How to: Create an External Content Type using an OData source and import the BDC Model in SharePoint Online

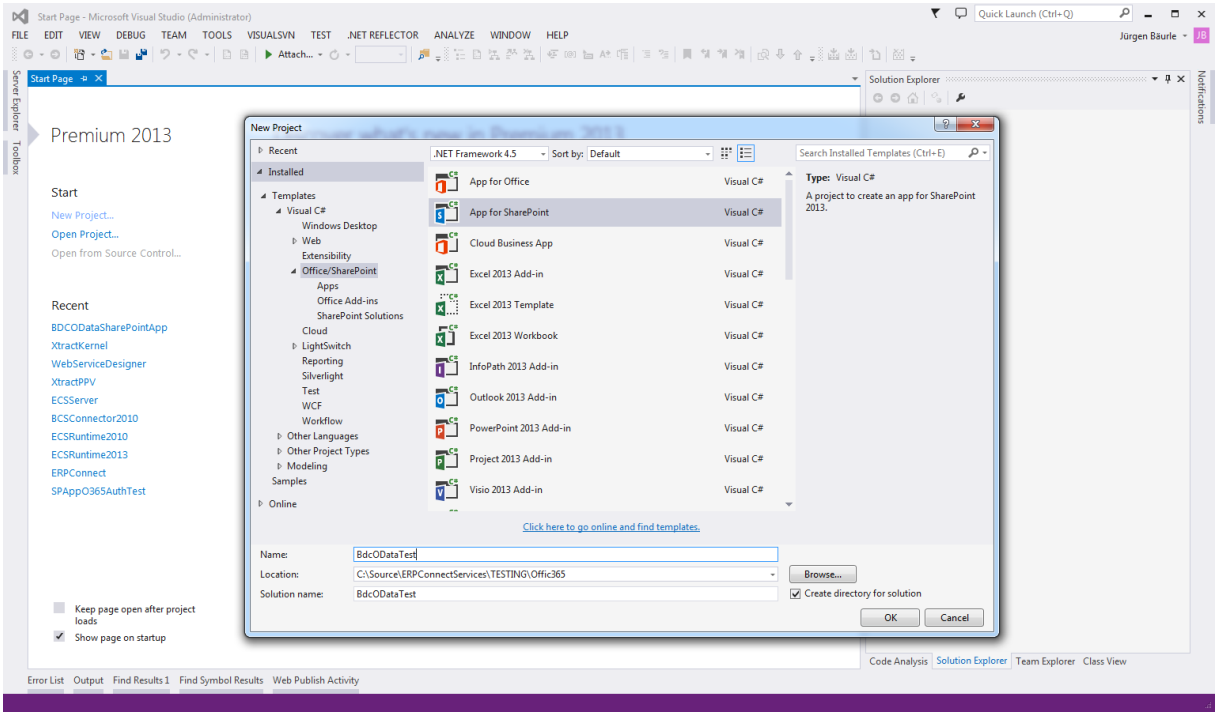
October 2014 – Jürgen Bäurle

This article shows how to create an external content type (ECT) using the Northwind OData service provided at the OData.org site and how to import the extracted BDC model file in SharePoint Online to support a tenant-scoped external content type, which can be used in external lists.

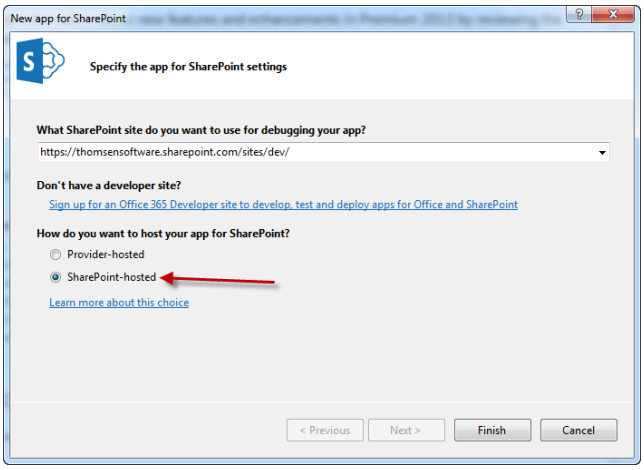
Unfortunately SharePoint Designer 2013 is not supporting the creation of a BDC model based on OData sources. This is currently only possible by using Visual Studio and by extracting the model file from the App package file. The described technique below also applies to SharePoint Server 2013.

Create an External Content Type with Visual Studio

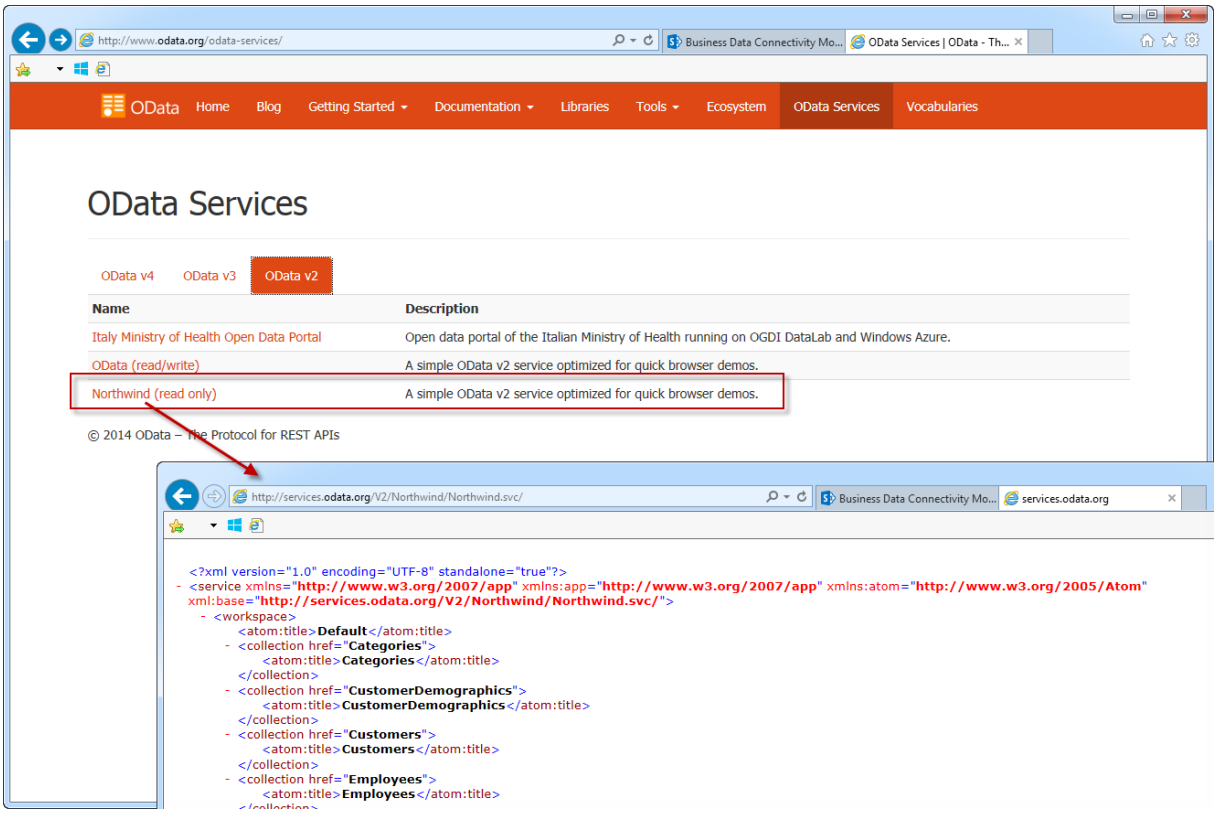
In the first step create an App for SharePoint.



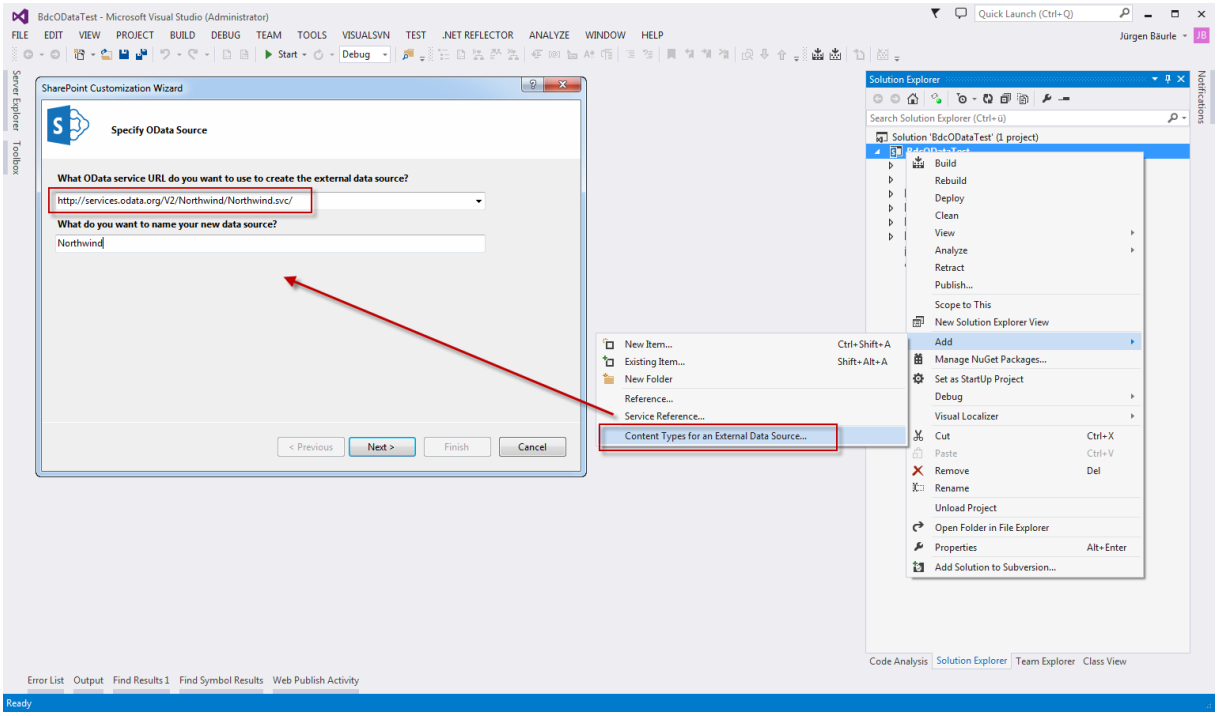
In the New app for SharePoint dialog enter the URL of the SharePoint Online developer site and select SharePoint-hosted as the app hosting type.



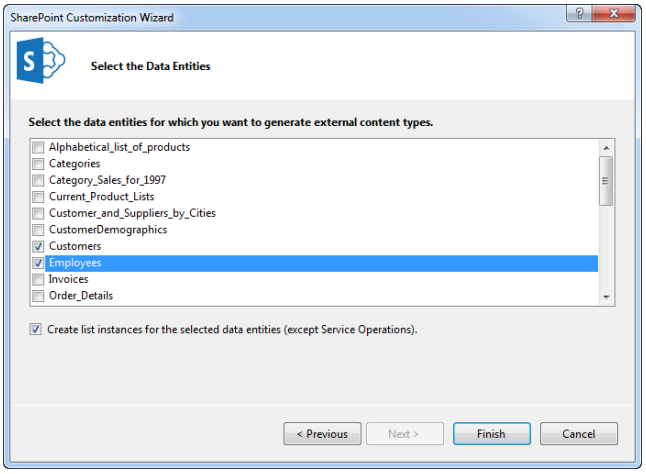
The OData.org site is providing public sample OData services that may be used for tests and demonstration. This tutorial will use the Northwind OData service.



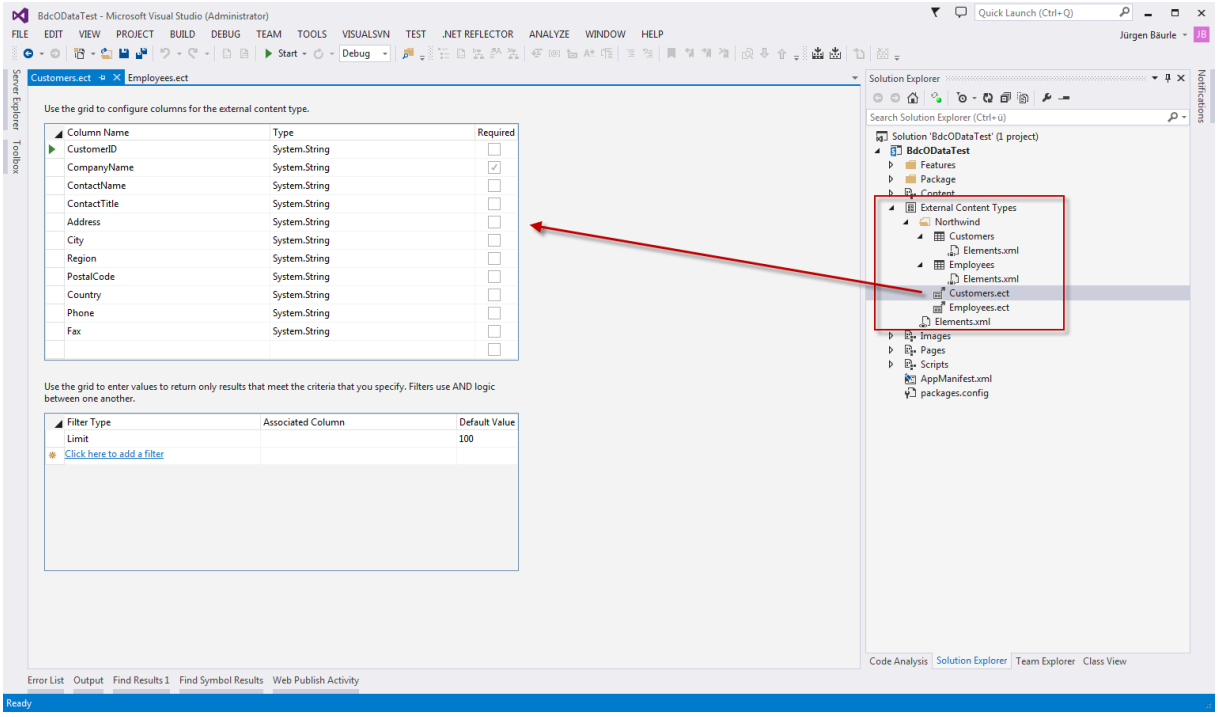
Next, add the external data source to the generated Visual Studio project, enter the URL of the Northwind OData data service (http://services.odata.org/V2/Northwind/Northwind.svc/) and the name the data source Northwind.



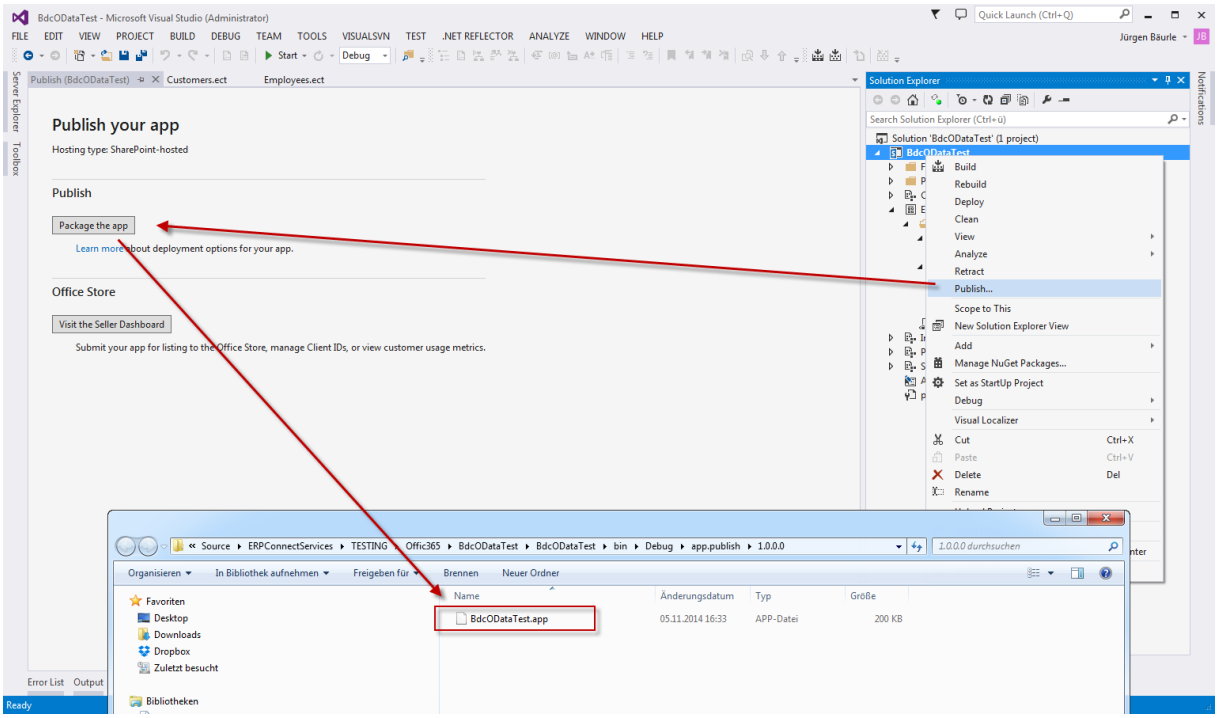
Next select at least entities Customers and Employees.



The selection will create additional files in the Visual Studio project. The .ect files defining the external content types and may be fine-tuned by the by adding additional filter types for the BDC model.



The final step within Visual Studio generates the App package file, which contains the BDC model file that will be extracted from the package file in the next section. To create the package file select Publish in the context menu and click the button Package the app. After packaging Visual Studio will open the folder using the Explorer containing the App package file.


BdcODataTest - Microsoft Visual Studio (Administrator)
Publish your app
Hosting type: SharePoint-hosted
Publish
Package the app
Learn more about deployment options for your app.
Office Store
Visit the Seller Dashboard
Submit your app for listing to the Office Store, manage Client IDs, or view customer usage metrics.
Solution Explorer
Build
Rebuild
Deploy
Clean
View
Analyze
Retract
Publish...
Scope to This
New Solution Explorer View
Add
Manage NuGet Packages...
Set as StartUp Project
Debug
Visual Localizer
Cut
Paste
Delete
Rename
Source ▸ ERPConnectServices ▸ TESTING ▸ Offic365 ▸ BdcODataTest ▸ BdcODataTest ▸ bin ▸ Debug ▸ app.publish ▸ 1.0.0.0
Organisieren
In Bibliothek aufnehmen
Freigeben für
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Desktop
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BdcODataTest.app
05.11.2014 16:33
APP-Datei
200 KB
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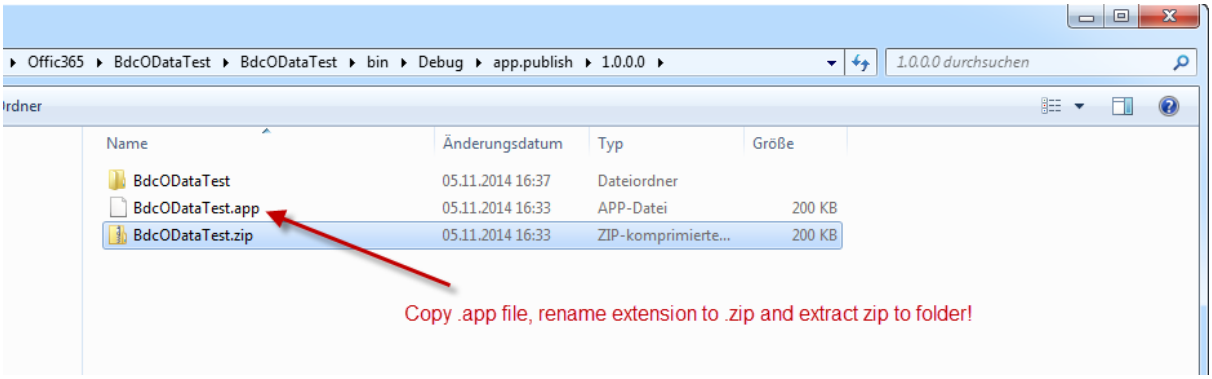
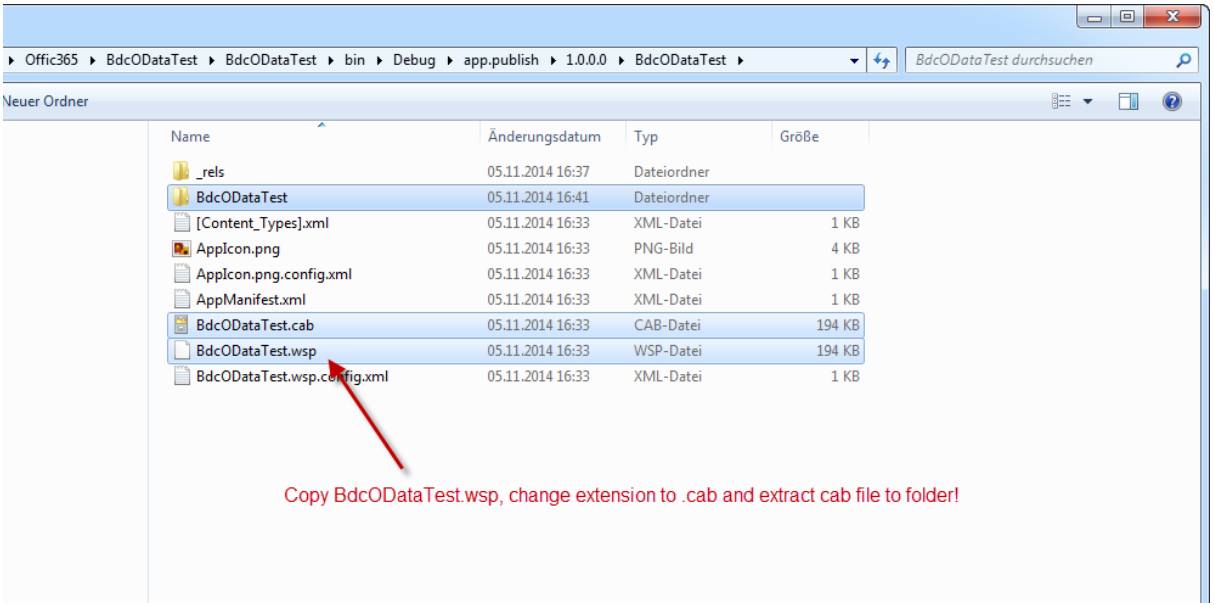
Output
Ready

Extract BDC Model from the App package

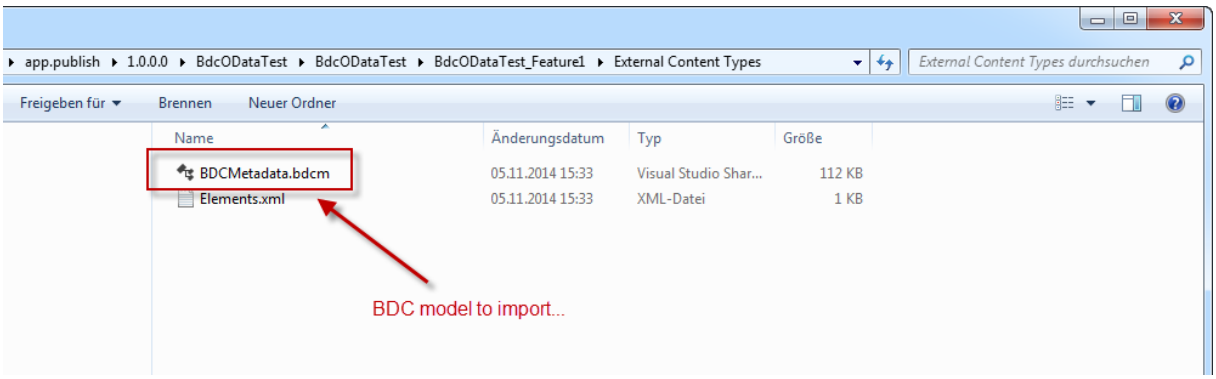
To extract the BDC model copy the .app file, change the file extension to .zip and unzip the zip file to a subfolder.



Open the subfolder, copy the .wsp file, change the file extension to .cab and unzip the cab file to a subfolder.

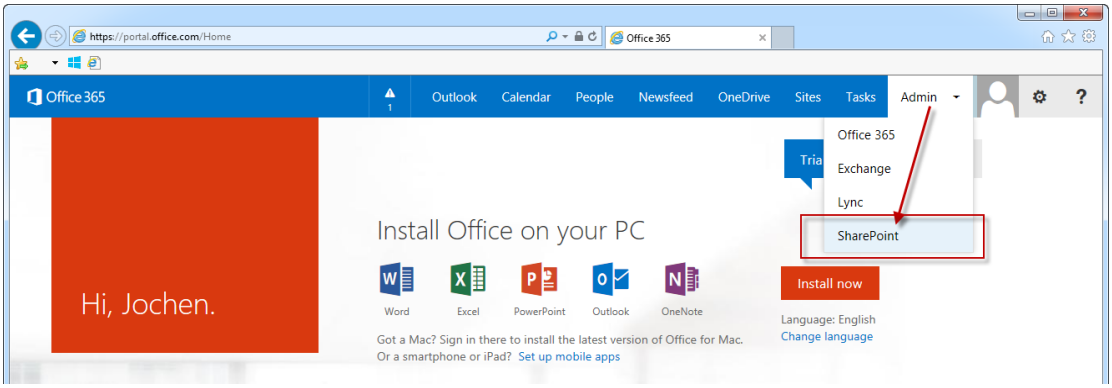


Navigate to the External Content Types subfolder. This folder contains the BDC model file, which we will import into the BDC Metadata Store in SharePoint Online in the next section.

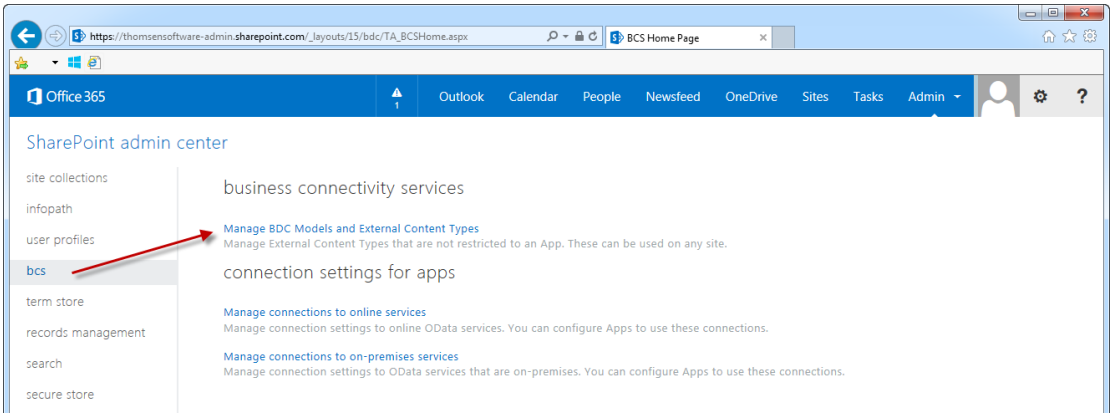


Import the BDC Model into the BDC Metadata Store

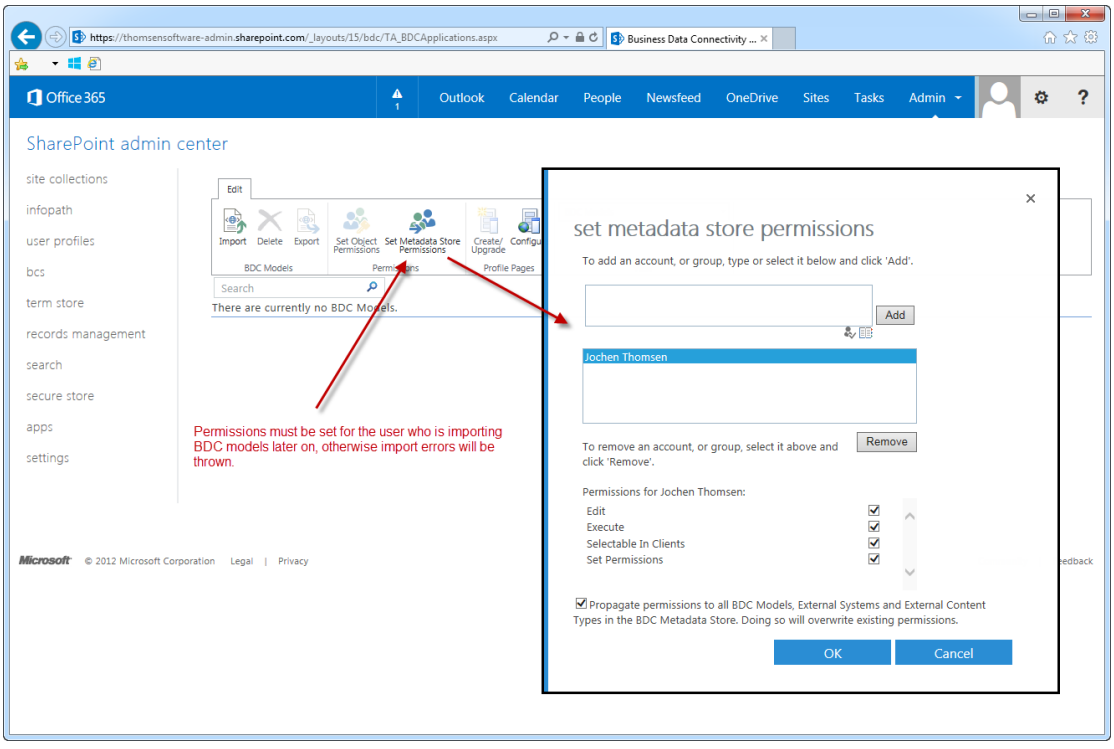
Go to the Office 365 portal site, select the Admin menu and the menu item SharePoint.



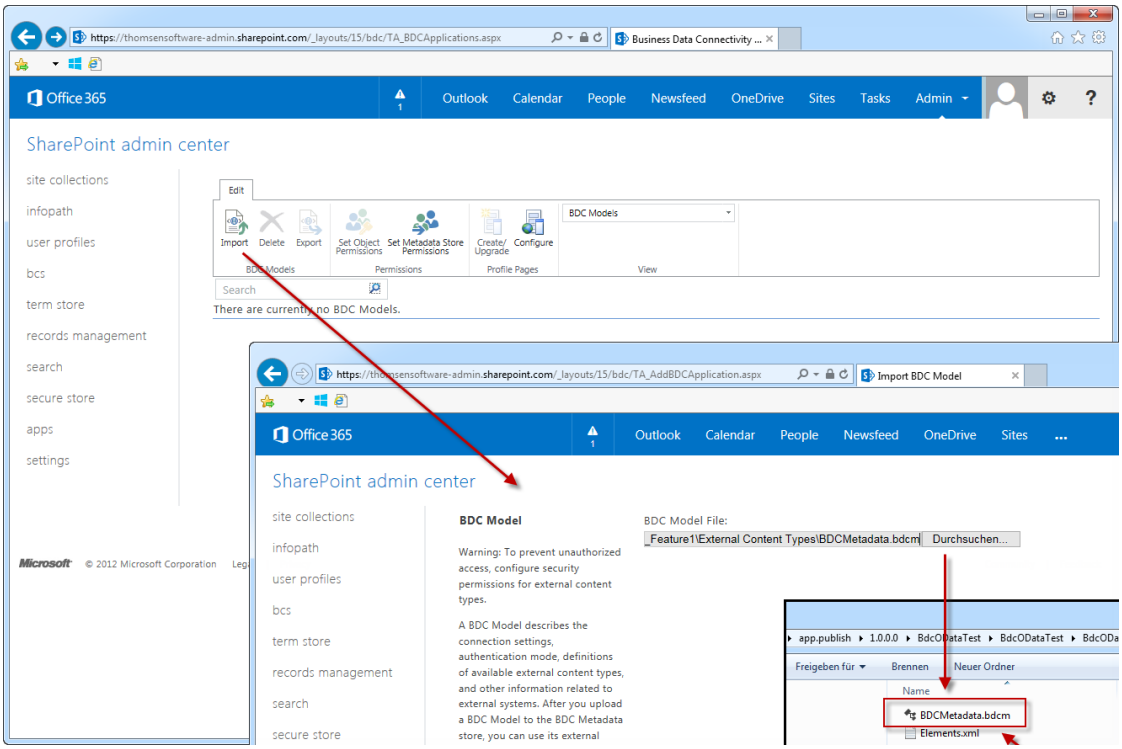
In the SharePoint admin center select bcs and then Manage BDC Models and External Content Types.

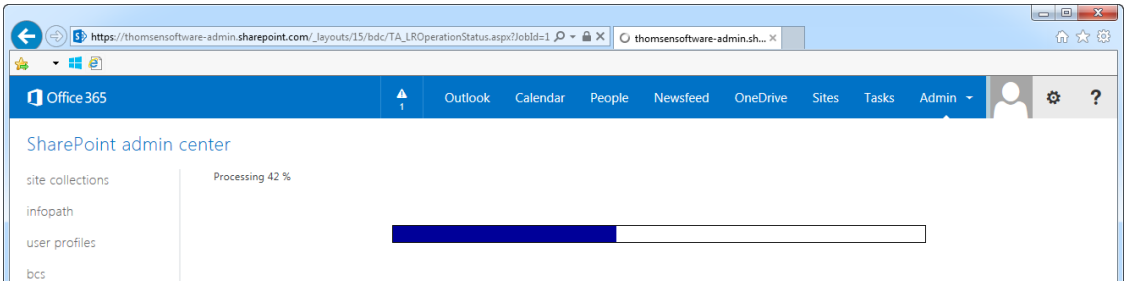


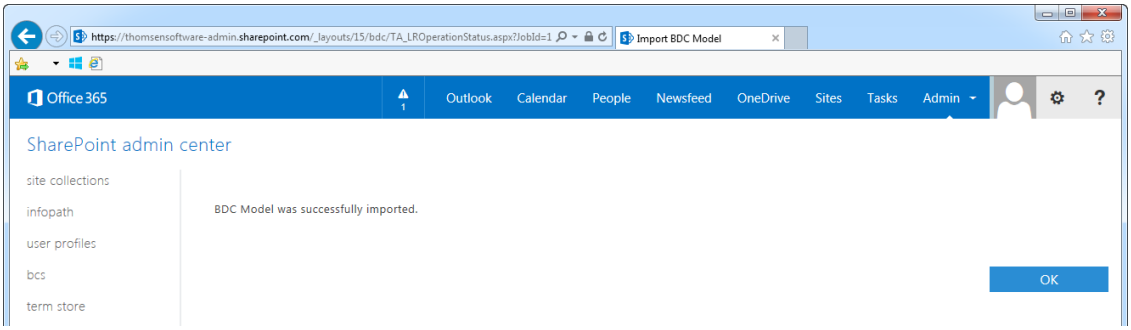
To avoid errors during importing the BDC model Metadata Store permissions must be set prior to using the import feature. Select the user who will be importing the BDC model and set the permission checkboxes.

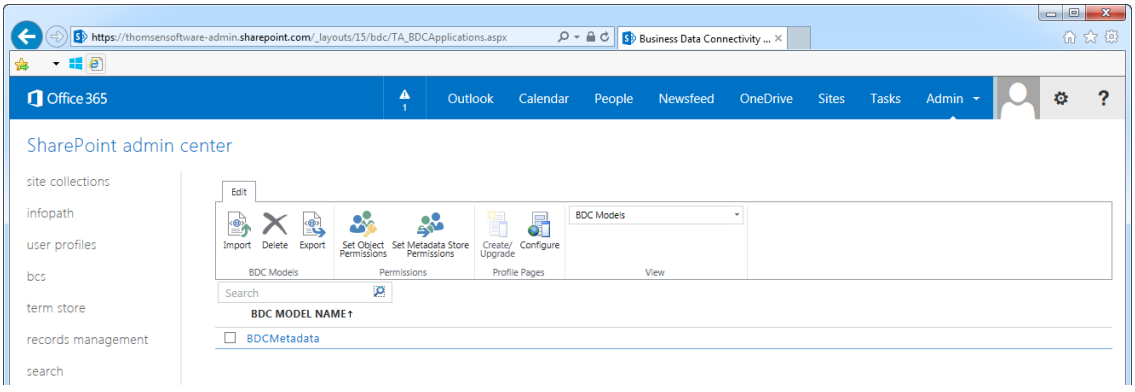


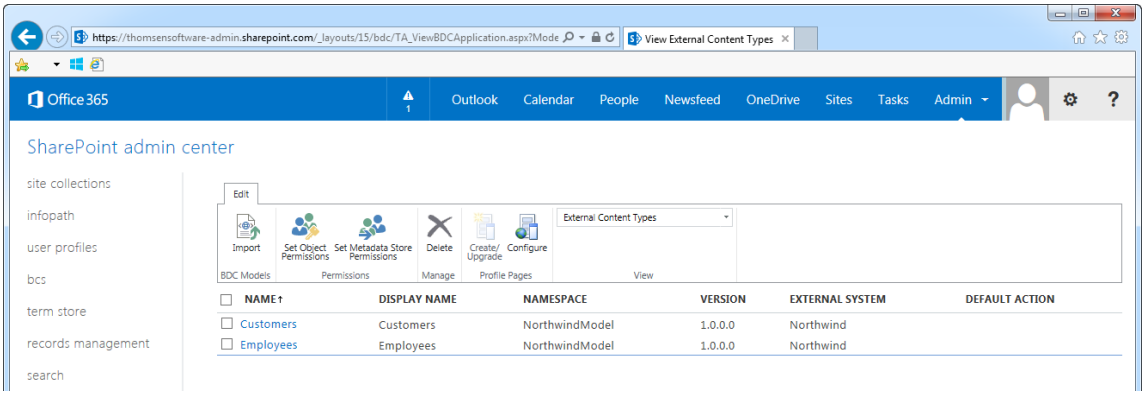
Next import the BDC model file.



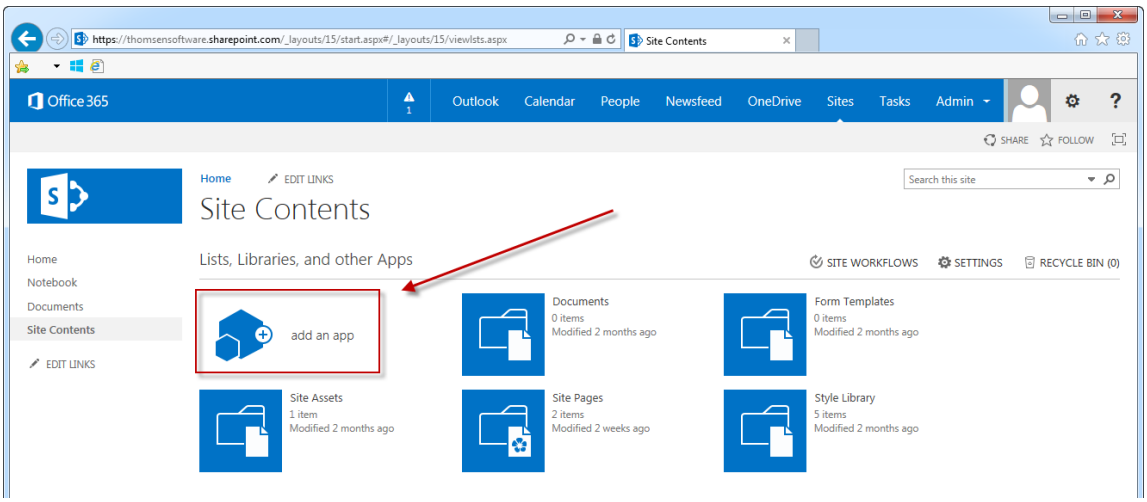




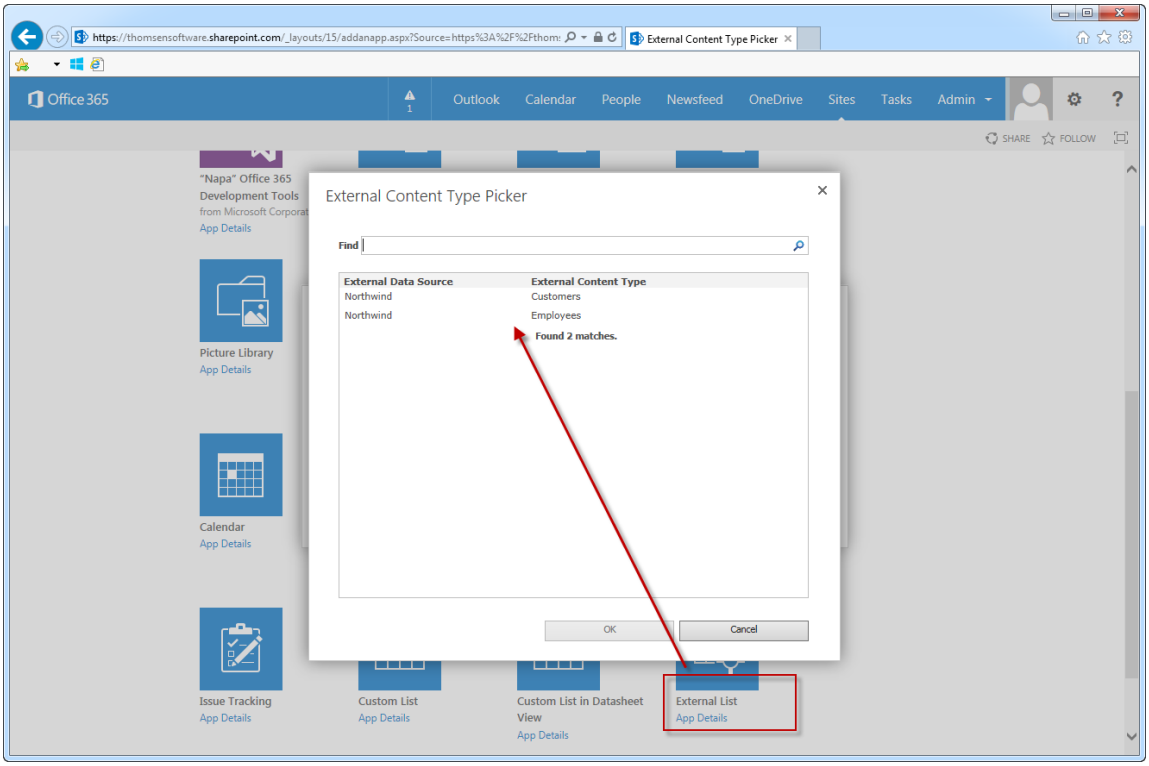




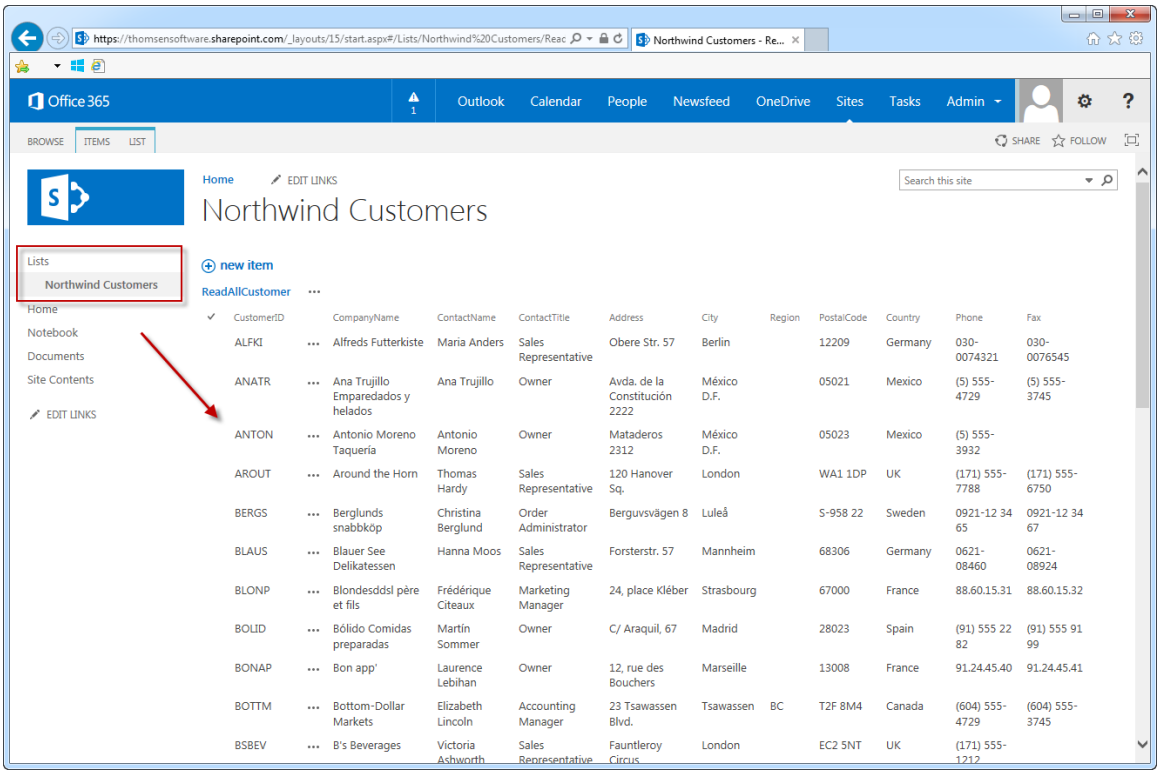
Now the external content types (ECTs) are imported and are available to be used to create external lists within sites. Next navigate to the Team site, select the Site Contents link and add a new app.



Select the Customers as external content type and you are done!



Finally open the Northwind customers list.



CustomerID	CompanyName	ContactName	ContactTitle	Address	City	Region	PostalCode	Country	Phone	Fax
ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin		12209	Germany	030-0074321	030-0076545
ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	México D.F.		05021	Mexico	(5) 555-4729	(5) 555-3745
ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.		05023	Mexico	(5) 555-3932	
AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London		WA1 1DP	UK	(171) 555-7788	(171) 555-6750
BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå		S-958 22	Sweden	0921-12 34 65	0921-12 34 67
BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim		68306	Germany	0621-08460	0621-08924
BLONP	Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg		67000	France	88.60.15.31	88.60.15.32
BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	Madrid		28023	Spain	(91) 555 22 82	(91) 555 91 99
BONAP	Bon app'	Laurence Lebihan	Owner	12, rue des Bouchers	Marseille		13008	France	91.24.45.40	91.24.45.41
BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729	(604) 555-3745
BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy Circus	London		EC2 5NT	UK	(171) 555-1212	