

Instruction manual for SimpleAPI

The data bridge between your Business central and your Power Tools

Introduction:

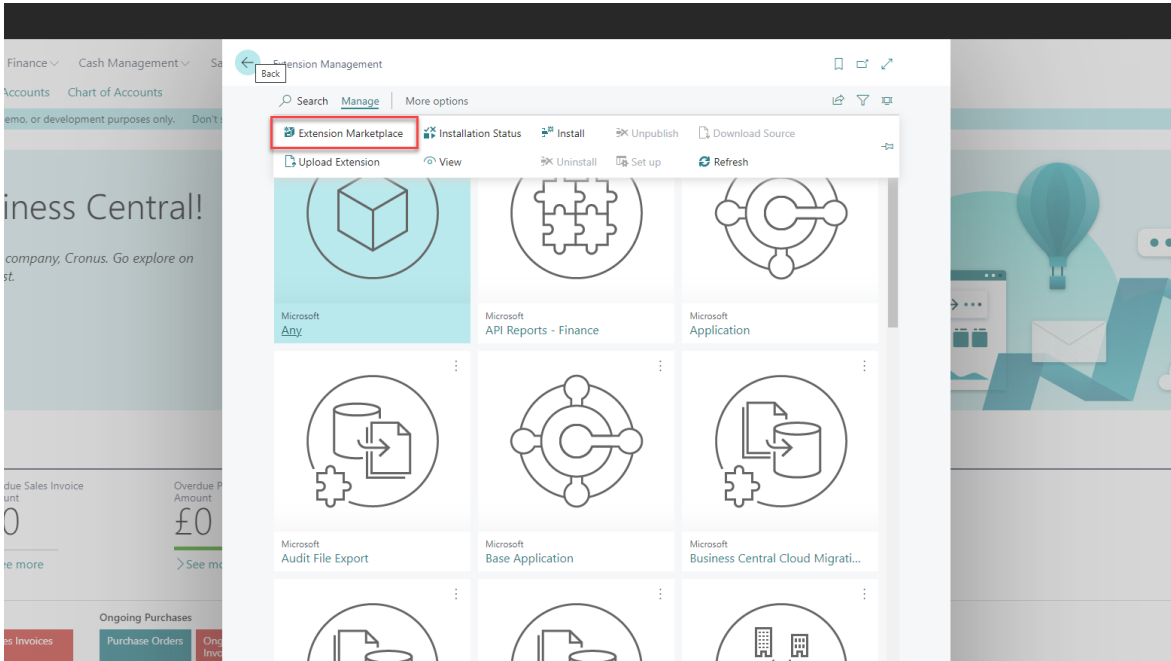
SimpleAPI is an extension created for Business Central, with the purpose of making it simpler to integrate to Business Central. This document contains brief instructions for how to install the extension, set it up and lastly how to connect to Business Central from frequently used Microsoft tools.

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How to install SimpleAPI


1. Go to the extension marketplace in Business Central.
 - a. Either through Extension management as seen in the picture below or directly from the search bar.



2. Search for SimpleAPI


Search results for "SimpleAPI"

All results




NAVtilus SimpleAPI

Navtilus

 Business Central

Integration tool to Excel, Power BI, Power Platform and Other.

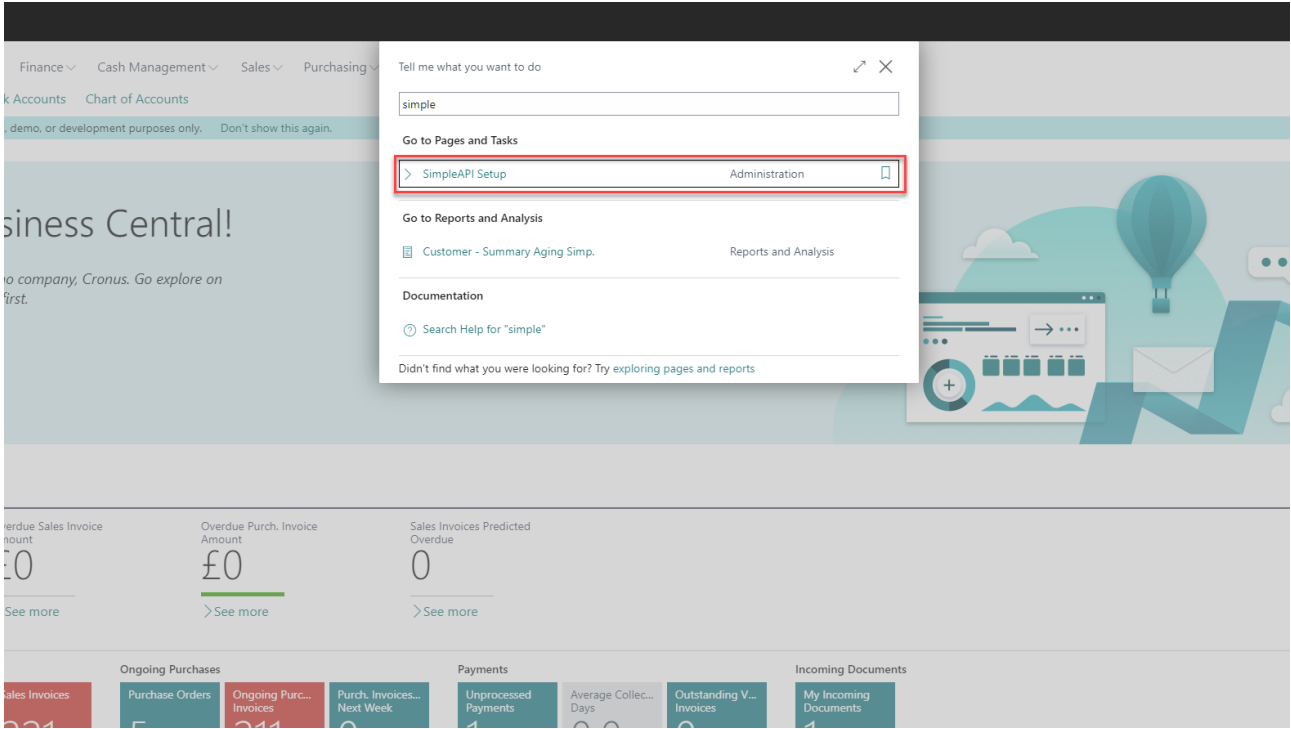
[Contact Me](#) 

NAVILUS

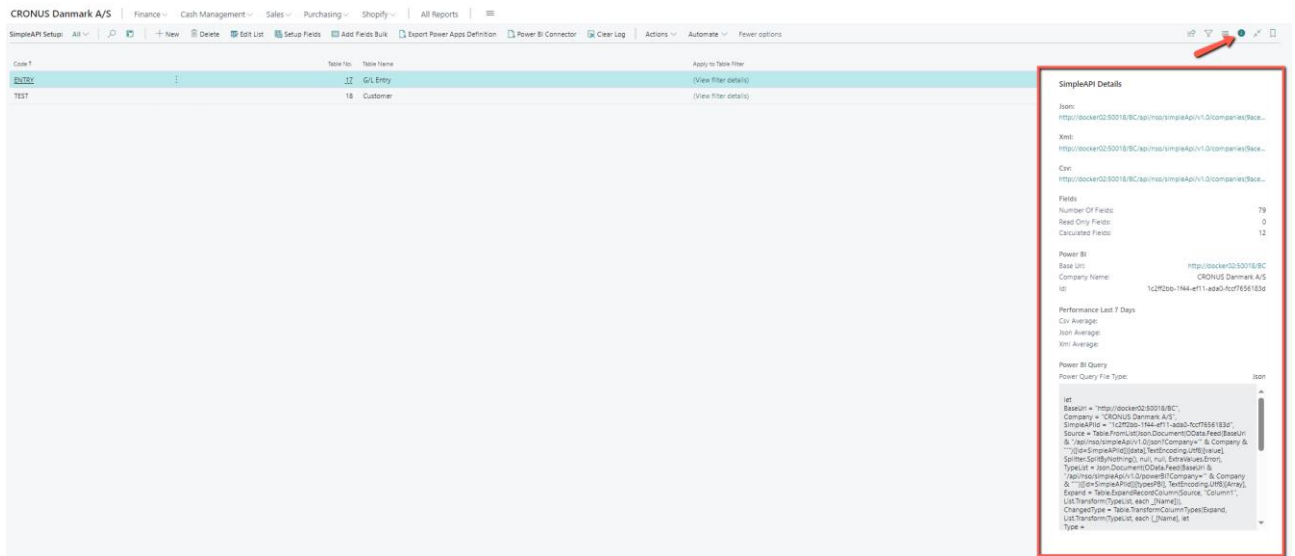
How to setup SimpleAPI

Note: For this guide we use the Customer data, you can choose whatever you prefer.

1. Search for SimpleAPI Setup and open it.

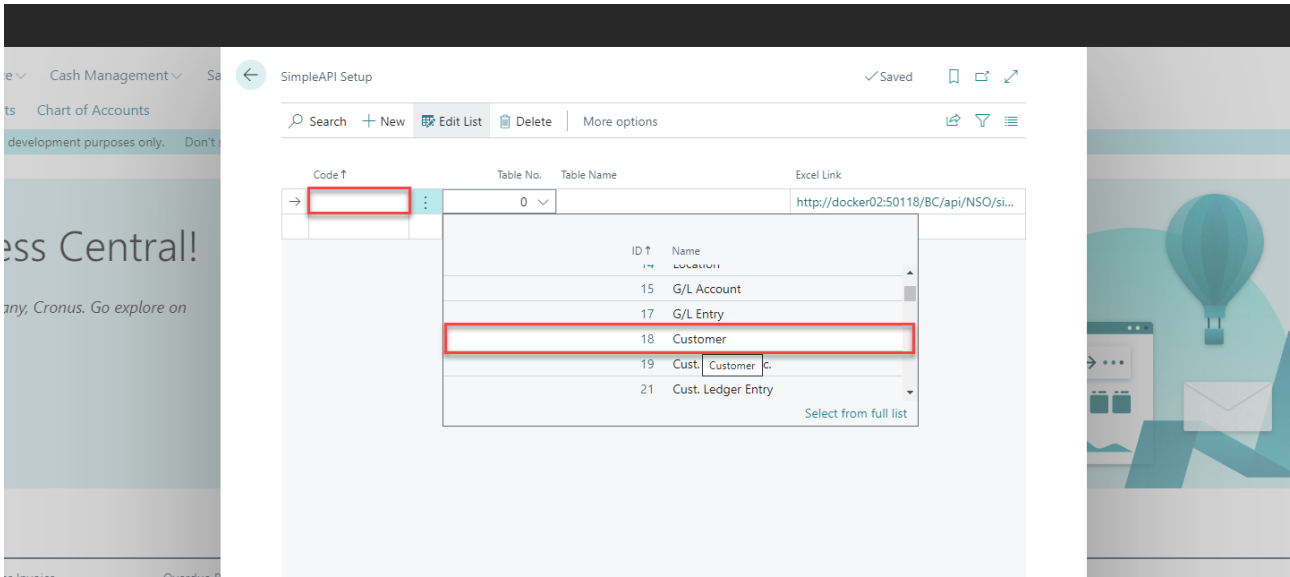


2. Once you enter the page, we recommend that you open then “Information box” for the page to get all the links and information you need

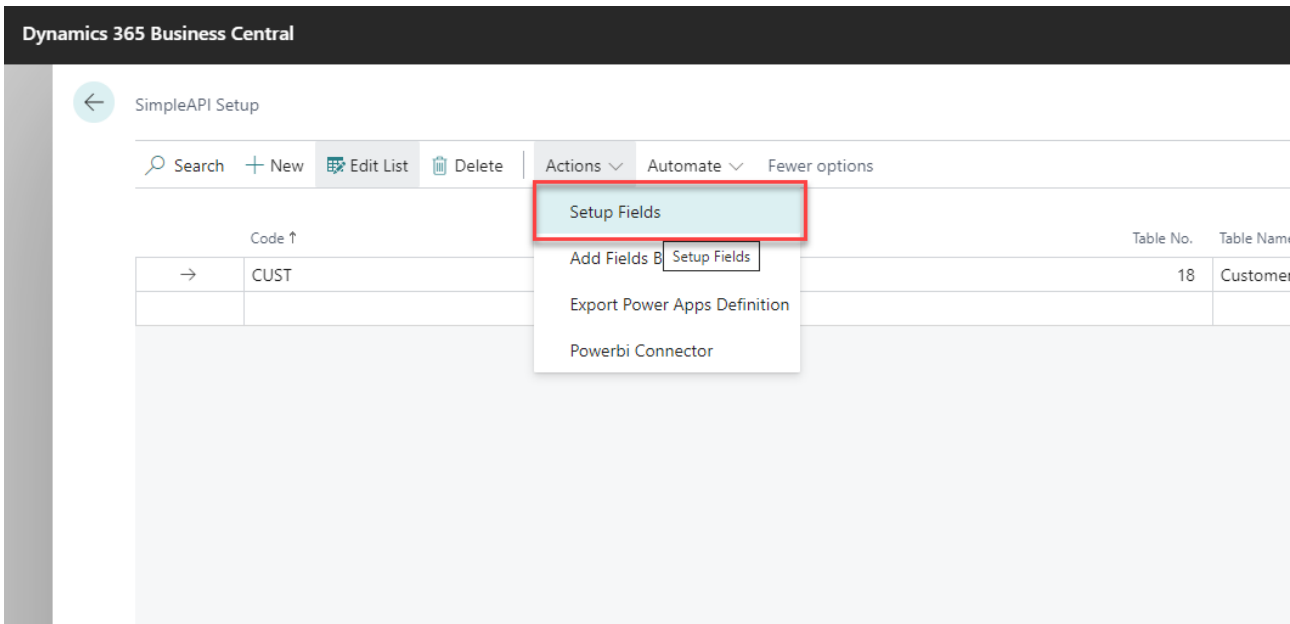


3. To setup the data you want to get out, first give the setup a code.

- a. The “Code” field is used for your reference when integrating and can be named what you prefer.
4. To select which table to set up for, use the “Table No.” field.



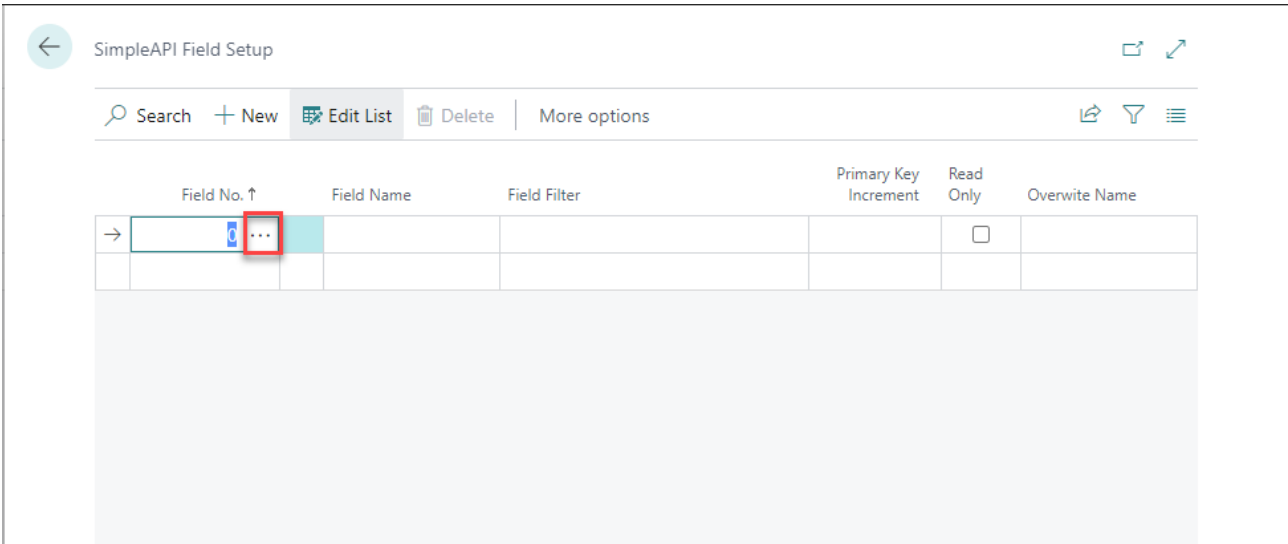
5. To setup what data you want from the table, use the action Setup Fields.



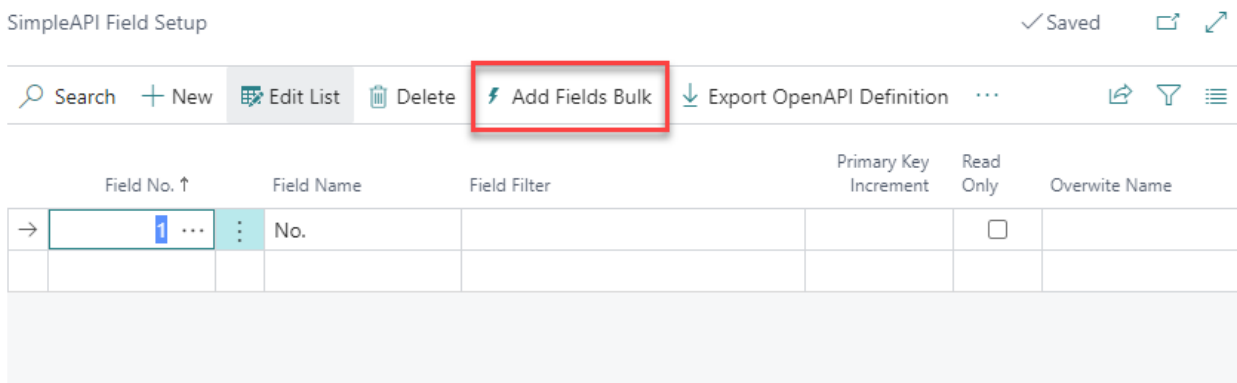
Explanation for SimpleAPI Field Setup:

- The “Field Filter” field is a filter for the records gathered for the integration.
- “Primary Key Increment” allows for an integer in the primary key to be unfilled on post requests and instead be incremented by the number used.
- “Read Only” will remove the field in the post and path definitions for power platform.

- “Overwrite Name” allows to set the column name to a custom name.
6. On the SimpleAPI Field setup page you can select the data from the table you wish to set up.
 - a. Choose the assist edit on the “Field No.” Field to get a list of all the available fields.
 - b. In case you want to add more than one field at a time you can look at steps 6 and 7.

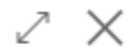


7. If you want to add more than one field at a time, you can go to “Add Fields Bulk”.



8. In “Field No. Filter” you can use the normal filters from Business Central to select the fields you want.
 - a. E.g. 1..10 or 12|13|17|22.
9. Click on the “OK” to add the fields.

Create Field Setup



Field

No. Filter

1..10

Filter: SimpleAPI Setup

× Code

CUST












+ Filter...

OK

Cancel

10. In case you want more than one filter in the list, simply just repeat steps 6 and 7.

SimpleAPI Field Setup ✓ Saved  

 Search
 New
 Edit List
 Delete
Actions ▾
Automate ▾
Fewer options   

	Field No. ↑		Field Name	Field Filter	Primary Key Increment	Read Only	Overwrite Name
→	1	⋮	No.			<input type="checkbox"/>	
	2		Name			<input type="checkbox"/>	
	3		Search Name			<input type="checkbox"/>	
	4		Name 2			<input type="checkbox"/>	
	5	⋮	Address			<input type="checkbox"/>	
	6		Address 2			<input type="checkbox"/>	
	7		City			<input type="checkbox"/>	
	8		Contact			<input type="checkbox"/>	
	9		Phone No.			<input type="checkbox"/>	
	10		Telex No.			<input type="checkbox"/>	

This concludes the setup instructions for a table with fields, the rest of the paper will show how to use the integration options available in the SimpleAPI.

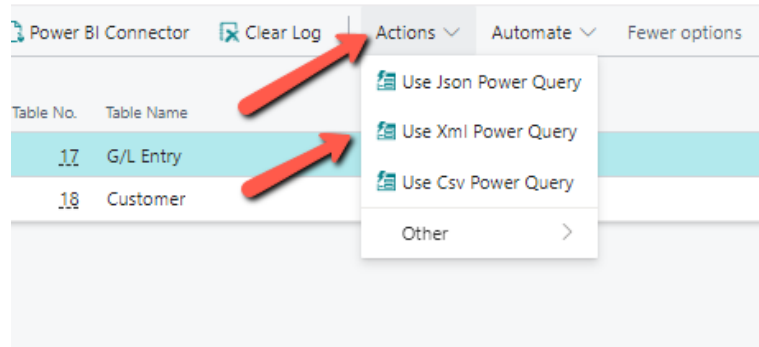
Excel Integration

Excel Integration Using power query Data Link

Note: This method only needs to be set up once! After that, you can simply refresh it.

To implement this solution, you'll need to copy a query from Business Central.

1. Set up your SimpleAPI extension and select the table and fields you want to gather data from.
2. Click on "Actions" -> "Use XML Power Query".



3. Then, copy the text from the "Power Query" in the information box.

SimpleAPI Details

Json:
[http://docker02:50018/BC/api/nso/simpleApi/v1.0/companies\(9ace...](http://docker02:50018/BC/api/nso/simpleApi/v1.0/companies(9ace...)

Xml:
[http://docker02:50018/BC/api/nso/simpleApi/v1.0/companies\(9ace...](http://docker02:50018/BC/api/nso/simpleApi/v1.0/companies(9ace...)

Csv:
[http://docker02:50018/BC/api/nso/simpleApi/v1.0/companies\(9ace...](http://docker02:50018/BC/api/nso/simpleApi/v1.0/companies(9ace...)

Fields

Number Of Fields:	79
Read Only Fields:	0
Calculated Fields:	12

Power BI

Base Url: <http://docker02:50018/BC>
 Company Name: CRONUS Danmark A/S
 Id: 1c2ff2bb-1f44-ef11-ada0-fccf7656183d

Performance Last 7 Days

Csv Average:
 Json Average: 3 seconds 794 milliseconds
 Xml Average: 1 second 524 milliseconds

Power BI Query

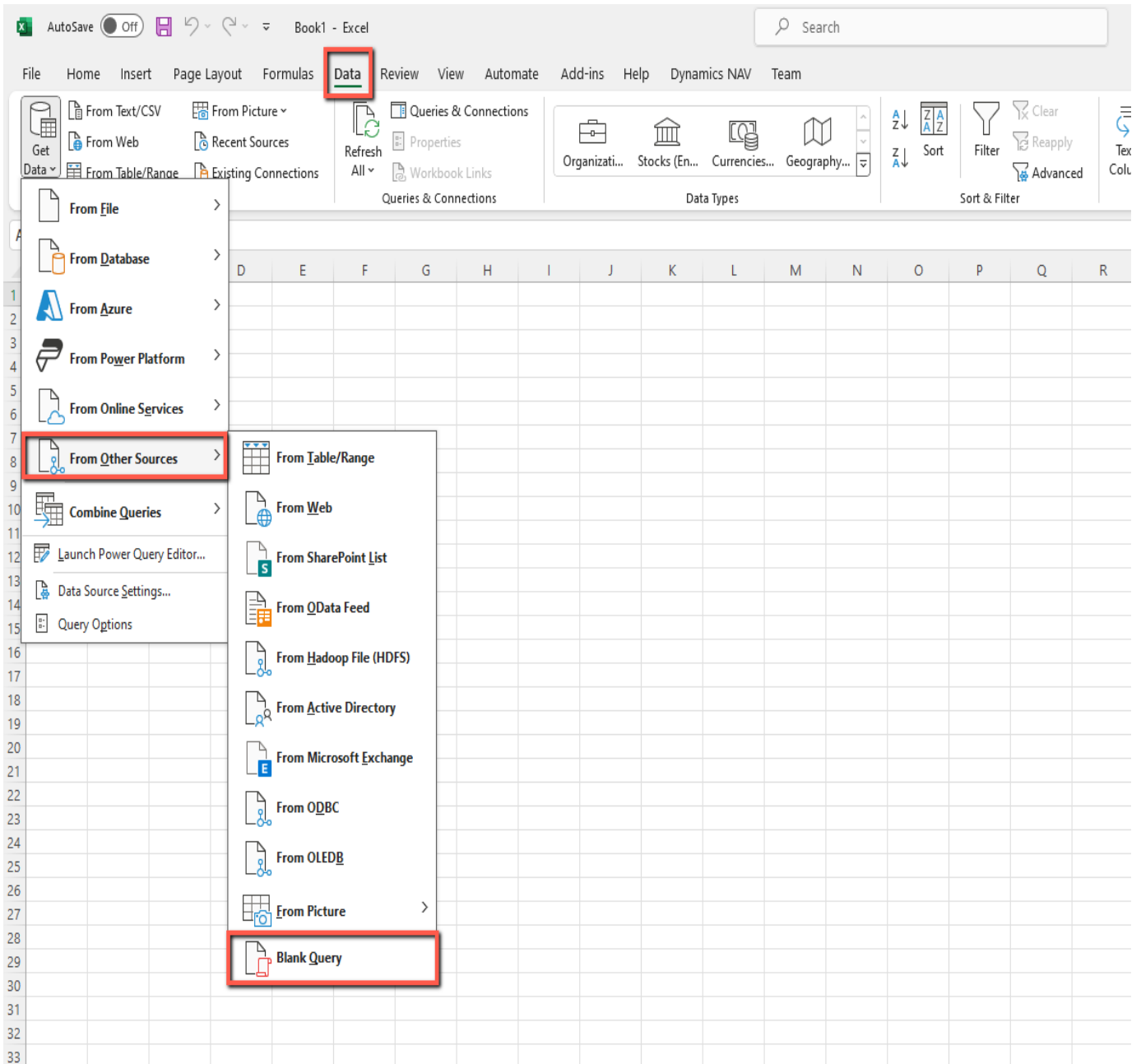
Power Query File Type: Json

```

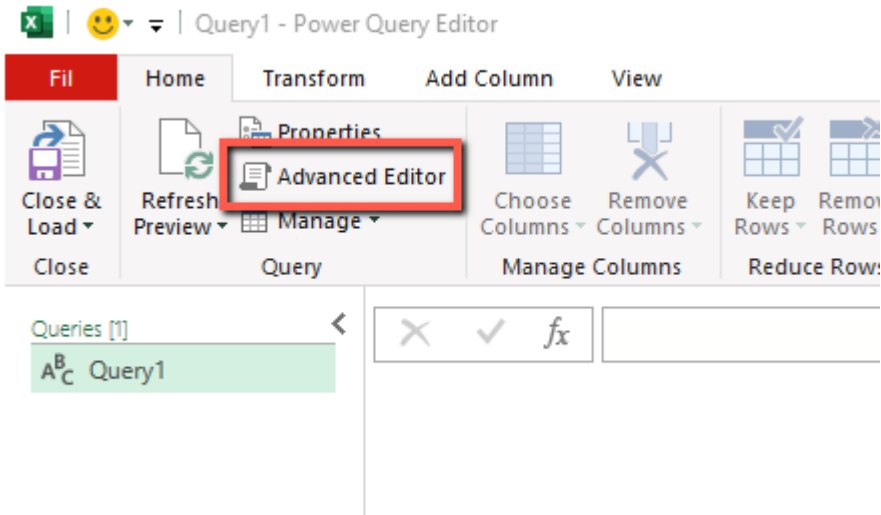
let
  BaseUrl = "http://docker02:50018/BC",
  Company = "CRONUS Danmark A/S",
  SimpleAPIId = "1c2ff2bb-1f44-ef11-ada0-fccf7656183d",
  Source = Table.FromList(Json.Document(OData.Feed(BaseUrl & "/api/nso/simpleApi/v1.0/json?Company=" & Company & ""))([Id=SimpleAPIId])[data],TextEncoding.Utf8)[value],
  Splitter.SplitByNothing(), null, null, ExtraValues.Error,
  TypeList = Json.Document(OData.Feed(BaseUrl & "/api/nso/simpleApi/v1.0/powerBI?Company=" & Company & ""))([Id=SimpleAPIId])[typesPB], TextEncoding.Utf8)[Array],
  Expand = Table.ExpandRecordColumn(Source, "Column1",
  List.Transform(TypeList, each _[Name])),
  ChangedType = Table.TransformColumnTypes(Expand,
  List.Transform(TypeList, each _[Name]), let
  Type =

```

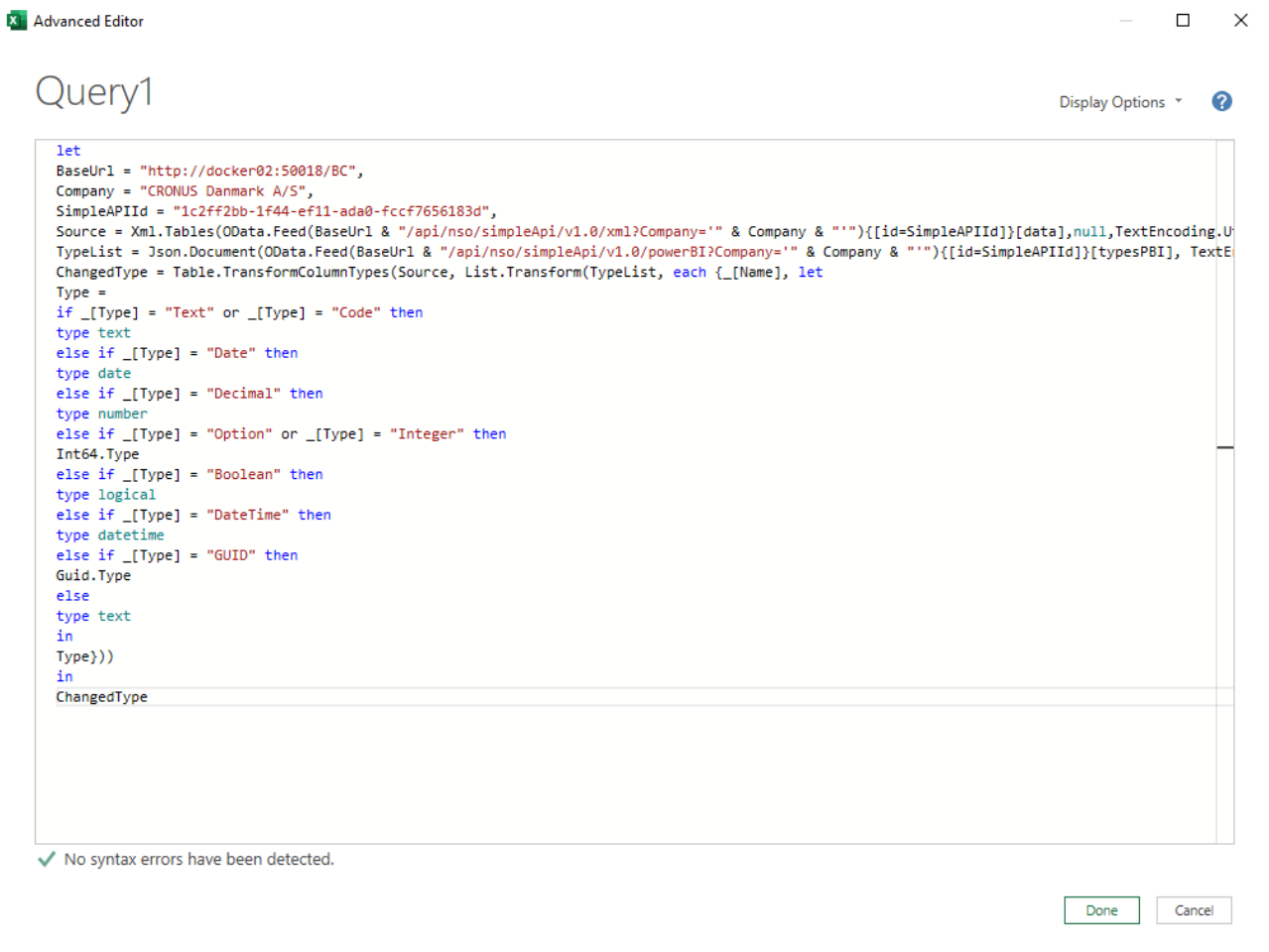
- Copy the link and use it in Excel by navigating to the Data tab, then clicking "Get Data" -> "From Other Sources" -> "Blank Query".



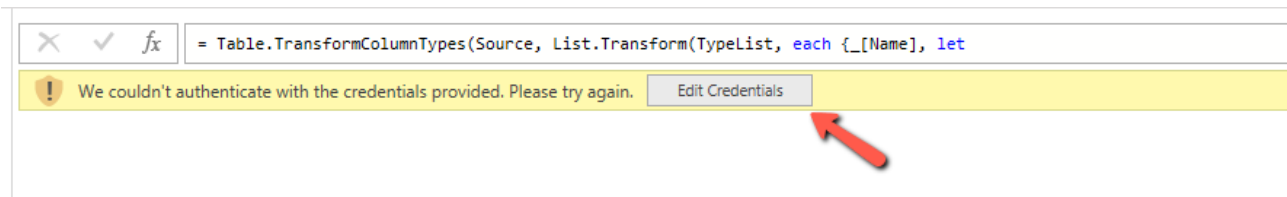
5. This will open a new window with the Power Query Editor.
6. In the Power Query Editor, click on "Advanced Editor" under the Home tab.



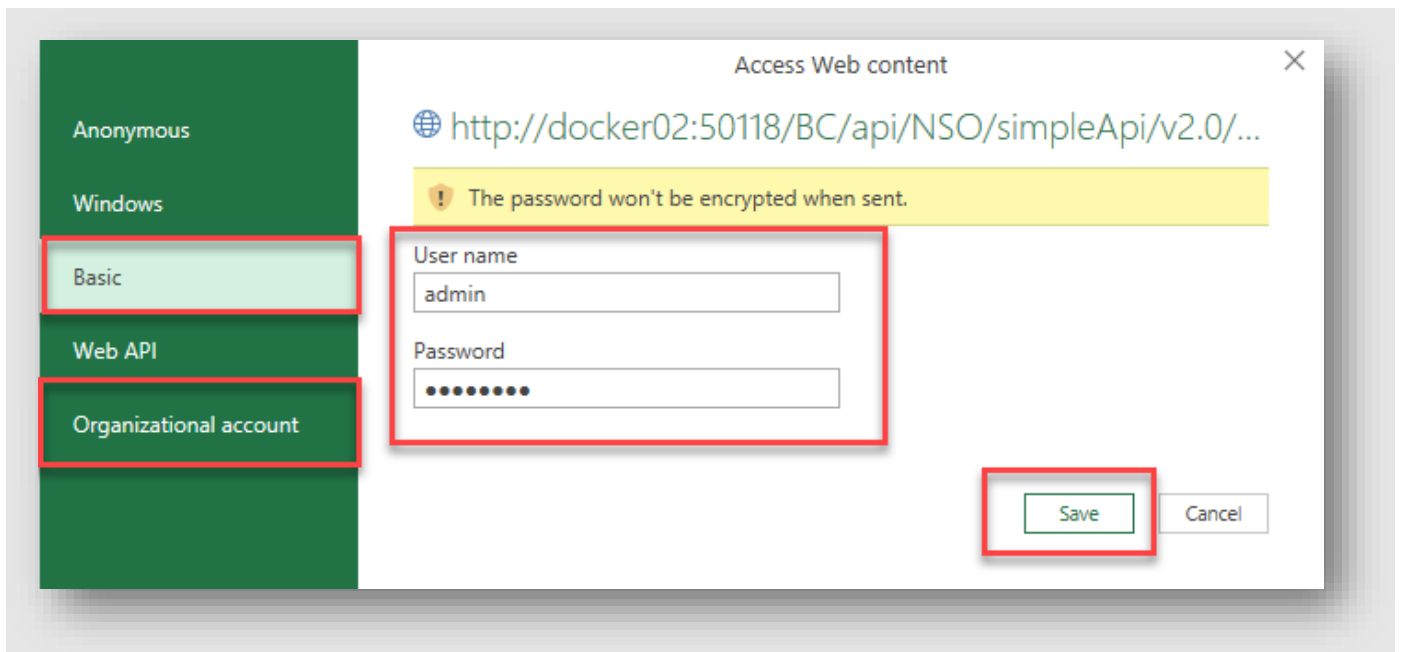
7. In the new window, delete everything and paste the Query you copied from Business Central. Your window should now look like this:



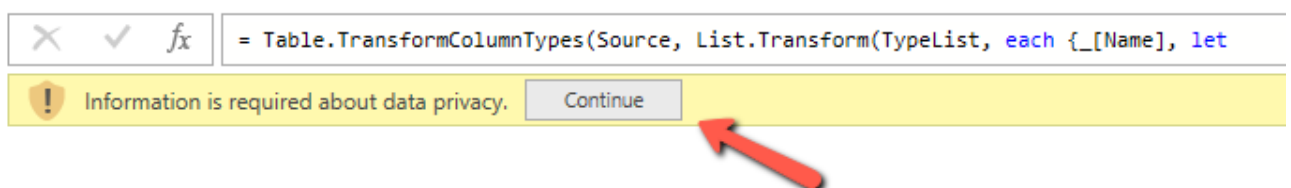
8. After pasting the Query, press "Done" at the bottom of the window.
9. If this is your first time using this form of connection, a warning will appear at the top of the window.



10. If this happens, press "Edit Credentials."
11. Then choose "Organizational account" and log in with your company credentials (in this case, we use "Basic" because it's a development environment).



12. Fill out the fields, press "Save"
13. If you see a new warning about privacy, click on "Continue"



14. A new window with Privacy level options will open. Click on the small arrow pointing down, select "Organizational," and then click "Save."

Privacy levels

The privacy level is used to ensure data is combined without undesirable data transfer. Incorrect privacy levels may lead to sensitive data being leaked outside of a trusted scope. More information on privacy levels can be found [here](#).

Ignore Privacy Levels checks for this file. Ignoring Privacy Levels could expose sensitive or confidential data to an unauthorized person.



The screenshot shows a dialog box with two dropdown menus, each containing the URL 'http://docker02:50018/'. A dropdown menu is open on the right, showing three options: 'Public', 'Organizational', and 'Private'. The 'Organizational' option is highlighted with a red arrow. Below the dropdown menu are two buttons: 'Save' and 'Cancel'. A red arrow points to the 'Save' button. Another red arrow points to the top right corner of the dialog box, near a close button (X).

15. Once that is done, you may see the same error as in step 9. If this happens, simply repeat steps 9 to 12.

16. The data is now available. Continue with "Close & Load" in the top left corner.

The screenshot shows the Power Query Editor interface. The ribbon includes 'Home', 'Transform', 'Add Column', and 'View'. The 'Close & Load' button is highlighted with a red arrow. The data table below shows 26 rows of financial data.

entryNo	glAccountNo	postingDate	documentType	documentNo	description	balAccountNo
1	16200	17-01-2023	0	103001	Købspris 20000 på 17-01-23	
2	02010	17-01-2023	0	103001	Købspris 20000 på 17-01-23	
3	01030	17-01-2023	2	103001	Faktura 102001	
4	24010	17-01-2023	2	103001	Faktura 102001	
5	17100	17-01-2023	2	103001	Faktura 102001	
6	18100	17-01-2023	1	103001	Faktura 102001	20000
7	17100	17-01-2023	1	103001	Faktura 102001	18100
8	16200	18-01-2023	0	103002	Købspris 10000 på 18-01-23	
9	02010	18-01-2023	0	103002	Købspris 10000 på 18-01-23	
10	01030	18-01-2023	2	103002	Faktura 102002	
11	11 24010	18-01-2023	2	103002	Faktura 102002	
12	12 17100	18-01-2023	2	103002	Faktura 102002	
13	13 18100	18-01-2023	1	103002	Faktura 102002	10000
14	14 17100	18-01-2023	1	103002	Faktura 102002	18100
15	15 01700	18-01-2023	1	103002	Faktura 102002	
16	16 16200	19-01-2023	0	103003	Købspris 30000 på 19-01-23	
17	17 02010	19-01-2023	0	103003	Købspris 30000 på 19-01-23	
18	18 01030	19-01-2023	2	103003	Faktura 102003	
19	19 24010	19-01-2023	2	103003	Faktura 102003	
20	20 17100	19-01-2023	2	103003	Faktura 102003	
21	21 18100	19-01-2023	1	103003	Faktura 102003	30000
22	22 17100	19-01-2023	1	103003	Faktura 102003	18100
23	23 16200	20-01-2023	0	103004	Købspris 50000 på 20-01-23	
24	24 02010	20-01-2023	0	103004	Købspris 50000 på 20-01-23	
25	25 01020	20-01-2023	2	103004	Faktura 102004	
26	17100	20-01-2023	2	103004	Faktura 102004	

17. You can use the refresh button to update the data at any time, so this setup only needs to be done once.

The screenshot shows the Microsoft Excel interface with the 'Data' ribbon selected. The 'Refresh All' button is highlighted with a red box. A tooltip is displayed over the button, providing instructions on how to refresh data.

address2	city	contact	phoneNo	telexNo
	Cambridge	Robert Townes		
Rd, 91-95	London	Helen Ray		
10 High Tower Green	Miami	Meagan Bond		
Walter-Gropius-Strasse 5	Park Stadt Schwabing	Munchen	Ian Deberry	
Occam Court, 1	Surrey	Guildford	Jesse Homer	

Power BI Integration

SimpleAPI offers two connection options for Power BI:

1. A Power BI connector file that you need to download and install.
2. A Power Query connection between Business Central and Power BI.

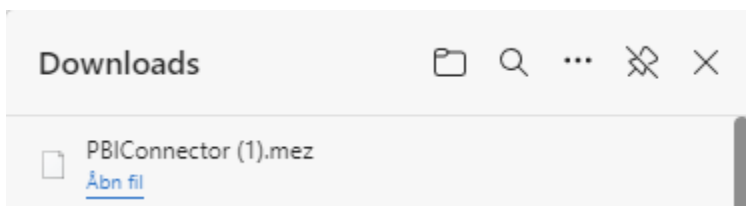
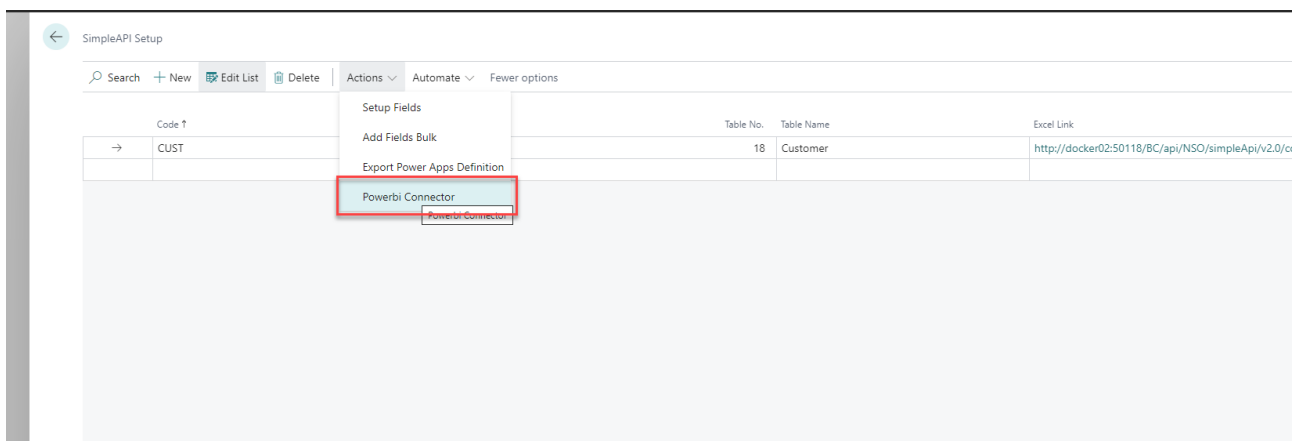
We recommend choosing the second option. The connector will require an On-Prem Data connector to be used even in cloud when a report is published.

Currently the best performance is found with the XML File Power Query. Therefore, this is the recommended choice.

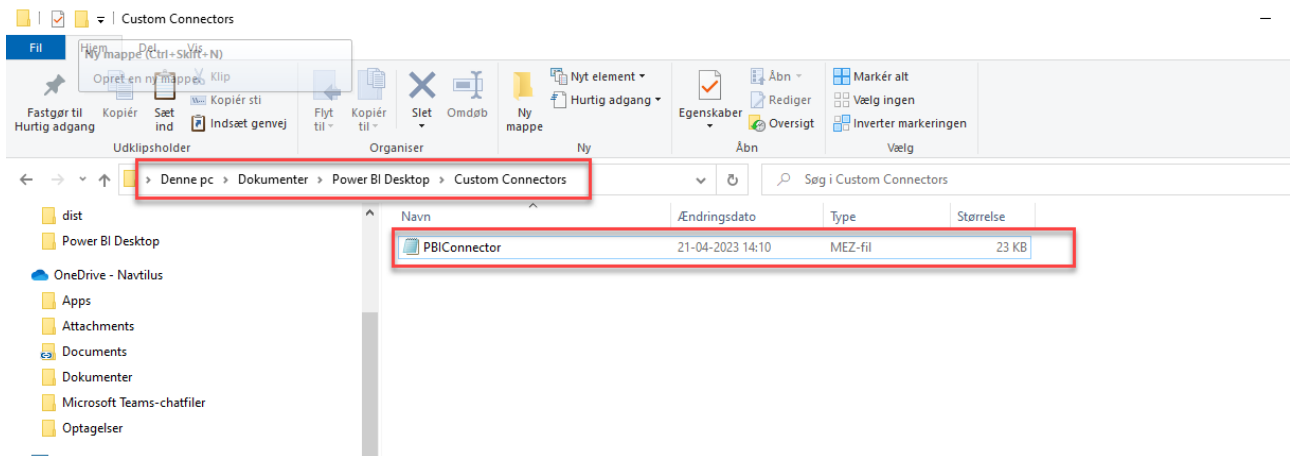
Power BI file connection:

Note: This connector will not change for new versions of the SimpleAPI App. There may be changed in the BC app, but it will be kept backwards compatible. If changes are necessary, that will not allow backwards compatibility, a new version of the Power BI connector will be made in addition to the existing, to not disturb already dependent reports and dashboards.

1. Navigate to the “SimpleAPI Setup” page, from here you can go to “More options” -> “Action” -> “PowerBI Connector”, this will add the Connector .mez file to your download folder.



2. The .mez file is the way to make custom connectors for Power BI but it requires moving the file to the right folder for power bi to recognize the file. Required folder is “this pc\Documents\Power BI Desktop\Custom Connectors”.
 - a. If you do not have this folder, you can make it yourself.
 - i. Go to “This Computer” -> “Documents” -> Create a new folder called “Power BI Desktop” -> Open the folder and create one more called “Custom Connectors”.



1. Once the file is placed in the folder you need to restart your Power BI.

NOTE! For some people you might get a warning message when opening the Power BI. Press OK and do as following:

- In Power BI Desktop go to "File" -> "Options and settings" -> "Options" -> "Security" -> Change the selected under "Data Extensions".

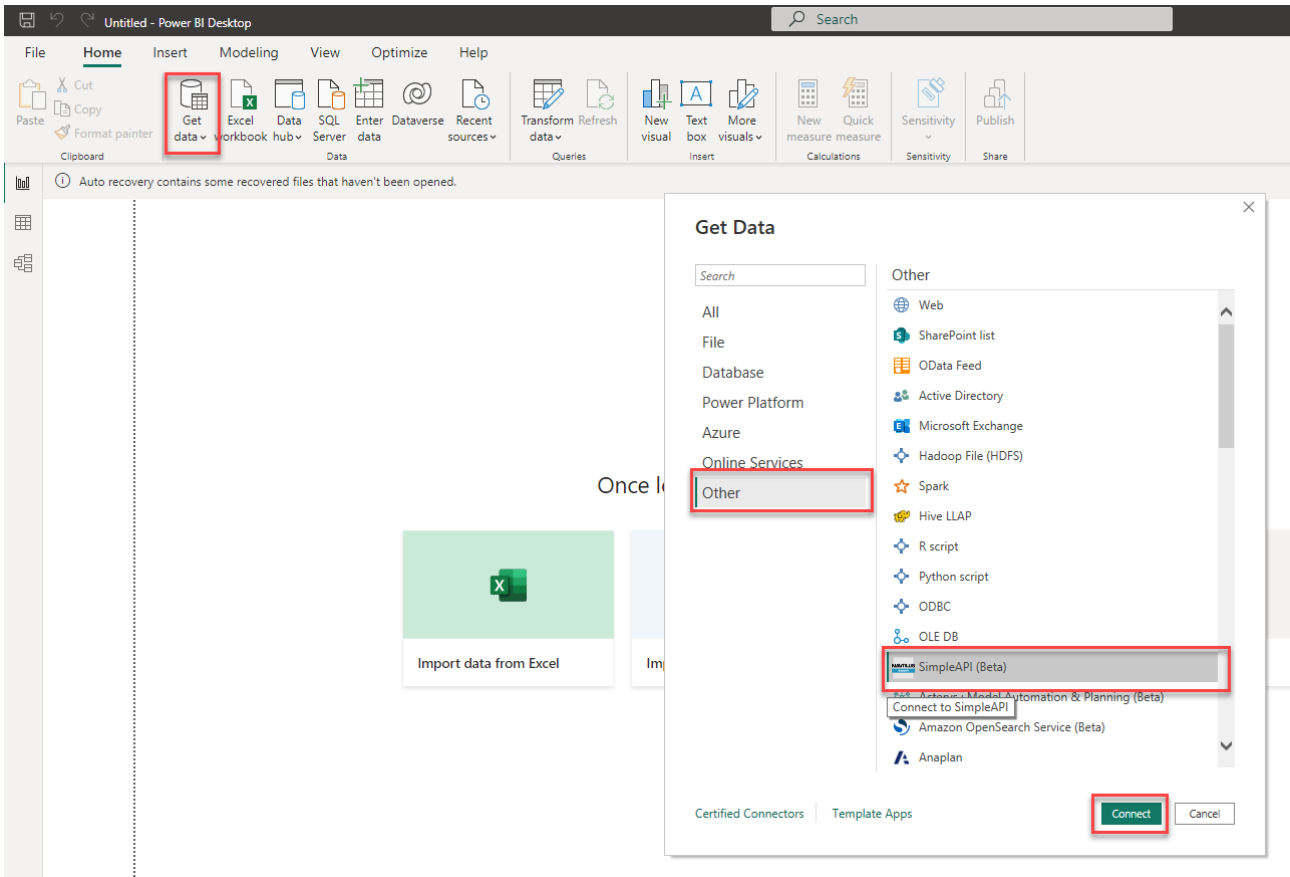
Options

The screenshot shows the 'Options' dialog box in Power BI. The left sidebar is titled 'Options' and has a 'Security' section highlighted. The main content area is divided into several sections:

- Native Database Queries**: Require user approval for new native database queries
- Certificate Revocation**: Comprehensive check ⓘ, Basic check ⓘ, None ⓘ. [Learn more about certificate revocation](#)
- Web Preview Warning Level**: Moderate ▾
- Data Extensions** (highlighted with a red box): (Recommended) Only allow Microsoft certified and other trusted third-party extensions to load, (Not Recommended) Allow any extension to load without validation or warning. [Learn more about data extensions](#)
- Custom visuals**: Show security warning when adding a custom visual to a report
- ArcGIS for Power BI**: Use ArcGIS for Power BI
- Map and Filled Map visuals**: Use Map and Filled Map visuals

At the bottom right, there are 'OK' and 'Cancel' buttons.

2. After this you should be able to find the Connector in “Get data” -> “More” -> “Other” -> SimpleAPI
 - a. You might get a warning about “connection to a third-party service”, just press continue here.



3. After clicking connect a window is opening asking for three parts of information's

The image shows a Power BI interface with a 'SimpleAPI Details' section on the left and a 'Simple API' configuration dialog box on the right. The dialog box has three input fields: 'Base API Url', 'Company', and 'APIId'. Red arrows point from the 'Power BI' section of the details to these fields. Below the dialog box are three buttons: 'Hent data fra SQL Server', 'Indsæt data i en tom tabel', and 'Brug eksempel'. Below these buttons is a link: 'Hent data fra en anden kilde →'.

SimpleAPI Details

Json:
<http://docker02:50018/BC/api/nso/simpleApi/v1.0...>

Xml:
<http://docker02:50018/BC/api/nso/simpleApi/v1.0...>

Csv:
<http://docker02:50018/BC/api/nso/simpleApi/v1.0...>

Fields
 Number Of Fields: 79
 Read Only Fields: 0
 Calculated Fields: 12

Power BI
 Base Uri: <http://docker02:50018/BC>
 Company Name: CRONUS Danmark A/S
 Id: 1c2ff2bb-1f44-ef11-ada0-fccf7656183d

Performance Last 7 Days
 Csv Average:
 Json Average: 3 seconds 794 milliseconds
 Xml Average: 1 second 524 milliseconds

Power Query
 File Type: Json

```
let
  BaseUrl = "http://docker02:50018/BC",
  Company = "CRONUS Danmark A/S",
  SimpleAPIId = "1c2ff2bb-1f44-ef11-ada0-fccf7656183d",
  Source =
    Table.FromList(Json.Document(OData.Feed(Base
    & "/api/nso/simpleApi/v1.0/json?Company="
    & Company & "")){{Id=SimpleAPIId}}
    [data],TextEncoding.Utf8)[value],
  Splitter.SplitByNothing(), null, null,
  ExtraValues.Error),
  TypeList =
    Json.Document(OData.Feed(BaseUrl &
    "/api/nso/simpleApi/v1.0/powerBI?
```

Simple API

Base API Url

Company

APIId

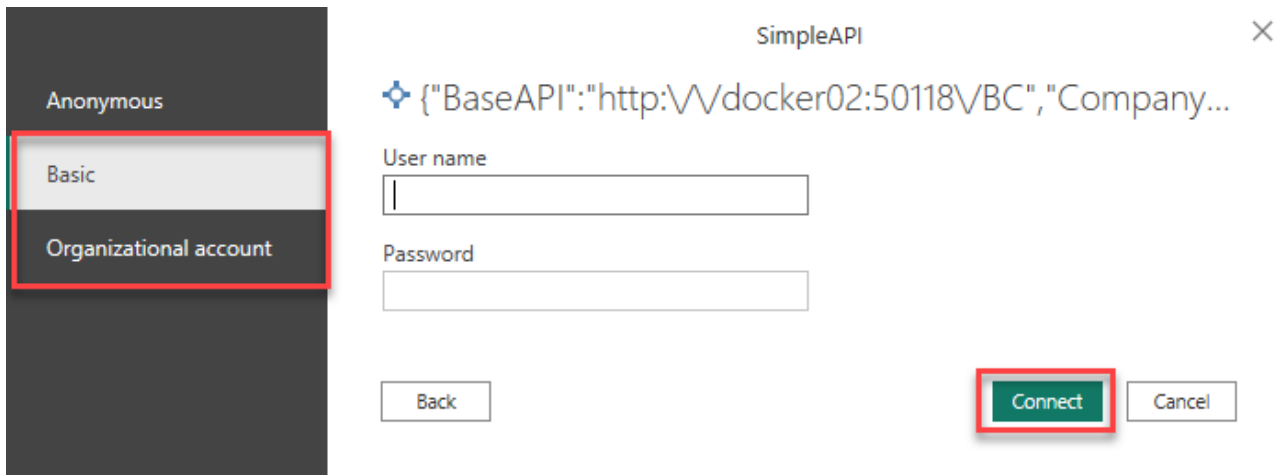
OK Annuller

Hent data fra SQL Server Indsæt data i en tom tabel Brug eksempel

Hent data fra en anden kilde →

4. Input the information in Power BI and click ok.
 - a. In our example the box looks like the picture underneath, yours should have your company's information inside it instead.

5. Login with the business central login, either use the basic or the Organizational account.



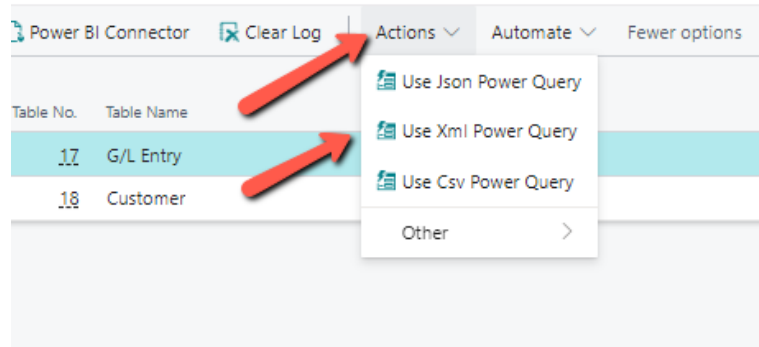
6. The SimpleAPI connector will then give you access to the selected Business Central fields on the selected tables in Power BI (Check the “How to setup” instructions, for managing fields).

This concludes the setup instructions for the Power BI integration, from here it becomes a matter of using the data in Power BI.

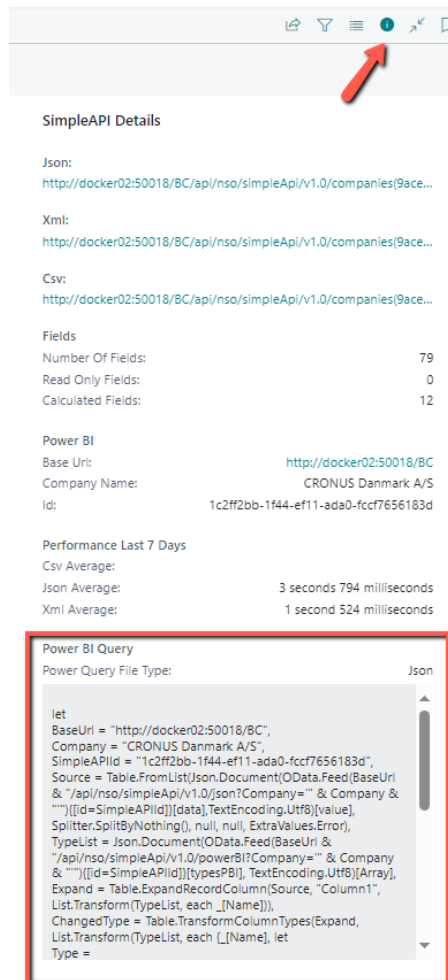
Power Query connection:

For this solution, you need to copy a query from Business Central:

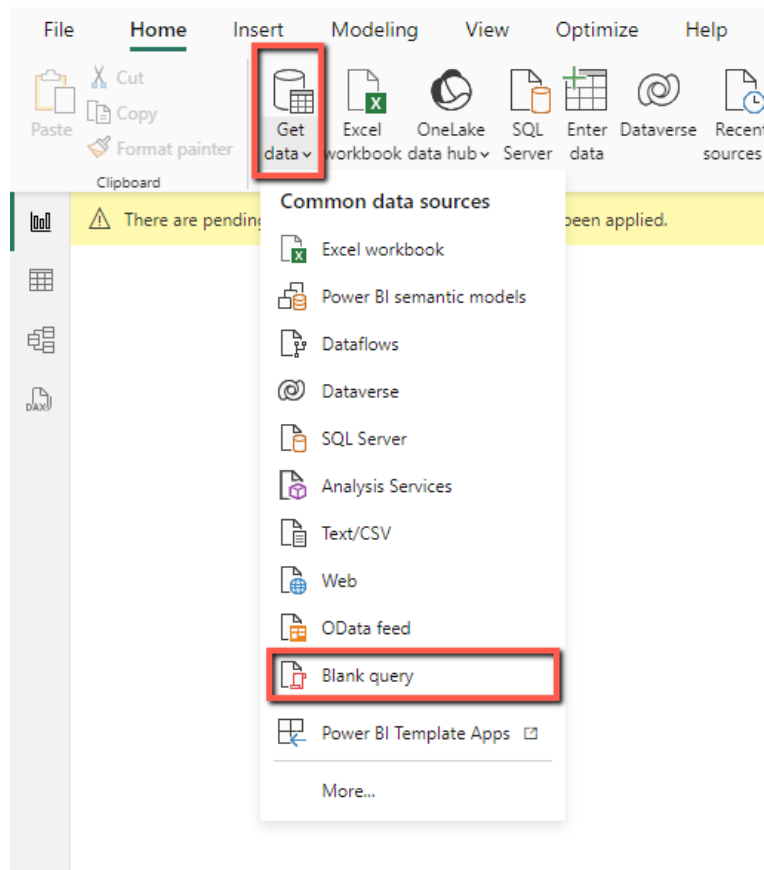
1. After setting up your SimpleAPI extension and selecting the table and fields you want to gather data from, click on "Actions" -> "Use XML Power Query."



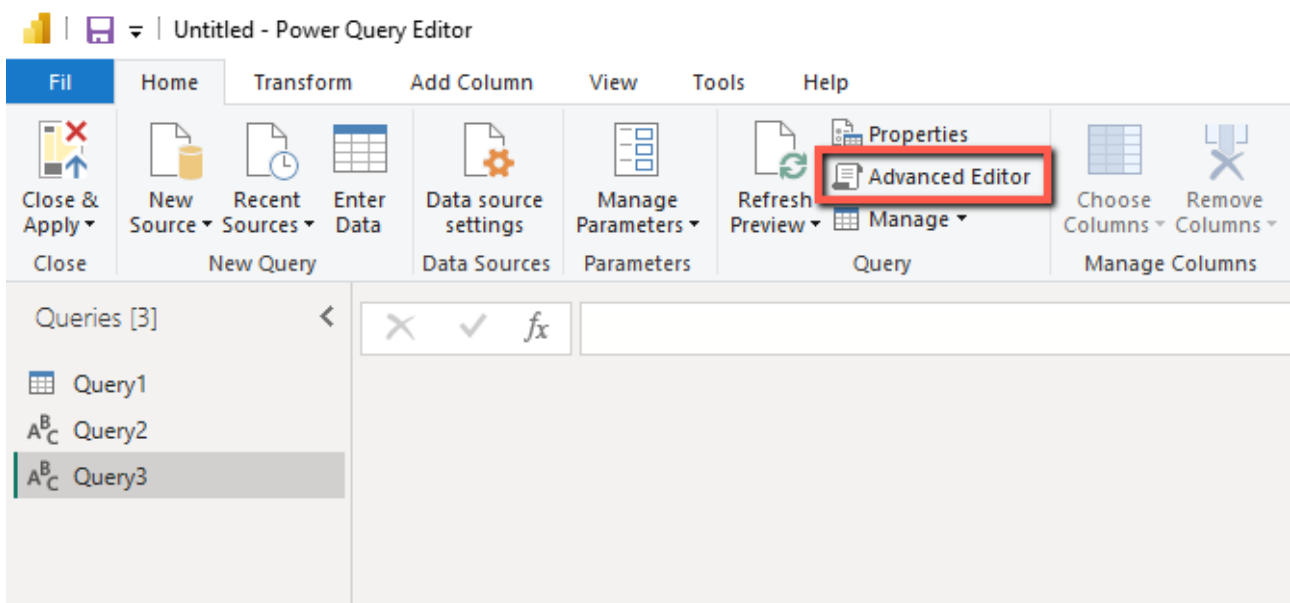
2. Next, copy the text from the "Power Query" section in the information box.



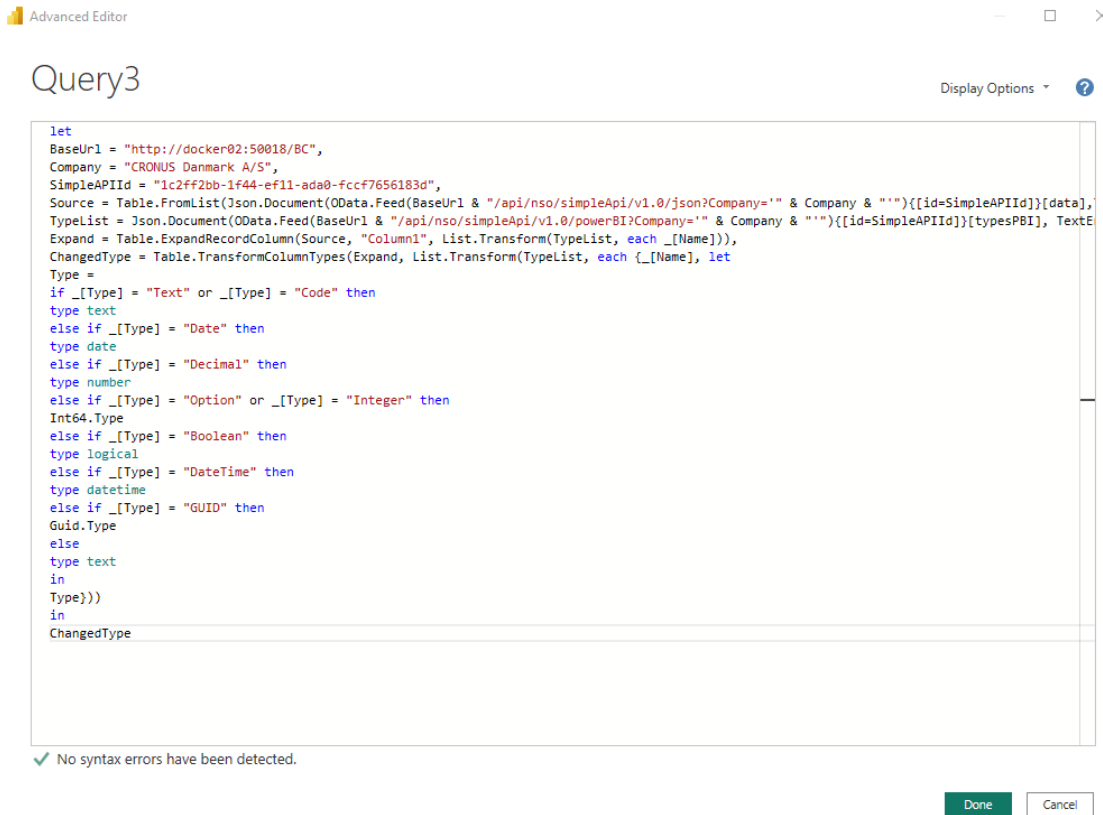
- Once you have copied the query, open Power BI Desktop.
- In the program, click on "Get Data" -> "Blank Query."



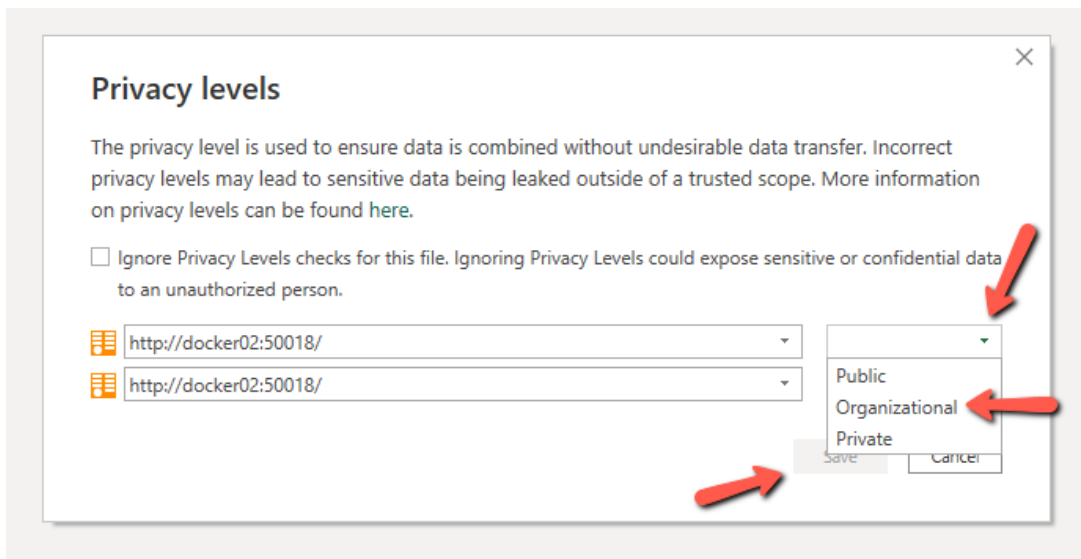
- This will open a new window. In this window, find "Advanced Editor" under the "Home" tab.



6. Delete all the text in the new Query window and paste the text you copied from Business Central. Your window should now look like this.

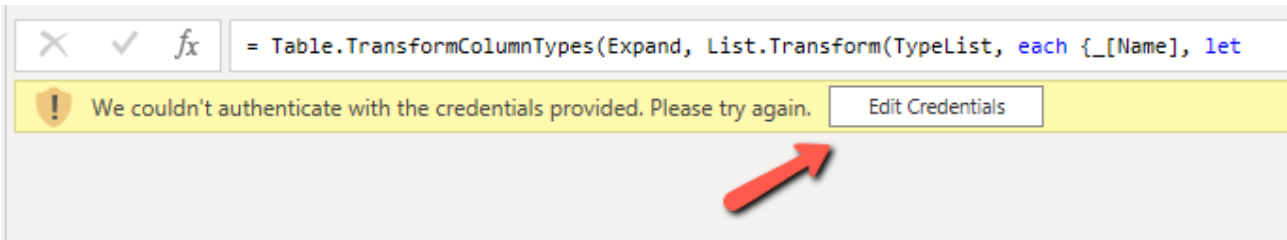


7. Click on "Done."
8. If this is your first time doing this, a data privacy message will appear at the top of the window. Click "Continue."
9. In the new window, press the small downward arrow, select "Organizational," and then press "Save."

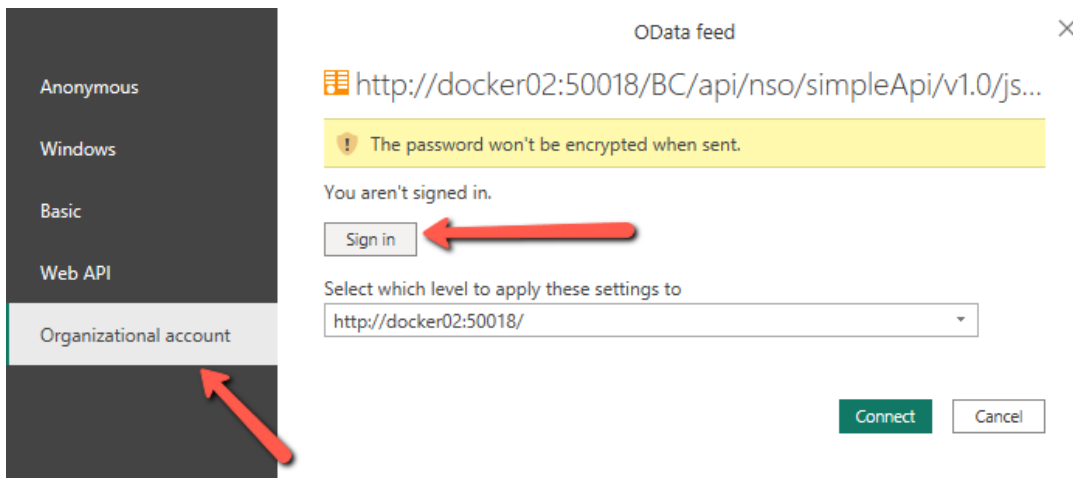


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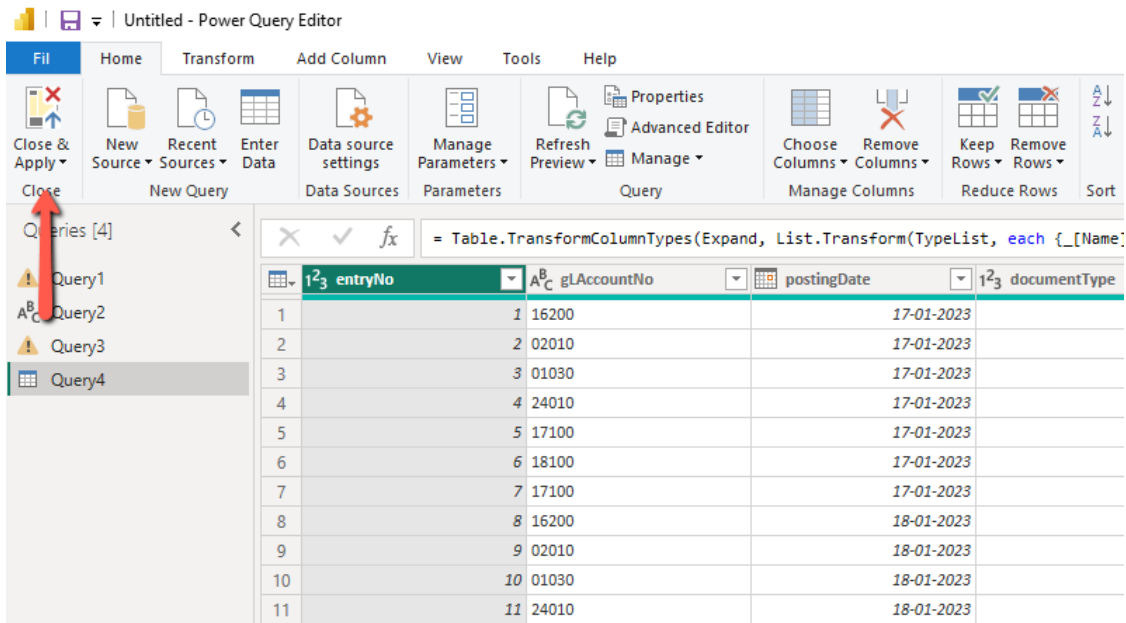
10. Afterwards a message with credentials is going to pop-up, click on the “Edit Credentials”



11. In the new window select “Organizational account” and the “Sign in”



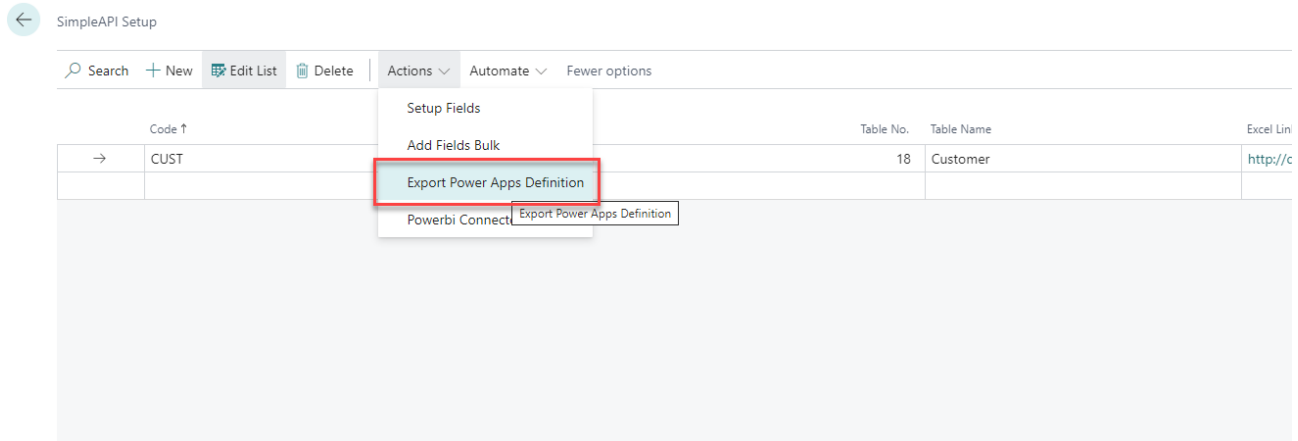
12. The data is now available, make sure the delimiter is Comma then you can transform or load the data by pressing “Close & Load” in the top left corner.



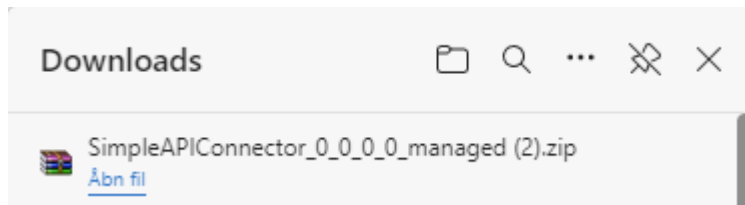
Power Platform Integration

SimpleAPI is also compatible with Power Apps, which allows the users to subtract data directly from Business Central and into their Power Apps. The instructions to setup this connection can be seen in the following pages:

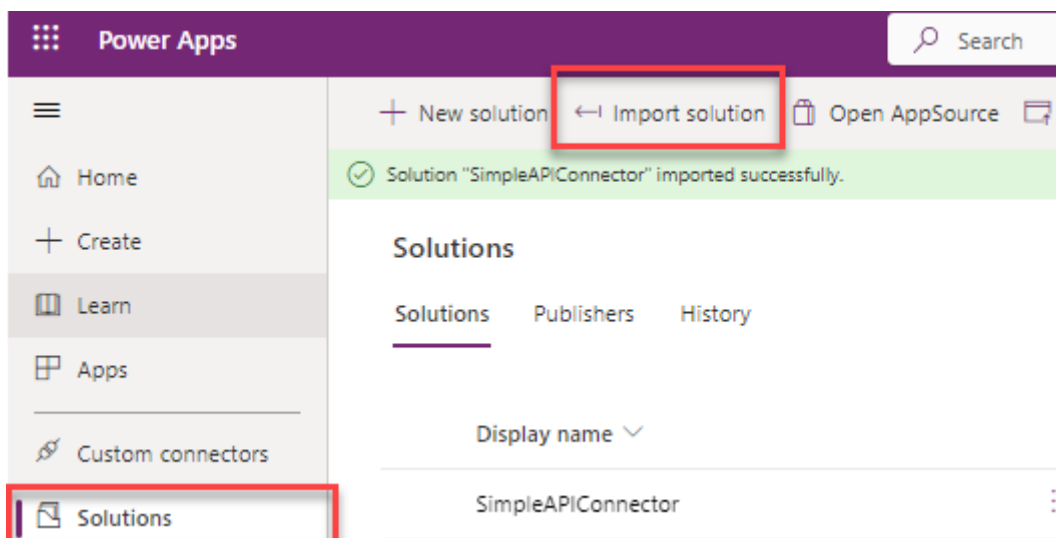
1. Go to the search bar in your Business central and search for “SimpleAPI Setup”.



2. Go to “More options” -> “Actions” -> “Export Power Apps Definition”.
3. This will start a download of a .zip file.

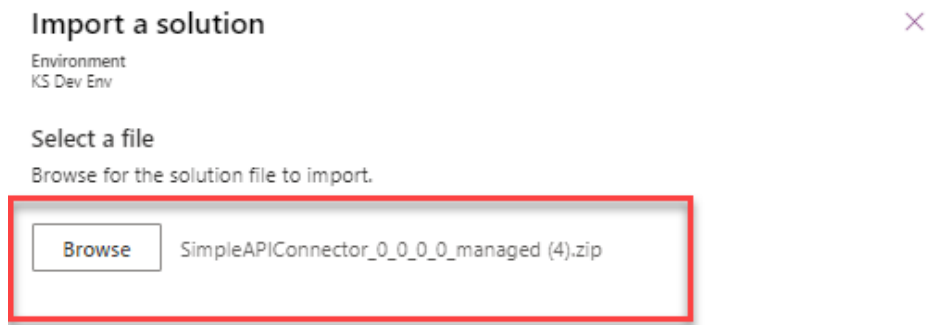


4. When the .zip file has been downloaded. Go to the Power Apps website.
5. Click on “Solutions” -> “Import solution” -> “Browse”.

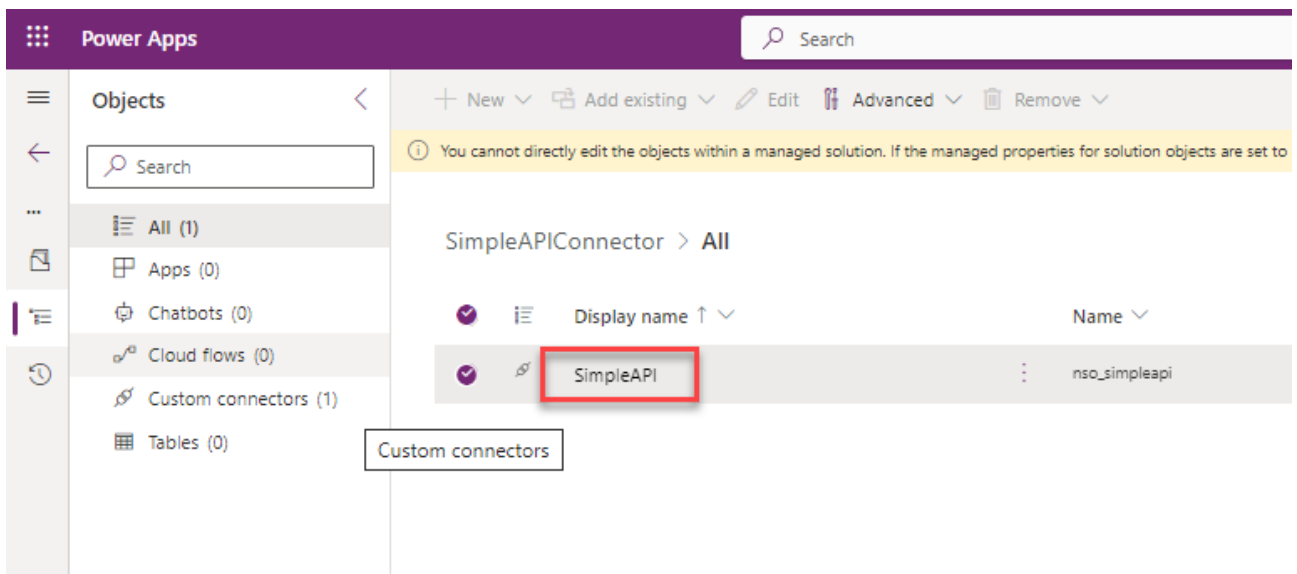


6. Find and select the downloaded file you just downloaded.

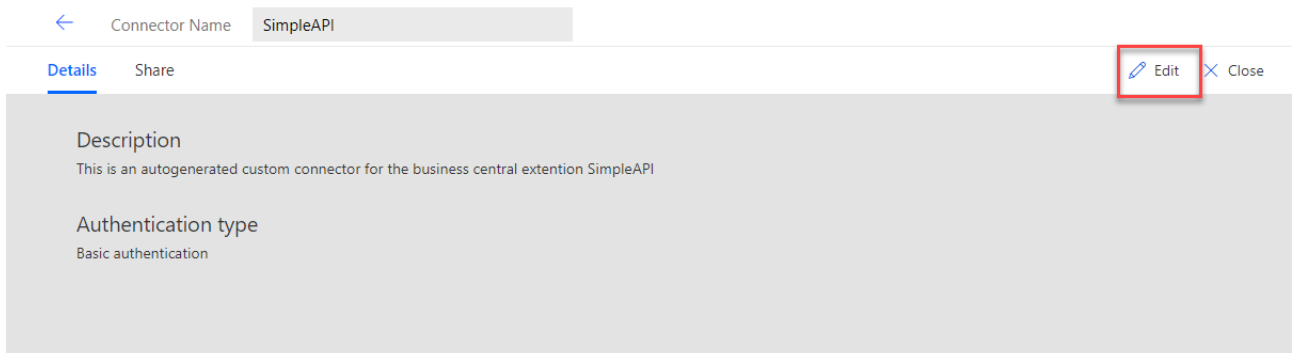
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7. Click on “Next”.
8. Click on “Import”.
9. Find the SimpleAPIConnector in your list of solutions.
10. Click on the name of the app (Under Display name).
11. Inside the solution, click on the name once again.



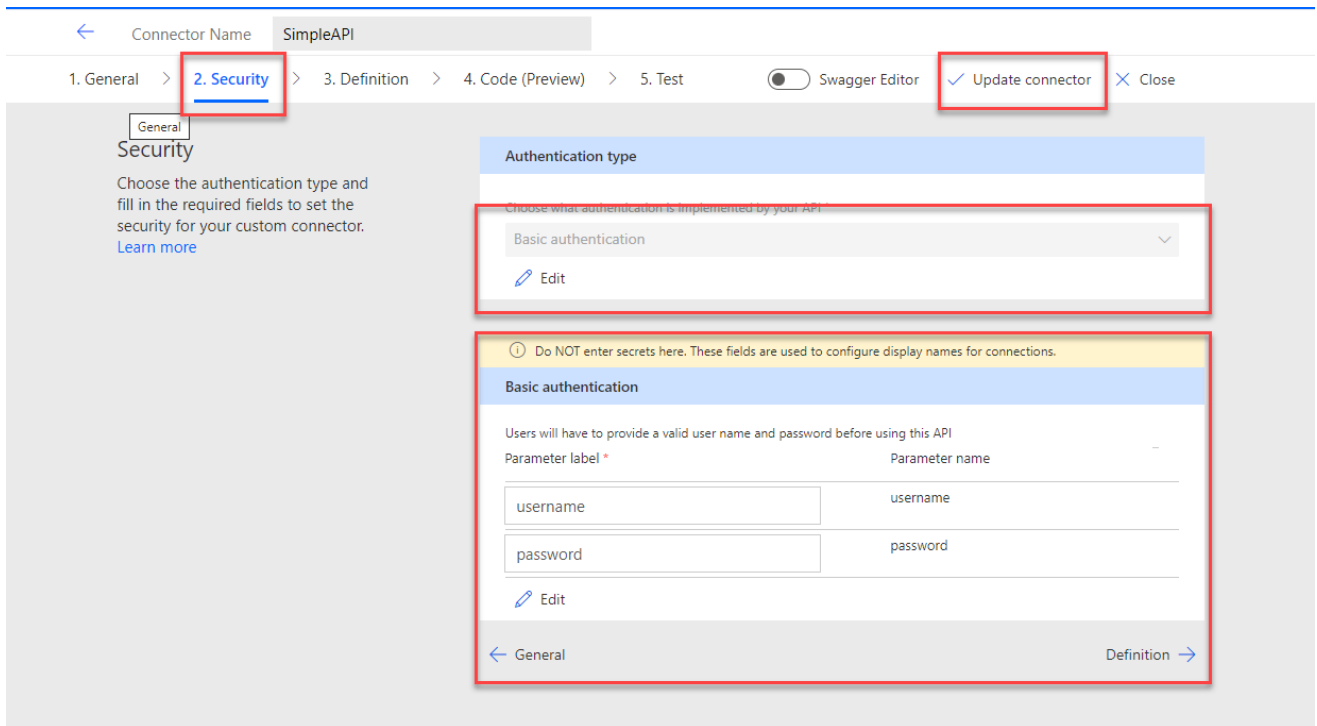
12. Once the App is opened in Power Automate, click on the “Edit” the connector.



13. Go to the page called “2. Security”
14. Fill in the Security tab with the Basic authentication or OAuth 2.0.

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15. Finally click on the “Update Connector” button top update the Connector.
16. From here the connector is ready to use.



Note: This connector will change when the setup in BC is changed and this flow needs repeating for the connector to be current.

OpenAPI Definition Export

If the intent is to use the app as a general integration tool, an OpenAPI Definition can be exported from the SimpleAPI Field Setup. The OpenAPI Definition is a standard format for use in programs, for example Postman.

1. Open the search bar in Business Central and search for "SimpleAPI Setup".
2. Select the line you are using.
3. Click on "Actions" -> "Setup Fields".
4. In the new window click on "Export OpenAPI Definition".

SimpleAPI Field Setup ✓ Saved [↗](#) [↕](#)

Search [+](#) New [Edit List](#) [Delete](#) [Add Fields Bulk](#) [↓ Export OpenAPI Definition](#) [⋮](#) [↗](#) [🔍](#) [☰](#)

	Field No. ↑	Field Name	Field Filter	Primary Key Increment	Read Only	Overwrite Name
→	1	No.			<input type="checkbox"/>	

5. This will start the download of the .json file.