

# sBarcode - The barcode generator for Microsoft Dynamics 365 Business Central

## User Manual for Version 3



Information in this document, including URL and other Internet Web site references, is subject to change without notice. Unless otherwise noted, the example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events depicted herein are fictitious, and no association with any real company, organization, product, domain name, e-mail address, logo, person, place, or event is intended or should be inferred. Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of IBODigital.

IBODigital may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from IBODigital, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

© 2020 IBODigital GmbH. All rights reserved.

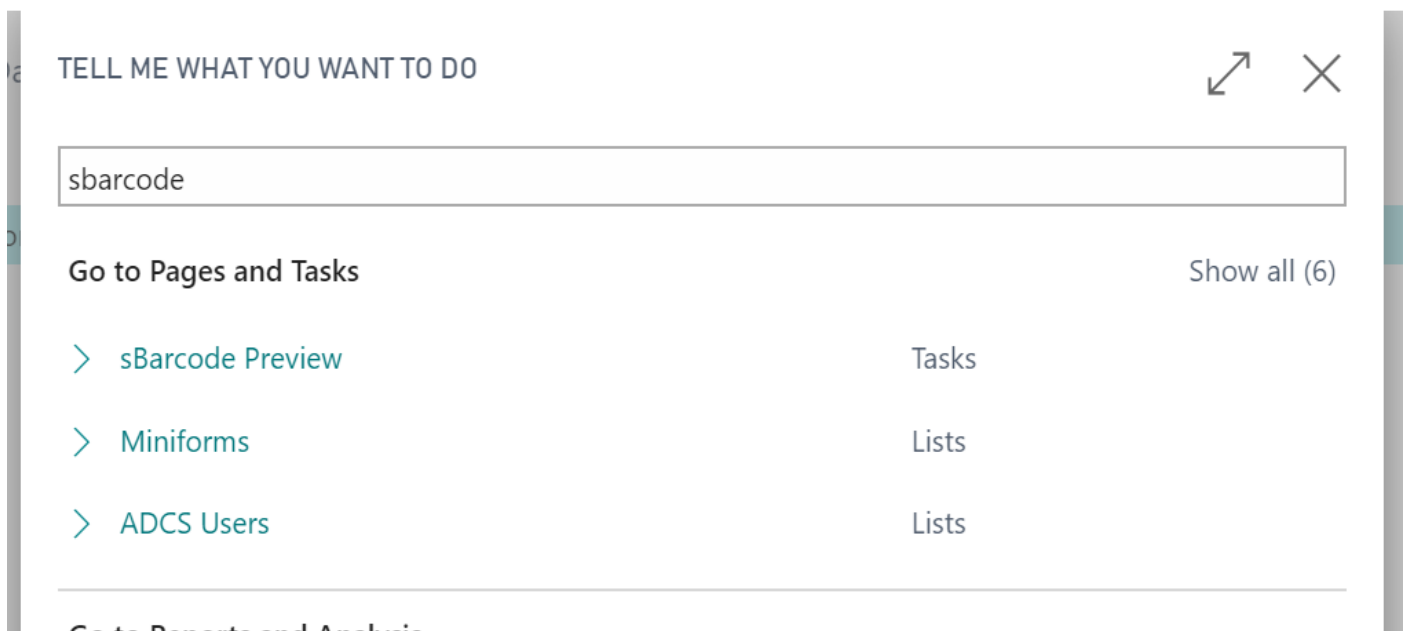
# Table Of Contents

I. Preview generated barcodes.....	4
II. How to integrate in Word Report .....	6
A. Prepare the AL Code.....	6
B. Using the Word Report in Microsoft Dynamics 365 Business Central .....	11
C. Not working for you? .....	14
III. How to integrate in RDLC Report.....	15
A. Prepare the AL Code.....	15
B. Using the RDLC Report in Microsoft Dynamics 365 Business Central .....	21
C. Not working for you? .....	23
Appendix I: Supported Barcode Types.....	24
Appendix II: Supported Parameters .....	25
Appendix III: Support.....	26

## 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 is a search bar with the placeholder text "TELL ME WHAT YOU WANT TO DO". Below the search bar, the results are categorized under "Go to Pages and Tasks". The results list includes "sBarcode Preview" (labeled as "Tasks"), "Miniforms" (labeled as "Lists"), and "ADCS Users" (labeled as "Lists"). A "Show all (6)" link is visible on the right side of the results section.

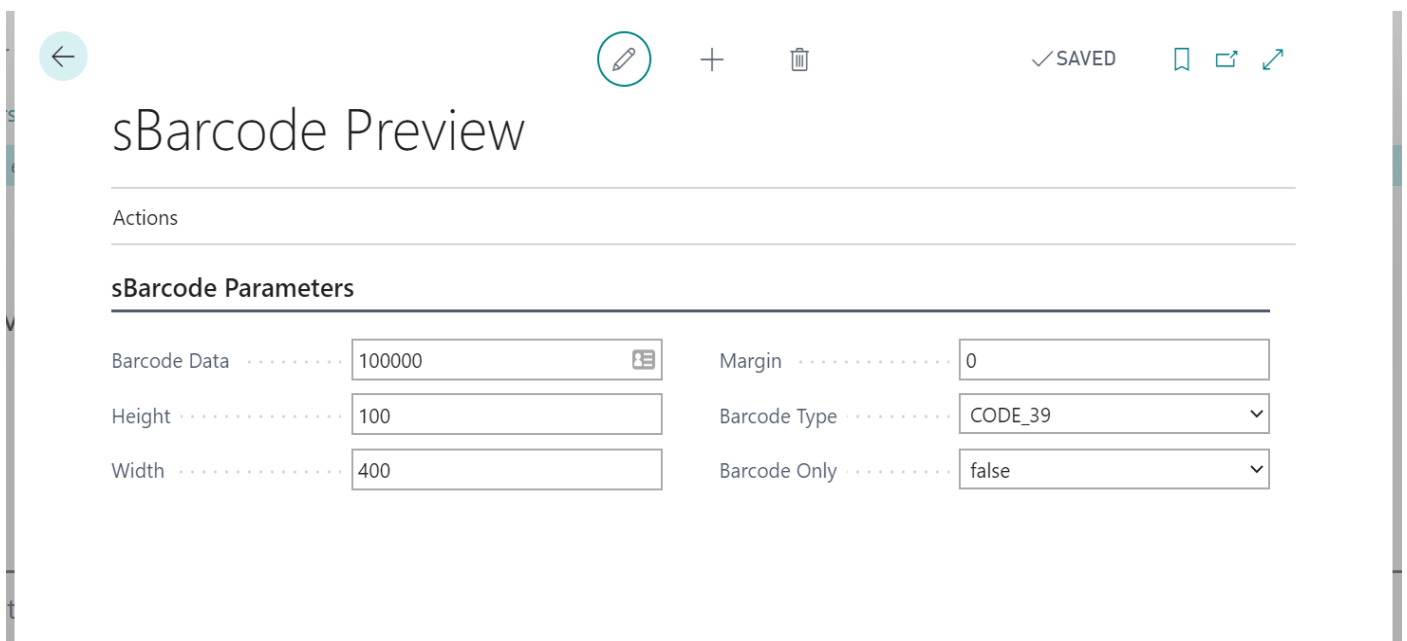
TELL ME WHAT YOU WANT TO DO

sbarcode

Go to Pages and Tasks Show all (6)

- > sBarcode Preview Tasks
- > Miniforms Lists
- > ADCS Users Lists

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" application card. The card has a title "sBarcode Preview" and a "Actions" section. Below this, there is a section titled "sBarcode Parameters" with two columns of input fields. The first column contains "Barcode Data" (100000), "Height" (100), and "Width" (400). The second column contains "Margin" (0), "Barcode Type" (CODE\_39), and "Barcode Only" (false). The card also features a "SAVED" status and several icons for editing, adding, deleting, and sharing.

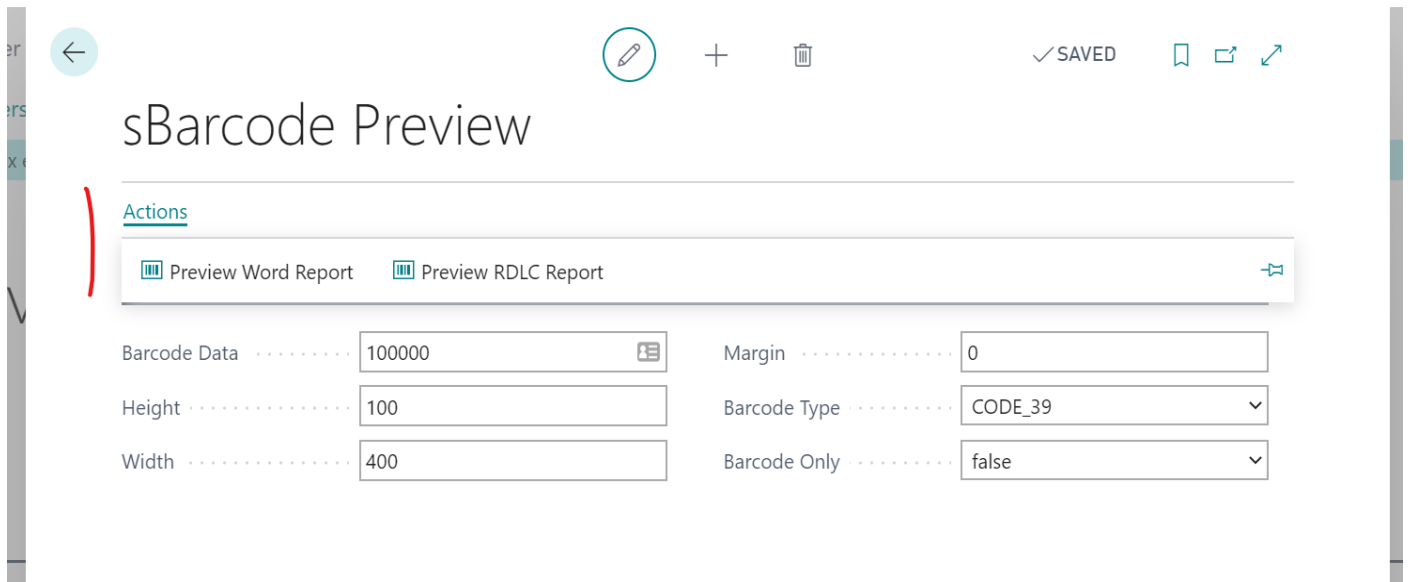
sBarcode Preview

Actions

sBarcode Parameters

Barcode Data	100000	Margin	0
Height	100	Barcode Type	CODE_39
Width	400	Barcode Only	false

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

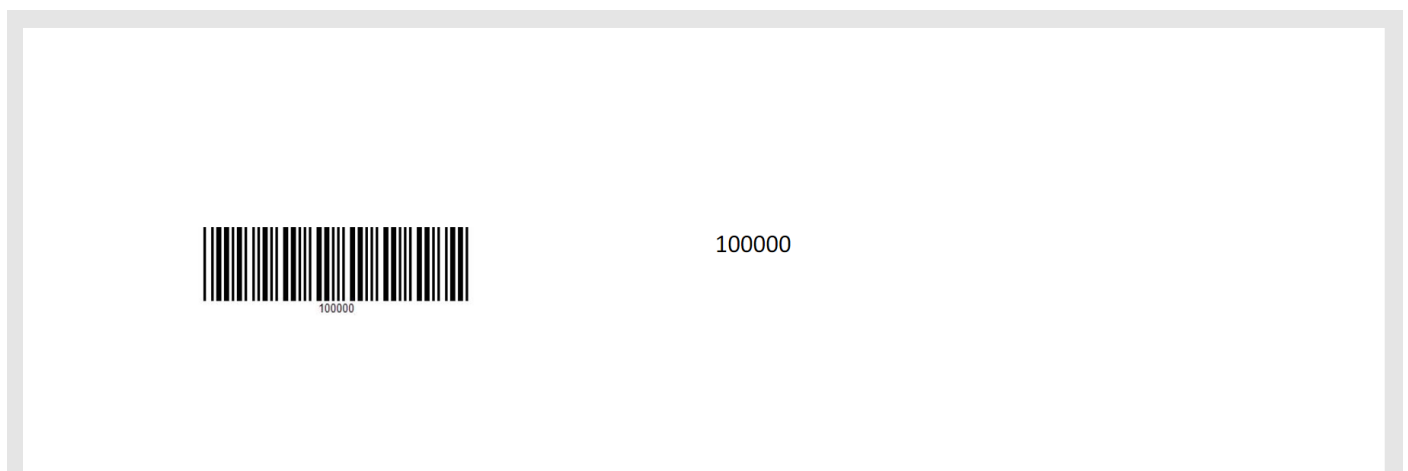


The screenshot shows the 'sBarcode Preview' window. At the top, there's a navigation bar with a back arrow, a pencil icon, a plus icon, a trash icon, and a 'SAVED' status. Below the title 'sBarcode Preview', there's an 'Actions' section with two buttons: 'Preview Word Report' and 'Preview RDLC Report'. 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.";

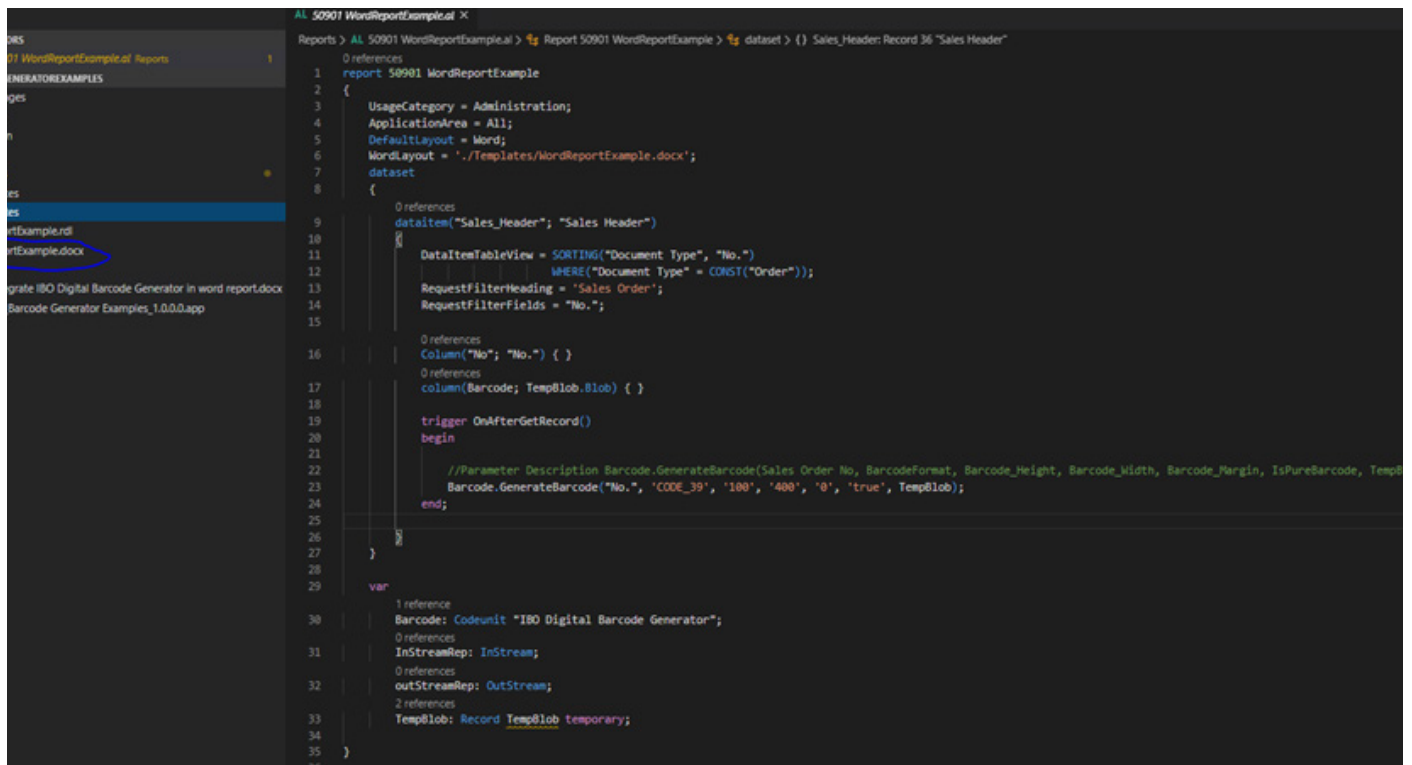
            Column("No"; "No.") { }
            column(Barcode; TempBlob.Blob) { }
            trigger OnAfterGetRecord()
            begin
                //Parameter Description Barcode.GenerateBarcode(-
                Sales Order No, BarcodeFormat, Barcode_Height, Barcode_Width, Barcode_
                Margin, 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

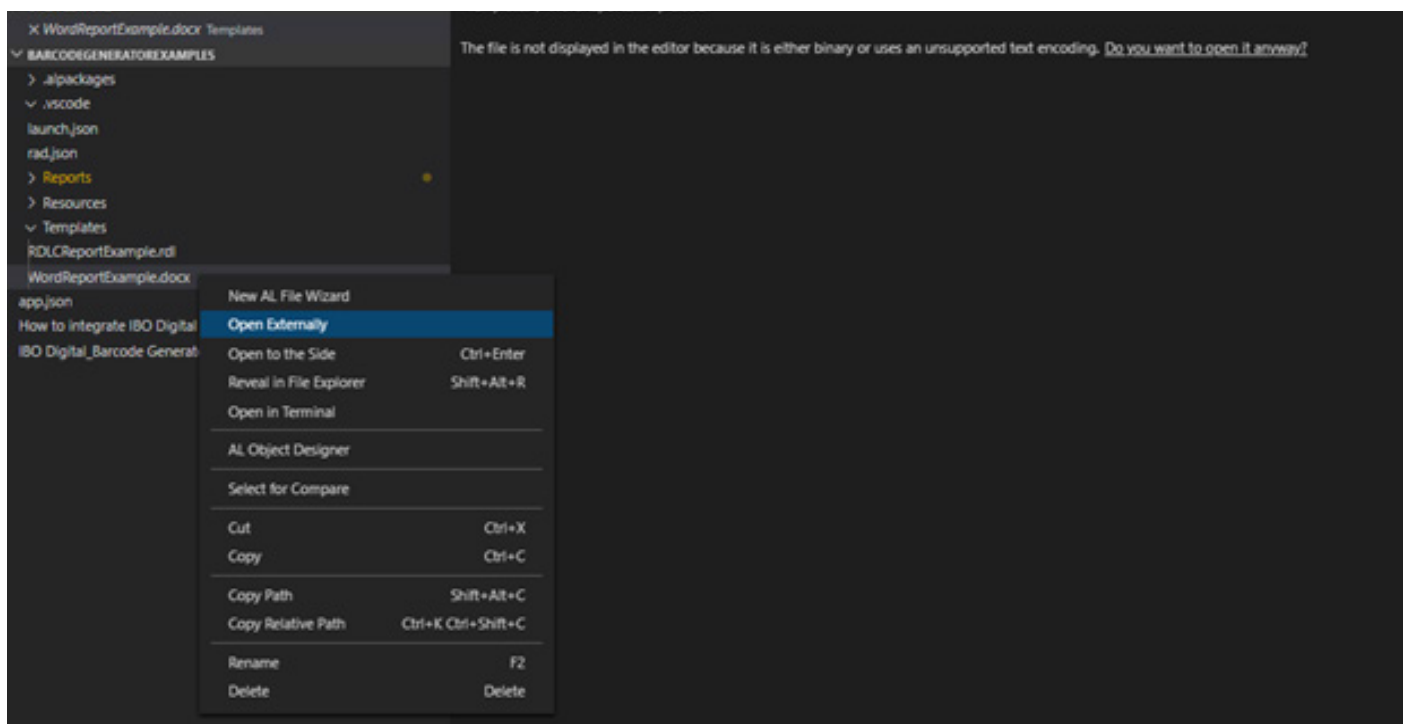


```

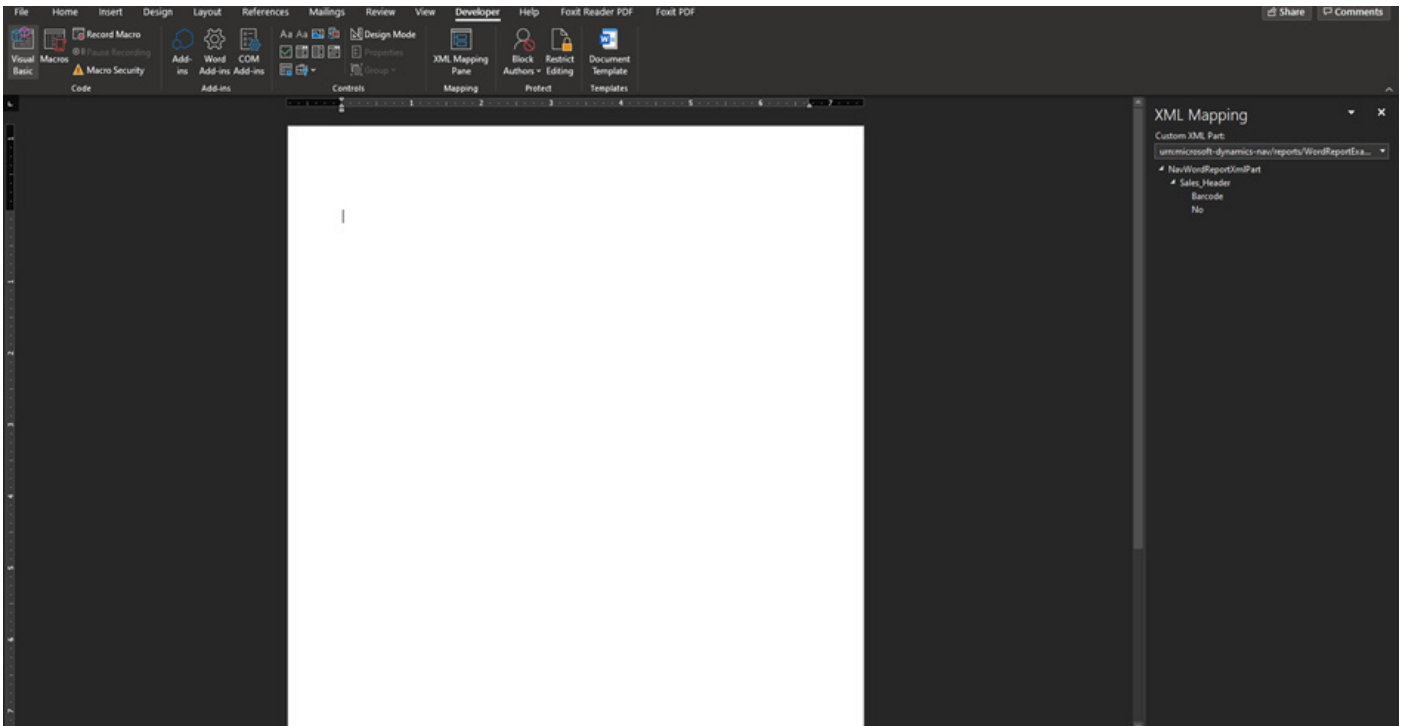
1  report 50901 WordReportExample
2  {
3      UsageCategory = Administration;
4      ApplicationArea = All;
5      DefaultLayout = Word;
6      WordLayout = './Templates/WordReportExample.docx';
7      dataset
8      {
9          0 references
10         dataitem("Sales_Header"; "Sales Header")
11         {
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.

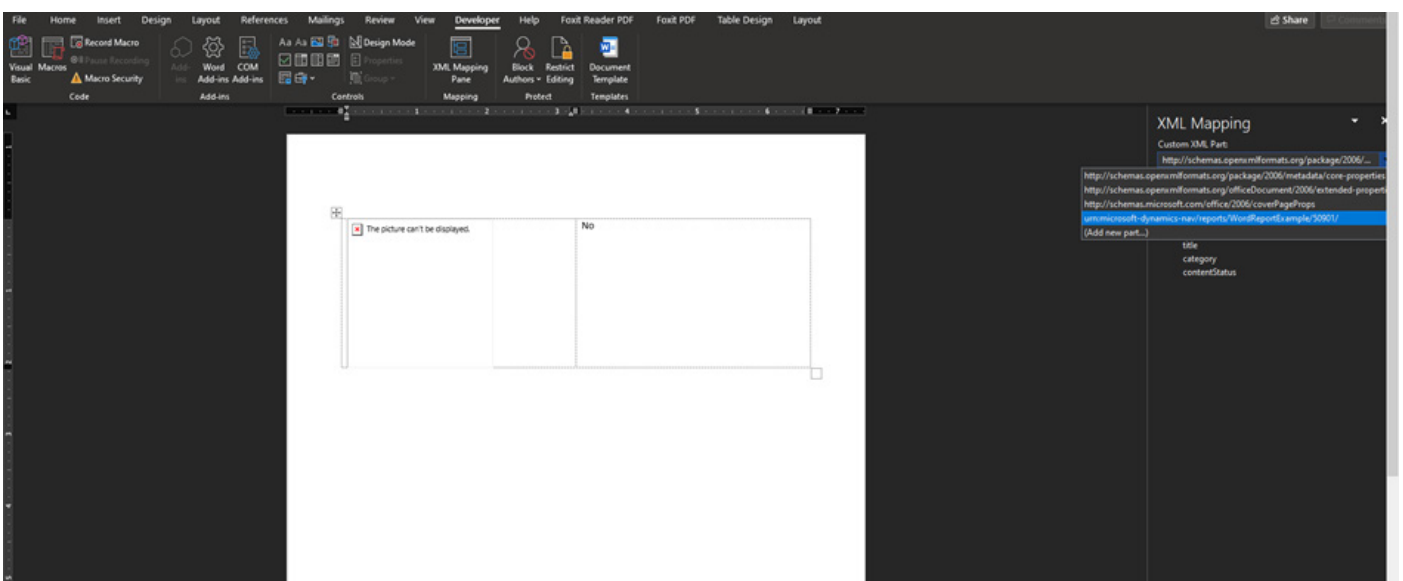


8. Add the fields in the report by selecting the mapping part `urn:microsoft-mapping-part/reports/WordReportExample`. As we are creating a Sales Report the Barcode and Number options appear under Sales\_Header.

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"

← CUSTOM REPORT LAYOUTS - 117 REMINDER ✓ SAVED 🔖 📄 🔗

### Custom Report Layouts

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

🔍 Search New Edit List Delete Process Layout Page | More options 🔍 ☰

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
1304	Sales - Quote	Vertrieb Schätzung – Blau – ein...		✓	Word
1304	Sales - Quote	Vertrieb Angebot – Blau – einfa...		✓	Word
1304	Sales - Quote	Standard – E-Mail-Text		✓	Word
1304	Sales - Quote	Fakturierung – E-Mail-Text		✓	Word
1304	Sales - Quote	Invoicing		✓	Word
1305	Sales - Confirmation	Standard – E-Mail-Text		✓	Word

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

← CUSTOM REPORT LAYOUTS EDIT - INSERT BUILT-IN LAYOUT FOR A REPORT ✓ SAVED 🔖 📄 🔗

### Custom Report Layouts

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

🔍 Search New Edit List Delete Process Layout Page | More options 🔍 ☰

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

1304 : Sales - Quote Vertrieb Schätzung – Blau – ein...  ✓ Word

1304 : Sales - Quote Vertrieb Angebot – Blau – einfa...  ✓ Word

1304 : Sales - Quote Standard – E-Mail-Text  ✓ Word

1304 : Sales - Quote Fakturierung – E-Mail-Text  ✓ Word

1304 : Sales - Quote Invoicing  ✓ Word

1305 : Sales - Confirmation Standard – E-Mail-Text  ✓ Word

Report ID 50901 ▼

Report Name

Insert Word Layout

Insert RDLC Layout

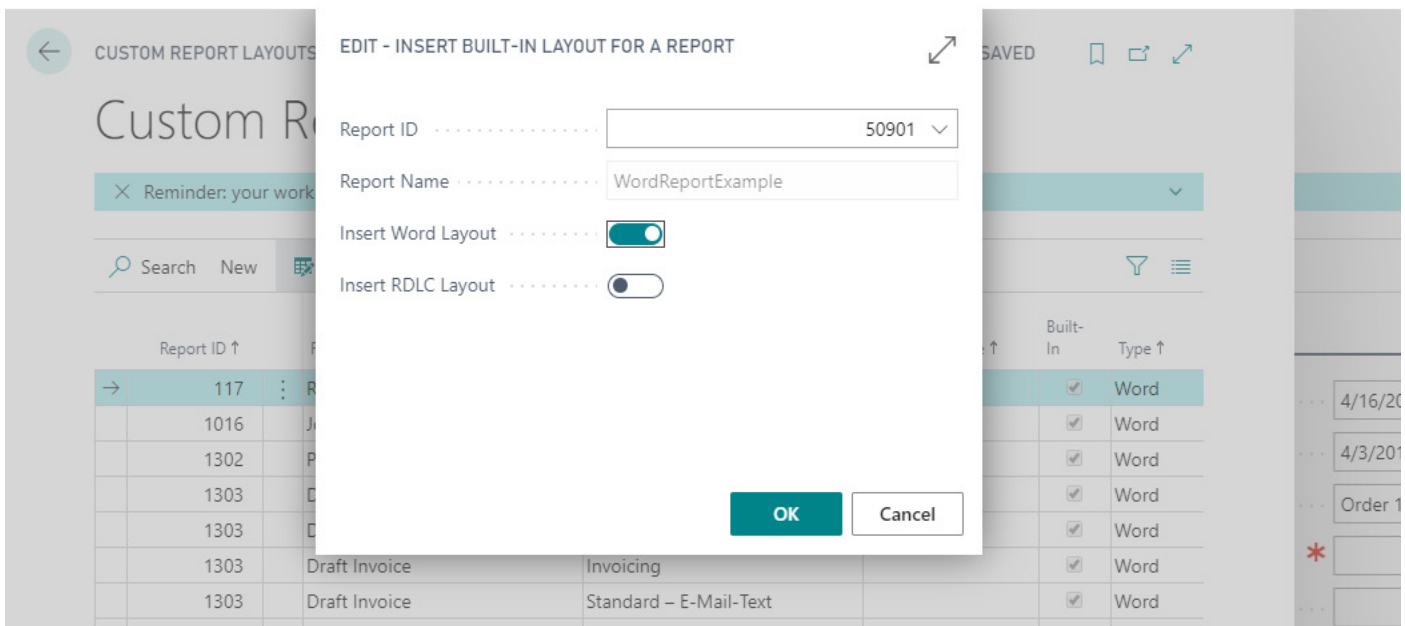
Object ID ↑ Object Type ↑ Object Caption

→ 50901 Report WordReportExample

Select from full list

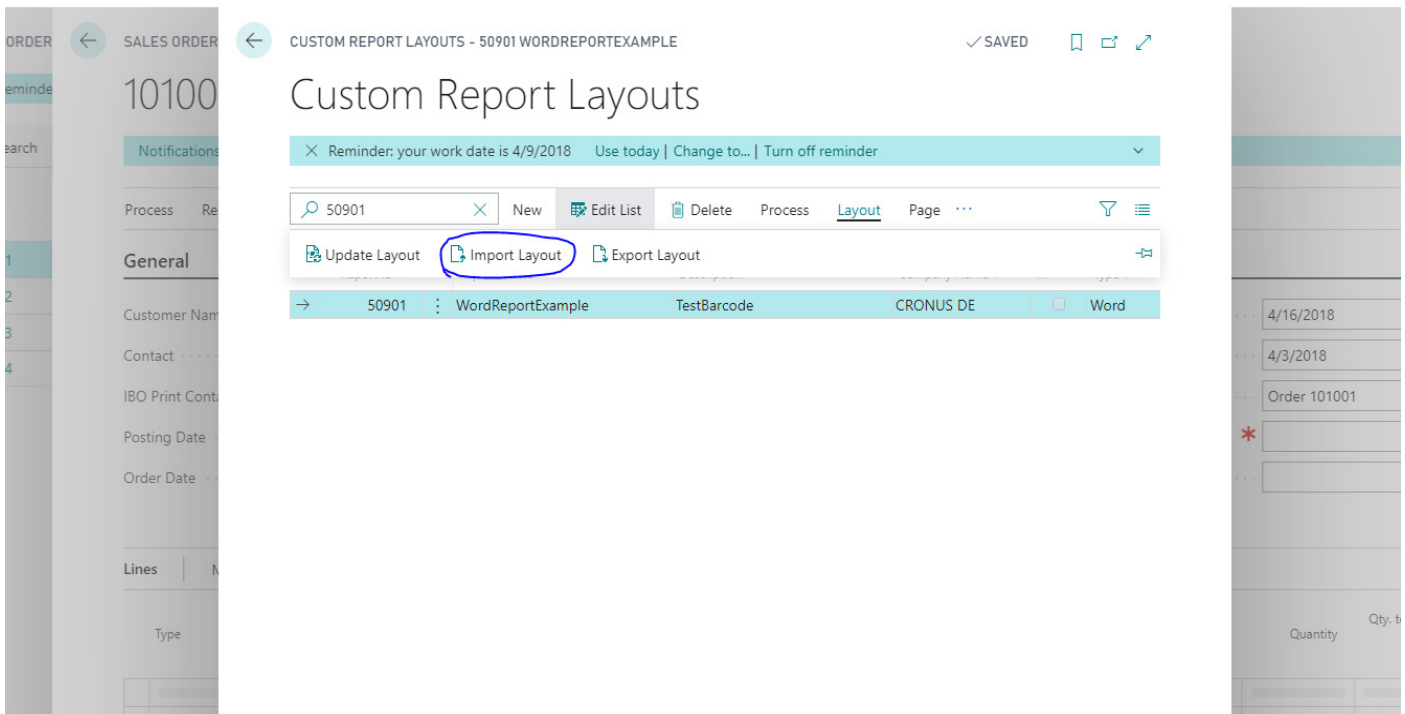
OK Cancel

### 3. Select "Insert Word Layout" option

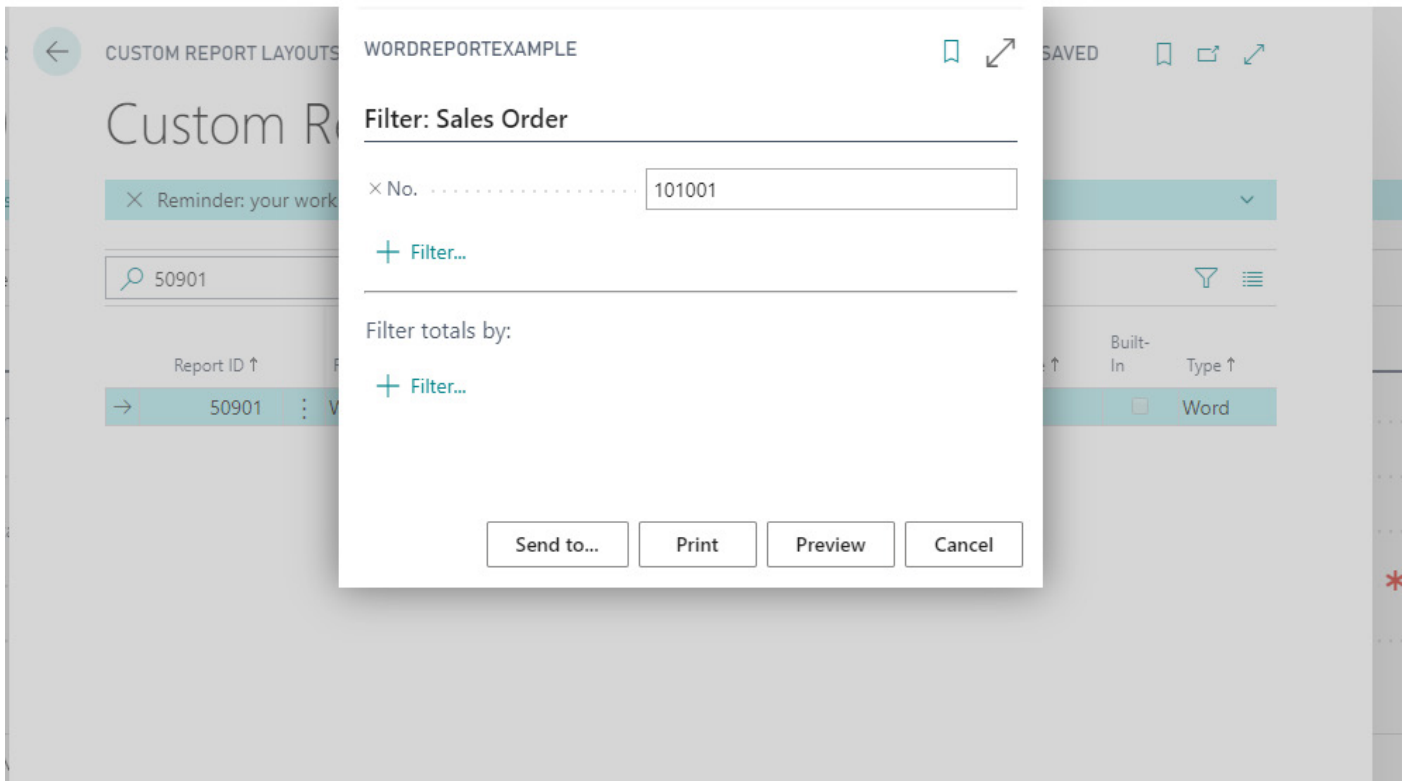


### 4. Import your word template. From the menu select: Layout ⇒ Import Layout. Select the word template which you have created inside your AL project.

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-a151-6f9820c6dcdbd",
  "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 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;
    RDLCLayout = './Templates/RDLCReportExample.rdl';
    dataset
    {
        dataitem("Sales_Header"; "Sales Header")
        {
            DataItemTableView = SORTING("Document Type", "No.")
                                WHERE("Document Type" = CONST("Order"));
            RequestFilterHeading = 'Sales Order';
            RequestFilterFields = "No.";

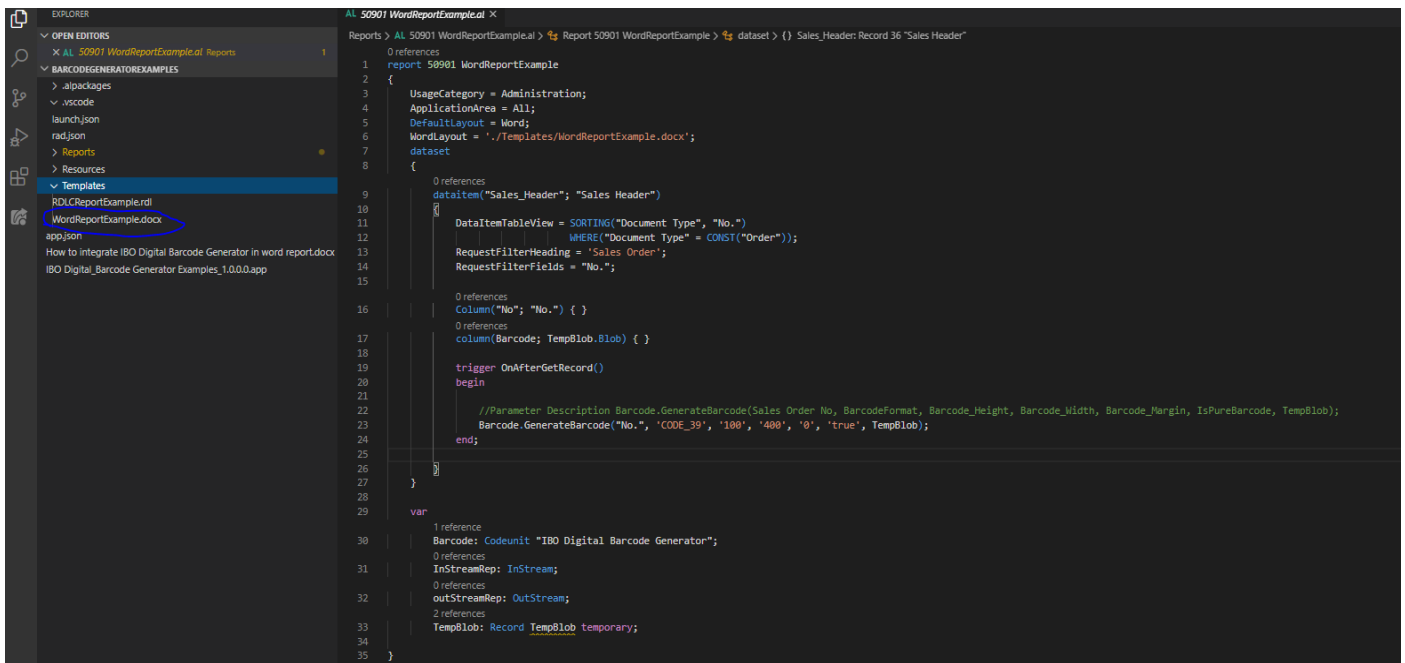
            Column("No"; "No.") { }
            column(Barcode; TempBlob.Blob) { }
            trigger OnAfterGetRecord()
            begin
                //
                Barcode.GenerateBarcode("No.", var_BarcodeFormat, var_Barcode_Height, var_Barcode_Width, var_Barcode_Margin, var_IsPureBarcode, TempBlob);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

        }
    }

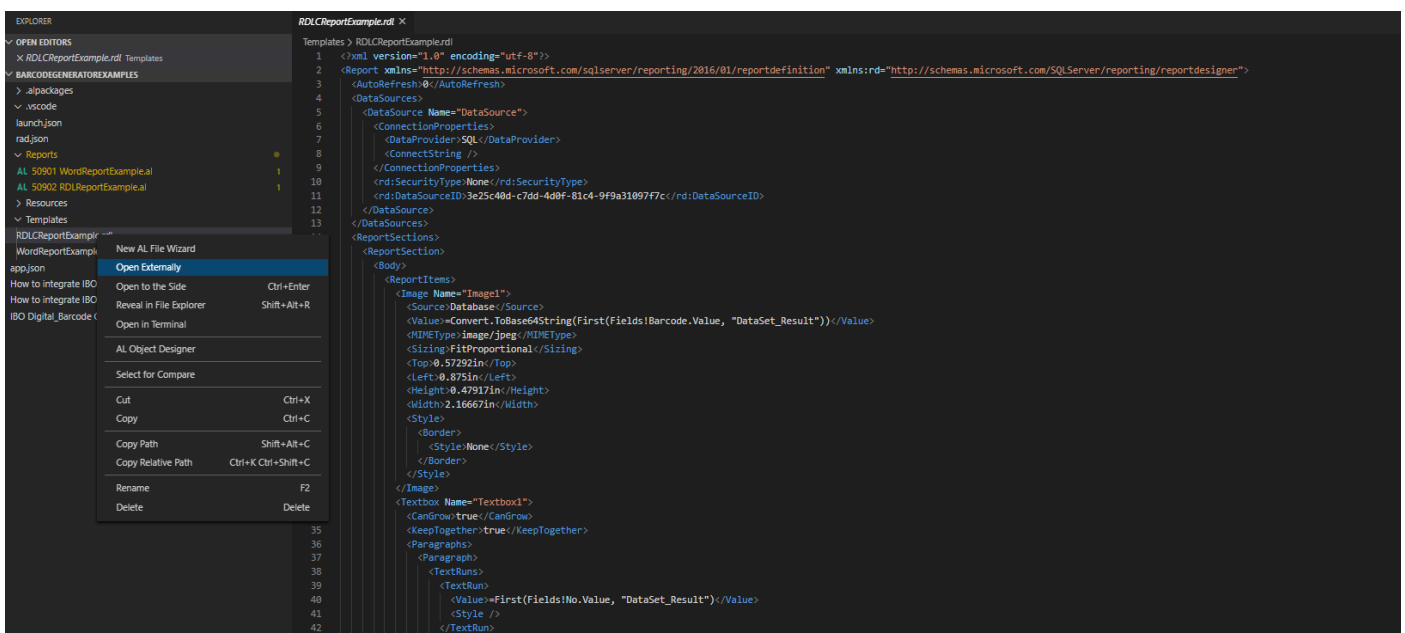
    var
        Barcode: Codeunit "IBODigital sBarcode";
        InStreamRep: InStream;
        outStreamRep: OutStream;
        TempBlob: Record TempBlob temporary;
        TempBlob1: Codeunit "Temp Blob";
}
```

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

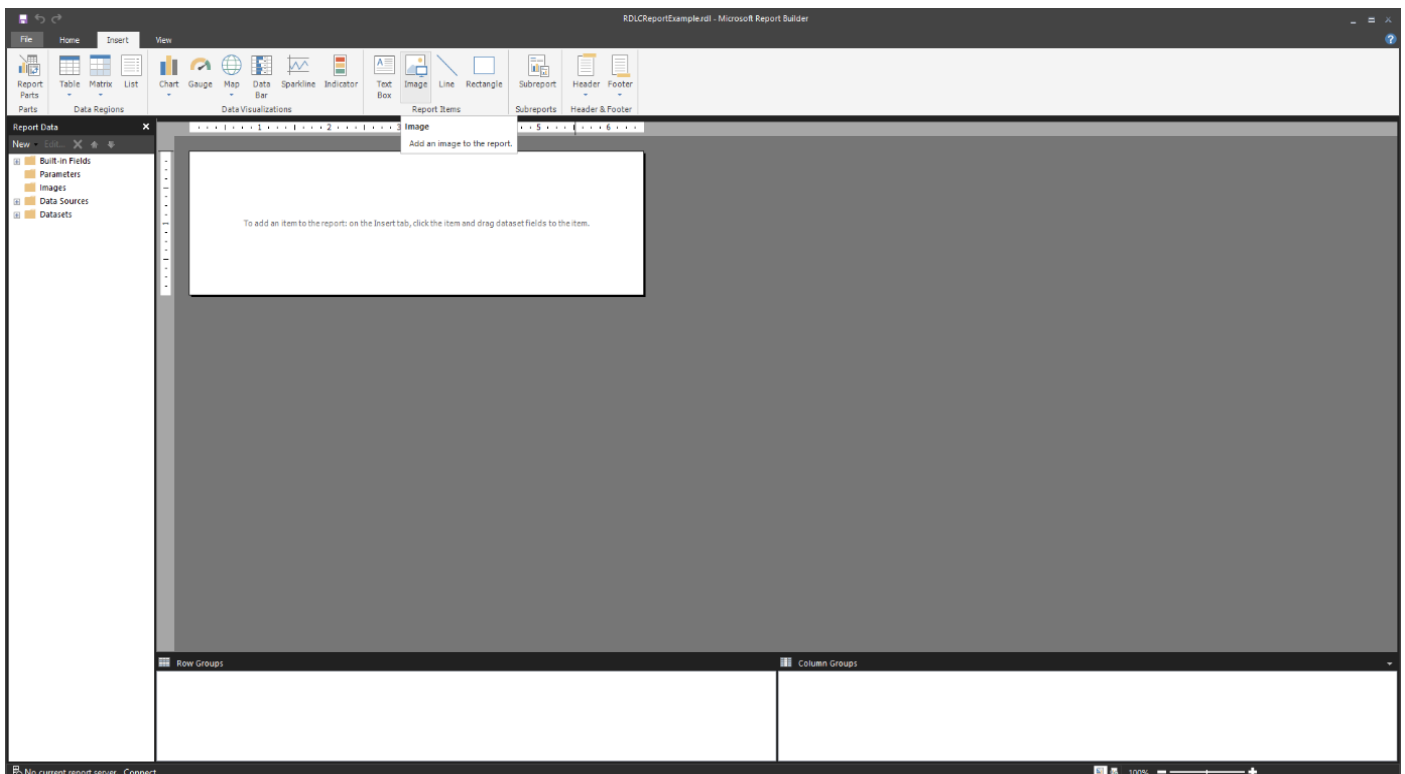
5. Once the report is published, it will automatically generate the "RDLCReportExample.rdl" file under the Templates folder



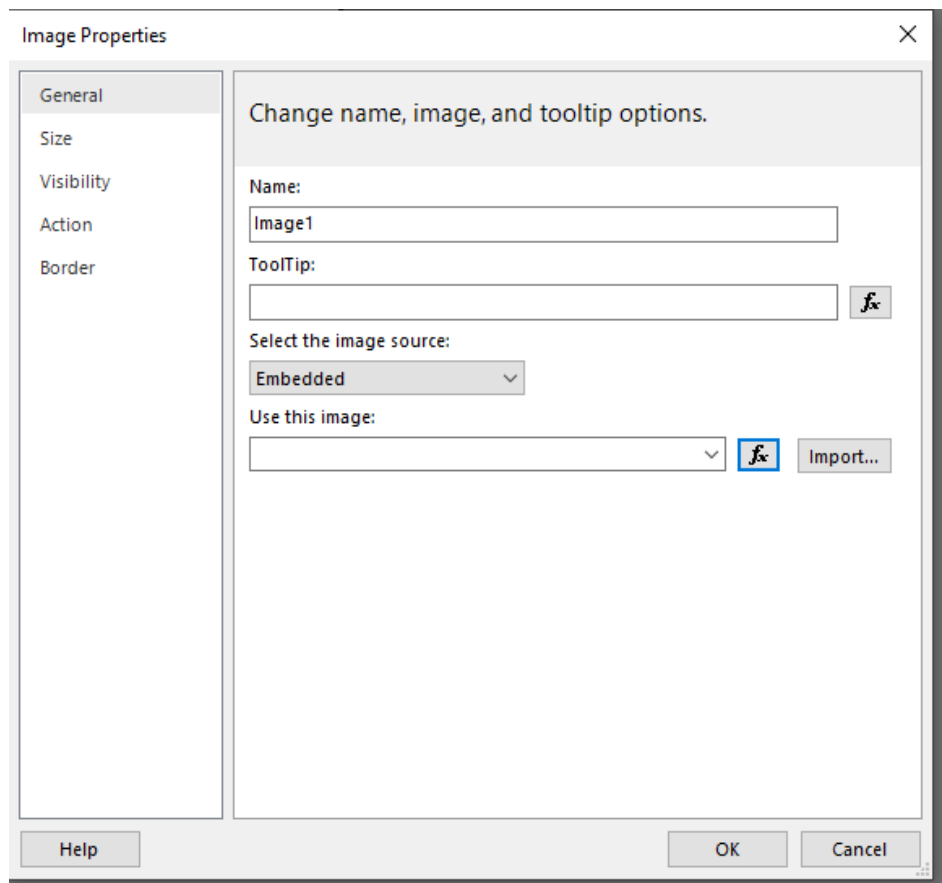
6. Open a "RDLCReportExample.rdl" file in the Report Builder. Right click and select "Open Externally". The [Microsoft Report Builder](https://www.microsoft.com/en-us/download/confirmation.aspx?id=53613) (<https://www.microsoft.com/en-us/download/confirmation.aspx?id=53613>) needs to be installed.



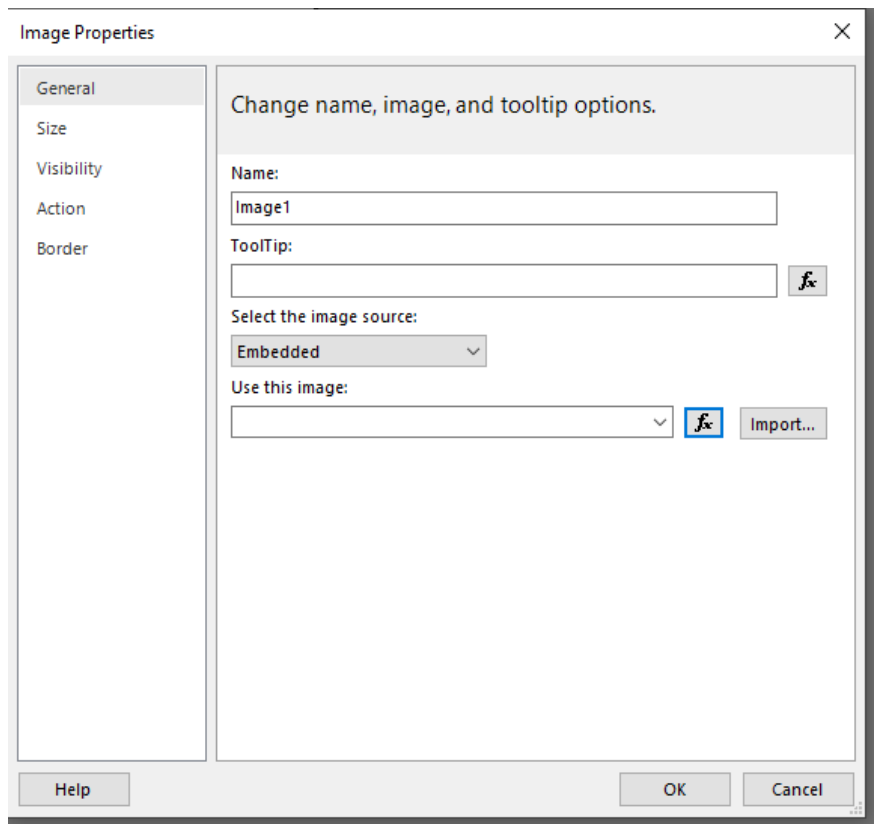
7. Click on "Image" from the menu to insert "Image" field.



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

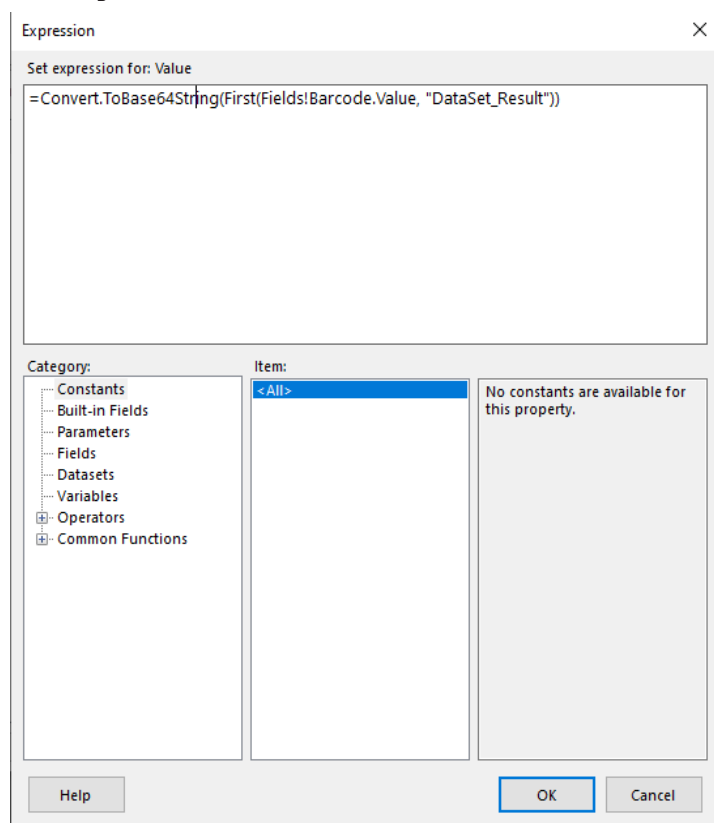


9. Set the MIME type as "image/jpeg"



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“))`

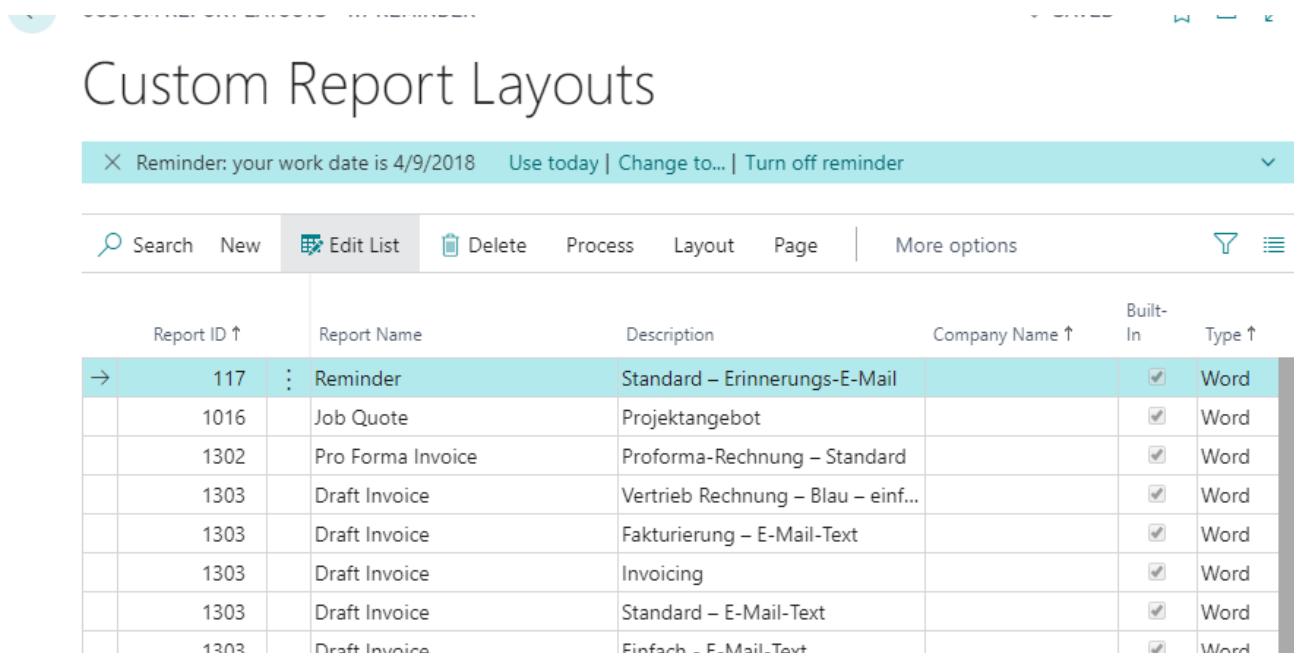


11. Save and close the report

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

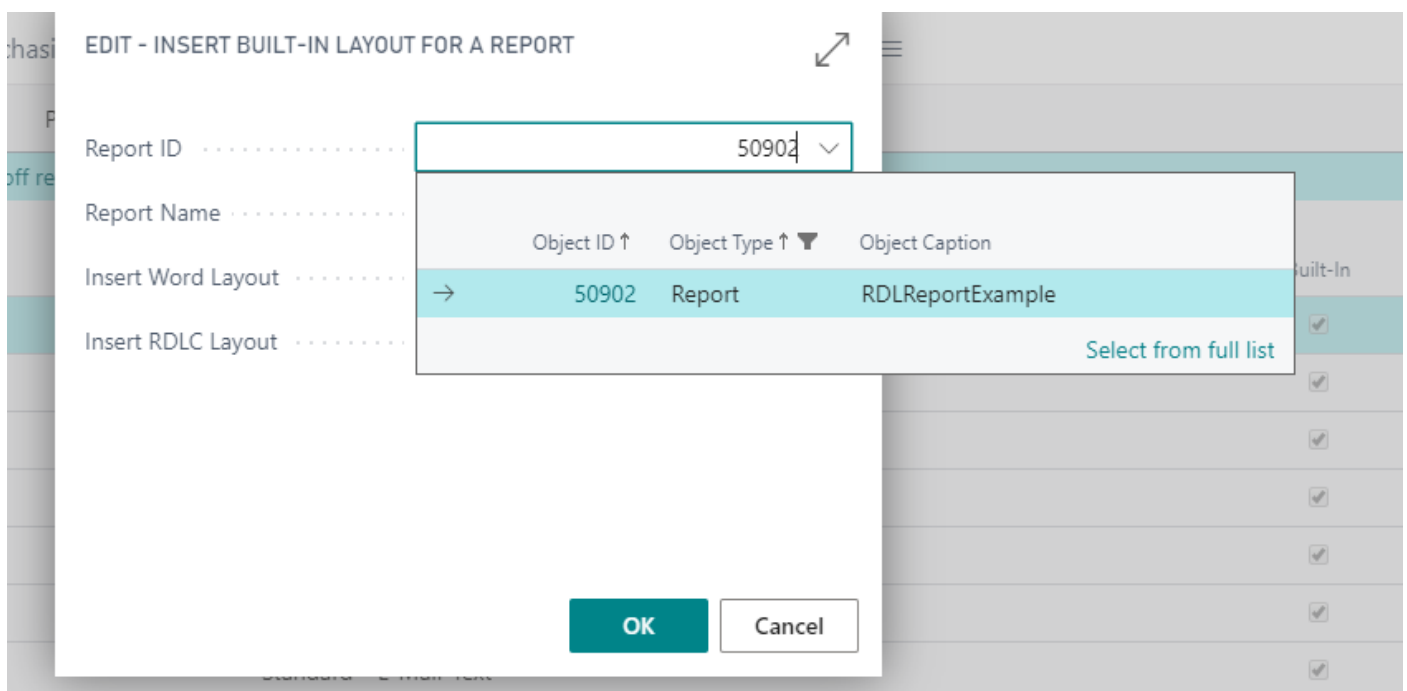
## B. Using the RDLC Report in Microsoft Dynamics 365 Business Central

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		<input checked="" type="checkbox"/>	Word
1016	Job Quote	Projektangebot		<input checked="" type="checkbox"/>	Word
1302	Pro Forma Invoice	Proforma-Rechnung – Standard		<input checked="" type="checkbox"/>	Word
1303	Draft Invoice	Vertrieb Rechnung – Blau – einf...		<input checked="" type="checkbox"/>	Word
1303	Draft Invoice	Fakturierung – E-Mail-Text		<input checked="" type="checkbox"/>	Word
1303	Draft Invoice	Invoicing		<input checked="" type="checkbox"/>	Word
1303	Draft Invoice	Standard – E-Mail-Text		<input checked="" type="checkbox"/>	Word
1303	Draft Invoice	Einfach – E-Mail-Text		<input checked="" type="checkbox"/>	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:

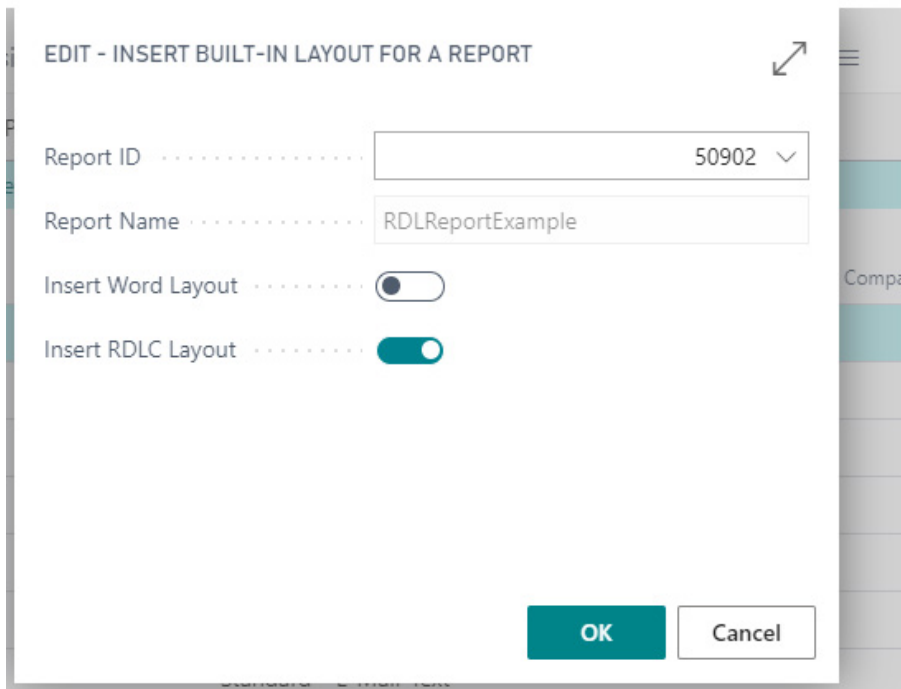
Insert RDLC Layout:

Object ID ↑	Object Type ↑	Object Caption
→ 50902	Report	RDLCReportExample

Select from full list

OK Cancel

### 3. Select "Insert RDLC Layout" option



EDIT - INSERT BUILT-IN LAYOUT FOR A REPORT

Report ID ..... 50902 ▾

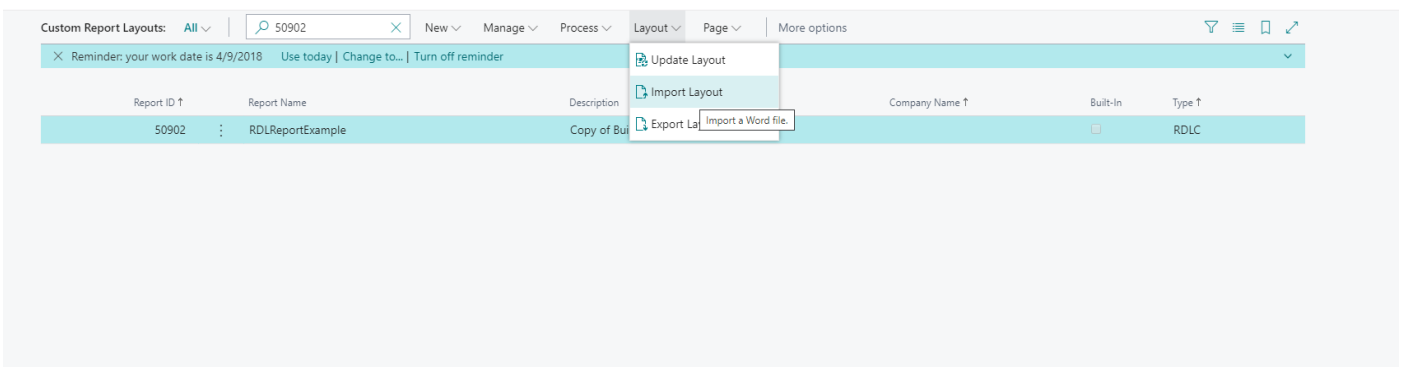
Report Name ..... RDLReportExample

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



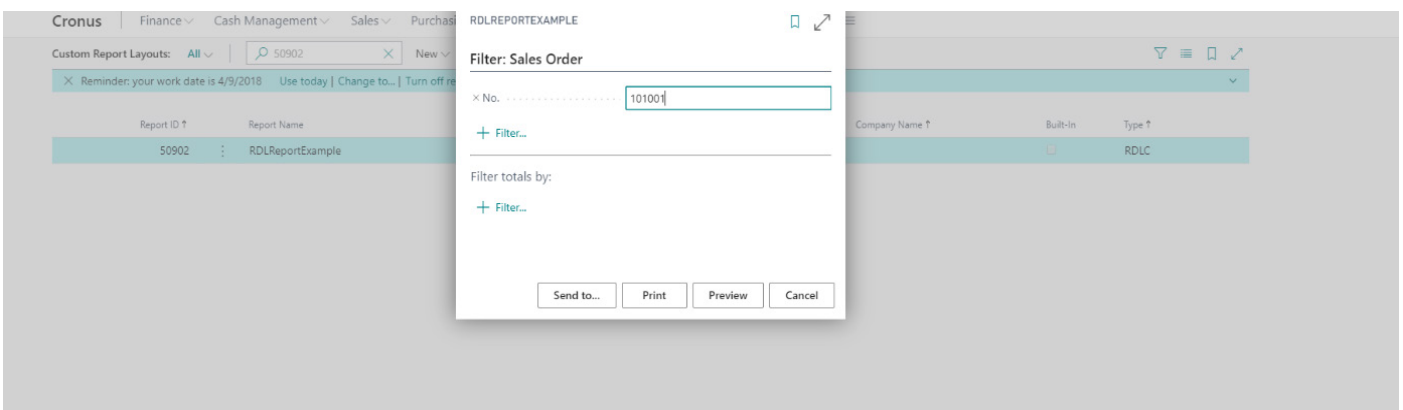
Custom Report Layouts: All ▾ | 50902 | New ▾ | Manage ▾ | Process ▾ | Layout ▾ | Page ▾ | More options

× 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		<input type="checkbox"/>	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	<input type="checkbox"/>	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](mailto:ibo@ibodigital.com)  
Web: [www.ibodigital.com](http://www.ibodigital.com)