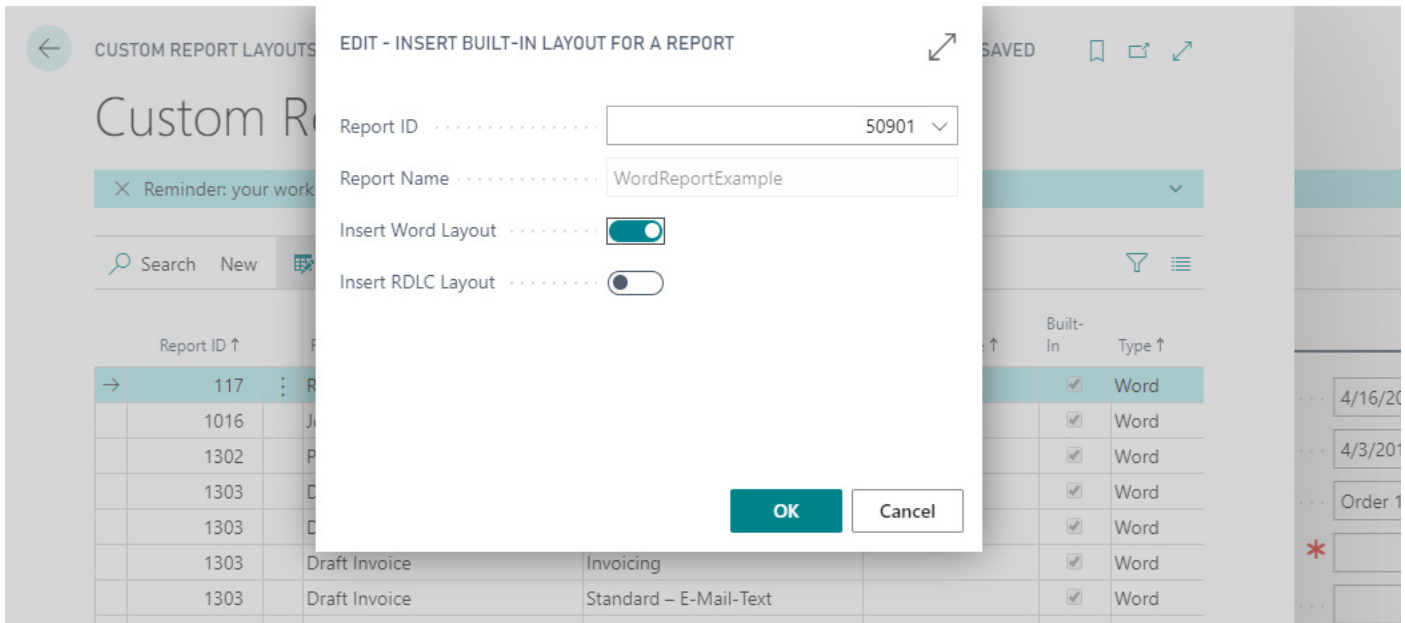
1. To view the report Open Business Central Web client and create new "Custom Report Layout"



2. Select your published report by entering the Report ID: 50901

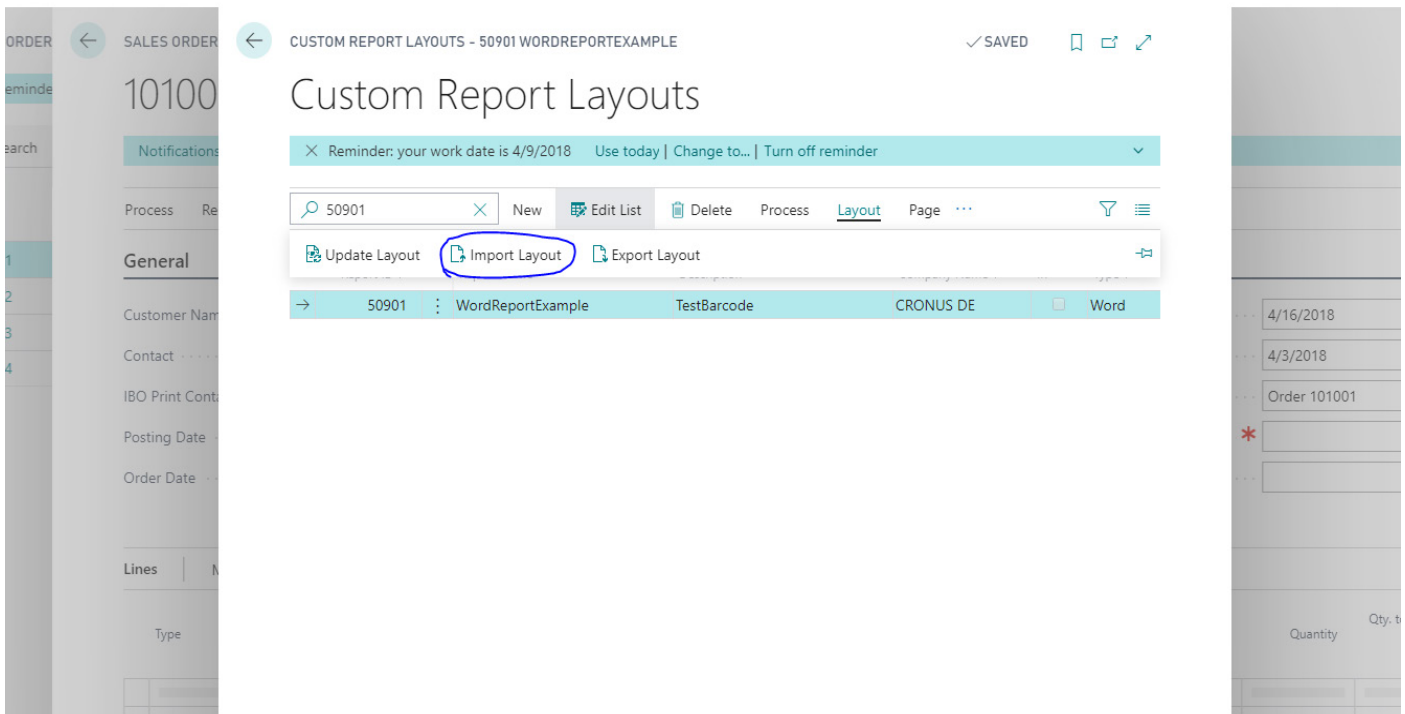


3. Select "Insert Word Layout" option

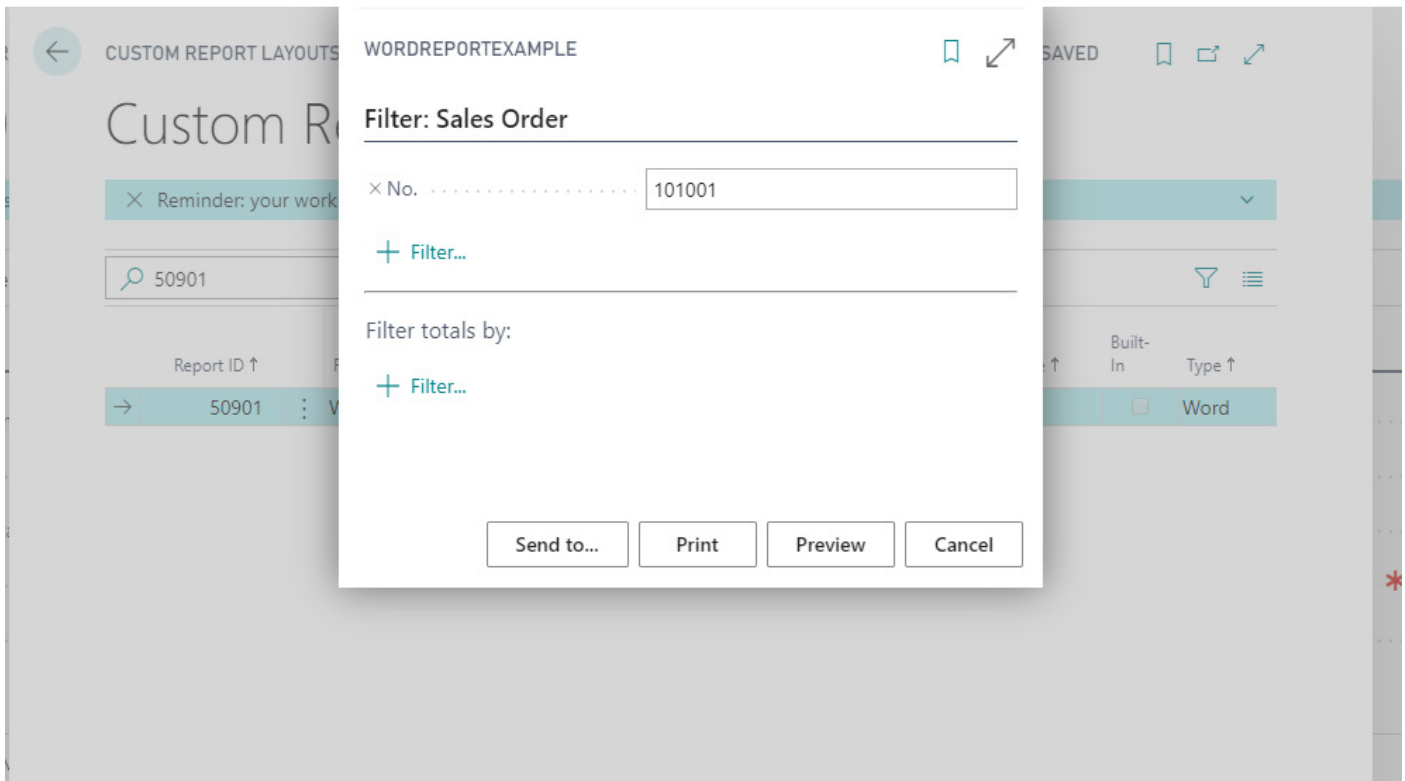


4. Import your word template. From the menu select: Layout ⇒ Import Layout. Select the word template which you have created inside your AL project.

Dynamics 365 Business Central



5. Run the report. From menu select: Process ⇒ Run Report.



6. Click on the "Preview" button and you will see your report.



101001

C. Not working for you?

Be sure to check the latest documentation and examples from our repository.

<https://github.com/ibodigital/barcode/archive/master.zip>

or contact us at:

<https://support.ibodigital.com>

III. How to integrate in RDLC Report

The guide will provide an overview for integrating the barcode solution into your RDLC Reports.

A. Prepare the AL Code

1. Ensure that the IBODigital sBarcode extension is installed from [Microsoft AppSource](https://appssource.microsoft.com/en-us/marketplace/apps?product=dynamics-365-business-central). (<https://appssource.microsoft.com/en-us/marketplace/apps?product=dynamics-365-business-central>)
2. Prerequisite for developer is that you need to know how to configure `app.json` and `launch.json`.

Example `launch.json`

```
{
  "version": "0.2.0",
  "configurations": [
    {
      "type": "al",
      "request": "launch",
      "name": "Microsoft cloud sandbox",
      "startupObjectId": 22,
      "startupObjectType": "Page",
      "breakOnError": true,
      "launchBrowser": true,
      "enableLongRunningSqlStatements": true,
      "enableSqlInformationDebugger": true,
      "sandboxName": "Sandbox",
      "serverInstance": "Sandbox"
    }
  ]
}
```

Example `app.json`

```
{
  "appId": "3a166617-0b1b-4aa6-a151-6f9820c6dcbd",
  "publisher": "IBO Digital",
  "name": "Barcode Report",
  "version": "1.2.15.4",
  "dependencies": [
    {
      "appId": "3a166617-0a1c-4cc6-a151-6f9810c6dcbd",
      "publisher": "IBODigital GmbH",
      "name": "sBarcode",
      "version": "1.3.15.4"
    }
  ],
  "idRanges": [
    {
      "from": 50900,
      "to": 50901
    }
  ]
}
```

Note: You might need to change version in `app.json` as per the recent installed version.

Note: You may need to adjust the ID ranges of the application depending upon your current install environment.

3. Once all basic configuration is done and you need to download the latest symbols (View ⇒ Command Pallet ⇒ AL: Download Symbols), delete the `"HelloWorld.al"` file and create a RDLC report as shown below.

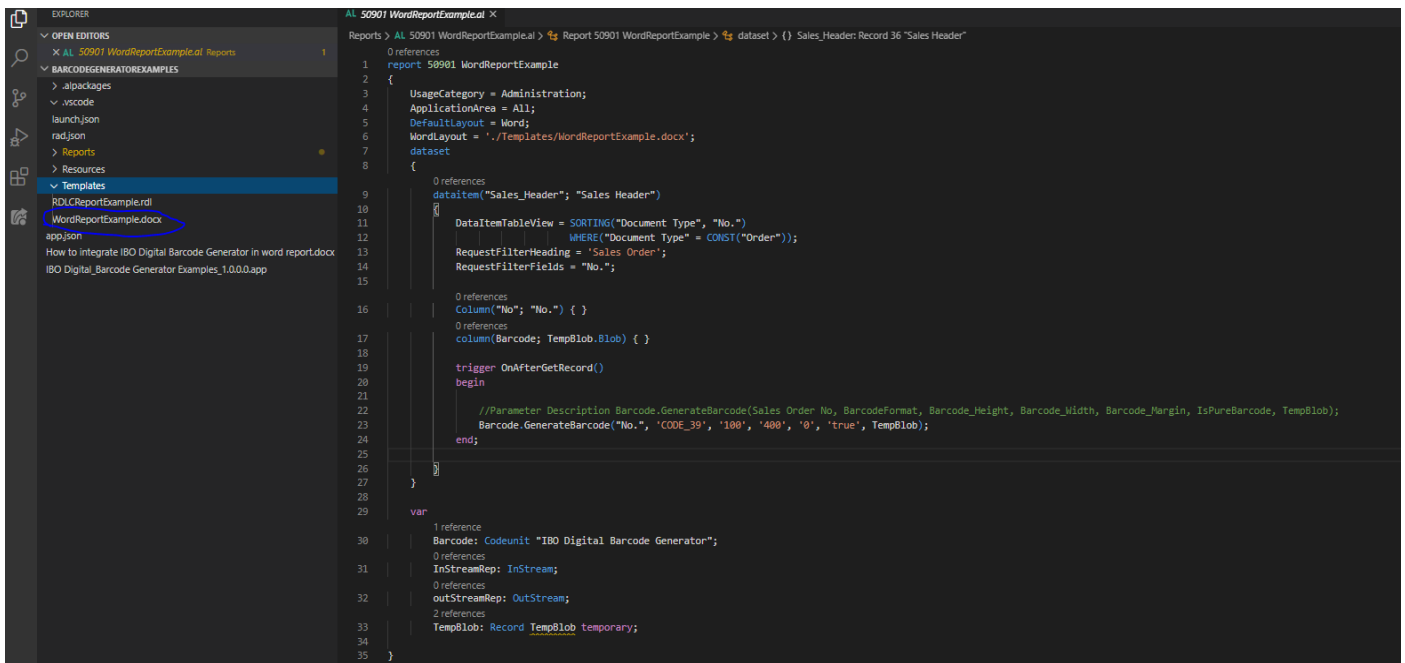
```
report 50902 RDLReportExample
{
    UsageCategory = Administration;
    ApplicationArea = All;
    DefaultLayout = RDL;
    RDCLayout = './Templates/RDLReportExample.rdl';
    dataset
    {
        dataitem("Sales_Header"; "Sales Header")
        {
            DataItemTableView = SORTING("Document Type", "No.")
                                WHERE("Document Type" = CONST("Order"));
            RequestFilterHeading = 'Sales Order';
            RequestFilterFields = "No.";

            Column("No"; "No.") { }
            column(Barcode; TempBlob.Blob) { }
            trigger OnAfterGetRecord()
            begin
                //
                Barcode.GenerateBarcode("No.", var_BarcodeFormat, var_Barcode_Height, var_Barcode_Width, var_Barcode_Margin, var_IsPureBarcode, TempBlob);
                Barcode.GenerateBarcode("-No.", 'CODE_39', '100', '400', '0', 'true', TempBlob1);
                TempBlob1.CreateInStream(InStreamRep);
                TempBlob.Blob.CreateOutStream(outStreamRep);
                CopyStream(outStreamRep, InStreamRep)
            end;
        }
    }

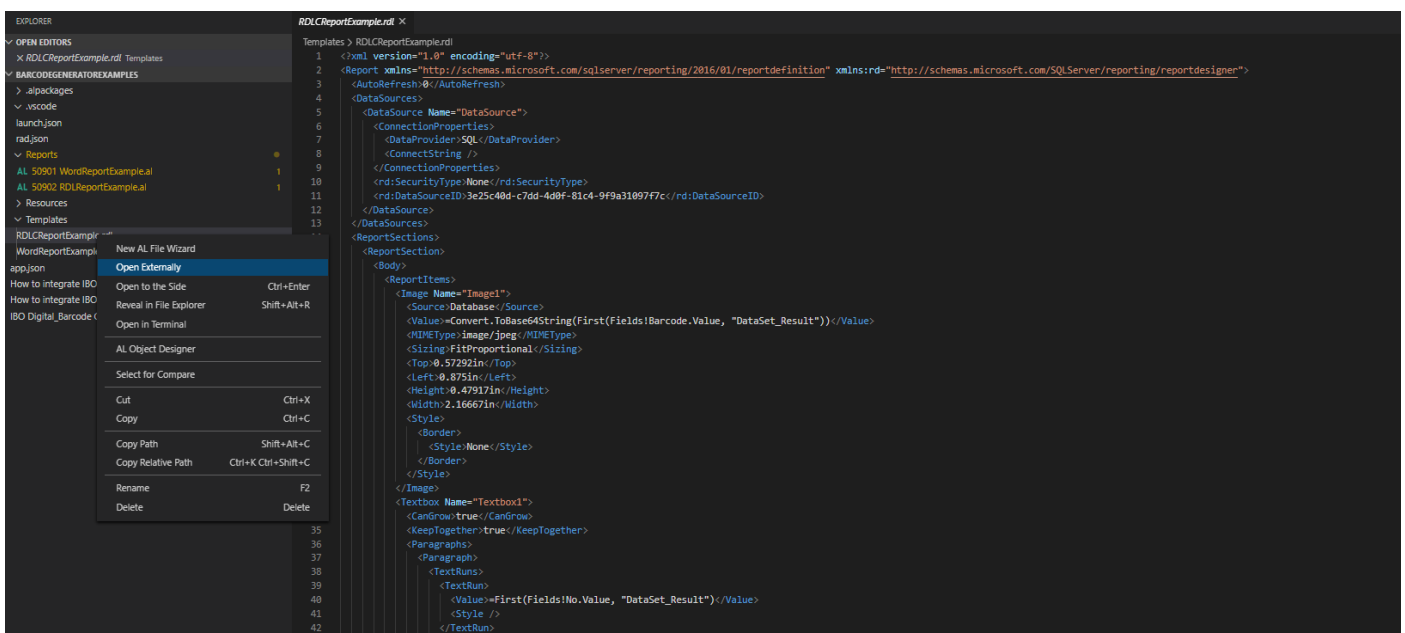
    var
        Barcode: Codeunit "IBODigital sBarcode";
        InStreamRep: InStream;
        outStreamRep: OutStream;
        TempBlob: Record TempBlob temporary;
        TempBlob1: Codeunit "Temp Blob";
}
```

4. Publish the report using by going to command: View ⇒ Command Pallet ⇒ AL: Publish

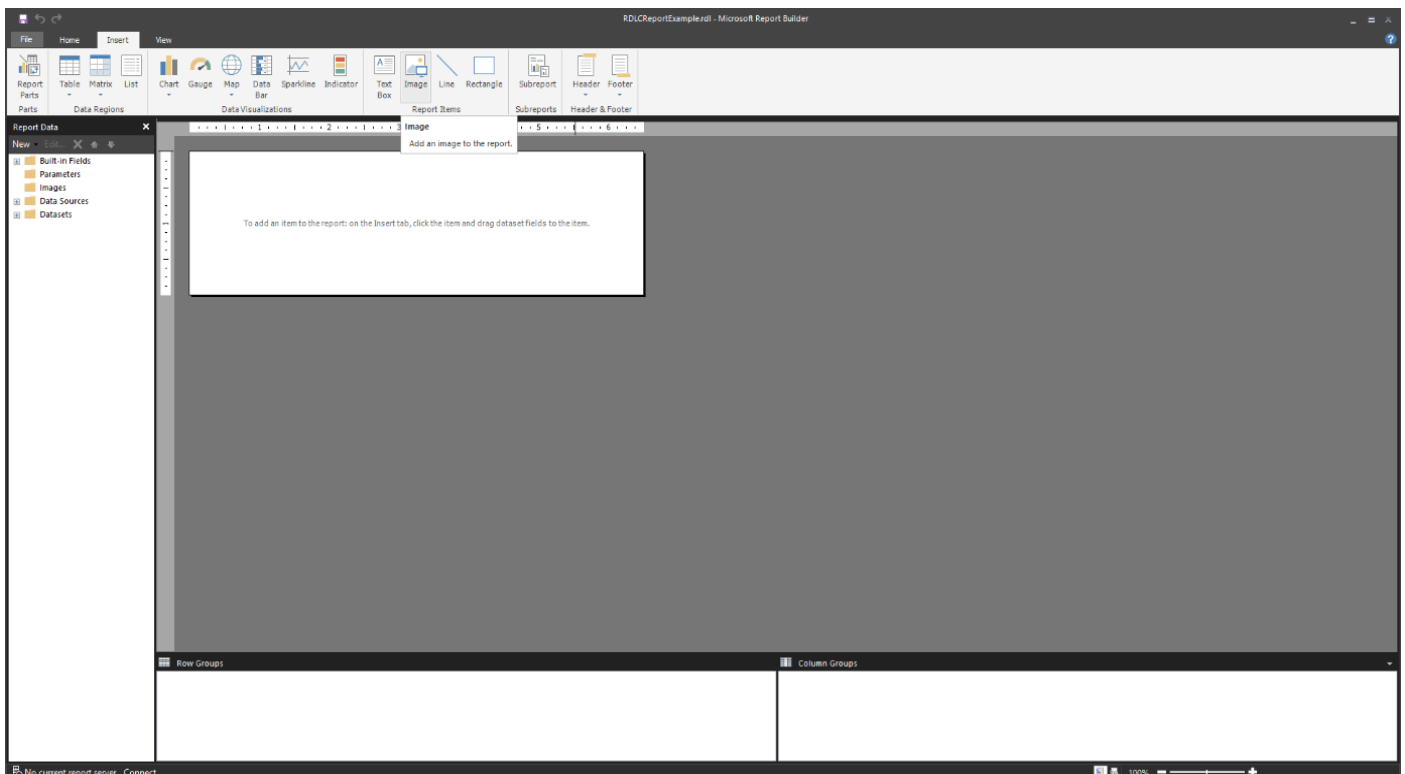
5. Once the report is published, it will automatically generate the "RDLCReportExample.rdl" file under the Templates folder



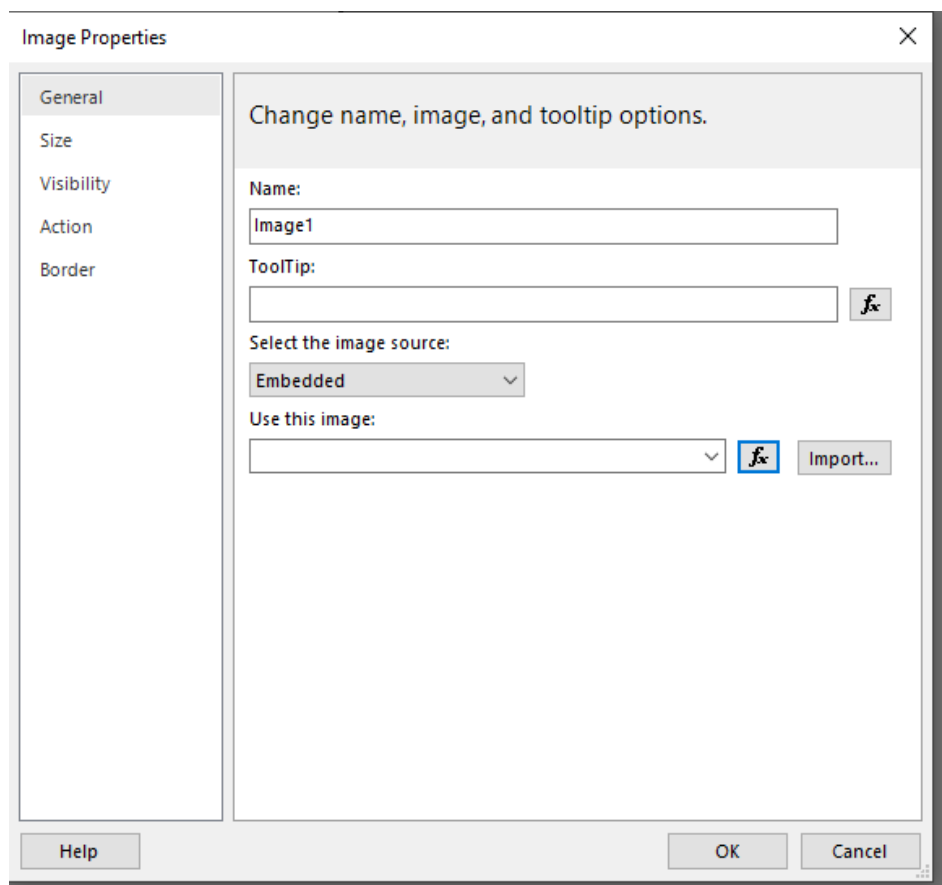
6. Open a "RDLCReportExample.rdl" file in the Report Builder. Right click and select "Open Externally". The [Microsoft Report Builder](https://www.microsoft.com/en-us/download/confirmation.aspx?id=53613) (<https://www.microsoft.com/en-us/download/confirmation.aspx?id=53613>) needs to be installed.



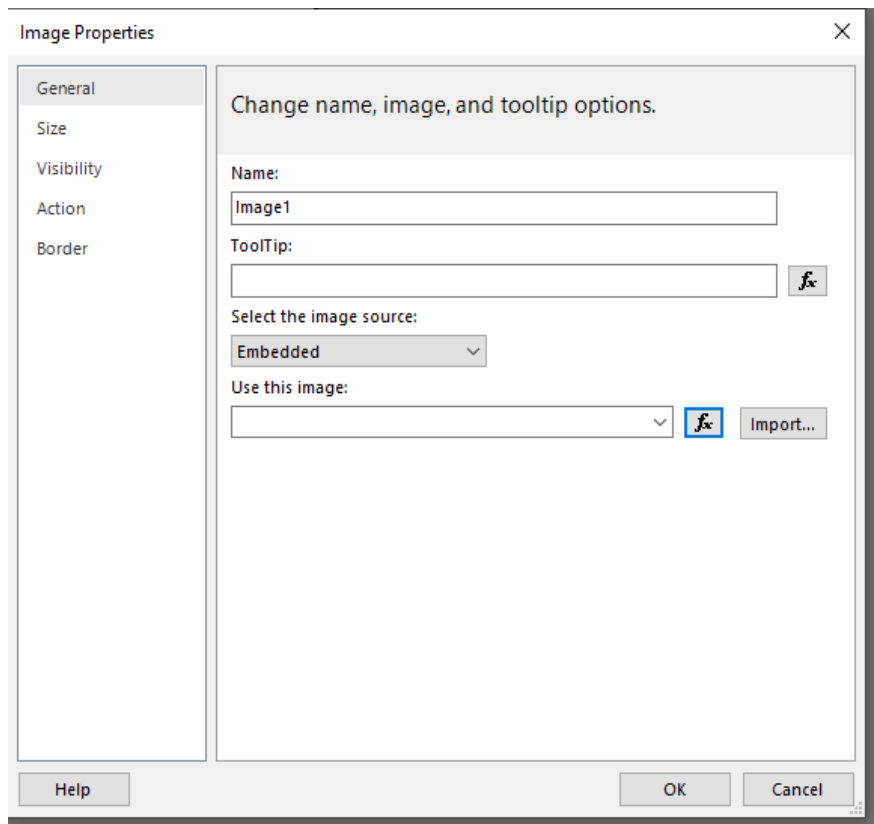
7. Click on "Image" from the menu to insert "Image" field.



8. In the "Image properties" change the image source to: "Database"

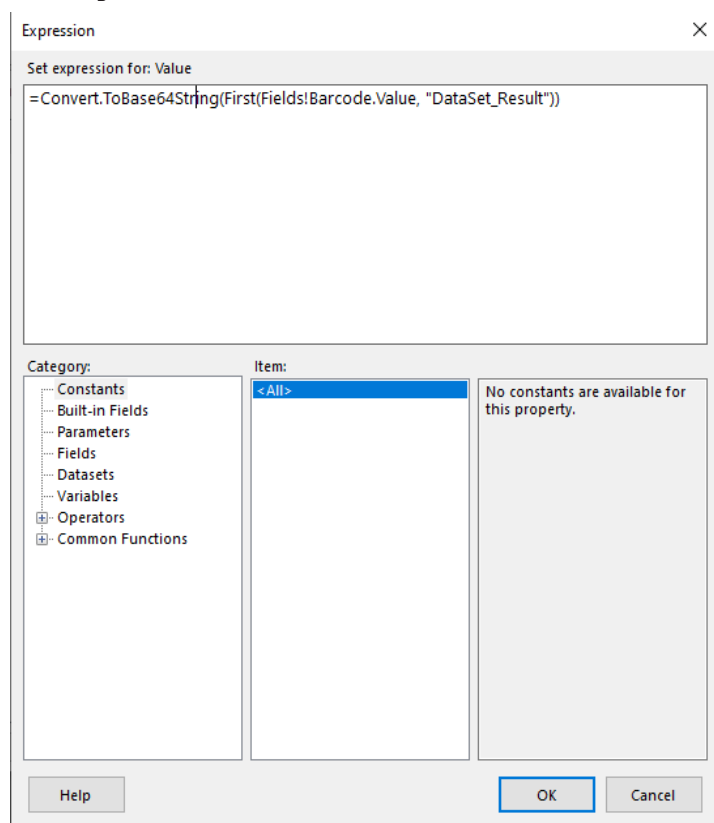


9. Set the MIME type as "image/jpeg"



10. In "Use this field" click the expression button and add following formula then click on OK.

```
=Convert.ToBase64String(First(Fields!Barcode.Value, „DataSet_Result“))
```

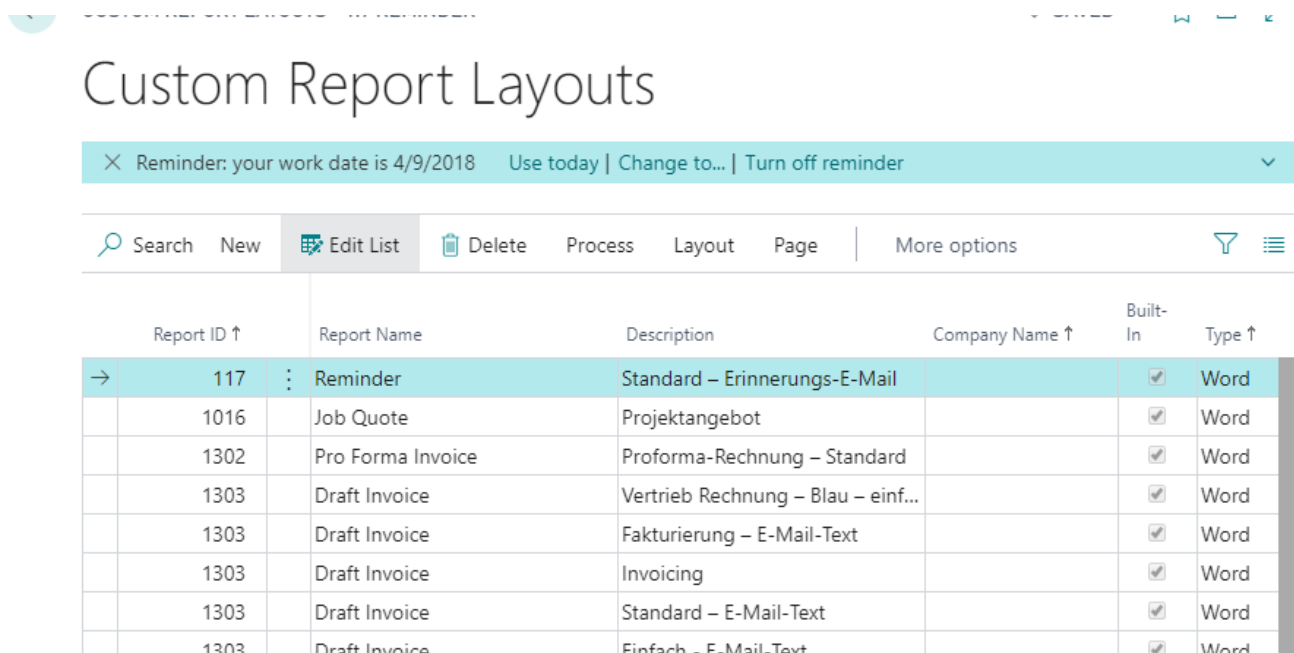


11. Save and close the report

12. Publish extension in Microsoft Dynamics 365 Business Central: View ⇒ Command Pallet ⇒ AL: Publish

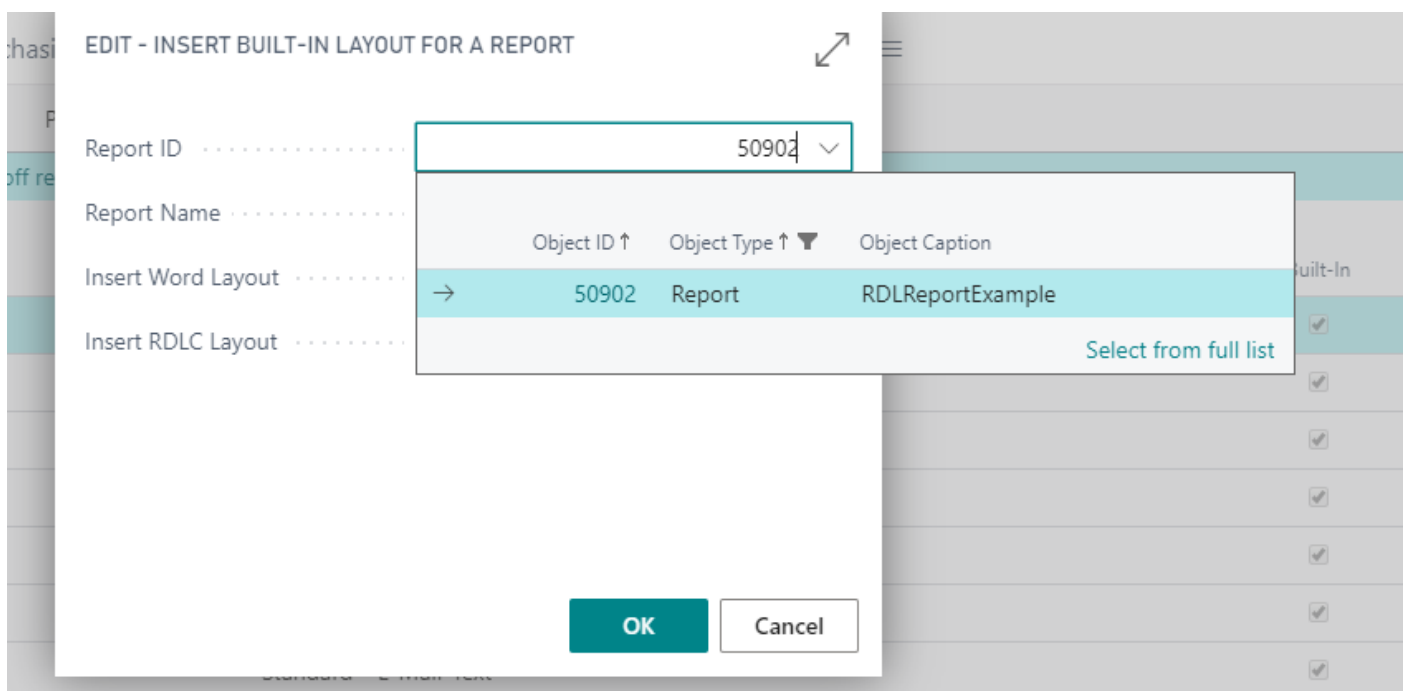
B. Using the RDLC Report in Microsoft Dynamics 365 Business Central

1. To test the report open Microsoft Dynamics 365 Business Central web client and create a new "Custom Report Layout"



Report ID ↑	Report Name	Description	Company Name ↑	Built-In	Type ↑
→ 117	Reminder	Standard – Erinnerungs-E-Mail		☒	Word
1016	Job Quote	Projektangebot		☒	Word
1302	Pro Forma Invoice	Proforma-Rechnung – Standard		☒	Word
1303	Draft Invoice	Vertrieb Rechnung – Blau – einf...		☒	Word
1303	Draft Invoice	Fakturierung – E-Mail-Text		☒	Word
1303	Draft Invoice	Invoicing		☒	Word
1303	Draft Invoice	Standard – E-Mail-Text		☒	Word
1303	Draft Invoice	Einfach – E-Mail-Text		☒	Word

2. Select your published report by entering Report ID: 50902



EDIT - INSERT BUILT-IN LAYOUT FOR A REPORT

Report ID: 50902

Report Name:

Insert Word Layout:

Insert RDLC Layout:

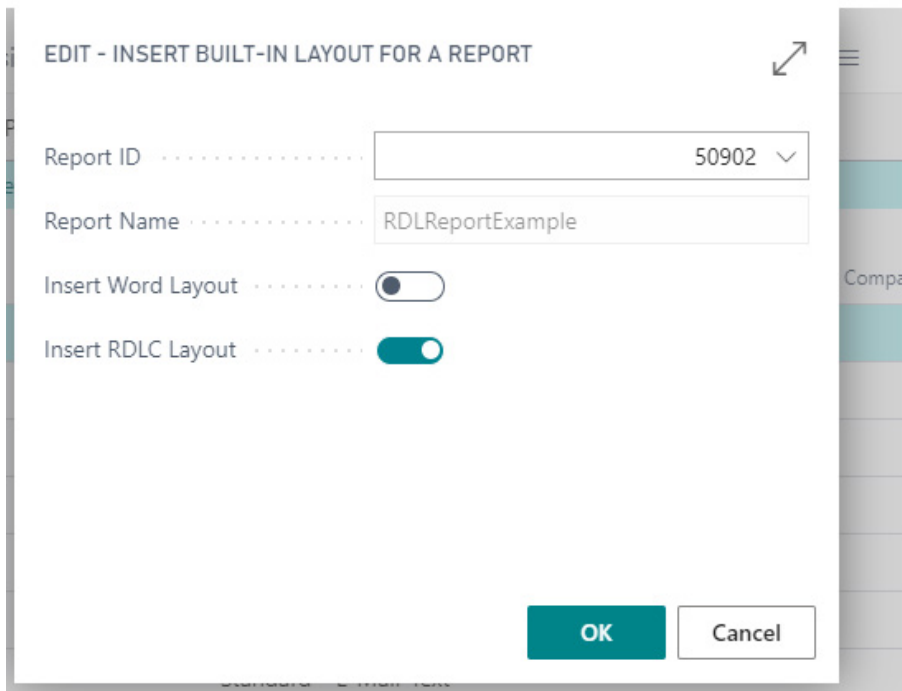
Object ID ↑ Object Type ↑ Object Caption

→ 50902	Report	RDLReportExample
---------	--------	------------------

Select from full list

OK Cancel

3. Select "Insert RDLC Layout" option



EDIT - INSERT BUILT-IN LAYOUT FOR A REPORT

Report ID 50902 ▾

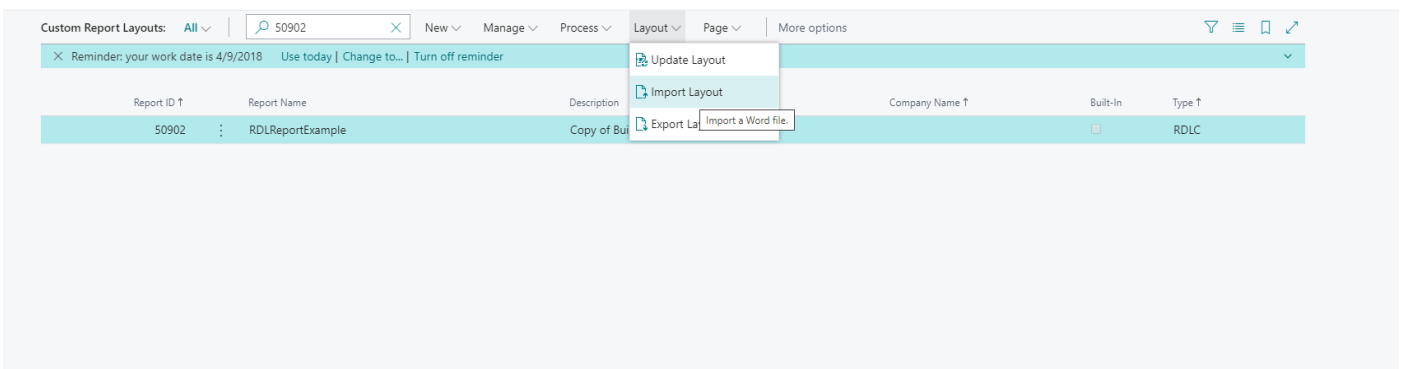
Report Name RDLReportExample

Insert Word Layout ☐

Insert RDLC Layout ☒

OK Cancel

4. Import your updated RDL template. From the menu select: Layout ⇒ Import Layout and select the RDLC report which is part of your AL project



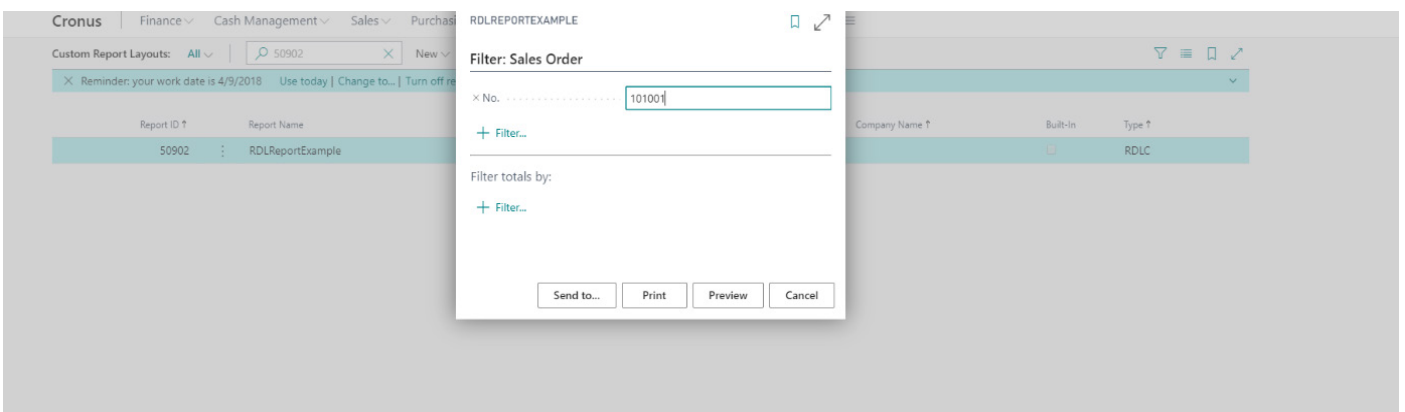
Custom Report Layouts: All ▾ | 50902 | New ▾ | Manage ▾ | Process ▾ | Layout ▾ | Page ▾ | More options

× Reminder: your work date is 4/9/2018 Use today | Change to... | Turn off reminder

Report ID ↑	Report Name	Description	Company Name ↑	Built-In	Type ↑
50902	RDLReportExample	Copy of Bu		☐	RDLC

Layout ▾: Update Layout, Import Layout, Export Layout, Import a Word file.

5. Run the report from the menu: Process ⇒ Run Report and enter as filter in No. "10100"



Cronus | Finance ▾ | Cash Management ▾ | Sales ▾ | Purchas

Custom Report Layouts: All ▾ | 50902 | New ▾

× Reminder: your work date is 4/9/2018 Use today | Change to... | Turn off reminder

Report ID ↑	Report Name	Built-In	Type ↑
50902	RDLReportExample	☐	RDLC

RDLREPORTEXAMPLE

Filter: Sales Order

× No. 10100

+ Filter...

Filter totals by:

+ Filter...

Send to... Print Preview Cancel

6. Click on the “Preview” button to view your report



C. Not working for you?

Be sure to check the latest documentation and examples from our repository.

<https://github.com/ibodigital/barcode/archive/master.zip>

or contact us at:

<https://support.ibodigital.com>

Appendix I: Supported Barcode Types

The following tables lists the current supported barcode types by the sBarcode extension. More information about the types of barcode can be found over at Wikipedia <https://en.wikipedia.org/wiki/Barcode>.

Barcode Format	Parameter Value
CODE 39	CODE_39
CODE 93	CODE_93
CODE 128	CODE_128
AZTEC	AZTEC
Codabar	CODABAR
Data Matrix	DATA_MATRIX
EAN-8	EAN_8
EAN-13	EAN_13
ITF	ITF
MaxiCode	MAXICODE
PDF 417	PDF_417
QR Code	QR_CODE
RSS-14	RSS_14
RSS-Expanded	RSS_EXPANDED
UPC-A	UPC_A
UPC-E	UPC_E
UPC/EAN Extension 2/5	UPC_EAN_EXTENSION

Note: The barcode data (input) must be valid according to the barcode format rules (barcode validator). Otherwise no barcode image will be returned.

Appendix II: Supported Parameters

Parameter Name	Description	Default Value
height	Specifies height of the barcode	100
width	Specifies width of the barcode	400
margin	Sets the margins for barcode image	0
purebarcode	If true, then only displays barcode image else displays barcode image with the barcode number	True
barcodeFormat	Barcode Type (refer to table in Appendix I)	CODE_39

Appendix III: Support

Download examples:

The latest example code and documentation can be downloaded from our GitHub repository
<https://github.com/ibodigital/barcode/archive/master.zip>

Contact our support team:

Problems getting the sBarcode to work or any questions about our products or services, please contact our support team:

<https://support.ibodigital.com>

Contact



IBODigital GmbH

Ammerhalstraße 9
85551 Kirchheim (Munich)
Germany

Tel.: +49 89 99 15 57 0
Email: ibo@ibodigital.com
Web: www.ibodigital.com